ADVANCED GEOLOGICAL SERVICES

Headquarters in Malvern, PA
Offices in Chillicothe, OH and
Moraga, CA

February 21, 2017
Reference: 16-237-1

Mr. Walter Howard
AECOM
40 British American Boulevard
Latham, NY 12110

Subject: Geophysical Investigation Results
Penn Yan Former MGP Site
Water Street
Penn Yan, New York

Dear Mr. Howard:

Advanced Geological Services (AGS) presents this letter to AECOM summarizing the geophysical investigation completed by AGS on February 16 and 17, 2017 at the property located at Penn Yan Former Manufactured Gas Plant (MGP) Site in Penn Yan, New York.

The objective of the geophysical investigation was to utilize complete a ground penetrating radar (GPR) investigation of the interior of the former MGP building to identify potential structures, pipes or anomalies beneath the concrete floor.

Methods

Ground Penetrating Radar (GPR) Method

The GPR method was used to image potential features beneath the concrete floor. The GPR method is based upon the transmission of repetitive, radio-frequency electromagnetic (EM) pulses into the subsurface. When the transmitted energy of the down-going wave contacts an interface of dissimilar electrical character, part of the energy is returned to the surface in the form of a reflected signal. This reflected signal is detected by a receiving transducer and is displayed on the screen of the GPR unit as well as being recorded on the internal hard-drive. The received GPR response remains constant as long as the electrical contrast between media is present and constant. Lateral or vertical changes in the electrical properties of the subsurface result in equivalent changes in the GPR response. The system records a continuous image of the subsurface by plotting two-way travel time of the reflected EM pulse versus distance traveled along the ground surface. Two-way travel time values are then converted to depth using known soil velocity functions.

A GSSI SIR-3000 GPR system and a 400 megahertz (MHz) antenna were used with a recording window of 60 nanoseconds (ns) to provide depth of penetration of up to approximately 10 feet under ideal field conditions. High conductivity soil, some conductive ballast gravel or fill, and de-icing salt can strongly attenuate GPR signals, thereby decreasing the effective depth of investigation of the GPR system.

For the present investigation GPR data were collected in a grid pattern along traverses spaced 5 feet apart in both the X and Y directions. GPR records were reviewed while in the field to initially identify potential features of interest. Following data collection the GPR records were downloaded to a computer and final review of images was completed. This process allowed for comparison of nearby parallel GPR images to one another, and to correlate potential features from one GPR traverse to the next. Locations of identified features were marked on the site base map. Those features were also marked on the concrete building floor with spray paint. During the final painting of features onto the floor the GPR system was utilized to help verify the locations of the identified features.

Results and Discussion

At the time of the GPR investigation the former MGP building had a vibration/tilt monitoring system installed along the outer interior walls. Because of that system, it was only possible to get within approximately 5 feet of the outer building walls with the GPR instrument. Therefore, it is possible that features very close to the outer building walls could not be identified during this investigation.

Subsurface features identified in the GPR records are shown on Figure 1 along with notes providing additional details regarding the identified anomalies. Overall, it was difficult to determine exactly what any of the anomalies were with any high degree of certainty using the GPR images alone. In some instances the anomalies do appear to correlate with the edges of known former building features, but additional investigation will be required to determine the actual anomaly source. Also, the GPR signal was only able to image features within the upper 5.5 feet beneath the floor at best.

In some portions of the building a reasonably strong GPR reflector was visible immediately below the floor slab suggesting that void space or loosely compacted material could be present below the floor slab. Although any void space beneath the floor may be less than 1-inch in thickness, it was enough to produce a strong GPR reflector that masked potential deeper features that may be present in some areas.

All identified anomalies were marked on the floor surface with spray paint. Upon completion the results of the investigation were reviewed with the on-site AECOM representative.

Closing

All geophysical data and field notes collected as a part of this investigation will be archived at the AGS office. The data collection and interpretation methods used in this investigation are consistent with standard practices applied to similar geophysical investigations. The correlation of geophysical responses with probable subsurface features is based on the past results of similar surveys although it is possible that some variation could exist at this site. Due to the nature of geophysical data, no guarantees can be made or implied regarding the presence or absence of additional objects or targets beyond those identified.

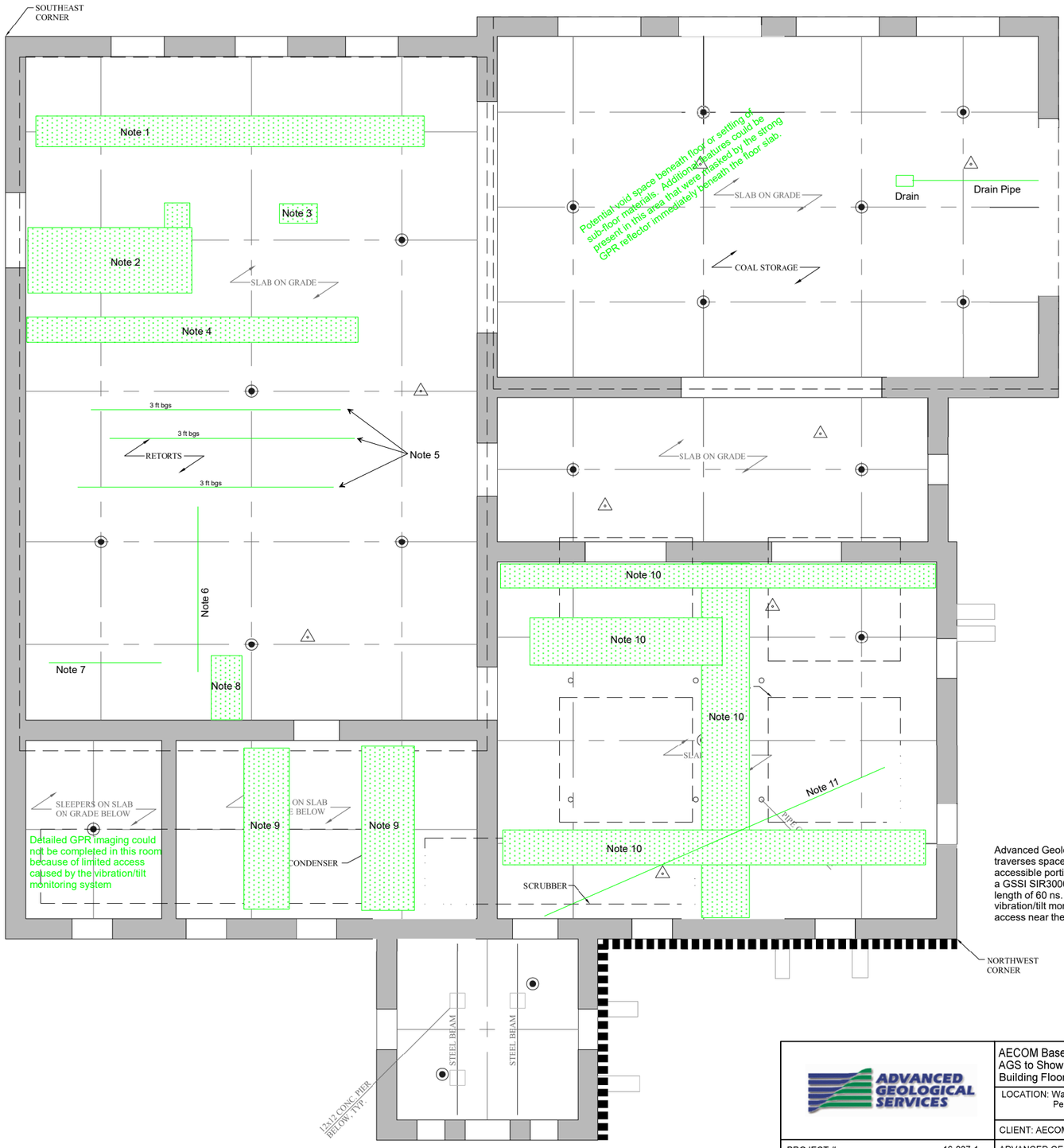
If you have any questions regarding the results of this field investigation, please contact me at

610-722-5500. It was a pleasure working with you on this project and we look forward to being able to provide you with sub-surface imaging services in the future.

Sincerely,

Donald Jagel, P.G.
Geophysicist/Branch Manager
Advanced Geological Services, Inc.
P.O. Box 349
280½ East Main Street
Chillicothe, OH 45601

attachment: Figure 1



Notes:
1) Possible footing. Not well imaged with GPR because of limited access near building walls.
2) Void(?) or structure approximately 3.5 feet below floor.
3) Potential void 2.3 feet below floor.
4) Footing. This feature was a brick footing partially exposed during completion of a previous test pit.
5) Potential pipes or linear features identified approximately 3 feet below floor slab. Could be related to construction or removal of former structures that may be present, or have been removed.
6) Probable pipe 3.3 feet below floor.
7) Potential pipe of linear feature 5.5 feet below floor.
8) Void or pipe. Could be related to the features noted in Note 9.
9) Piping.
10) Features may be related to footings or former subsurface structures related to the MGP processes. Limit of impact of these features are estimated to be approximately 2 to 2.5 feet below floor.
11) Potential pipe(s) or linear void.

LEGEND

- Ground Penetrating Radar (GPR) Transect
- Initial Boring Location
- Initial Test Pit Location
- Approximate Pipe Location
- Approximate Former MGP Equipment Location
- Location of Visual Contamination

Advanced Geological Services, Inc. collected GPR data along traverses spaced 5 feet apart in both the X and Y directions within accessible portions of the building. GPR data were collected using a GSSI SIR3000 radar system, a 400 MHz antenna, and a scan length of 60 ns. At the time of the investigation (2/16/2017) a vibration/tilt monitoring system was present in the building limiting access near the outer building walls.

ADVANCED GEOLOGICAL SERVICES	AECOM Base Map of Former MGP Building Modified by AGS to Show Identified GPR Anomalies Beneath Building Floor	
	LOCATION: Water Street, Penn Yan, New York	
	CLIENT: AECOM	FIGURE 1
PROJECT #: 16-237-1	ADVANCED GEOLOGICAL SERVICES, INC.	
DATE: February 21, 2017	DRAWN BY: D. JAGEL	APPROVED BY: D. JAGEL

AECOM

PROJECT

NYSEG
PENN YAN
FORMER MGP SITE
WATER STREET
PENN YAN, NEW YORK
NYSDEC SITE # 8-62-009

CLIENT

NYSEG
New York State Electric and Gas Corp.
18 Link Drive
P.O. Box 5224
Binghamton, New York 13905

DRAFT
NOT FOR CONSTRUCTION

REGISTRATION

ISSUE/REVISION

0	10-13-16	NOT FOR CONSTRUCTION
I/R	DATE	DESCRIPTION

KEY PLAN

SHEET TITLE

PROPOSED GEOTECHNICAL INVESTIGATION OF FORMER MGP BUILDING

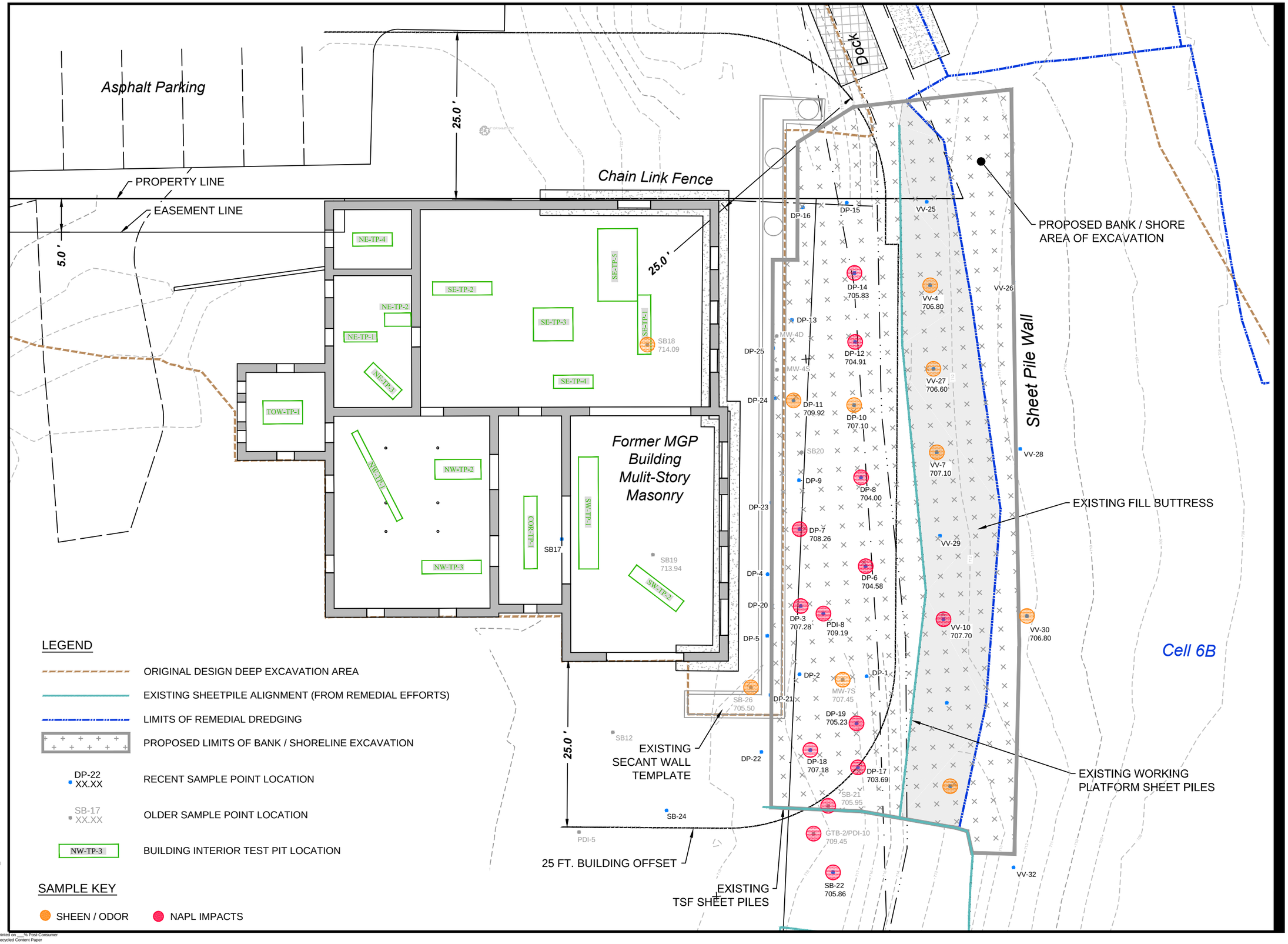
SHEET NUMBER

FIGURE 1

Project Management Initials: Designer:____ Checked:____ Approved:____ ANSI D 22" x 34"

Last saved by: CHINA2(2016-10-14) Last Plotted: 2016-12-20
Filename: H:\ENVIRONMENTAL GROUP\PENN YAN\BUILDING INVESTIGATION\14-009 EXISTING PLANS.DWG

Printed on ___% Post-Consumer Recycled Content Paper



LEGEND

- ORIGINAL DESIGN DEEP EXCAVATION AREA
- EXISTING SHEETPILE ALIGNMENT (FROM REMEDIAL EFFORTS)
- LIMITS OF REMEDIAL DREDGING
- PROPOSED LIMITS OF BANK / SHORELINE EXCAVATION
- DP-22 XX.XX — RECENT SAMPLE POINT LOCATION
- SB-17 XX.XX — OLDER SAMPLE POINT LOCATION
- NW-TP-3 — BUILDING INTERIOR TEST PIT LOCATION

SAMPLE KEY

- SHEEN / ODOR
- NAPL IMPACTS

AECOM

PROJECT

100% REMEDIAL DESIGN
WATER STREET
MANUFACTURED GAS PLANT
VILLAGE OF PENN YAN
YATES COUNTY, NEW YORK
NYSDEC SITE # 8-62-009
SUPPLEMENTAL BUILDING AND BANK INVESTIGATION

CLIENT

NYSEG
New York State Electric and Gas Corp.
18 Link Drive
P.O. Box 5224
Binghamton, New York 13905

7.5 0 15
1"=15'
* COLOR DOCUMENT *

REGISTRATION

ISSUE/REVISION

I/R	DATE	DESCRIPTION
		-

KEY PLAN

SHEET TITLE

SAMPLE LOCATION PLAN

SHEET NUMBER

1

Project Management Initials: Designer: Checked: Approved: ANSI D 22" x 34"

Last saved by: MEISTEPK (2017.06.26) Last Plotted: 2017-06-26
Filename: P:\60284725_NYSEG PENN YAN RD\7.2 CAD\500\CIVIL\DESIGN\PENN YAN-R2\R3\INVESTIGATION\REPORT\SUP-BUILD-BANK-INVEST.DWG

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AECOM
40 British American Blvd
Latham, New York, 12110

Well ID: DP-01

Project Name: NYSEG Penn Yan
NYSEG/Project Number: NYSEG
Date Started/Date Completed: 05/3/17
Boring Location: Bank area
Drilling Company: Nothnagle

Sampling Method: Direct Push
PVC Elevation (ft/msl, NAVD 88): NA
Ground Elevation (ft/msl, NAVD 88): NA
Total Depth: 16 ft
Logged By: KS

Depth (Feet)	Recovery (Feet)	PID (ppm)	Sample ID	Sample Interval	Lithology	USCS	Visual Impacts	Geologic Description	Remarks	Well Construction
0						FILL		Dark brown; fine to medium SAND; little fine to medium gravel; loose; dry.		
-2	3.5	0.1						Light brown; fine to medium SAND, little fine to medium gravel, little silt; loose; dry.		
-4								Dark brown to black; fine to medium SAND, some coal fragments, little brick fragments; loose; moist.		
		36.4						Some taffy tar at 5 to 7 ft bgs.		
-6	3.5							Little hard tar at 6.5 to 7 ft bgs.		
		19.2				ML		Dark brown; SILT, some fine sand; compact, moist. Hydrocarbon-like stain at 7 to 8 ft bgs.		
-8								Dark brown; SILT, some fine sand and organic debris, trace coal fragments. Hydrocarbon-like stain, strong odors and little sheen at 8 to 11 ft bgs.		
		5.4								
-10	3.5									
		3.1						Brown to gray; SILT, little organics, trace coal fragments; compact; moist.		
-12						CL		Light brown; CLAY, some fine sand at 15 to 15.5 ft bgs; compact; moist.		
-14	3.0	0.1								
-16								Boring terminated at 16 ft bgs.		

Coal Tar or Coal Tar NAPL Saturated Soil

Hydrocarbon Staining, Hydrocarbon Sheen or NAPL Blebs

Comments:

Default Listing

AECOM
40 British American Blvd
Latham, New York, 12110

Well ID: DP-02

Project Name: NYSEG Penn Yan
NYSEG/Project Number: NYSEG
Date Started/Date Completed: 05/3/17
Boring Location: Bank area
Drilling Company: Nothnagle

Sampling Method: Direct Push
PVC Elevation (ft/msl, NAVD 88):
Ground Elevation (ft/msl, NAVD 88):
Total Depth: 12 ft
Logged By: KS

Depth (Feet)	Recovery (Feet)	PID (ppm)	Sample ID	Sample Interval	Lithology	USCS	Visual Impacts	Geologic Description	Remarks	Well Construction
0						FILL		Light brown; fine to medium SAND, some fine to coarse gravel, trace silt; loose; dry.		
-2	3.0	0.1								
-4										
-6	2.5	0.3						Brown; medium to coarse gravel, some fine to medium sand, trace silt; loose; becomes wet at 6.5 ft bgs.		
-8										
-10	3.5	0.0				ML		Brown; silty fine SAND, little fine to medium gravel; compact; dry.		
-12								Boring terminated at 12 ft bgs.		

Coal Tar or Coal Tar NAPL Saturated Soil

Hydrocarbon Staining, Hydrocarbon Sheen or NAPL Blebs

Comments:

Default Listing

AECOM
40 British American Blvd
Latham, New York, 12110

Well ID: DP-03

Project Name: NYSEG Penn Yan
NYSEG/Project Number: NYSEG
Date Started/Date Completed: 05/3/17
Boring Location: Bank area
Drilling Company: Nothnagle

Sampling Method: Direct Push
PVC Elevation (ft/msl, NAVD 88):
Ground Elevation (ft/msl, NAVD 88):
Total Depth: 12 ft
Logged By: KS

Depth (Feet)	Recovery (Feet)	PID (ppm)	Sample ID	Sample Interval	Lithology	USCS	Visual Impacts	Geologic Description	Remarks	Well Construction
0						FILL		Brown; fine to medium SAND, some fine to coarse gravel, little coal fragments at 3 to 3.2 ft bgs; loose; dry.		
-2	2.0	0.0								
-4								Brown; fine to medium SAND, some fine to coarse gravel, little silt; loose; wet.		
-6	1.5	0.0								
-8										
		36.5						Some semi-viscous coal tar, stain and sheen at 9.2 to 9.5 ft bgs.		
-10	4.0					ML		Brown; silty fine SAND, some fine to medium gravel, trace clay; compact; dry.		
		1.1						Boring terminated at 12 ft bgs.		
-12										

Coal Tar or Coal Tar NAPL Saturated Soil

Hydrocarbon Staining, Hydrocarbon Sheen or NAPL Blebs

Comments:

AECOM
40 British American Blvd
Latham, New York, 12110

Well ID: DP-04

Project Name: NYSEG Penn Yan
NYSEG/Project Number: NYSEG
Date Started/Date Completed: 05/3/17
Boring Location: Bank area
Drilling Company: Nothnagle

Sampling Method: Direct Push
PVC Elevation (ft/msl, NAVD 88):
Ground Elevation (ft/msl, NAVD 88):
Total Depth: 12 ft
Logged By: KS

Depth (Feet)	Recovery (Feet)	PID (ppm)	Sample ID	Sample Interval	Lithology	USCS	Visual Impacts	Geologic Description	Remarks	Well Construction
0								No recovery at 0 to 4 ft bgs.		
-2	0.0	NA								
-4						ML		Brown; SILT, some fine sand, some organic debris, some fine to medium gravel; compact; wet.		
-6	4.0	0.1						Becomes dry at 6 ft bgs. Some orange mottling at 6 to 8 ft bgs.		
-8										
-10	4.0	0.0						Brown; fine SAND, little silt; compact; dry.		
-12								Gray; silty fine SAND; compact; dry. Boring terminated at 12 ft bgs.		

Coal Tar or Coal Tar NAPL Saturated Soil

Hydrocarbon Staining, Hydrocarbon Sheen or NAPL Blebs

Comments: No recovery at 8 to 12 ft bgs. Offset one foot west and redrill.

AECOM
40 British American Blvd
Latham, New York, 12110

Well ID: DP-05

Project Name: NYSEG Penn Yan
NYSEG/Project Number: NYSEG
Date Started/Date Completed: 05/3/17
Boring Location: Bank area
Drilling Company: Nothnagle

Sampling Method: Direct Push
PVC Elevation (ft/msl, NAVD 88):
Ground Elevation (ft/msl, NAVD 88):
Total Depth: 12 ft
Logged By: KS

Depth (Feet)	Recovery (Feet)	PID (ppm)	Sample ID	Sample Interval	Lithology	USCS	Visual Impacts	Geologic Description	Remarks	Well Construction
0						FILL		Brown; fine to medium SAND, some fine to coarse gravel; loose; wet.		
-2	0.5	0.0								
-4						ML		Dark brown; SILT, some organic debris, little fine sand, trace fine gravel; soft; moist.		
-6	3.0	0.1						Brown; silty fine SAND, some fine to coarse gravel; compact; dry.		
-8								Brown; silty fine SAND, some orange mottling; compact; dry.		
-10	3.5	0.1								
-12								Boring terminated at 12 ft bgs.		

Coal Tar or Coal Tar NAPL Saturated Soil

Hydrocarbon Staining, Hydrocarbon Sheen or NAPL Blebs

Comments:

AECOM
40 British American Blvd
Latham, New York, 12110

Well ID: DP-06

Project Name: NYSEG Penn Yan
NYSEG/Project Number: NYSEG
Date Started/Date Completed: 05/3/17
Boring Location: Bank area
Drilling Company: Nothnagle

Sampling Method: Direct Push
PVC Elevation (ft/msl, NAVD 88):
Ground Elevation (ft/msl, NAVD 88):
Total Depth: 16 ft
Logged By: KS

Depth (Feet)	Recovery (Feet)	PID (ppm)	Sample ID	Sample Interval	Lithology	USCS	Visual Impacts	Geologic Description	Remarks	Well Construction
0						FILL		Brown; fine to coarse SAND, some fine to coarse gravel, some concrete fragments; loose; dry.		
-2	1.5	0.0								
-4										
-6	2.5	0.0						Brown; fine to medium SAND, some fine to coarse gravel, trace silt; loose; wet.		
-8										
-10	2.5	0.0								
-12		3.4				ML CL		Dark brown; SILT, some organics, little fine to medium gravel, trace clay; loose; moist. trace taffy tar, strong hydrocarbon-like odors and stain at 12 to 12.5 ft bgs.		
-14	4.0	0.0						Gray; CLAY; compact; moist.		
-16								Boring terminated at 16 ft bgs.		

Coal Tar or Coal Tar NAPL Saturated Soil

Hydrocarbon Staining, Hydrocarbon Sheen or NAPL Blebs

Comments:

AECOM
40 British American Blvd
Latham, New York, 12110

Well ID: DP-07

Project Name: NYSEG Penn Yan
NYSEG/Project Number: NYSEG
Date Started/Date Completed: 05/3/17
Boring Location: Bank area
Drilling Company: Nothnagle

Sampling Method: Direct Push
PVC Elevation (ft/msl, NAVD 88):
Ground Elevation (ft/msl, NAVD 88):
Total Depth: 12 ft
Logged By: KS

Depth (Feet)	Recovery (Feet)	PID (ppm)	Sample ID	Sample Interval	Lithology	USCS	Visual Impacts	Geologic Description	Remarks	Well Construction
0						FILL		Black; ash and coal fragments.		
-2	2.5	0.0								
								Brown; fine to medium SAND, some fine to coarse gravel, little silt, some coal fragments, trace brick fragments; loose; becomes wet at 3.5 ft bgs.		
-4										
-6	3.5	0.6								
								Black wood fragments, hydrocarbom-like stain and strong odors at 7 to 8.5 ft bgs.		
-8						ML		Brown; silty fine SAND, little fine to coarse gravel, some orange mottling, trace clay; compact; dry.		
-10	3.0	0.0								
-12								Boring terminated at 12 ft bgs.		

Coal Tar or Coal Tar NAPL Saturated Soil

Hydrocarbon Staining, Hydrocarbon Sheen or NAPL Blebs

Comments:

AECOM
40 British American Blvd
Latham, New York, 12110

Well ID: DP-08

Project Name: NYSEG Penn Yan
NYSEG/Project Number: NYSEG
Date Started/Date Completed: 05/3/17
Boring Location: Bank area
Drilling Company: Nothnagle

Sampling Method: Direct Push
PVC Elevation (ft/msl, NAVD 88):
Ground Elevation (ft/msl, NAVD 88):
Total Depth: 20 ft
Logged By: KS

Depth (Feet)	Recovery (Feet)	PID (ppm)	Sample ID	Sample Interval	Lithology	USCS	Visual Impacts	Geologic Description	Remarks	Well Construction
0						FILL		Brown and gray; fine to medium SAND, some fine to medium gravel, some pulverized cement; loose; dry.		
-2	2.5	0.0								
-4								Dark brown; fine to medium SAND, some coarse gravel, little silt; loose; moist.		
-6	3.5	13.9						Brown; fine to coarse SAND, some fine to coarse gravel, some coal ash, little coal fragments, trace brick fragments, trace silt; compact; moist. Hard tar fragments at 5 to 5.5 ft bgs. Taffy tar saturated at 5.5 to 7.75 ft bgs.		
-8		9.0						Brown; fine to medium SAND, some fine to coarse gravel, little silt, little brick fragments; loose; moist.		
-10	3.0	21.3						Dark brown fine SAND and SILT, some coal fragments at 10 to 10.7 ft bgs; compact; moist. Some hydrocarbon-like stain and trace taffy tar blebs at 9 to 11.5 ft bgs.		
-12		2.0				ML		Brown; silty fine SAND, some fine to medium gravel; compact; dry.		
-14	3.5	3.0						Strong hydrocarbon-like odors at 12.5 to 13 ft bgs.		
-16		1.5				CL		Brown; CLAY; soft; moist.		
-18	3.5	0.0								
-20								Boring terminated at 20 ft bgs.		

Coal Tar or Coal Tar NAPL Saturated Soil

Hydrocarbon Staining, Hydrocarbon Sheen or NAPL Blebs

Comments:

AECOM
40 British American Blvd
Latham, New York, 12110

Well ID: DP-09

Project Name: NYSEG Penn Yan
NYSEG/Project Number: NYSEG
Date Started/Date Completed: 05/3/17
Boring Location: Bank area
Drilling Company: Nothnagle

Sampling Method: Direct Push
PVC Elevation (ft/msl, NAVD 88):
Ground Elevation (ft/msl, NAVD 88):
Total Depth: 16 ft
Logged By: KS

Depth (Feet)	Recovery (Feet)	PID (ppm)	Sample ID	Sample Interval	Lithology	USCS	Visual Impacts	Geologic Description	Remarks	Well Construction
0						FILL		Brown; fine to medium SAND, some fine to medium gravel, some coal ash and coal fragments, little brick fragments; loose; dry.		
-2	2.5	0.0								
								Brown; fine to medium SAND, some fine to medium gravel; loose; becomes wet at 3.5 ft bgs.		
-4										
								Some wood fragments at 4.5 to 5 ft bgs.		
-6	2.5	0.3								
								Some brick fragments at 7 to 7.5 ft bgs.		
-8						ML		Brown; silty fine SAND, some orange mottling; compact; moist.		
-10	2.5	0.2								
-12						CL		Brown to gray; CLAY; compact; moist.		
-14	4.0	NA								
-16										

Coal Tar or Coal Tar NAPL Saturated Soil

Hydrocarbon Staining, Hydrocarbon Sheen or NAPL Blebs

Comments:

AECOM
40 British American Blvd
Latham, New York, 12110

Well ID: DP-10

Project Name: NYSEG Penn Yan
NYSEG/Project Number: NYSEG
Date Started/Date Completed: 05/3/17
Boring Location: Bank area
Drilling Company: Nothnagle

Sampling Method: Direct Push
PVC Elevation (ft/msl, NAVD 88):
Ground Elevation (ft/msl, NAVD 88):
Total Depth: 12 ft
Logged By: KS

Depth (Feet)	Recovery (Feet)	PID (ppm)	Sample ID	Sample Interval	Lithology	USCS	Visual Impacts	Geologic Description	Remarks	Well Construction
0						FILL		Brown; fine to medium SAND, some fine to coarse gravel, trace brick fragments; loose; dry.		
-2	2.5	0.1								
-4								Dark brown; fine to medium SAND, some fine to medium gravel, some ash, little coal fragments; loose; becomes wet at 4 ft bgs.		
-6	2.5	0.2								
-8										
-10	3.0	4.0						Hydrocarbon-like stain and odors at 9 to 10 ft bgs. Some wood fragments at 9 to 11 ft bgs.		
-12						ML		Brown; silty fine SAND, some fine to medium gravel; compact; dry.		

Coal Tar or Coal Tar NAPL Saturated Soil

Hydrocarbon Staining, Hydrocarbon Sheen or NAPL Blebs

Comments:

AECOM
40 British American Blvd
Latham, New York, 12110

Well ID: DP-11

Project Name: NYSEG Penn Yan
NYSEG/Project Number: NYSEG
Date Started/Date Completed: 05/3/17
Boring Location: Bank area
Drilling Company: Nothnagle

Sampling Method: Direct Push
PVC Elevation (ft/msl, NAVD 88):
Ground Elevation (ft/msl, NAVD 88):
Total Depth: 12 ft
Logged By: KS

Depth (Feet)	Recovery (Feet)	PID (ppm)	Sample ID	Sample Interval	Lithology	USCS	Visual Impacts	Geologic Description	Remarks	Well Construction
0						FILL		Dark brown; fine to medium SAND, some fine to medium gravel,little coal fragments; loose; dry.		
-2	2.0	0.3								
-4										
-6	3.0	0.5						Brown; fine to medium SAND, some fine to medium gravel, some silt, little coal fragments at 6.5 to 7 ft bgs. Hydrocarbon-like stain and strong odors at 6.5 to 7 ft bgs.		
						ML		Brown; silty fine SAND, some fine to medium gravel; compact; dry.		
-8										
-10	2.5	0.3								
-12								Boring terminated at 12 ft bgs.		

Coal Tar or Coal Tar NAPL Saturated Soil

Hydrocarbon Staining, Hydrocarbon Sheen or NAPL Blebs

Comments:

AECOM
40 British American Blvd
Latham, New York, 12110

Well ID: DP-12

Project Name: NYSEG Penn Yan
NYSEG/Project Number: NYSEG
Date Started/Date Completed: 05/3/17
Boring Location: Bank area
Drilling Company: Nothnagle

Sampling Method: Direct Push
PVC Elevation (ft/msl, NAVD 88):
Ground Elevation (ft/msl, NAVD 88):
Total Depth: 16 ft
Logged By: KS

Depth (Feet)	Recovery (Feet)	PID (ppm)	Sample ID	Sample Interval	Lithology	USCS	Visual Impacts	Geologic Description	Remarks	Well Construction
0						FILL		Brown; fine to medium SAND, some fine to coarse gravel, some coal fragments, little ash; loose; dry.		
-2	3.5	2.1						Taffy tar saturated at 2 to 3 ft bgs. Hydrocarbon-like stain at 2 to 4 ft bgs. Some hard tar at 2 to 3 ft bgs.		
		14.7								
-4								Taffy tar saturated at 4 to 4.5 ft bgs. Little hard tar at 4.5 to 5 ft bgs. Strong odors at 4 to 6 ft bgs.		
	3.0	22.9								
-6								Becomes wet at 6 ft bgs.		
		2.5								
-8						ML		Dark brown; SILT, some organic debris, little fine sand, trace fine gravel; soft; moist.		
-10	3.0	1.1								
-12								Brown; silty fine SAND, some fine to medium gravel; compact; dry.		
						CL		Brown to gray; CLAY; compact; dry.		
-14	4.0	0.5								
-16								Boring terminated at 16 ft bgs.		

Coal Tar or Coal Tar NAPL Saturated Soil

Hydrocarbon Staining, Hydrocarbon Sheen or NAPL Blebs

Comments:

AECOM
40 British American Blvd
Latham, New York, 12110

Well ID: DP-13

Project Name: NYSEG Penn Yan
NYSEG/Project Number: NYSEG
Date Started/Date Completed: 05/3/17
Boring Location: Bank area
Drilling Company: Nothnagle

Sampling Method: Direct Push
PVC Elevation (ft/msl, NAVD 88):
Ground Elevation (ft/msl, NAVD 88):
Total Depth: 12 ft
Logged By: KS

Depth (Feet)	Recovery (Feet)	PID (ppm)	Sample ID	Sample Interval	Lithology	USCS	Visual Impacts	Geologic Description	Remarks	Well Construction
0						FILL		Dark brown; fine to medium SAND, some fine to coarse gravel, little ash and coal fragments, little silt at 3 to 4 ft bgs; loose; dry.		
-2	2.0	0.3								
-4										
-6	3.5	0.5								
-8						ML		Brown; silty fine SAND, little fine to medium gravel, some orange mottling; compact; dry.		
-10	3.5	0.1								
-12								Boring terminated at 12 ft bgs.		

Coal Tar or Coal Tar NAPL Saturated Soil

Hydrocarbon Staining, Hydrocarbon Sheen or NAPL Blebs

Comments:

AECOM
40 British American Blvd
Latham, New York, 12110

Well ID: DP-14

Project Name: NYSEG Penn Yan
NYSEG/Project Number: NYSEG
Date Started/Date Completed: 05/3/17
Boring Location: Bank area
Drilling Company: Nothnagle

Sampling Method: Direct Push
PVC Elevation (ft/msl, NAVD 88):
Ground Elevation (ft/msl, NAVD 88):
Total Depth: 12 ft
Logged By: KS

Depth (Feet)	Recovery (Feet)	PID (ppm)	Sample ID	Sample Interval	Lithology	USCS	Visual Impacts	Geologic Description	Remarks	Well Construction
0						FILL		Brown; fine to medium SAND, some fine to coarse gravel, some ash at 3 to 4 ft bgs; loose; dry.		
-2	2.0	0.0								
-4		8.0								
-6	3.8							Some taffy tar at 6 to 6.2 ft bgs.		
		0.1								
-8						ML		Dark brown to black; SILT, some organic debris, little fine sand, little clay; soft; wet.		
-10	4.0	0.0						Brown; silty fine SAND, some clay, little fine gravel, some orange mottling; compact; moist. Slight hydrocarbon-like odors at 8.5 to 9 ft bgs. Boring terminated at 12 ft bgs.		
-12										

Coal Tar or Coal Tar NAPL Saturated Soil

Hydrocarbon Staining, Hydrocarbon Sheen or NAPL Blebs

Comments:

AECOM
40 British American Blvd
Latham, New York, 12110

Well ID: DP-15

Project Name: NYSEG Penn Yan
NYSEG/Project Number: NYSEG
Date Started/Date Completed: 05/4/17
Boring Location: Bank area
Drilling Company: Nothnagle

Sampling Method: Direct Push
PVC Elevation (ft/msl, NAVD 88):
Ground Elevation (ft/msl, NAVD 88):
Total Depth: 12 ft
Logged By: KS

Depth (Feet)	Recovery (Feet)	PID (ppm)	Sample ID	Sample Interval	Lithology	USCS	Visual Impacts	Geologic Description	Remarks	Well Construction
0						FILL		Dark brown; fine to medium SAND, some fine to medium gravel, some silt, some organic debris; loose; moist.		
-2	2.0	0.0								
-4								Becomes wet at 4 ft bgs.		
-6	3.0	0.0								
-8								Becomes dark brown to black.		
								Some coal fragments at 9 to 9.5 ft bgs. Some wood fragments at 9.5 to 10 ft bgs.		
-10	4.0	0.0				CL		Brown to gray; CLAY; compact; moist.		
-12								Boring terminated at 12 ft bgs.		

Coal Tar or Coal Tar NAPL Saturated Soil

Hydrocarbon Staining, Hydrocarbon Sheen or NAPL Blebs

Comments:

AECOM
40 British American Blvd
Latham, New York, 12110

Well ID: DP-16

Project Name: NYSEG Penn Yan
NYSEG/Project Number: NYSEG
Date Started/Date Completed: 05/4/17
Boring Location: Bank area
Drilling Company: Nothnagle

Sampling Method: Direct Push
PVC Elevation (ft/msl, NAVD 88):
Ground Elevation (ft/msl, NAVD 88):
Total Depth: 12 ft
Logged By: KS

Depth (Feet)	Recovery (Feet)	PID (ppm)	Sample ID	Sample Interval	Lithology	USCS	Visual Impacts	Geologic Description	Remarks	Well Construction
0						FILL		Dark brown; fine to medium SAND, some fine to medium gravel, little silt, little brick fragments, trace ash; loose; moist.		
-2	2.5	0.0								
-4								Becomes wet at 3.5 ft bgs.		
-6	3.5	0.0						Crushed coal at 7.5 to 7.75 ft bgs	Refusal at 4.5 ft bgs. Wood in tip of core. Move one foot south and redrill.	
-8						CL		Gray; CLAY; compact; moist.	Move one foot south and redrill due to poor recover in the 8-12 sample interval.	
-10	4.0	0.0						Becomes gray to brown with some orange mottling.		
-12								Boring terminated at 12 ft bgs.		

Coal Tar or Coal Tar NAPL Saturated Soil

Hydrocarbon Staining, Hydrocarbon Sheen or NAPL Blebs

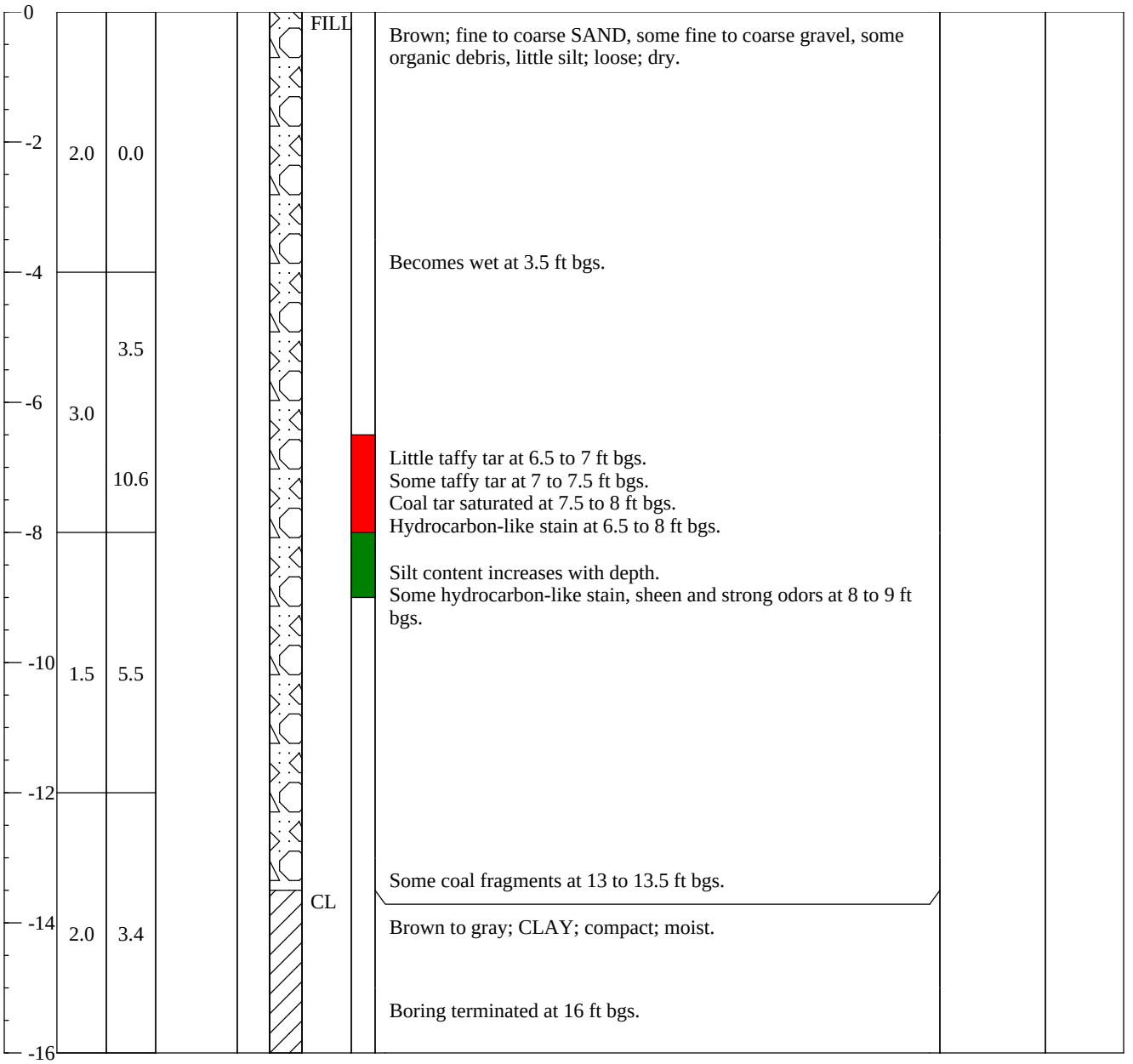
Comments:

AECOM
40 British American Blvd
Latham, New York, 12110

Well ID: DP-17

Project Name: NYSEG Penn Yan
NYSEG/Project Number: NYSEG
Date Started/Date Completed: 05/4/17
Boring Location: Bank area
Drilling Company: Nothnagle

Sampling Method: Direct Push
PVC Elevation (ft/msl, NAVD 88):
Ground Elevation (ft/msl, NAVD 88):
Total Depth: 16 ft
Logged By: KS



Coal Tar or Coal Tar NAPL Saturated Soil

Hydrocarbon Staining, Hydrocarbon Sheen or NAPL Blebs

Comments:

AECOM
40 British American Blvd
Latham, New York, 12110

Well ID: DP-18

Project Name: NYSEG Penn Yan
NYSEG/Project Number: NYSEG
Date Started/Date Completed: 05/4/17
Boring Location: Bank area
Drilling Company: Nothnagle

Sampling Method: Direct Push
PVC Elevation (ft/msl, NAVD 88):
Ground Elevation (ft/msl, NAVD 88):
Total Depth: 12 ft
Logged By: KS

Depth (Feet)	Recovery (Feet)	PID (ppm)	Sample ID	Sample Interval	Lithology	USCS	Visual Impacts	Geologic Description	Remarks	Well Construction
0						FILL		Brown; fine to coarse SAND, some fine to coarse gravel, some silt; loose; moist.		
-2	3.5	0.0								
-4								Becomes wet at 4 ft bgs.		
		2.6								
-6	3.0									
		10.1						Dark brown to black; SILT, little fine to coarse gravel, some organic debris, some brick and coal fragments at 7.5 to 8 ft bgs. Hydrocarbon-like stain at 7 to 8 ft bgs. Some taffy tar at 7.5 to 8.25 ft bgs.		
-8								Brown; fine to medium SAND, some fine to medium gravel, little silt; loose; wet.		
		65.5						Dark brown to black; SILT, some organic debris, little fine sand, trace clay; soft; moist. Hydrocarbon-like stain, odors and some coal fragments at 9 to 9.5 ft bgs.		
-10	4.0					ML				
		3.2						Brown; silty fine SAND, some fine to medium gravel, trace clay, some orange mottling; compact; dry.		
-12								Boring terminated at 12 ft bgs.		

Coal Tar or Coal Tar NAPL Saturated Soil

Hydrocarbon Staining, Hydrocarbon Sheen or NAPL Blebs

Comments:

AECOM
40 British American Blvd
Latham, New York, 12110

Well ID: DP-19

Project Name: NYSEG Penn Yan
NYSEG/Project Number: NYSEG
Date Started/Date Completed: 05/4/17
Boring Location: Bank area
Drilling Company: Nothnagle

Sampling Method: Direct Push
PVC Elevation (ft/msl, NAVD 88):
Ground Elevation (ft/msl, NAVD 88):
Total Depth: 16 ft
Logged By: KS

Depth (Feet)	Recovery (Feet)	PID (ppm)	Sample ID	Sample Interval	Lithology	USCS	Visual Impacts	Geologic Description	Remarks	Well Construction
0						FILL		Brown; fine to coarse SAND, some fine to coarse gravel, some silt; loose; moist.		
-2	3.0	0.0								
-4		0.0								
-6	3.0							Becomes wet at 5.5 ft bgs.		
		2.0						Dark brown to black; SILT, little fine to coarse gravel, some organic debris, some brick fragments; loose; wet. Hydrocarbon-like stain and odors at 7 to 8 ft bgs.		
-8										
		1.4						Some taffy tar, stain and coal fragments at 9 to 9.5 ft bgs.		
-10	3.5									
		1.0						Some hydrocarbon-loke odors and coal fragments at 11.5 to 12 ft bgs.		
-12						CL		Brown to gray; CLAY; compact; moist.		
-14	3.0	0.0								
-16								Boring terminated at 16 ft bgs.		

Coal Tar or Coal Tar NAPL Saturated Soil

Hydrocarbon Staining, Hydrocarbon Sheen or NAPL Blebs

Comments:

AECOM
40 British American Blvd
Latham, New York, 12110

Well ID: DP-20

Project Name: NYSEG Penn Yan
NYSEG/Project Number: NYSEG
Date Started/Date Completed: 05/4/17
Boring Location: Bank area
Drilling Company: Nothnagle

Sampling Method: Direct Push
PVC Elevation (ft/msl, NAVD 88):
Ground Elevation (ft/msl, NAVD 88):
Total Depth: 12 ft
Logged By: KS

Depth (Feet)	Recovery (Feet)	PID (ppm)	Sample ID	Sample Interval	Lithology	USCS	Visual Impacts	Geologic Description	Remarks	Well Construction
0						FILL		Brown; fine to medium SAND, some fine to coarse angular gravel, little silt; loose; wet.		
-2	1.5	0.0								
-4										
-6	2.5	0.1						Some wood fragments at 6.5 to 7 ft bgs.		
						ML		Brown; silty fine SAND, little fine to medium gravel, some orange mottling; compact; moist.		
-8								Becomes dry at 8 ft bgs.		
-10	3.0	0.2								
-12								Boring terminated at 12 ft bgs.		

Coal Tar or Coal Tar NAPL Saturated Soil

Hydrocarbon Staining, Hydrocarbon Sheen or NAPL Blebs

Comments:

AECOM
40 British American Blvd
Latham, New York, 12110

Well ID: DP-21

Project Name: NYSEG Penn Yan
NYSEG/Project Number: NYSEG
Date Started/Date Completed: 05/4/17
Boring Location: Bank area
Drilling Company: Nothnagle

Sampling Method: Direct Push
PVC Elevation (ft/msl, NAVD 88):
Ground Elevation (ft/msl, NAVD 88):
Total Depth: 12 ft
Logged By: KS

Depth (Feet)	Recovery (Feet)	PID (ppm)	Sample ID	Sample Interval	Lithology	USCS	Visual Impacts	Geologic Description	Remarks	Well Construction
0						FILL		Brown; fine to medium SAND, some fine to coarse gravel, some brick fragments at 3 to 3.5 ft bgs, trace silt; loose; dry.		
-2	1.0	0.2								
-4						ML		Brown; silty fine SAND, little fine to medium gravel, some orange mottling; compact; moist.		
-6	3.0	0.0						Dark brown to black; SILT, some organic debris, wood fragments throughout; compact; moist.		
						CL		Brown to gray; CLAY; compact; moist.		
-8						ML		Dark brown to black; SILT, some fine to medium sand, some fine to coarse gravel; loose; wet.		
-10	3.5	0.0								
						CL		Brown to gray; CLAY; compact; wet. Boring terminated at 12 ft bgs.		
-12										

Coal Tar or Coal Tar NAPL Saturated Soil

Hydrocarbon Staining, Hydrocarbon Sheen or NAPL Blebs

Comments:

AECOM
40 British American Blvd
Latham, New York, 12110

Well ID: DP-22

Project Name: NYSEG Penn Yan
NYSEG/Project Number: NYSEG
Date Started/Date Completed: 05/4/17
Boring Location: Bank area
Drilling Company: Nothnagle

Sampling Method: Direct Push
PVC Elevation (ft/msl, NAVD 88):
Ground Elevation (ft/msl, NAVD 88):
Total Depth: 12 ft
Logged By: KS

Depth (Feet)	Recovery (Feet)	PID (ppm)	Sample ID	Sample Interval	Lithology	USCS	Visual Impacts	Geologic Description	Remarks	Well Construction
0						FILL		Brown; fine to medium SAND, some fine to coarse gravel, little wood fragments and cinders; loose; dry.		
-2	2.0	0.0								
-4								Becomes wet at 4 ft bgs.		
-6	3.5	1.2				ML		Dark brown; SILT, some organics, little fine sand; compact; moist.		
-8								Brown; silty fine SAND, little fine to medium gravel, some orange mottling; compact; dry.		
-10	4.0	0.0								
-12								Boring terminated at 12 ft bgs.		

Coal Tar or Coal Tar NAPL Saturated Soil

Hydrocarbon Staining, Hydrocarbon Sheen or NAPL Blebs

Comments:

AECOM
40 British American Blvd
Latham, New York, 12110

Well ID: DP-23

Project Name: NYSEG Penn Yan
NYSEG/Project Number: NYSEG
Date Started/Date Completed: 05/4/17
Boring Location: Bank area
Drilling Company: Nothnagle

Sampling Method: Direct Push
PVC Elevation (ft/msl, NAVD 88):
Ground Elevation (ft/msl, NAVD 88):
Total Depth: 12 ft
Logged By: KS

Depth (Feet)	Recovery (Feet)	PID (ppm)	Sample ID	Sample Interval	Lithology	USCS	Visual Impacts	Geologic Description	Remarks	Well Construction
0						FILL		Brown; fine to medium SAND, some fine to coarse gravel, little silt; loose; wet.		
-2	1.5	0.1								
-4										
-6	2.0	0.0								
-8						ML		Dark brown; SILT, some organics, little fine sand; loose; wet.		
-10	2.5	0.1						Brown; silty fine SAND, little fine to medium gravel, some orange mottling; compact; dry. Boring terminated at 12 ft bgs.		
-12										

Coal Tar or Coal Tar NAPL Saturated Soil

Hydrocarbon Staining, Hydrocarbon Sheen or NAPL Blebs

Comments:

AECOM
40 British American Blvd
Latham, New York, 12110

Well ID: DP-24

Project Name: NYSEG Penn Yan
NYSEG/Project Number: NYSEG
Date Started/Date Completed: 05/4/17
Boring Location: Bank area
Drilling Company: Nothnagle

Sampling Method: Direct Push
PVC Elevation (ft/msl, NAVD 88):
Ground Elevation (ft/msl, NAVD 88):
Total Depth: 8 ft
Logged By: KS

Depth (Feet)	Recovery (Feet)	PID (ppm)	Sample ID	Sample Interval	Lithology	USCS	Visual Impacts	Geologic Description	Remarks	Well Construction
0						FILL		Brown; fine to medium SAND, some fine to coarse gravel, little silt; loose; dry.		
-2	2.0	0.0								
								Becomes wet at 3.5 ft bgs.		
-4						ML		Dark brown; SILT, some organics, little fine sand; compact; wet.		
-6	3.5	0.1						Wood fragments at 6.5 to 7 ft bgs.		
								Brown; silty fine SAND, some fine to medium gravel; compact; moist.		
-8								Boring terminated at 8 ft bgs.		

Coal Tar or Coal Tar NAPL Saturated Soil

Hydrocarbon Staining, Hydrocarbon Sheen or NAPL Blebs

Comments:

AECOM
40 British American Blvd
Latham, New York, 12110

Well ID: DP-25

Project Name: NYSEG Penn Yan
NYSEG/Project Number: NYSEG
Date Started/Date Completed: 05/4/17
Boring Location: Bank area
Drilling Company: Nothnagle

Sampling Method: Direct Push
PVC Elevation (ft/msl, NAVD 88):
Ground Elevation (ft/msl, NAVD 88):
Total Depth: 8 ft
Logged By: KS

Depth (Feet)	Recovery (Feet)	PID (ppm)	Sample ID	Sample Interval	Lithology	USCS	Visual Impacts	Geologic Description	Remarks	Well Construction
0						FILL		Brown; fine to medium SAND, some fine to coarse gravel, little silt; loose; wet.		
-2	2.0	0.0								
-4										
-6	2.0	0.0				ML		Brown; silty fine SAND, some fine to medium gravel, some orange mottling; compact; moist.		
-8								Boring terminated at 8 ft bgs.		

Coal Tar or Coal Tar NAPL Saturated Soil

Hydrocarbon Staining, Hydrocarbon Sheen or NAPL Blebs

Comments:

AECOM
40 British American Blvd
Latham, New York, 12110

Well ID: TMW-1S

Project Name: NYSEG Penn Yan
NYSEG/Project Number: NYSEG
Date Started/Date Completed: 5/4/17
Boring Location: Upland east
Drilling Company: Nothnagle

Sampling Method: MacroCore
PVC Elevation (ft/msl, NAVD 88):
Ground Elevation (ft/msl, NAVD 88):
Total Depth: 44 ft
Logged By: KS

Depth (Feet)	Recovery (Feet)	PID (ppm)	Sample ID	Sample Interval	Lithology	USCS	Visual Impacts	Geologic Description	Remarks	Well Construction
0 to -2	3.5	0.0				FILL		Brown; fine to coarse SAND, some medium to coarse gravel up to 3-inch diameter; loose, dry.	Bentonite seal at 0 to 1 ft bgs.	
-2 to -4										
-4 to -6	2.0	0.0							Two-inch diameter PVC riser at 0 to 34 ft bgs.	
-6 to -8										
-8 to -10	3.0	0.0				SM		Brown; silty fine SAND, some fine to medium gravel, some orange mottling, trace clay; compact; moist.		
-10 to -12										
-12 to -14	0.0	NA								
-14 to -16										
-16 to -18	4.0	0.1							Grouted annulus at 1 to 31 ft bgs.	
-18 to -20										
-20 to -22	3.5	0.3				CL		Gray; CLAY, little fine to medium gravel; compact; wet.		
-22 to -24										
-24 to -26	1.5	0.1							Bentonite seal at 31 to 33 ft bgs.	
-26 to -28										
-28 to -30	0.0	NA								
-30 to -32										
-32 to -34	2.0	0.2				SM		Brown to gray; silty fine SAND, little fine to medium gravel; compact; moist.	Sand filter pack at 33 to 44 ft bgs.	
-34 to -36										
-36 to -38	2.0	0.0							Number 10 slot PVC screen at 34 to 44 ft bgs.	
-38 to -40										
-40 to -42	3.0	0.2				SP		Brown to gray; homogenous fine SAND, trace fine gravel; loose; wet.		
-42 to -44										

Coal Tar or Coal Tar NAPL Saturated Soil

Hydrocarbon Staining, Hydrocarbon Sheen or NAPL Blebs

Comments:

AECOM
40 British American Blvd
Latham, New York, 12110

Well ID: TMW-1D

Project Name: NYSEG Penn Yan
NYSEG/Project Number: NYSEG
Date Started/Date Completed: 5/4/17
Boring Location: Upland east
Drilling Company: Nothnagle

Sampling Method: MacroCore
PVC Elevation (ft/msl, NAVD 88):
Ground Elevation (ft/msl, NAVD 88):
Total Depth: 64 ft
Logged By: KS

Depth (Feet)	Recovery (Feet)	PID (ppm)	Sample ID	Sample Interval	Lithology	USCS	Visual Impacts	Geologic Description	Remarks	Well Construction
-40								See TMW-1S for the 0 to 44 ft bgs lithology.	Bentonite seal at 0 to 1 ft bgs.	
-42										
-44						SP		Gray; homogenous fine SAND; loose; wet.	Grouted annulus at 1 to 51 ft bgs.	
-46	3.0	0.0								
-48										
-50	3.0	0.0							Bentonite seal at 51 to 53 ft bgs.	
-52										
-54									Sand filter pack at 53 to 64 ft bgs.	
-56	2.5	0.0								
-58									Number 10 slot PVC screen at 54 to 64 ft bgs.	
-60										
-62	3.0	0.0						Boring terminated at 64 ft bgs.		
-64										

Coal Tar or Coal Tar NAPL Saturated Soil

Hydrocarbon Staining, Hydrocarbon Sheen or NAPL Blebs

Comments: See TMW-1S for the 0 to 44 ft bgs lithology.

AECOM
40 British American Blvd
Latham, New York, 12110

Well ID: TMW-2S

Project Name: NYSEG Penn Yan
NYSEG/Project Number: NYSEG
Date Started/Date Completed: 5/8/17
Boring Location: Upland west
Drilling Company: Nothnagle

Sampling Method: MacroCore
PVC Elevation (ft/msl, NAVD 88):
Ground Elevation (ft/msl, NAVD 88):
Total Depth: 40 ft
Logged By: KS

Depth (Feet)	Recovery (Feet)	PID (ppm)	Sample ID	Sample Interval	Lithology	USCS	Visual Impacts	Geologic Description	Remarks	Well Construction
0										
-2	1.5	0.0				FILL		Brown; fine to medium SAND, some fine to coarse gravel, little silt; loose; wet.	Bentonite seal at 0 to 1 ft bgs.	
-4										
-6	2.0	0.0				SM		Brown; silty fine SAND, some fine to medium gravel, little clay, trace organics; compact; dry.	Two-inch diameter PVC riser at 0 to 30 ft bgs.	
-8										
-10	4.0	0.0							Grouted annulus at 1 to 27 ft bgs.	
-12						CL		Gray; CLAY; soft; wet.		
-14	0.3	0.0								
-16										
-18	1.0	0.0								
-20						SM		Gray; SILT, some fine sand, little fine to coarse gravel, little clay; compact; moist.		
-22	3.0	0.0								
-24									Bentonite seal at 27 to 29 ft bgs.	
-26	2.5	0.0								
-28						SP		Brown; homogenous fine SAND; loose; wet.		
-30	4.0	0.0							Sand filter pack at 29 to 40 ft bgs.	
-32										
-34									Number 10 slot PVC screen at 30 to 40 ft bgs.	
-36	3.0	0.0				GP		Brown; fine to coarse gravel, some fine to coarse sand, trace silt; loose; wet.		
-38										
-40										

Coal Tar or Coal Tar NAPL Saturated Soil

Hydrocarbon Staining, Hydrocarbon Sheen or NAPL Blebs

Comments:

AECOM
40 British American Blvd
Latham, New York, 12110

Well ID: TMW-2D

Project Name: NYSEG Penn Yan
NYSEG/Project Number: NYSEG
Date Started/Date Completed: 5/8/17
Boring Location: Upland west
Drilling Company: Nothnagle

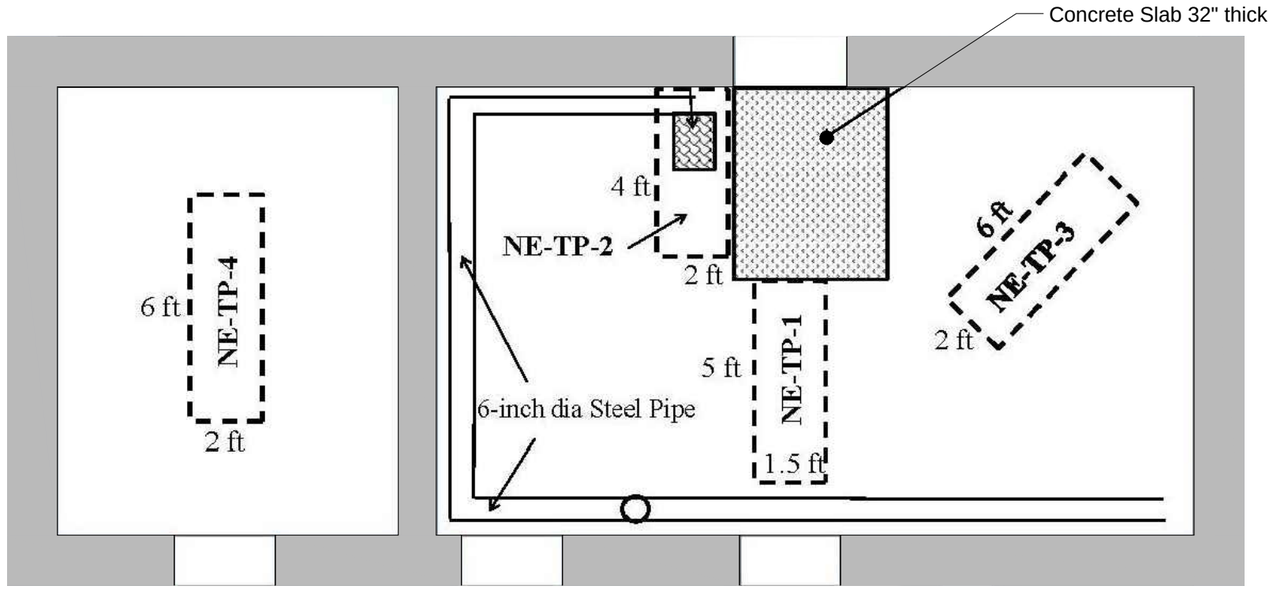
Sampling Method: MacroCore
PVC Elevation (ft/msl, NAVD 88):
Ground Elevation (ft/msl, NAVD 88):
Total Depth: 60 ft
Logged By: KS

Depth (Feet)	Recovery (Feet)	PID (ppm)	Sample ID	Sample Interval	Lithology	USCS	Visual Impacts	Geologic Description	Well Remarks	Well Construction
-36								See TMW-2S for the 0 to 40 ft bgs lithology.	Two-inch diameter PVC riser at 0 to 50 ft bgs.	
-38										
-40						SP		Gray; homogenous fine SAND; loose; wet.	Bentonite seal at 0 to 1 ft bgs.	
-42	4.0	11.1 23.4							Grouted annulus at 1 to 47 ft bgs.	
-44										
-46	4.0	0.1								
-48									Bentonite seal at 47 to 49 ft bgs.	
-50								Running sands are binding the sampler. Switch to 3-inch diameter split spoons.		
-52	2.0	0.0							Sand filter pack at 49 to 60 ft bgs.	
-54										
-56									Number 10 slot PVC screen at 50 to 60 ft bgs.	
-58	2.0	0.1						Boring terminated at 60 ft bgs.		
-60										

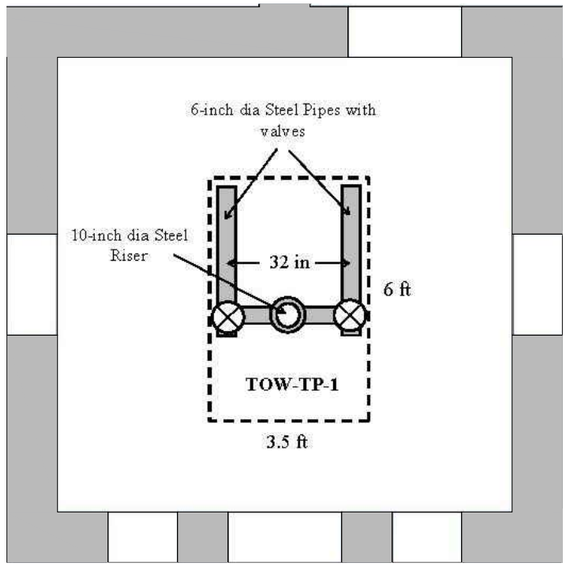
Coal Tar or Coal Tar NAPL Saturated Soil

Hydrocarbon Staining, Hydrocarbon Sheen or NAPL Blebs

Comments: See TMW-2S for the 0 to 40 ft bgs lithology.



NORTHEAST ROOMS



TOWER

AECOM

PROJECT

100% REMEDIAL DESIGN
WATER STREET
MANUFACTURED GAS PLANT
VILLAGE OF PENN YAN
YATES COUNTY, NEW YORK
NYSDEC SITE # 8-62-009
SUPPLEMENTAL BUILDING AND BANK INVESTIGATION

CLIENT

NYSEG
New York State Electric and Gas Corp.
18 Link Drive
P.O. Box 5224
Binghamton, New York 13905

SCALE: NTS

REGISTRATION

ISSUE/REVISION

		-
I/R	DATE	DESCRIPTION

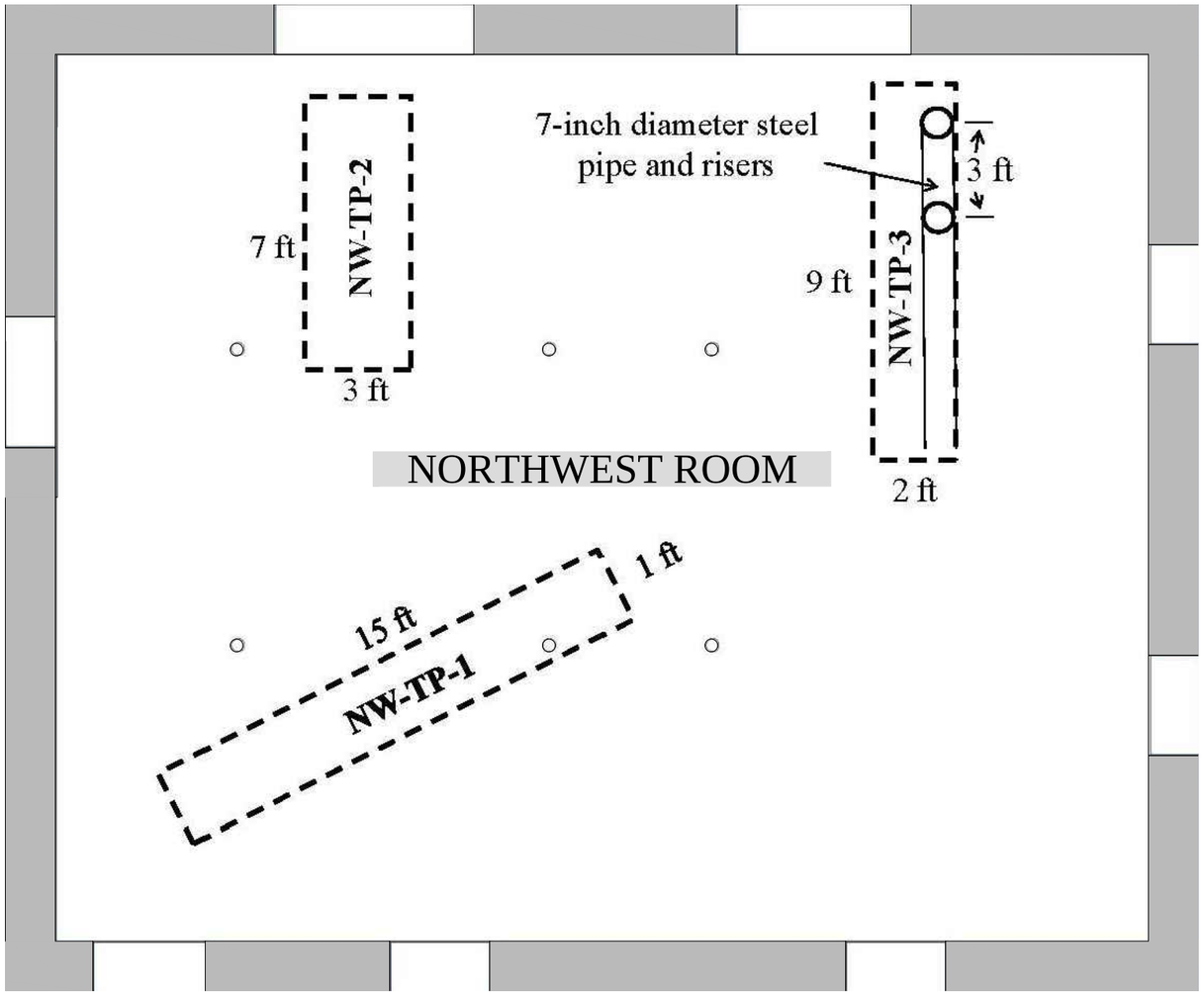
KEY PLAN

SHEET TITLE

NORTHEAST ROOMS FLOOR PLAN

SHEET NUMBER

4



SCALE: NTS

PROJECT

100% REMEDIAL DESIGN
WATER STREET
MANUFACTURED GAS PLANT
VILLAGE OF PENN YAN
YATES COUNTY, NEW YORK
NYSDEC SITE # 8-62-009
SUPPLEMENTAL BUILDING AND BANK INVESTIGATION

CLIENT

NYSEG
New York State Electric and Gas Corp.
18 Link Drive
P.O. Box 5224
Binghamton, New York 13905

REGISTRATION

ISSUE/REVISION

I/R	DATE	DESCRIPTION
		-

KEY PLAN

SHEET TITLE

NORTHWEST ROOM FLOOR PLAN

SHEET NUMBER

3

Project Management Initials: Designer:____ Checked:____ Approved:____ ANSI D 22" x 34"

Last saved by: MEISTERK (2017-06-12) Last Plotted: 2017-06-12
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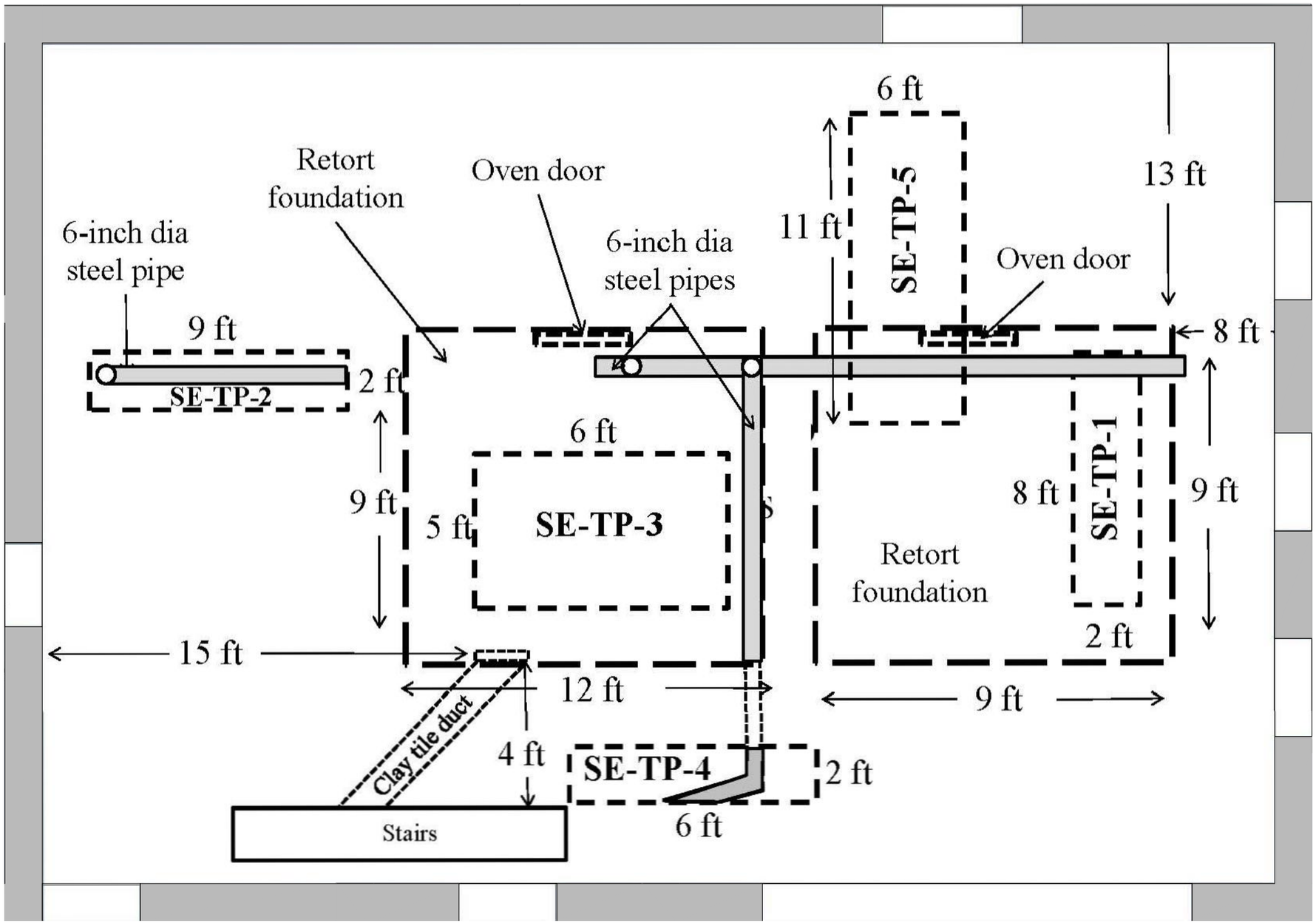

SOUTHEAST ROOM

Project Management Initials: Designer:____ Checked:____ Approved:____ ANSI D 22" x 34"

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PROJECT

100% REMEDIAL DESIGN
WATER STREET
MANUFACTURED GAS PLANT
VILLAGE OF PENN YAN
YATES COUNTY, NEW YORK
NYSDEC SITE # 8-62-009
SUPPLEMENTAL BUILDING AND BANK INVESTIGATION

CLIENT

NYSEG
New York State Electric and Gas Corp.
18 Link Drive
P.O. Box 5224
Binghamton, New York 13905

SCALE: NTS

REGISTRATION

ISSUE/REVISION

I/R	DATE	DESCRIPTION
		-

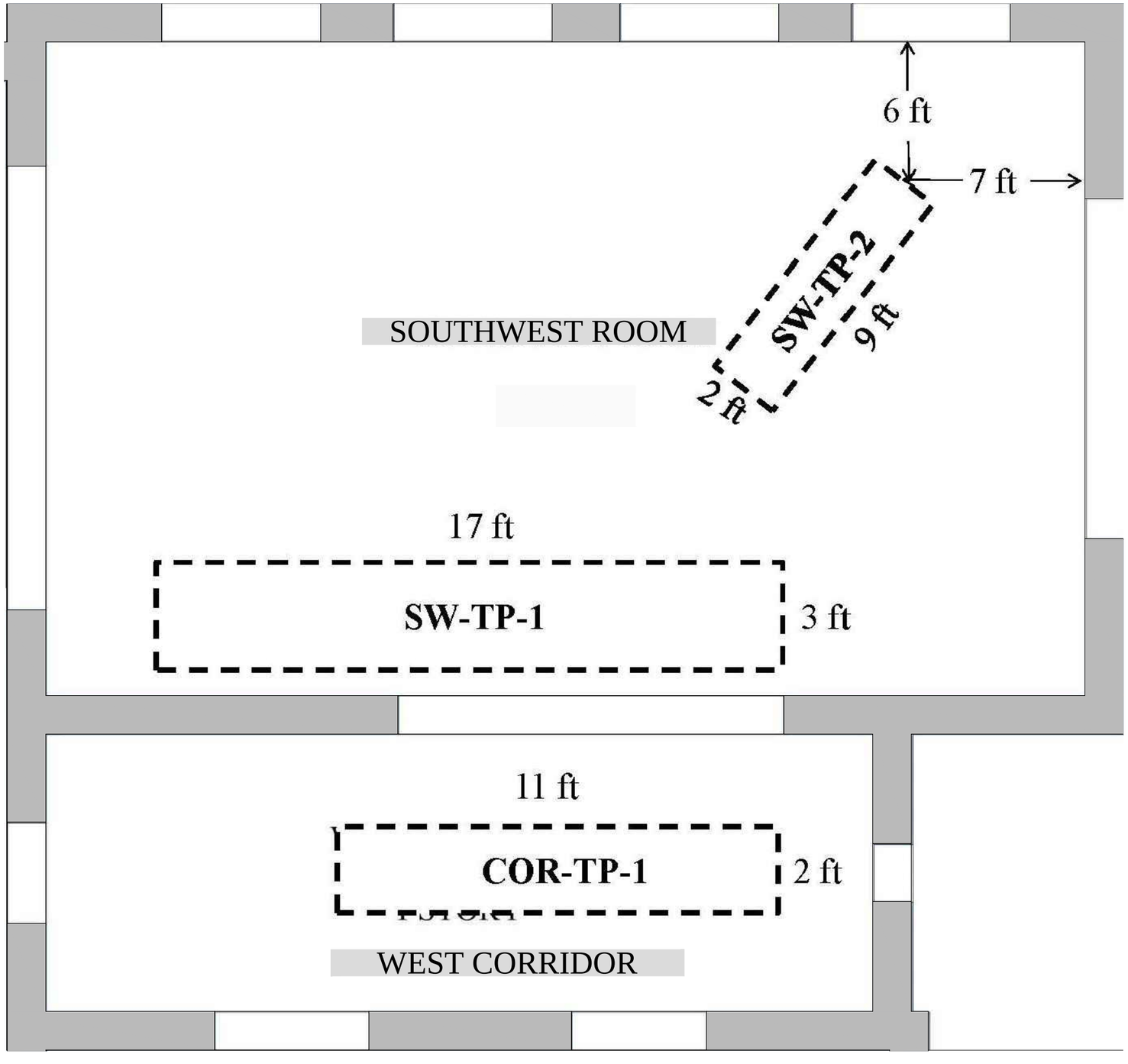
KEY PLAN

SHEET TITLE

SOUTHEAST ROOM FLOOR PLAN

SHEET NUMBER

2



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AECOM

PROJECT

100% REMEDIAL DESIGN
WATER STREET
MANUFACTURED GAS PLANT
VILLAGE OF PENN YAN
YATES COUNTY, NEW YORK
NYSDEC SITE # 8-62-009
SUPPLEMENTAL BUILDING AND BANK INVESTIGATION

CLIENT

NYSEG
New York State Electric and Gas Corp.
18 Link Drive
P.O. Box 5224
Binghamton, New York 13905

SCALE: NTS

REGISTRATION

ISSUE/REVISION

I/R	DATE	DESCRIPTION
		-

KEY PLAN

SHEET TITLE

SOUTHWEST ROOM FLOOR PLAN

SHEET NUMBER

1

Test Pit Log

COR-TP-1

PROJECT NO:	60284725	**TEST PIT DESIGNATION: COR-TP-1**	**SURFACE ELEVATION:**
CLIENT:	NYSEG	**SITE LOCATION OR AREA: Corridor Room**	**START DATE: 5/22/17**
SITE NAME:	Penn Yan Former MGP Site	**EQUIPMENT USED: Track-mounted Excavator**	**FINISH DATE: 5/22/17**
GEOLOGIST:	Keith Stahle	**OPERATOR: Sevenson**	**START TIME: 1600**
DEPTH WATER ENCOUNTERED:		**TOTAL DEPTH: 5.0 ft**	**FINISH TIME: 1700**

DEPTH (FEET)	SAMPLE DEPTH (FEET)	PID HEADSPACE (PPM)	SOIL LITHOLOGY USCS	SOIL CLASS USCS	SOIL DESCRIPTION LOG	STRUCTURES ENCOUNTERED OR COMMENTS
1				FILL	0-0.2' - Concrete pad. 0.2-0.5' - Brown; fine to medium SAND, some gravel, little ash and cinders; loose, dry. 0.5-0.7' - Concrete slab.	
2					0.7-4.0' - Brown; fine to medium SAND, some gravel, little ash and cinders; loose, dry.	
3						
4						
5				ML	4-5' - Brown; clayey silt, trace fine to medium gravel; compact, moist, Test pit terminated at 5 ft bgs.	
6						
7						
8						
9						
10						
11						
12						

Comments: bgs = below ground surface

Analysis:

AECOM Environment

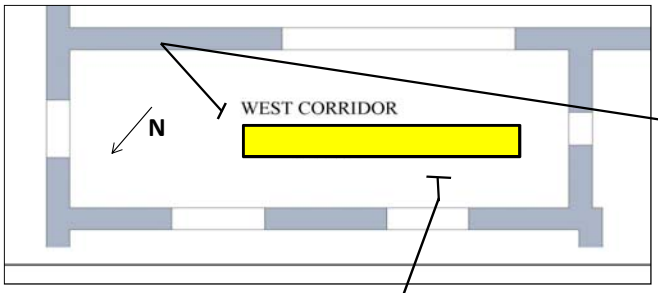
40 British American Blvd.
Latham New York 12110

Test Pit Log

COR-TP-1

PROJECT NO:	**60284725**	**TEST PIT DESIGNATION: COR-TP-1**	**SURFACE ELEVATION:**
CLIENT:	**NYSEG**	**SITE LOCATION OR AREA: Corridor Room**	**START DATE: 5/22/17**
SITE NAME:	**Penn Yan Former MGP Site**	**EQUIPMENT USED: Track-mounted Excavator**	**FINISH DATE: 5/22/17**
GEOLOGIST:	**Keith Stahle**	**OPERATOR: Sevenson**	**START TIME: 1600**
DEPTH WATER ENCOUNTERED:		**TOTAL DEPTH: 5.0 ft**	**FINISH TIME: 1700**

(Plan view - West Corridor - Penn Yan Former MGP Site)



(View facing west)

(View facing south)

Test Pit Log

NE-TP-1

PROJECT NO: 60284725	**TEST PIT DESIGNATION:** NE-TP-1	**SURFACE ELEVATION:**
CLIENT: NYSEG	**SITE LOCATION OR AREA:** Northeast Room	**START DATE:** 5/23/17
SITE NAME: Penn Yan Former MGP Site	**EQUIPMENT USED:** Track-mounted Excavator	**FINISH DATE:** 5/23/17
GEOLOGIST: Keith Stahle	**OPERATOR:** Sevenson	**START TIME:** 800
DEPTH WATER ENCOUNTERED:	**TOTAL DEPTH:** 4.3 ft	**FINISH TIME:** 1000

DEPTH (FEET)	SAMPLE DEPTH (FEET)	PID HEADSPACE (PPM)	SOIL LITHOLOGY USCS	SOIL CLASS USCS	SOIL DESCRIPTION LOG	STRUCTURES ENCOUNTERED OR COMMENTS
1				FILL	0-0.2' - Concrete slab Approximately one inch thick layer of hard tar beneath concrete slab. 0.2-3' - Brown; fine to medium sand, some silt, some fine to coarse gravel; loose, dry.	32-inch thick concrete slab along the southern edge of the test pit.
2						
3						
4				ML	3-4.3' - Brown; clayey silt, little fine to medium gravel, some orange motteling; compact, moist.	
5					Test pit terminated at 4.3 ft bgs.	
6						
7						
8						
9						
10						
11						
12						

Comments: bgs = below ground surface

Analysis:

AECOM Environment

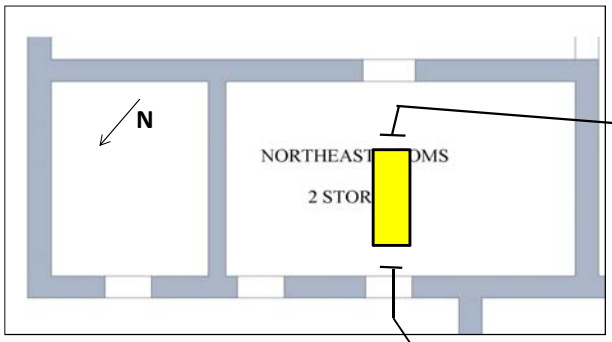
40 British American Blvd.
Latham New York 12110

Test Pit Log

NE-TP-1

PROJECT NO:	**60284725**	**TEST PIT DESIGNATION: NE-TP-1**	**SURFACE ELEVATION:**
CLIENT:	**NYSEG**	**SITE LOCATION OR AREA: Northeast Room**	**START DATE: 5/23/17**
SITE NAME:	**Penn Yan Former MGP Site**	**EQUIPMENT USED: Track-mounted Excavator**	**FINISH DATE: 5/23/17**
GEOLOGIST:	**Keith Stahle**	**OPERATOR: Sevenson**	**START TIME: 800**
DEPTH WATER ENCOUNTERED:		**TOTAL DEPTH: 4.3 ft**	**FINISH TIME: 1000**

(Plan view - Northeast Room - Penn Yan Former MGP Site)



(View facing north)

(View facing south)

Test Pit Log

NE-TP-2

PROJECT NO:	60284725	**TEST PIT DESIGNATION:** NE-TP-2	**SURFACE ELEVATION:**
CLIENT:	NYSEG	**SITE LOCATION OR AREA:** Northeast Room	**START DATE:** 5/24/17
SITE NAME:	Penn Yan Former MGP Site	**EQUIPMENT USED:** Track-mounted Excavator	**FINISH DATE:** 5/23/17
GEOLOGIST:	Keith Stahle	**OPERATOR:** Sevenson	**START TIME:** 1400
DEPTH WATER ENCOUNTERED:		**TOTAL DEPTH:** 4.5 ft	**FINISH TIME:** 1600

DEPTH (FEET)	SAMPLE DEPTH (FEET)	PID HEADSPACE (PPM)	SOIL LITHOLOGY USCS	SOIL CLASS USCS	SOIL DESCRIPTION LOG	STRUCTURES ENCOUNTERED OR COMMENTS
1					0-1.5' - Concrete slab. Two inch thick layer of hard tar beneath slab.	Tar sump identified from ground surface to 4 ft bgs. The sump was full of taffy tar. A steel pipe ran out of the south end of the sump. The pipe ran along the south, east and north walls of the northeast room at 0.5 ft bgs.
2				FILL	1.5-3.5' - Brown; silt, some fine to medium sand, some ash, some fine to medium gravel; compact, moist. Hard and taffy tar from surface to 3.5 ft bgs around the tar sump. Hard and taffy tar at 2.5 to 3.5 ft bgs throughout the test pit.	An opening on the north side of the tar sump was plugged with a wooden plug. The tar sump measured 4 x 2 x 4 ft deep.
3						
4				ML	3.5-4.5' - Brown; clayey silt, little fine gravel; compact, moist. Test pit terminated at 4.5 ft bgs.	
5						
6						
7						
8						
9						
10						
11						
12						

Comments: bgs = below ground surface

Analysis:

AECOM Environment

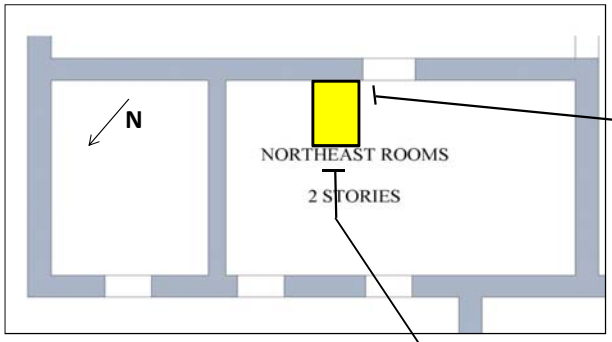
40 British American Blvd.
Latham New York 12110

Test Pit Log

NE-TP-2

PROJECT NO:	**60284725**	**TEST PIT DESIGNATION: NE-TP-2**	**SURFACE ELEVATION:**
CLIENT:	**NYSEG**	**SITE LOCATION OR AREA: Northeast Room**	**START DATE: 5/24/17**
SITE NAME:	**Penn Yan Former MGP Site**	**EQUIPMENT USED: Track-mounted Excavator**	**FINISH DATE: 5/23/17**
GEOLOGIST:	**Keith Stahle**	**OPERATOR: Sevenson**	**START TIME: 1400**
DEPTH WATER ENCOUNTERED:		**TOTAL DEPTH: 4.5 ft**	**FINISH TIME: 1600**

(Plan view - Northeast Room - Penn Yan Former MGP Site)



(View facing east)

(View facing southeast)

Test Pit Log

NE-TP-3

PROJECT NO:	60284725	**TEST PIT DESIGNATION:** NE-TP-3	**SURFACE ELEVATION:**
CLIENT:	NYSEG	**SITE LOCATION OR AREA:** Northeast Room	**START DATE:** 5/25/17
SITE NAME:	Penn Yan Former MGP Site	**EQUIPMENT USED:** Track-mounted Excavator	**FINISH DATE:** 5/25/17
GEOLOGIST:	Keith Stahle	**OPERATOR:** Sevenson	**START TIME:** 945
DEPTH WATER ENCOUNTERED:		**TOTAL DEPTH:** 4.5 ft	**FINISH TIME:** 1200

DEPTH (FEET)	SAMPLE DEPTH (FEET)	PID HEADSPACE (PPM)	SOIL LITHOLOGY USCS	SOIL CLASS USCS	SOIL DESCRIPTION LOG	STRUCTURES ENCOUNTERED OR COMMENTS
1				FILL	0-0.2' - Concrete slab. One to three inch thick layer of hard tar beneath slab. 0.2-1.5' - Brown; fine to medium sand, some silt, little fine to medium gravel.	Steel pipe identified running along the south, east and north walls. One end was connected to the tar sump. The other end was not encountered.
2					1.5-2' - Concrete slab. 2-3' - Brown; fine to medium sand, some silt, little fine to medium gravel	
3						
4				ML	3-4.5' - Brown; clayey silt; compact, moist Test pit terminated at 4.5 ft bgs.	
5						
6						
7						
8						
9						
10						
11						
12						

Comments: bgs = below ground surface

Analysis:

AECOM Environment

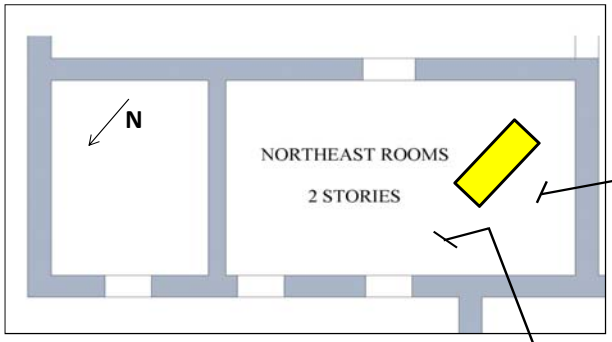
40 British American Blvd.
Latham New York 12110

Test Pit Log

NE-TP-3

PROJECT NO:	**60284725**	**TEST PIT DESIGNATION: NE-TP-3**	**SURFACE ELEVATION:**
CLIENT:	**NYSEG**	**SITE LOCATION OR AREA: Northeast Room**	**START DATE: 5/25/17**
SITE NAME:	**Penn Yan Former MGP Site**	**EQUIPMENT USED: Track-mounted Excavator**	**FINISH DATE: 5/25/17**
GEOLOGIST:	**Keith Stahle**	**OPERATOR: Sevenson**	**START TIME: 945**
DEPTH WATER ENCOUNTERED:		**TOTAL DEPTH: 4.5 ft**	**FINISH TIME: 1200**

(Plan view - Northeast Room - Penn Yan Former MGP Site)



(View facing east)

(View facing northeast)

Test Pit Log

NE-TP-4

PROJECT NO: 60284725	**TEST PIT DESIGNATION:** NE-TP-4	**SURFACE ELEVATION:**
CLIENT: NYSEG	**SITE LOCATION OR AREA:** Northeast Room	**START DATE:** 5/25/17
SITE NAME: Penn Yan Former MGP Site	**EQUIPMENT USED:** Track-mounted Excavator	**FINISH DATE:** 5/25/17
GEOLOGIST: Keith Stahle	**OPERATOR:** Sevenson	**START TIME:** 1430
DEPTH WATER ENCOUNTERED:	**TOTAL DEPTH:** 4.5 ft	**FINISH TIME:** 1600

DEPTH (FEET)	SAMPLE DEPTH (FEET)	PID HEADSPACE (PPM)	SOIL LITHOLOGY USCS	SOIL CLASS USCS	SOIL DESCRIPTION LOG	STRUCTURES ENCOUNTERED OR COMMENTS
1				FILL	0-0.4' - Concrete slab. 0.4-1' - Mix of ash and hard tar. 1-2.5' - Masonry bricks.	
2					2.5-3' - Concrete slab.	
3					3-4.5' - Brown; silty fine sand, little clay, little fine to medium gravel, little orange mottling; compact, dry.	
4				ML		
5					Test pit terminated at 4.5 ft bgs.	
6						
7						
8						
9						
10						
11						
12						

Comments: bgs = below ground surface

Analysis:

AECOM Environment

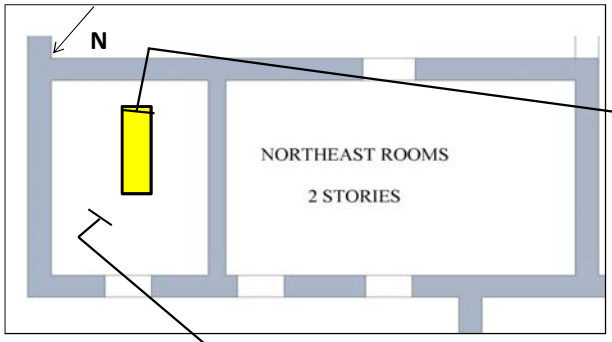
40 British American Blvd.
Latham New York 12110

Test Pit Log

NE-TP-4

PROJECT NO:	**60284725**	**TEST PIT DESIGNATION: NE-TP-4**	**SURFACE ELEVATION:**
CLIENT:	**NYSEG**	**SITE LOCATION OR AREA: Northeast Room**	**START DATE: 5/25/17**
SITE NAME:	**Penn Yan Former MGP Site**	**EQUIPMENT USED: Track-mounted Excavator**	**FINISH DATE: 5/25/17**
GEOLOGIST:	**Keith Stahle**	**OPERATOR: Sevenson**	**START TIME: 1430**
DEPTH WATER ENCOUNTERED:		**TOTAL DEPTH: 4.5 ft**	**FINISH TIME: 1600**

(Plan view - Northeast Room - Penn Yan Former MGP Site)



(View facing north)

(View facing southwest)

Test Pit Log

NW-TP-1

PROJECT NO: 60284725	**TEST PIT DESIGNATION:** NW-TP-1	**SURFACE ELEVATION:**
CLIENT: NYSEG	**SITE LOCATION OR AREA:** Northwest Room	**START DATE:** 5/18/17
SITE NAME: Penn Yan Former MGP Site	**EQUIPMENT USED:** Track-mounted Excavator	**FINISH DATE:** 5/18/17
GEOLOGIST: Keith Stahle	**OPERATOR:** Sevenson	**START TIME:** 1000
DEPTH WATER ENCOUNTERED:	**TOTAL DEPTH:** 4.0 ft	**FINISH TIME:** 1300

DEPTH (FEET)	SAMPLE DEPTH (FEET)	PID HEADSPACE (PPM)	SOIL LITHOLOGY USCS	SOIL CLASS USCS	SOIL DESCRIPTION LOG	STRUCTURES ENCOUNTERED OR COMMENTS
1		0.0		FILL	Four-inch thick concrete pad. FILL material consisting of brown fine to medium sand, some fine to coarse gravel, little silt, little ash, cinders and brick fragments; loose; dry.	Some hard tar beneath concrete slab. Some hard tar at 1 to 3 ft bgs.
2						
3		8.0			Brown; SILT, some clay, little fine to medium gravel; compact; moist.	Some taffy tar at 3 to 4 ft bgs.
4				ML		Little tar stringers at 4 to 4.5 ft bgs.
5		0.0			Test pit terminated at 5 ft bgs.	
6						
7						
8						
9						
10						
11						
12						

Comments: bgs = below ground surface

Analysis:

AECOM Environment

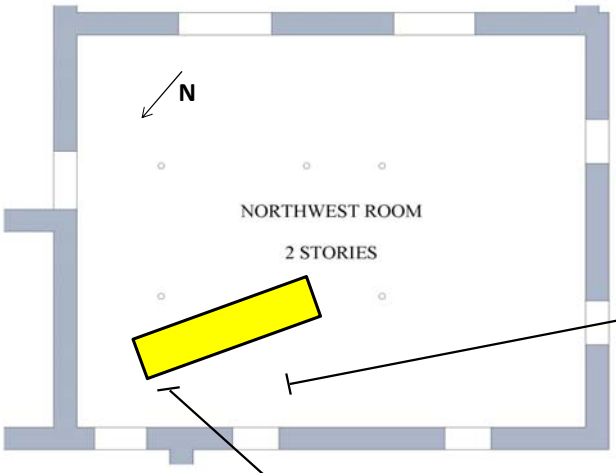
40 British American Blvd.
Latham New York 12110

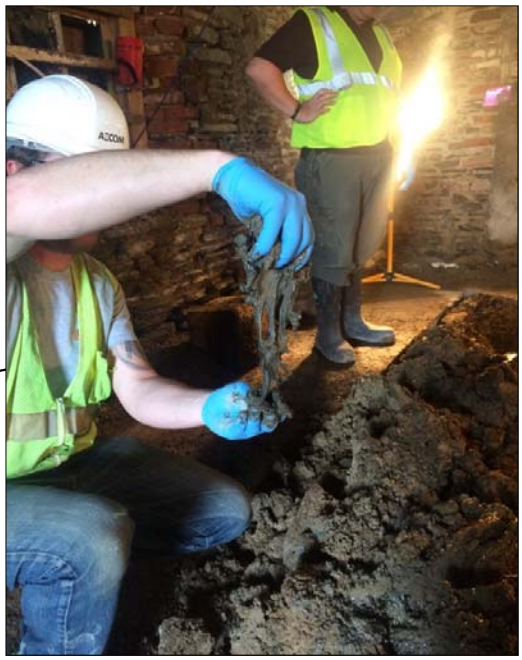
Test Pit Log

NW-TP-1

PROJECT NO:	**60284725**	**TEST PIT DESIGNATION: NW-TP-1**	**SURFACE ELEVATION:**
CLIENT:	**NYSEG**	**SITE LOCATION OR AREA: Northwest Room**	**START DATE: 5/18/17**
SITE NAME:	**Penn Yan Former MGP Site**	**EQUIPMENT USED: Track-mounted Excavator**	**FINISH DATE: 5/18/17**
GEOLOGIST:	**Keith Stahle**	**OPERATOR: Sevenson**	**START TIME: 1000**
DEPTH WATER ENCOUNTERED:		**TOTAL DEPTH: 4.0 ft**	**FINISH TIME: 1300**

(Plan view - Northwest Room - Penn Yan Former MGP Site)





(View facing northeast)

(View facing south)

Test Pit Log

NW-TP-2

PROJECT NO: 60284725	**TEST PIT DESIGNATION:** NW-TP-2	**SURFACE ELEVATION:**
CLIENT: NYSEG	**SITE LOCATION OR AREA:** Northwest Room	**START DATE:** 5/18/17
SITE NAME: Penn Yan Former MGP Site	**EQUIPMENT USED:** Track-mounted Excavator	**FINISH DATE:** 5/18/17
GEOLOGIST: Keith Stahle	**OPERATOR:** Sevenson	**START TIME:** 1300
DEPTH WATER ENCOUNTERED:	**TOTAL DEPTH:** 5.0 ft	**FINISH TIME:** 1400

DEPTH (FEET)	SAMPLE DEPTH (FEET)	PID HEADSPACE (PPM)	SOIL LITHOLOGY USCS	SOIL CLASS USCS	SOIL DESCRIPTION LOG	STRUCTURES ENCOUNTERED OR COMMENTS
1		0.0		FILL	Four-inch thick concrete pad. FILL material consisting of brown fine to medium sand, some medium to coarse gravel, little silt, little ash, cinders; loose; dry. Cobbles upto 8-inch diameter at 1 to 2 ft bgs, some sand and gravel; loose, dry.	
2						
3		0.1				
4				ML	Brown; CLAYEY SILT, little fine sand; compact; moist.	
5		0.0			Test pit terminated at 5 ft bgs.	
6						
7						
8						
9						
10						
11						
12						

Comments: bgs = below ground surface

Analysis:

AECOM Environment

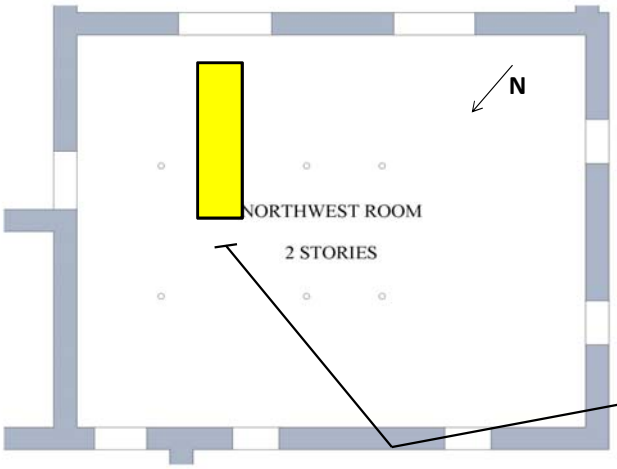
40 British American Blvd.
Latham New York 12110

Test Pit Log

NW-TP-2

PROJECT NO:	**60284725**	**TEST PIT DESIGNATION: NW-TP-2**	**SURFACE ELEVATION:**
CLIENT:	**NYSEG**	**SITE LOCATION OR AREA: Northwest Room**	**START DATE: 5/18/17**
SITE NAME:	**Penn Yan Former MGP Site**	**EQUIPMENT USED: Track-mounted Excavator**	**FINISH DATE: 5/18/17**
GEOLOGIST:	**Keith Stahle**	**OPERATOR: Sevenson**	**START TIME: 1300**
DEPTH WATER ENCOUNTERED:		**TOTAL DEPTH: 5.0 ft**	**FINISH TIME: 1400**

(Plan view - Northwest Room - Penn Yan Former MGP Site)



(View facing southeast)

Test Pit Log

NW-TP-3

PROJECT NO:	60284725	**TEST PIT DESIGNATION:** NW-TP-3	**SURFACE ELEVATION:**
CLIENT:	NYSEG	**SITE LOCATION OR AREA:** Northwest Room	**START DATE:** 5/18/17
SITE NAME:	Penn Yan Former MGP Site	**EQUIPMENT USED:** Track-mounted Excavator	**FINISH DATE:** 5/18/17
GEOLOGIST:	Keith Stahle	**OPERATOR:** Sevenson	**START TIME:** 1400
DEPTH WATER ENCOUNTERED:		**TOTAL DEPTH:** 5.2 ft	**FINISH TIME:** 1600

DEPTH (FEET)	SAMPLE DEPTH (FEET)	PID HEADSPACE (PPM)	SOIL LITHOLOGY USCS	SOIL CLASS USCS	SOIL DESCRIPTION LOG	STRUCTURES ENCOUNTERED OR COMMENTS
1		0.0		FILL	Four-inch thick concrete pad. FILL material consisting of brown fine to medium sand, some medium to coarse gravel, little silt, little ash and brick fragments; loose; dry.	
2						
3		0.1			Some wood fragments upto 2 ft long and 4-inches wide immediately beneath the 7-inch pipe.	Seven inch diameter steel pipe along west edge of test pit at 2.5 ft bgs. Pipe trends north to south with two riser pipes 36-inches apart. Strong hydrocarbon-like odor and stain extend one foot above and two feet below pipe.
4						Pipe was punctured during excavation. The pipe contained water and NAPL blebs.
5		0.0		ML	Brown; CLAYEY SILT, little fine sand, trace fine to medium gravel; compact; moist. Test pit terminated at 5.2 ft bgs.	
6						
7						
8						
9						
10						
11						
12						

Comments: bgs = below ground surface

Analysis:

AECOM Environment

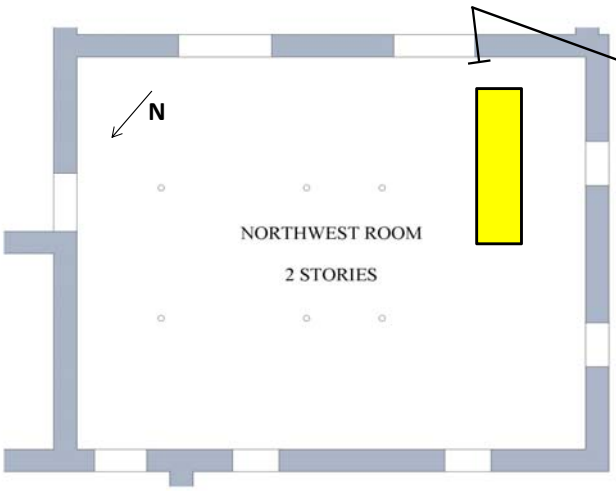
40 British American Blvd.
Latham New York 12110

Test Pit Log

NW-TP-3

PROJECT NO:	**60284725**	**TEST PIT DESIGNATION: NW-TP-3**	**SURFACE ELEVATION:**
CLIENT:	**NYSEG**	**SITE LOCATION OR AREA: Northwest Room**	**START DATE: 5/18/17**
SITE NAME:	**Penn Yan Former MGP Site**	**EQUIPMENT USED: Track-mounted Excavator**	**FINISH DATE: 5/18/17**
GEOLOGIST:	**Keith Stahle**	**OPERATOR: Sevenson**	**START TIME: 1400**
DEPTH WATER ENCOUNTERED:		**TOTAL DEPTH: 5.2 ft**	**FINISH TIME: 1600**

(Plan view - Northwest Room - Penn Yan Former MGP Site)



(View facing northwest)

Test Pit Log

SE-TP-1

PROJECT NO:	60284725	**TEST PIT DESIGNATION:** SE-TP-1	**SURFACE ELEVATION:**
CLIENT:	NYSEG	**SITE LOCATION OR AREA:** Southeast Room	**START DATE:** 5/22/17
SITE NAME:	Penn Yan Former MGP Site	**EQUIPMENT USED:** Track-mounted Excavator	**FINISH DATE:** 5/22/17
GEOLOGIST:	Keith Stahle	**OPERATOR:** Sevenson	**START TIME:** 1430
DEPTH WATER ENCOUNTERED:		**TOTAL DEPTH:** 8.0 ft	**FINISH TIME:** 1600

DEPTH (FEET)	SAMPLE DEPTH (FEET)	PID HEADSPACE (PPM)	SOIL LITHOLOGY USCS	SOIL CLASS USCS	SOIL DESCRIPTION LOG	STRUCTURES ENCOUNTERED OR COMMENTS
1				FILL	0-0.4' - Concrete pad. 0.4-3' - FILL material consisting of brown fine to coarse sand and brick and ash rubble. Little hard tar at 0.4 to 3 ft bgs.	Brick foundation structure observed measuring 9' x 9' and 3' deep. Concrete floor underlay the brick walls. Steel vessel identified in the center of foundation. Vessel is 5 ft long, 2 ft wide and 2.5 ft tall with with three openings on the top. The vessel contained approximately 6-inch of taffy tar in the bottom. The remainder of the vessel was filled with brick and ash debris.
2						
3					3-3.4' - Concrete slab	An oven was identified along the east end of the foundation. The upper portion had a grate with some ash and unburnt coal. The lower portion contained approximately 6-inches of coal ash. The oven opening measured 2 ft tall and 2 ft wide. The depth of the oven is unkown.
4					3.4-7' - Brown; SILT, some fine to medium sand, some organics; loose, wet.	
5				ML		
6						
7					7-8' - Brown; silty fine SAND, little fine to coarse gravel, some orange mottling; compact, dry.	
8					Test pit terminated at 8 ft bgs.	
9						
10						
11						
12						

Comments: bgs = below ground surface

Analysis:

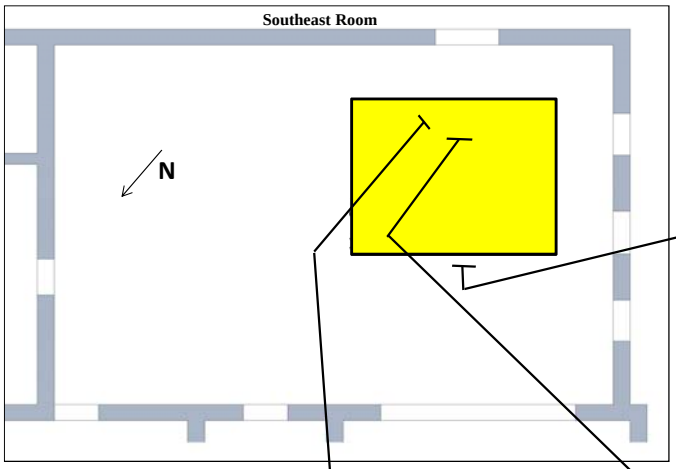
AECOM Environment

40 British American Blvd.
Latham New York 12110

Test Pit Log

SE-TP-1

PROJECT NO:	**60284725**	**TEST PIT DESIGNATION: SE-TP-1**	**SURFACE ELEVATION:**
CLIENT:	**NYSEG**	**SITE LOCATION OR AREA: Northwest Room**	**START DATE: 5/22/17**
SITE NAME:	**Penn Yan Former MGP Site**	**EQUIPMENT USED: Track-mounted Excavator**	**FINISH DATE: 5/22/17**
GEOLOGIST:	**Keith Stahle**	**OPERATOR: Sevenson**	**START TIME: 1430**
DEPTH WATER ENCOUNTERED:		**TOTAL DEPTH: 8.0 ft**	**FINISH TIME: 1600**



(View facing east)

(View facing south)

(View facing east)

Test Pit Log

SE-TP-2

PROJECT NO:	60284725	**TEST PIT DESIGNATION:** SE-TP-2	**SURFACE ELEVATION:**
CLIENT:	NYSEG	**SITE LOCATION OR AREA:** Southeast Room	**START DATE:** 5/23/17
SITE NAME:	Penn Yan Former MGP Site	**EQUIPMENT USED:** Track-mounted Excavator	**FINISH DATE:** 5/23/17
GEOLOGIST:	Keith Stahle	**OPERATOR:** Sevenson	**START TIME:** 1045
DEPTH WATER ENCOUNTERED:		**TOTAL DEPTH:** 5.0 ft	**FINISH TIME:** 1200

DEPTH (FEET)	SAMPLE DEPTH (FEET)	PID HEADSPACE (PPM)	SOIL LITHOLOGY USCS	SOIL CLASS USCS	SOIL DESCRIPTION LOG	STRUCTURES ENCOUNTERED OR COMMENTS
1				FILL	0-3' - Stacked masonry bricks.	Six-inch diameter steel pipe identified at 3.5 ft bgs. The pipe ran from north to south through the test pit. Ends of pipe not encountered.
2						
3					3-3.5'- Concrete slab.	Four-inch this concrete slab observed at 3 ft bgs.
4				ML	3.5-4' - Brown; fine to medium sand, some silt, some gravel, some ash. 4-5' - Brown; clayey silt, little fine to medium gravel; compact, moist.	
5					Test pit terminated at 5 ft bgs.	
6						
7						
8						
9						
10						
11						
12						

Comments: bgs = below ground surface

Analysis:

AECOM Environment

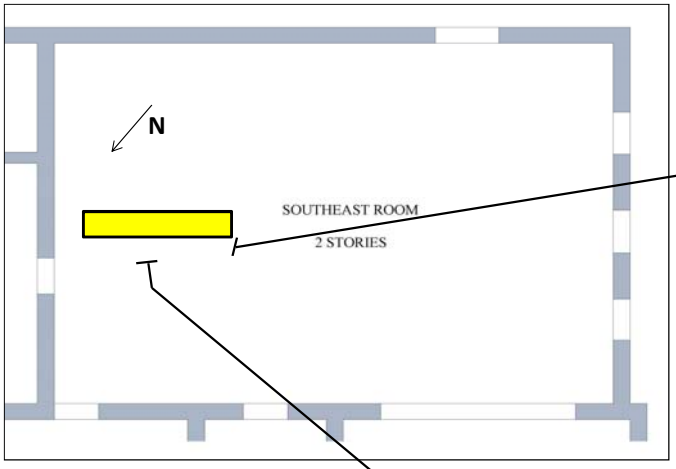
40 British American Blvd.
Latham New York 12110

Test Pit Log

SE-TP-2

PROJECT NO:	**60284725**	**TEST PIT DESIGNATION: SE-TP-2**	**SURFACE ELEVATION:**
CLIENT:	**NYSEG**	**SITE LOCATION OR AREA: Southeast Room**	**START DATE: 5/23/17**
SITE NAME:	**Penn Yan Former MGP Site**	**EQUIPMENT USED: Track-mounted Excavator**	**FINISH DATE: 5/23/17**
GEOLOGIST:	**Keith Stahle**	**OPERATOR: Sevenson**	**START TIME: 1045**
DEPTH WATER ENCOUNTERED:		**TOTAL DEPTH: 5.0 ft**	**FINISH TIME: 1200**

(Plan view - Southeast Room - Penn Yan Former MGP Site)



(View facing northeast)

(View facing east)

Test Pit Log

SE-TP-3

PROJECT NO:	60284725	**TEST PIT DESIGNATION:** SE-TP-3	**SURFACE ELEVATION:**
CLIENT:	NYSEG	**SITE LOCATION OR AREA:** Southeast Room	**START DATE:** 5/23/17
SITE NAME:	Penn Yan Former MGP Site	**EQUIPMENT USED:** Track-mounted Excavator	**FINISH DATE:** 5/23/17
GEOLOGIST:	Keith Stahle	**OPERATOR:** Sevenson	**START TIME:** 1300
DEPTH WATER ENCOUNTERED:		**TOTAL DEPTH:** 6.5 ft	**FINISH TIME:** 1600

DEPTH (FEET)	SAMPLE DEPTH (FEET)	PID HEADSPACE (PPM)	SOIL LITHOLOGY USCS	SOIL CLASS USCS	SOIL DESCRIPTION LOG	STRUCTURES ENCOUNTERED OR COMMENTS
1–6				FILL	0-3' - Brick, ash and sand rubble fill. Some hard tar at 0 to 3 ft bgs. Tar pieces up to 16-inches wide and 6-inches thick. Four inch thick concrete slab at 2.8 ft bgs. 3.2-4' - Hard and taffy tar layer.	Expanded test pit to 12' x 9'. Limits of the excavation were defined by brick foundation walls. Hard and taffy tar observed at 3-4 ft across excavation. A steel barrel, 2 ft long and 1.5 ft diameter identified in the middle of the excavation. The barrel was half full of taffy tar. A clay tile duct was identifed trending northwest along the west wall of the excavation. The duct is approximately 1 ft bgs. A 6-inch diameter steel pipe was observed trending north to south along the eastern edge of the excavation at 3 ft bgs. The pipe was full of hard tar A second steel pipe was identified at 1 ft bgs trending east to west. The pipe was empty. Hard tar observed from ground surface to 2.2 ft bgs in the southeast corner of the excavaiton. An oven was identified in the center of the eastern excavation wall. The oven measured 2 x 2 ft.
4–6				ML	4-6.5' - Brown/gray; silty fine sand, some clay, little fine gravel; compact, moist. Strong hydrocarbon-like odors at 0 to 5 ft bgs. Test pit terminated at 6.5 ft bgs.	
7–12						

Comments: bgs = below ground surface

Analysis:

AECOM Environment

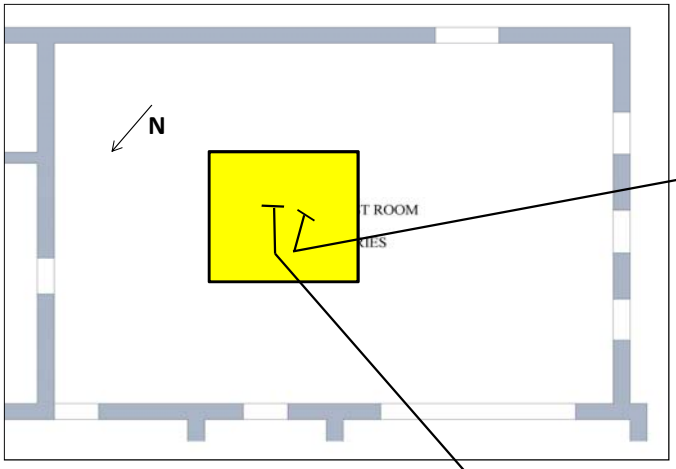
40 British American Blvd.
Latham New York 12110

Test Pit Log

SE-TP-3

PROJECT NO:	**60284725**	**TEST PIT DESIGNATION: SE-TP-3**	**SURFACE ELEVATION:**
CLIENT:	**NYSEG**	**SITE LOCATION OR AREA: Southeast Room**	**START DATE: 5/23/17**
SITE NAME:	**Penn Yan Former MGP Site**	**EQUIPMENT USED: Track-mounted Excavator**	**FINISH DATE: 5/23/17**
GEOLOGIST:	**Keith Stahle**	**OPERATOR: Sevenson**	**START TIME: 1300**
DEPTH WATER ENCOUNTERED:		**TOTAL DEPTH: 6.5 ft**	**FINISH TIME: 1600**

(Plan view - Southeast Room - Penn Yan Former MGP Site)



(View facing south)

(View facing southeast)

Test Pit Log

SE-TP-4

PROJECT NO:	**60284725**	**TEST PIT DESIGNATION: SE-TP-4**	**SURFACE ELEVATION:**
CLIENT:	**NYSEG**	**SITE LOCATION OR AREA: Southeast Room**	**START DATE: 5/30/17**
SITE NAME:	**Penn Yan Former MGP Site**	**EQUIPMENT USED: Track-mounted Excavator**	**FINISH DATE: 5/30/17**
GEOLOGIST:	**Keith Stahle**	**OPERATOR: Sevenson**	**START TIME: 1600**
DEPTH WATER ENCOUNTERED:		**TOTAL DEPTH: 3.0 ft**	**FINISH TIME: 1700**

DEPTH (FEET)	SAMPLE DEPTH (FEET)	PID HEADSPACE (PPM)	SOIL LITHOLOGY USCS	SOIL CLASS USCS	SOIL DESCRIPTION LOG	STRUCTURES ENCOUNTERED OR COMMENTS
1				FILL	0-3' - Brown; fine to medium sand and gravel with some ash and brick fragments.	
2						Four inch diameter steel pipe at 20-inches bgs. Pipe trends east to west then turns 90 degrees toward north northwest.
3					Test pit terminated at 3.0 ft bgs.	
4						
5						
6						
7						
8						
9						
10						
11						
12						

Comments: bgs = below ground surface

Analysis:

AECOM Environment

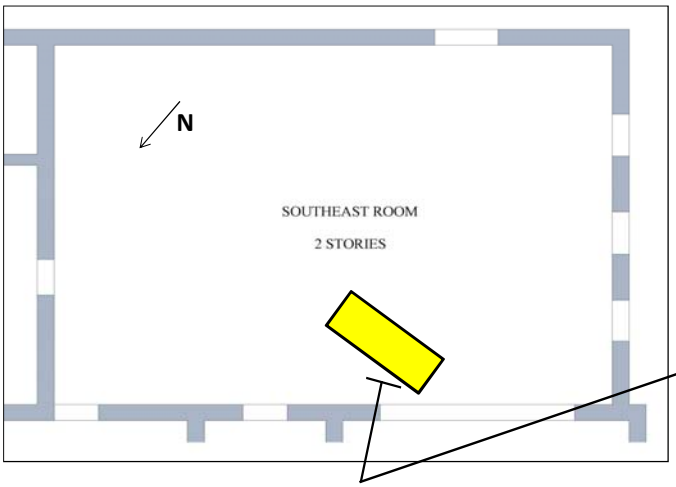
40 British American Blvd.
Latham New York 12110

Test Pit Log

SE-TP-4

PROJECT NO:	**60284725**	**TEST PIT DESIGNATION: SE-TP-4**	**SURFACE ELEVATION:**
CLIENT:	**NYSEG**	**SITE LOCATION OR AREA: Southeast Room**	**START DATE: 5/30/17**
SITE NAME:	**Penn Yan Former MGP Site**	**EQUIPMENT USED: Track-mounted Excavator**	**FINISH DATE: 5/30/17**
GEOLOGIST:	**Keith Stahle**	**OPERATOR: Sevenson**	**START TIME: 1600**
DEPTH WATER ENCOUNTERED:		**TOTAL DEPTH: 3.0 ft**	**FINISH TIME: 1700**

(Plan view - Southeast Room - Penn Yan Former MGP Site)



(View facing east)

Test Pit Log

SE-TP-5

PROJECT NO:	60284725	**TEST PIT DESIGNATION:** SE-TP-5	**SURFACE ELEVATION:**
CLIENT:	NYSEG	**SITE LOCATION OR AREA:** Southeast Room	**START DATE:** 5/31/17
SITE NAME:	Penn Yan Former MGP Site	**EQUIPMENT USED:** Track-mounted Excavator	**FINISH DATE:** 5/31/17
GEOLOGIST:	Keith Stahle	**OPERATOR:** Sevenson	**START TIME:** 1330
DEPTH WATER ENCOUNTERED:		**TOTAL DEPTH:** 6.0 ft	**FINISH TIME:** 1600

DEPTH (FEET)	SAMPLE DEPTH (FEET)	PID HEADSPACE (PPM)	SOIL LITHOLOGY USCS	SOIL CLASS USCS	SOIL DESCRIPTION LOG	STRUCTURES ENCOUNTERED OR COMMENTS
1–6				FILL	0-2.5' - Stacked bricks. 2.5-5.3' - Concrete slab	30-inch thick concrete slab identified extending 11.5 f west of the east wall.
6				ML	5.3-6.0' - Gray; silty clay; trace fine to medium gravel and fine sand; compact, moist. Test pit terminated at 6.0 ft bgs.	
7–12						

Comments: bgs = below ground surface

Analysis:

AECOM Environment

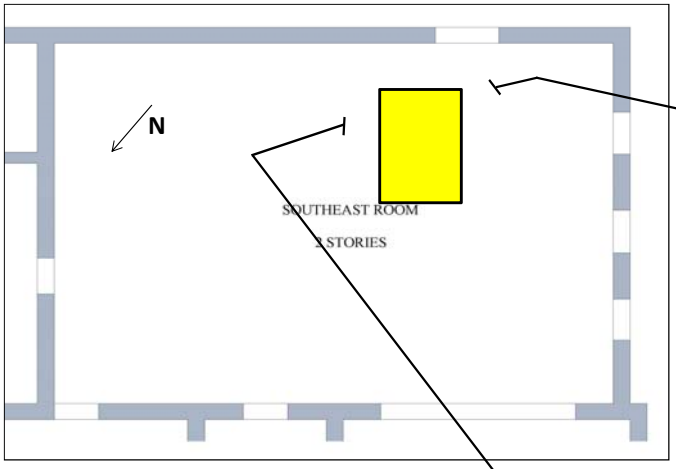
40 British American Blvd.
Latham New York 12110

Test Pit Log

SE-TP-5

PROJECT NO:	**60284725**	**TEST PIT DESIGNATION: SE-TP-5**	**SURFACE ELEVATION:**
CLIENT:	**NYSEG**	**SITE LOCATION OR AREA: Southeast Room**	**START DATE: 5/31/17**
SITE NAME:	**Penn Yan Former MGP Site**	**EQUIPMENT USED: Track-mounted Excavator**	**FINISH DATE: 5/31/17**
GEOLOGIST:	**Keith Stahle**	**OPERATOR: Sevenson**	**START TIME: 1330**
DEPTH WATER ENCOUNTERED:		**TOTAL DEPTH: 6.0 ft**	**FINISH TIME: 1600**

(Plan view - Southeast Room - Penn Yan Former MGP Site)



(View facing north)

(View facing south)

Test Pit Log

SW-TP-1

PROJECT NO: 60284725	**TEST PIT DESIGNATION:** SW-TP-1	**SURFACE ELEVATION:**
CLIENT: NYSEG	**SITE LOCATION OR AREA:** Southwest Room	**START DATE:** 5/30/17
SITE NAME: Penn Yan Former MGP Site	**EQUIPMENT USED:** Track-mounted Excavator	**FINISH DATE:** 5/30/17
GEOLOGIST: Keith Stahle	**OPERATOR:** Sevenson	**START TIME:** 1000
DEPTH WATER ENCOUNTERED:	**TOTAL DEPTH:** 5.0 ft	**FINISH TIME:** 1600

DEPTH (FEET)	SAMPLE DEPTH (FEET)	PID HEADSPACE (PPM)	SOIL LITHOLOGY USCS	SOIL CLASS USCS	SOIL DESCRIPTION LOG	STRUCTURES ENCOUNTERED OR COMMENTS
1		0.0		FILL	0-1' - Concrete slab. 1-2' - Second concrete slab	
2						
3		0.0			2-3.5' - Brown; fine to medium sand, some fine to coarse gravel, some coal fragments, some ash; loose, dry. 3.5-4' - Cobbles and brick fragments.	
4						
5		0.0		ML	4-5' - Brown; silty fine sand, little fine to medium gravel, some orange mottling, little clay; compact, moist. Test pit terminated at 5.0 ft bgs.	
6						
7						
8						
9						
10						
11						
12						

Comments: bgs = below ground surface

Analysis:

AECOM Environment

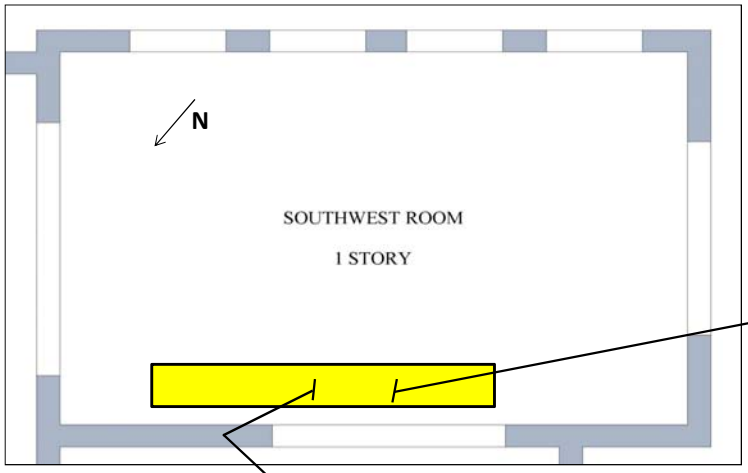
40 British American Blvd.
Latham New York 12110

Test Pit Log

SW-TP-1

PROJECT NO:	**60284725**	**TEST PIT DESIGNATION: SW-TP-1**	**SURFACE ELEVATION:**
CLIENT:	**NYSEG**	**SITE LOCATION OR AREA: Southwest Room**	**START DATE: 5/30/17**
SITE NAME:	**Penn Yan Former MGP Site**	**EQUIPMENT USED: Track-mounted Excavator**	**FINISH DATE: 5/30/17**
GEOLOGIST:	**Keith Stahle**	**OPERATOR: Sevenson**	**START TIME: 1000**
DEPTH WATER ENCOUNTERED:		**TOTAL DEPTH: 5.0 ft**	**FINISH TIME: 1600**

(Plan view - Southwest Room - Penn Yan Former MGP Site)



(View facing east)

(View facing west)

Test Pit Log

SW-TP-2

PROJECT NO: 60284725	**TEST PIT DESIGNATION:** SW-TP-2	**SURFACE ELEVATION:**
CLIENT: NYSEG	**SITE LOCATION OR AREA:** Southwest Room	**START DATE:** 5/31/17
SITE NAME: Penn Yan Former MGP Site	**EQUIPMENT USED:** Track-mounted Excavator	**FINISH DATE:** 5/31/17
GEOLOGIST: Keith Stahle	**OPERATOR:** Sevenson	**START TIME:** 800
DEPTH WATER ENCOUNTERED:	**TOTAL DEPTH:** 4.5 ft	**FINISH TIME:** 1000

DEPTH (FEET)	SAMPLE DEPTH (FEET)	PID HEADSPACE (PPM)	SOIL LITHOLOGY USCS	SOIL CLASS USCS	SOIL DESCRIPTION LOG	STRUCTURES ENCOUNTERED OR COMMENTS
1		0.0		FILL	0-1.5' - Concrete slab. 1.5-3' - Brown; fine to medium sand, some gravel, ash and brick fragments.	
2						
3		0.0			3-4' - Cobbles up to 1 ft diameter.	
4		0.0		ML	4-4.5' - Brown; silty fine sand, some clay, some fine to medium gravel, little orange mottling; compact, moist. Test pit terminated at 4.5 ft bgs.	
5						
6						
7						
8						
9						
10						
11						
12						

Comments: bgs = below ground surface

Analysis:

AECOM Environment

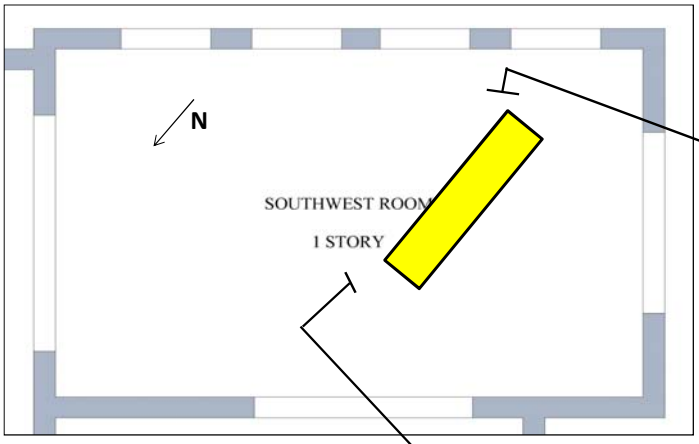
40 British American Blvd.
Latham New York 12110

Test Pit Log

SW-TP-2

PROJECT NO:	**60284725**	**TEST PIT DESIGNATION: SW-TP-2**	**SURFACE ELEVATION:**
CLIENT:	**NYSEG**	**SITE LOCATION OR AREA: Southwest Room**	**START DATE: 5/31/17**
SITE NAME:	**Penn Yan Former MGP Site**	**EQUIPMENT USED: Track-mounted Excavator**	**FINISH DATE: 5/31/17**
GEOLOGIST:	**Keith Stahle**	**OPERATOR: Sevenson**	**START TIME: 800**
DEPTH WATER ENCOUNTERED:		**TOTAL DEPTH: 4.5 ft**	**FINISH TIME: 1000**

(Plan view - Southwest Room - Penn Yan Former MGP Site)



(View facing north)

(View facing west)

Test Pit Log

TOW-TP-1

PROJECT NO: 60284725	**TEST PIT DESIGNATION:** TOW-TP-1	**SURFACE ELEVATION:**
CLIENT: NYSEG	**SITE LOCATION OR AREA:** Tower	**START DATE:** 5/31/17
SITE NAME: Penn Yan Former MGP Site	**EQUIPMENT USED:** Track-mounted Excavator	**FINISH DATE:** 5/31/17
GEOLOGIST: Keith Stahle	**OPERATOR:** Sevenson	**START TIME:** 1100
DEPTH WATER ENCOUNTERED:	**TOTAL DEPTH:** 5.0 ft	**FINISH TIME:** 1300

DEPTH (FEET)	SAMPLE DEPTH (FEET)	PID HEADSPACE (PPM)	SOIL LITHOLOGY USCS	SOIL CLASS USCS	SOIL DESCRIPTION LOG	STRUCTURES ENCOUNTERED OR COMMENTS
1		1.2		FILL	0-4.5' - Brown; sand, gravel, clay and wood fragments; loose, moist.	Two valve on two north to south trending pipes identified at 16-inches bgs. The pipes are 3 ft apart.
2						
3						Pipe identified at 32-inches bgs. This pipe connects the tow pipes with valves. There is a 10-inch diameter opening in the center of the east to west trending pipe.
4						
5		0.1		ML	4.5-5' - Brown; silty clay, trace fine gravel; compact, moist. Test pit terminated at 5 ft bgs.	
6						
7						
8						
9						
10						
11						
12						

Comments: bgs = below ground surface

Analysis:

AECOM Environment

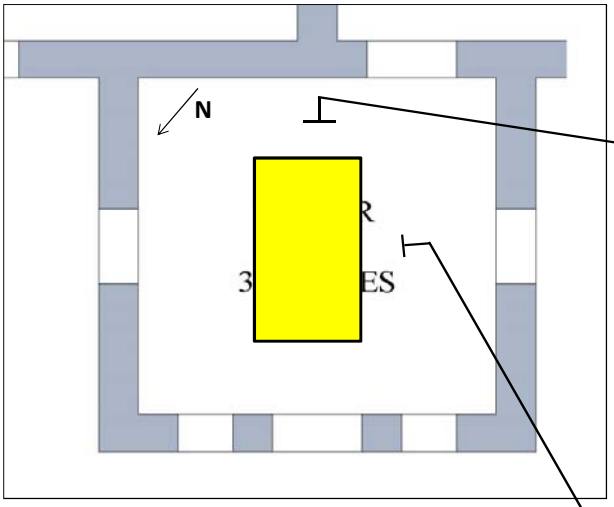
40 British American Blvd.
Latham New York 12110

Test Pit Log

TOW-TP-1

PROJECT NO:	**60284725**	**TEST PIT DESIGNATION: TOW-TP-1**	**SURFACE ELEVATION:**
CLIENT:	**NYSEG**	**SITE LOCATION OR AREA: Tower**	**START DATE: 5/31/17**
SITE NAME:	**Penn Yan Former MGP Site**	**EQUIPMENT USED: Track-mounted Excavator**	**FINISH DATE: 5/31/17**
GEOLOGIST:	**Keith Stahle**	**OPERATOR: Sevenson**	**START TIME: 1100**
DEPTH WATER ENCOUNTERED:		**TOTAL DEPTH: 5.0 ft**	**FINISH TIME: 1300**

(Plan view - Tower - Penn Yan Former MGP Site)



(View facing north)

(View facing east)

Inorganics and General Chemistry Results Table
Penn Yan Former MGP
Building and Bank Investigation

Location ID Sample Date Sample ID Sample Location	NYSDEC Part 375-6 Restricted-Res	Seneca Meadows TCLP Waste Criteria	Seneca Meadows Waste Acceptance Criteria	PWBOWS04076 5/4/2017 480-117648-1 Bank Area	PWBOWS08077 5/4/2017 480-117648-2 Bank Area	PWBOWS12078 5/4/2017 480-117648-2 Bank Area	PWTPWS04082 5/18/2017 480-118233-1 NW Room Test Pit - NE Side	PWTPWS04083 5/18/2017 480-118233-2 NW Room Test Pit - SW Side
Metals-TCLP (mg/L)								
Arsenic	NL	5	NL	ND	ND	ND	ND	ND
Barium	NL	100	NL	0.60 U	0.61 U	0.37 U	0.40 U	0.14 U
Cadmium	NL	1	NL	0.00095 U	0.0010 U	0.0011 U	0.0012 U	0.0017 U
Chromium	NL	5	NL	ND	ND	ND	ND	ND
Lead	NL	5	NL	0.013 U	**0.23**	0.0061 UB	**0.029**	**0.051**
Mercury	NL	0.2	NL	ND	ND	ND	ND	ND
Selenium	NL	1	NL	ND	ND	ND	ND	ND
Silver	NL	5	NL	ND	ND	ND	ND	ND
Cyanide (mg/Kg)								
Total Cyanide	27	NL	NL				**3.9**	**32.6**
PCBs (ug/kg)								
Aroclor 1016	NL	NL	NL	ND	ND	ND	ND	ND
Aroclor 1221	NL	NL	NL	ND	ND	ND	ND	ND
Aroclor 1232	NL	NL	NL	ND	ND	ND	ND	ND
Aroclor 1242	NL	NL	NL	ND	ND	ND	ND	ND
Aroclor 1248	NL	NL	NL	ND	ND	ND	ND	ND
Aroclor 1254	NL	NL	NL	ND	ND	ND	ND	ND
Aroclor 1260	NL	NL	NL	ND	ND	ND	ND	ND
Total PCB	1000	NL	50000	ND	ND	ND	ND	ND
Pesticides-TCLP (ug/L)								
Chlordane	NL	30	NL	ND	ND	ND	ND	ND
Endrin	NL	20	NL	ND	ND	ND	ND	ND
Gamma BHC - Lindane	NL	400	NL	ND	0.00038 U	ND	ND	ND
Heptachlor	NL	8	NL	ND	ND	ND	ND	ND
Heptachlor Epoxide	NL	NL	NL	ND	ND	ND	ND	ND
Methoxychlor	NL	10000	NL	ND	ND	ND	ND	ND
Toxaphene	NL	500	NL	ND	ND	ND	ND	ND
Herbicides-TCLP (ug/L)								
2,4-D	NL	10000	NL	ND	ND	ND	ND	ND
2,4,5-TP				ND	ND	ND	ND	ND
Reactivity (mg/Kg)								
Cyanide (Reactivity)	NL	NL	NL	ND	ND	ND	ND	ND
Sulfide (Reactivity)	NL	NL	NL	ND	60	ND	ND	**80.1**
Sulfate (mg/Kg)								
Sulfate	NL	NL	NL				532	967
Flashpoint (deg C)								
Flashpoint	NL	NL	>60	> 176.0	> 176.0	> 176.0	>176.0	>176.0
Free Liquid								
Free Liquid	NL	NL	None					
PH								
pH	NL	NL	2 - 12.5	9.8	7.4	8.3	8.1	7.4
Soilds								
Total Solids	NL	NL	+20%					
Diesel and Residual Range Organics (ug/kg)								
Gasoline Range Organics				**6.3**	**110**	**ND**	**57000**	ND
Diesel Range Organics (DRO) as C10-C28 Alkanes				**880**	**3800**	**37**	**270000**	**240000**
C28 - C40 ORO								

Notes:

NL = Not Listed

ND = Not Detected

U = Not detected above given laboratory reporting limit.

Bold = Detected above reporting limit.

Grey highlighted cells exceed the NYSDEC Part 375-6 Restricted Residential Use Level

Orange highlighted cells exceed the Seneca Meadows Landfill Waste Approval Analytical Screening Level

ug/kg = Micrograms per kilogram

ug/L = Micrograms per Liter

SVOC Results Table
Penn Yan Former MGP
Building and Bank Investigation

Location ID Sample Date Sample ID Sample Location	NYSDEC Part 375-6 Restricted-Res	Seneca Meadows TCLP Waste Criteria	Seneca Meadows Waste Acceptance Criteria	PWBOWS04076 5/4/2017 480-117648-1 Bank Area	PWBOWS08077 5/4/2017 480-117648-2 Bank Area	PWBOWS12078 5/4/2017 480-117648-2 Bank Area	PWTPWS04082 5/18/2017 480-118233-1 NW Room Test Pit - NE Side	PWTPWS04083 5/18/2017 480-118233-2 NW Room Test Pit - SW Side	PWTPWS04084 5/31/2017 480-118820-1 SW Room Test Pit	PWTPWS04085 5/31/2017 480-118820-2 SW Room Test Pit
PAH Compounds (ug/Kg)										
2-Methylnaphthalene	NL	NL	NL				**54000**	ND	ND	ND
Acenaphthene	100000	NL	NL				**12000**	ND	170 U	ND
Acenaphthylene	100000	NL	NL				**44000**	ND	**1000**	370 U
Anthracene	100000	NL	NL				**61000**	650 U	**2600**	830 U
Benzo(a)anthracene	1000	NL	NL				**40000**	**2400**	**7200**	**2900**
Benzo(a)pyrene	1000	NL	NL				**32000**	2000 U	**5800**	**2700**
Benzo(b)fluoranthene	1000	NL	NL				**35000**	**3200**	**7700**	**3300**
Benzo(ghi)perylene	100000	NL	NL				**18000**	**1600**	**3200**	1600 U
Benzo(k)fluoranthene	3900	NL	NL				**17000**	920 U	**2700**	1600 U
Chrysene	3900	NL	NL				**34000**	**2200**	**6100**	**2600**
Dibenzo(a,h)anthracene	330	NL	NL				ND	ND	ND	ND
Fluoranthene	100000	NL	NL				**120000**	**4200**	**14000**	**5800**
Fluorene	100000	NL	NL				**57000**	530 U	**1000**	ND
Indeno(1,2,3-cd)pyrene	500	NL	NL				**16000**	1500 U	**3100**	1500 U
Naphthalene	NL	NL	NL				**410000**	ND	340 U	ND
Phenanthrene	100000	NL	NL				**190000**	1900 U	**8700**	**2600**
Pyrene	100000	NL	NL				**76000**	**3400**	**13000**	**5200**
Total PAHs (ug/Kg)	NL	NL	NL				**1216000**	**17000**	**76100**	**25100**
Other SVOCs (ug/Kg)										
2,4,5-Trichlorophenol	NL	NL	8000000				ND	ND	ND	ND
2,4,6-Trichlorophenol	NL	NL	40000				ND	ND	ND	ND
2,4-Dichlorophenol	NL	NL	NL				ND	ND	ND	ND
2,4-Dimethylphenol	NL	NL	NL				ND	ND	ND	ND
2,4-Dinitrophenol	NL	NL	NL				ND	ND	ND	ND
2,4-Dinitrotoluene	NL	NL	2600				ND	ND	ND	ND
2,6-Dinitrotoluene	NL	NL	NL				ND	ND	ND	ND
2-Chloronaphthalene	NL	NL	NL				ND	ND	ND	ND
2-Chlorophenol	NL	NL	NL				ND	ND	ND	ND
2-Methylphenol	100000	NL	4000000				ND	ND	ND	ND
2-Nitroaniline	NL	NL	NL				ND	ND	ND	ND
2-Nitrophenol	NL	NL	NL				ND	ND	ND	ND
3&4-Methyl Phenol	100000	NL	4000000							
3,3'-Dichlorobenzidine	NL	NL	NL				ND	ND	ND	ND
3-Nitroaniline	NL	NL	NL				ND	ND	ND	ND
4,6-Dinitro-2-methylphenol	NL	NL	NL				ND	ND	ND	ND
4-Bromophenyl phenyl ether	NL	NL	NL				ND	ND	ND	ND
4-Chloro-3-methylphenol	NL	NL	NL				ND	ND	ND	ND
4-Chloroaniline	NL	NL	NL				ND	ND	ND	ND
4-Chlorophenyl phenyl ether	NL	NL	NL				ND	ND	ND	ND
4-Nitroaniline	NL	NL	NL				ND	ND	ND	ND
4-Nitrophenol	NL	NL	NL				ND	ND	ND	ND
bis(2-Chloroethoxy)methane	NL	NL	NL				ND	ND	ND	ND
bis(2-Chloroethyl) ether	NL	NL	NL				ND	ND	ND	ND
bis(2-Ethylhexyl) phthalate	NL	NL	NL				ND	ND	ND	ND
Butyl benzyl phthalate	NL	NL	NL				ND	ND	ND	ND
Carbazole	NL	NL	NL				**23000**	320 U	350 U	ND
Dibenzofuran	59000	NL	NL				**56000**	ND	590 U	ND
Diethyl phthalate	NL	NL	NL				ND	ND	ND	ND
Dimethyl phthalate	NL	NL	NL				ND	ND	ND	ND

SVOC Results Table
Penn Yan Former MGP
Building and Bank Investigation

Location ID Sample Date Sample ID Sample Location	NYSDEC Part 375-6 Restricted-Res	Seneca Meadows TCLP Waste Criteria	Seneca Meadows Waste Acceptance Criteria	PWBOWS04076 5/4/2017 480-117648-1 Bank Area	PWBOWS08077 5/4/2017 480-117648-2 Bank Area	PWBOWS12078 5/4/2017 480-117648-2 Bank Area	PWTPWS04082 5/18/2017 480-118233-1 NW Room Test Pit - NE Side	PWTPWS04083 5/18/2017 480-118233-2 NW Room Test Pit - SW Side	PWTPWS04084 5/31/2017 480-118820-1 SW Room Test Pit	PWTPWS04085 5/31/2017 480-118820-2 SW Room Test Pit
Di-n-butyl phthalate	NL	NL	NL				ND	ND	ND	ND
Di-n-octyl phthalate	NL	NL	NL				ND	ND	ND	ND
Hexachlorobenzene	1200	NL	2600				ND	ND	ND	ND
Hexachlorobutadiene	NL	NL	10000				ND	ND	ND	ND
Hexachlorocyclopentadiene	NL	NL	NL				ND	ND	ND	ND
Hexachloroethane	NL	NL	60000				ND	ND	ND	ND
Isophorone	NL	NL	NL				ND	ND	ND	ND
Nitrobenzene	100000	NL	40000				ND	ND	ND	ND
N-Nitrosodi-n-propylamine	NL	NL	NL				ND	ND	ND	ND
N-Nitrosodiphenylamine	NL	NL	NL				ND	ND	ND	ND
Pentachlorophenol	6700	NL	2000000				ND	ND	ND	ND
Phenol	100000	NL	NL				ND	ND	ND	ND
Total SVOCs (ug/Kg)	NL	NL	NL				**79000**	U	U	ND
SVOCs-TCLP (ug/L)										
1,4-Dichlorobenzene	NL	7500	NL	ND	ND	ND				
2,4,5-Trichlorophenol	NL	400000	NL	ND	ND	ND				
2,4,6-Trichlorophenol	NL	2000	NL	ND	ND	ND				
2,4-Dinitrotoluene	NL	130	NL	ND	ND	ND				
2-Methylphenol	NL	200	NL		ND					
3&4-Methyl Phenol	NL	200	NL		ND					
Hexachlorobenzene	NL	130	NL	ND	ND	ND				
Hexachlorobutadiene	NL	500	NL	ND	ND	ND				
Hexachloroethane	NL	3000	NL	ND	ND	ND				
mp-Cresol										
Nitrobenzene	NL	2000	NL	ND	ND	ND				
o-Cresol										
Pentachlorophenol	NL	100000	NL	ND	ND	ND				
Pyridine	NL	5000	NL	ND	ND	0.0022 U				

Notes:

NL = Not Listed

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Bold = Detected above reporting limit.

Grey highlighted cells exceed the NYSDEC Part 375-6 Restricted Residential Use Level

Orange highlighted cells exceed the Seneca Meadows Landfill Waste Approval Analytical Screening Level

ug/kg = Micrograms per kilogram

ug/L = Micrograms per Liter

VOC Results Table
Penn Yan Former MGP
Building and Bank Investigation

Location ID Sample Date Sample ID Sample Location	NYSDEC Part 375-6 Restricted-Res	Seneca Meadows TCLP Waste Criteria	Seneca Meadows Waste Acceptance Criteria	PWBOWS04076 5/4/2017 480-117648-1 Bank Area	PWBOWS08077 5/4/2017 480-117648-2 Bank Area	PWBOWS12078 5/4/2017 480-117648-2 Bank Area	PWTPWS04082 5/18/2017 480-118233-1 NW Room Test Pit - NE Side	PWTPWS04083 5/18/2017 480-118233-2 NW Room Test Pit - SW Side	PWTPWS04084 5/31/2017 480-118820-1 SW Room Test Pit	PWTPWS04085 5/31/2017 480-118820-2 SW Room Test Pit
BTEX Compounds (ug/Kg)										
Benzene	4800	NL	10000				ND	ND	ND	ND
Ethylbenzene	41000	NL	NL				**3400**	0.44 U	0.6 U	0.72 U
m&p-Xylene	NL	NL	NL				ND			
o-Xylene	NL	NL	NL				ND			
Toluene	100000	NL	NL				ND	0.66 U	ND	0.58 U
Xylenes (total)	100000	NL	NL				**31000**	1.0 U	5.6 U	6.0 U
Total BTEX (ug/Kg)	NL	NL	NL				**34400**	U	U	U
Other VOCs (ug/Kg)										
1,1,1-Trichloroethane	100000	NL	NL				ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	NL	NL	NL				ND	ND	ND	ND
1,1,2-Trichloroethane	NL	NL	NL				ND	ND	ND	ND
1,1-Dichloroethane	26000	NL	NL				ND	ND	ND	ND
1,1-Dichloroethene	100000	NL	14000				ND	ND	ND	ND
1,2-Dichloroethane	3100	NL	10000				ND	ND	ND	ND
1,2-Dichloropropane	NL	NL	NL				ND	ND	ND	ND
2-Butanone	100000	NL	4000000				ND	ND	ND	ND
2-Hexanone	NL	NL	NL				ND	ND	ND	ND
4-Methyl-2-pentanone	NL	NL	NL				ND	ND	ND	ND
Acetone	100000	NL	NL				ND	5.2 U	ND	**52**
Bromodichloromethane	NL	NL	NL				ND	ND	ND	ND
Bromoform	NL	NL	NL				ND	ND	ND	ND
Bromomethane	NL	NL	NL				ND	ND	ND	ND
Carbon disulfide	NL	NL	NL				ND	3.4 U	ND	ND
Carbon tetrachloride	2400	NL	10000				ND	ND	ND	ND
Chlorobenzene	100000	NL	2000000				ND	ND	ND	ND
Chloroethane	NL	NL	NL				ND	ND	ND	ND
Chloroform	49000	NL	120000				ND	0.47 U	ND	ND
Chloromethane	NL	NL	NL				ND	ND	ND	ND
cis-1,2-Dichloroethene	100000	NL	NL				ND	ND	ND	ND
cis-1,3-Dichloropropene	NL	NL	NL				ND	ND	ND	ND
Dibromochloromethane	NL	NL	NL				ND	ND	ND	ND
Styrene	NL	NL	NL				ND	ND	ND	ND
Tetrachloroethene	19000	NL	14000				ND	ND	ND	ND
trans-1,2-Dichloroethene	100000	NL	NL				ND	ND	ND	ND
trans-1,3-Dichloropropene	NL	NL	NL				ND	ND	ND	ND
Trichloroethene	21000	NL	10000				ND	ND	ND	ND
Vinyl chloride	900	NL	4000				ND	ND	ND	ND
Total VOCs	NL	NL	NL				**34400**	U	ND	**52**

VOC Results Table
Penn Yan Former MGP
Building and Bank Investigation

Location ID Sample Date Sample ID Sample Location	NYSDEC Part 375-6 Restricted-Res	Seneca Meadows TCLP Waste Criteria	Seneca Meadows Waste Acceptance Criteria	PWBOWS04076 5/4/2017 480-117648-1 Bank Area	PWBOWS08077 5/4/2017 480-117648-2 Bank Area	PWBOWS12078 5/4/2017 480-117648-2 Bank Area	PWTPWS04082 5/18/2017 480-118233-1 NW Room Test Pit - NE Side	PWTPWS04083 5/18/2017 480-118233-2 NW Room Test Pit - SW Side	PWTPWS04084 5/31/2017 480-118820-1 SW Room Test Pit	PWTPWS04085 5/31/2017 480-118820-2 SW Room Test Pit
VOCs-TCLP (ug/L)										
1,1-Dichloroethene	NL	700	NL	ND	ND	ND	ND	ND		
1,2-Dichloroethane	NL	500	NL	ND	ND	ND	ND	ND		
2-Butanone (MEK)	NL	200000	NL	ND	ND	ND	ND	ND		
Benzene	NL	500	NL	ND	**0.13**	ND	**0.012**	ND		
Carbon tetrachloride	NL	500	NL	ND	ND		ND	ND		
Chlorobenzene	NL	100000	NL	ND	ND		ND	ND		
Chloroform	NL	6000	NL	ND	ND	ND	ND	ND		
Tetrachloroethene	NL	700	NL	ND	ND	ND	ND	ND		
Trichloroethene	NL	500	NL	ND	ND	ND	ND	ND		
Vinyl chloride	NL	200	NL	ND	ND	ND	ND	ND		

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Total VOCs includes all of the BTEX and other VOC compounds.

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