

December 22, 2011  
Empire Project No. BD-11-151

South Buffalo Charter School  
c/o Cannon Construction Services  
2170 Whitehaven Road  
Grand Island, New York 14072

Phone: 716-774-5961  
Fax: 716-773-1394

Attention: Andy Schuler  
[aschuler@cannondesign.com](mailto:aschuler@cannondesign.com)

Reference: Report of Environmental Test Pit Investigation  
Proposed Charter School  
154 South Ogden Street  
Buffalo, New York

Dear Andy,

As requested and authorized, Empire Geo-Services, Inc. (Empire) completed an environmental test pit investigation at the referenced site on November 30 - December 2, 2011. Our work was completed in accordance with our proposal PBD-11-198, dated November 9, 2011.

### Background

Empire's affiliate, SJB Services, Inc. (SJB), completed a geotechnical subsurface investigation during October 2011 for the proposed charter school to be located at 154 South Ogden Street in Buffalo, New York. The investigation included the advancement of six test borings using hollow stem augers with standard split-spoon soil sampling.

Findings of this investigation indicated the presence of six to 23.5 feet of miscellaneous fill materials in the subsurface. A slight petroleum-like odor was also noted by the driller at test boring location B-5 at a depth of approximately 15 to 17 feet below grade. Some of the fill materials appeared to have an industrial origin.

Based on these findings, Empire completed an environmental investigation on October 27 and 28, 2011 including 10 test borings advanced to depths of 10 to 26 feet below ground surface using hollow stem augers with continuous split-spoon sampling in two-foot intervals.



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#### ROCHESTER OFFICE

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Soils recovered from test borings B-7 and B-8 exhibited slightly elevated PID measurements of 2.1 to 35 parts per million. Petroleum-like odors were noted on soil samples collected at boring locations B-7 and B-8 from depths of 10 to 18 feet. Industrial fill materials were noted in borings B-7 and B-8 and asphalt and concrete fragments were encountered at B-14 and B-16. Two samples of the fill materials were submitted for chemical analysis. One of the samples was collected at B-8 at a depth of 16 to 18 feet, based on petroleum odors and PID readings. The other sample was composited from B-12 (4 to 8 feet) and B-13 (8 to 12 feet) where industrial fill materials were encountered. The selected soil samples were analyzed for Target Compound List (TCL) and New York State Department of Environmental Conservation Spill Technology and Remediation Series (STARS) listed volatile organic compounds (VOCs) compounds utilizing EPA Method 8260B, TCL semi-volatile organic compounds (SVOCs) per EPA Method 8270C, Target Analyte List (TAL) metals, and polychlorinated biphenyls (PCBs) utilizing EPA Method 8082A.

The lab data indicated that concentrations of arsenic, copper and lead were detected in the composite sample from borings B-12 and B-13 above their respective 6NYCRR Part 375 SCOs for residential and restricted residential site use. The detection of barium in sample B-12/ B-13 exceeded the residential SCO but was below the restricted residential SCOs. The remaining detections did not exceed their respective SCOs for either sample.

### **Subsurface Investigation**

Based on these results, Empire completed a supplemental environmental investigation on November 30 through December 2, 2011 including the excavation of 22 test pits designated TP-1 through TP-22. The test pits were excavated to depths of 3.6 to 13.6 feet using a rubber-tire backhoe. The test pits were terminated when native soils were encountered. At some of the test pit locations, the backhoe could not excavate to the top of the native soil interface due to cave-in of the fill materials and reaching the practical excavation depth limit of the backhoe. At each location, the on-site geologist visually classified the subsurface soils, screened the soils with a photoionization detector (PID) for the presence of volatile organic compounds (VOCs), and prepared test pit logs including the soil types encountered, indications of potential contamination, and other pertinent observations and information. The test pit locations are illustrated on the attached site plan and test pit logs are attached.

### **Subsurface Conditions**

Subsurface conditions encountered at 21 of the 22 test pit locations included 2.5 feet to more than 13 feet of miscellaneous fill materials containing sand, gravel, silt, clay, cobble to boulder-size concrete fragments, asphalt fragments, and bricks, with occasional occurrences of fly ash, white ash, glass, metal pipes, plastic pipes, rebar, and tree stumps. No miscellaneous fill was encountered at location TP-5. Beneath the fill, native soils typically consisted of silty sands.

Most of the miscellaneous fill materials appeared to consist of construction & demolition (C&D) debris. Fill materials of a more industrial origin were apparently encountered at two of the test pit locations. A seam of a fine black material that appeared to be fly ash was encountered at depths of six to 10 feet at test pit location TP-3. A black sandy material with a "sweet" chemical odor was encountered at depths of approximately 5'-13.2' at location TP-13, 9'-12' at location TP-15, and 7'-12.6' at location TP-17. The dashed line on the attached site plan indicates a rough approximation of the extent of this material.

## **Environmental Screening**

Recovered soil samples were screened for volatile organic compounds (VOCs) using an Ion Science PhoCheck 1000 Photoionization Detector (PID) equipped with a 10.6 eV lamp. The PID will detect, if present, the aggregate concentration of many VOCs at a practical threshold of approximately 1-2 parts per million (ppm). The soils were also inspected for evidence of environmental degradation (i.e. discoloration, staining, odors, etc.).

Generally, elevated PID measurements were not encountered on subsurface materials excavated from the test pits. However, soils excavated from depths of approximately five to seven feet at location TP-14 exhibited slightly elevated PID measurements of 2.2 to 6.2 parts per million (ppm). As discussed above, a “sweet” chemical odor was noted on fill materials excavated from depths of approximately 5'-13.2' at location TP-13, 9'-12' at location TP-15, and 7'-12.6' at location TP-17. PID readings and noted observations are included on the attached test pit logs.

## **Soil Sampling**

Empire's on-site geologist collected two samples of the industrial fill materials for chemical analysis. One sample of the apparent fly ash material was collected from test pit TP-3 and a sample of the black sandy material with a “sweet” chemical odor was collected from test pit TP-13. The samples were placed into pre-cleaned glass sampling containers, labeled with the date, time and location of the project and placed in an iced cooler at approximately 4-degrees Celsius for transport to Paradigm Environmental Services, Inc. (Paradigm) in Rochester, New York. Paradigm is a New York State ELAP certified environmental laboratory. Chain-of-custody documentation accompanied the samples.

## **Analytical Results**

The two samples were analyzed for Target Compound List (TCL) volatile organic compounds (VOCs) compounds utilizing EPA Method 8260B, TCL semi-volatile organic compounds (SVOCs) plus aniline per EPA Method 8270C, and Target Analyte List (TAL) metals. The two samples were also analyzed for the following waste characterization parameters: Toxicity Characteristic Leaching Procedure (TCLP) VOCs, TCLP SVOCs plus aniline, TCLP metals, ignitability, corrosivity, and reactivity. Paradigm's analytical report is attached.

The lab detections that exceeded one or more 6NYCRR Part 375 Soil Cleanup Objectives (SCOs) are summarized in the following table. Additional detected analytes can be found in Paradigm's lab report.

The waste characterization lab data indicated that the industrial materials encountered in test pits TP-3 and TP-13 would be classified as non-hazardous waste.

**154 South Ogden Street Site  
Summary of Laboratory Detections  
Exceeding One or More Part 375 Soil Cleanup Objectives  
(All concentrations in mg/kg or ppm)**

Element or Compound	TP-3	TP-13	SCOs Unrestr.	SCOs Resident.	SCOs Restrict. Resident.	SCOs Comm.	SCOs Indus.
<b>SVOCs</b>							
Anthracene		102 RR	100	100	100	500	1000
Benzo(a)anthracene		130 ALL	1	1	1	5.6	11
Benzo(a)pyrene		80.7 ALL	1	1	1	1	1.1
Benzo(b)fluoranthene		81 ALL	1	1	1	5.6	11
Benzo(k)fluoranthene		73.5 C	0.8	1	3.9	56	110
Chrysene		125 ALL	1	1	3.9	56	110
Fluoranthene		356 RR	100	100	100	500	1000
Fluorene		61.3 U	30	100	100	500	1000
Napthalene		67.3 U	12	100	100	500	1000
Phenanthrene		450 RR	100	100	100	500	1000
Pyrene		250 RR	100	100	100	500	1000
1,2-Dichlorobenzene		310 RR	1.1	100	100	500	1000
<b>VOCs</b>							
Acetone	0.488 U		0.05	100	100	500	1000
2-Butanone	0.065		NS	NS	NS	NS	NS
Chlorobenzene		115 RR	1.1	100	100	500	1000
1,2-Dichlorobenzene		99.5 U	1.1	100	100	500	1000
1,4-Dichlorobenzene		16.1 RR	1.8	9.8	13	130	250
Napthalene		13.9 U	12	100	100	500	1000
<b>METALS</b>							
arsenic		88.4 ALL	13	16	16	16	16
cadmium		48.7 C	2.5	2.5	4.3	9.3	60
chromium		701 RR	30	36	180	1500	6800
copper		847 C	50	270	270	270	10000
lead	237 U	3990 ALL	63	400	400	1000	3900
mercury	1.0 RR		0.18	0.81	0.81	2.8	5.7
nickel		180 R	30	140	310	310	10000
zinc	355 U	6020 R	109	2,200	10000	10000	10000

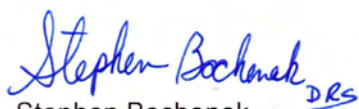
- U – Exceeds Unrestricted SCO
- R – Exceeds Residential SCO
- RR – Exceeds Restricted Residential SCO
- C – Exceeds Commercial SCO
- ALL – Exceeds Industrial SCO (and therefore all SCOs)
- NS - No standard given

As indicated in the table above, detected concentrations of a few VOCs, several SVOCs, and several metals exceeded one or more Part 375 SCOs for the sample collected from test pit TP-13. Also, the detected concentrations of four SVOCs and two metals exceeded the SCOs for all Part 375 site use types.

This report has been prepared for the exclusive use of South Buffalo Charter School c/o Cannon Construction Services for the specific application to the subject site in accordance with generally accepted environmental practices. If you have any questions or if we can provide further assistance, please contact our office at (716) 649-8110.

Respectfully submitted,

**EMPIRE GEO SERVICES, INC.**



Stephen Bochenek  
Engineering Geologist



David R. Steiner, PG  
Senior Engineering Geologist  
Environmental Services Manager

Attachments:


Site Plan






Test Pit Logs

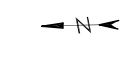
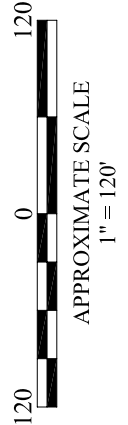
Paradigm Lab Report





		PROPOSED CHARTER SCHOOL 154 SOUTH OGDEN STREET BUFFALO, NEW YORK	
SUBSURFACE INVESTIGATION		DR BY: WMA	SCALE: AS SHOWN
		CHKD BY: SB	PROJ NO.: BD-11-151
		DATE: 11/11/11	FIGURE NO.: 1

- LEGEND:**
- B-1  INDICATES APPROXIMATE LOCATION AND DESIGNATION OF TEST BORING.
  - B.M.  INDICATES APPROXIMATE BENCHMARK LOCATION- TOP VALVE NUT OF HYDRANT. ASSIGNED ARBITRARY ELEVATION = 100.00 FEET.
  - TP-1  INDICATES APPROXIMATE LOCATION AND DESIGNATION OF TEST PIT.
  - 12.2'  INDICATES DEPTH OF MISCELLANEOUS FILL
  -  INDICATES APPROXIMATE EXTENT OF FILL WITH "SWEET" CHEMICAL ODOR





## TEST PIT FIELD LOG

Western New York Office  
 5167 South Park Avenue  
 Hamburg, NY 14075  
 Phone: (716) 649-8110  
 Fax: (716) 649-8051

PROJECT	PROPOSED CHARTER SCHOOL	DATE	30-Nov-11
CLIENT	CANNON CONSTRUCTION	LOCATION	154 SOUTH OGDEN STREET
CONTRACTOR	SJB SERVICES	TEST PIT NO.	TP-1
FIELD REP	S. BOCHENEK	PROJECT NO.	BD-11-151
EXCAVATION EQUIP	NEW HOLLAND BACK HOE	WEATHER / TEMP	CLOUDY, LIGHT RAIN, 30s
GROUND ELEV		OPERATOR	A. KOSKE
TIME STARTED	0840	MAKE/ MODEL	FORD 550
TIME FINISHED	1008	CAPACITY	0.3 <span style="float: right;">CY</span>
		REACH	18.5 <span style="float: right;">FT</span>

DEPTH	SOIL DESCRIPTION	PID READING	EXCAV EFFORT
1'	Brown Silty CLAY, tr.sand, tr.roots, tr.brick (moist, FILL)	BG	E
2'	Grey Brown f-c GRAVEL, some f-c Sand, some Clayey SILT, little Brick, tr.slag, tr.cobble size Concrete (moist, FILL)	BG	D
3'		BG	D
4'	Grey to White boulder size CONCRETE, little cobble size Cutstone, tr.gravel, tr.sand, tr.silty clay (moist, FILL)	BG	D
5'		BG	D
6'		BG	D
7'	Grey f-c GRAVEL, some f-c Sand, little Clayey Silt, tr.brick (moist, FILL)	BG	D
8'		BG	M
9'	Black SILT and Wood, little Brick, tr.metal (moist-wet, FILL) possible highly weathered wood	BG	M
10'		BG	M
11'	Grades to Brown	BG	M
12'		BG	M
13'	<b>Test Pit Complete at 12.0'</b>		
14'	<b>Unable to Excavate Deeper - Beyond Reach of Backhoe</b>		

<b>Remarks:</b> PID - Photoionization Dector, measure in parts per million (ppm) <b>BG = Background (&lt;1ppm)</b> Test Pit widened to to large pieces of concrete Water seeps present in concrete	<b>ABBREVIATIONS</b> F - FINE                      F/M - FINE TO MEDIUM C - COARSE                F/C-FINE/COARSE GR - GRAY                 M - MEDIUM BN - BROWN               V-VERY YEL-YELLOW	<b>PROP USED</b> TRACE (TR.)    0-10% LITTLE (LI.)    10 - 20% SOME (SO.)    20 -35% AND              35 - 50%
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PROJECT	PROPOSED CHARTER SCHOOL	DATE	30-Nov-11
CLIENT	CANNON CONSTRUCTION	LOCATION	154 SOUTH OGDEN STREET
CONTRACTOR	SJB SERVICES	TEST PIT NO.	TP-4
FIELD REP	S. BOCHENEK	PROJECT NO.	BD-11-151
EXCAVATION EQUIP	NEW HOLLAND BACK HOE	WEATHER / TEMP	CLOUDY, LIGHT RAIN, 30s
GROUND ELEV		OPERATOR	A. KOSKE
TIME STARTED	1230	MAKE/ MODEL	FORD 550
TIME FINISHED	1345	CAPACITY	0.3 <span style="float: right;">CY</span>
		REACH	18.5 <span style="float: right;">FT</span>

DEPTH	SOIL DESCRIPTION	PID READING	EXCAV EFFORT
1'	Brown Clayey SILT, little f-c Gravel, little f-c Sand, tr.brick (moist, FILL) Excavate boulder size Concrete at 1.5'	BG	
2'	Excavate boulder size Asphalt at 2.2'	BG	
3'		BG	
4'	Tan mottled Grey Clayey SILT, tr.brick (moist, FILL) Excavate boulder size Asphalt at 4.8'	BG	
5'		BG	
6'	<u>Large Metal Observed at 5.6' - unable to remove</u> Brown Grades to Dark Grey f-c SAND, little f-c Gravel, little Silt, some brick, little wood, tr.asphalt, tr.glass, tr.metal (moist, FILL)	BG	
7'	Contains occasional tr.brick Excavate 1" Metal Pipe at 6.2'	BG	
8'	Contains tr.boulder size Concrete at 6.4'	BG	
9'		BG	
10'	Grey Clayey SILT, little f-c Sand, tr.gavel, tr.wood, tr.brick, tr.glass (moist, FILL)	BG	
11'		BG	
12'	Grey SILT, little Fine SAND, tr.clay (moist-wet, ML) Grey Fine SAND, some Silt, occasional Silty Clay laminations	BG	
13'	(moist, SM)		
14'	Test Pit Complete at 13.0'		

<b>Remarks:</b> PID - Photoionization Dector, measure in parts per million (ppm) <b>BG = Background (&lt;1ppm)</b> Extend Test Pit, Due to Test Pit Collapsing after 6.0' Water seeps observed at 3.2'	<b>ABBREVIATIONS</b> F - FINE                      F/M - FINE TO MEDIUM C - COARSE                F/C-FINE/COARSE GR - GRAY                 M - MEDIUM BN - BROWN               V-VERY YEL-YELLOW	<b>PROP USED</b> TRACE (TR.)    0-10% LITTLE (LI.)    10 - 20% SOME (SO.)     20 -35% AND                35 - 50%
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PROJECT	PROPOSED CHARTER SCHOOL	DATE	30-Nov-11
CLIENT	CANNON CONSTRUCTION	LOCATION	154 SOUTH OGDEN STREET
CONTRACTOR	SJB SERVICES	TEST PIT NO.	TP-5
FIELD REP	S. BOCHENEK	PROJECT NO.	BD-11-151
EXCAVATION EQUIP	NEW HOLLAND BACK HOE	WEATHER / TEMP	CLOUDY, LIGHT RAIN, 30s
GROUND ELEV		OPERATOR	A. KOSKE
TIME STARTED	1350	MAKE/ MODEL	FORD 550
TIME FINISHED	1405	CAPACITY	0.3 <span style="float: right;">CY</span>
		REACH	18.5 <span style="float: right;">FT</span>

DEPTH	SOIL DESCRIPTION	PID READING	EXCAV EFFORT
1'	Dark Brown Fine SAND, some Silt, tr.clay, tr.roots (moist, Topsoil)	BG	E
2'	Tan Fine SAND, some Silt (moist, SM)	BG	E
3'		BG	E
4'	Test Pit Complete at 3.6'	BG	E
5'			
6'			
7'			
8'			
9'			
10'			
11'			
12'			
13'			
14'			

<b>Remarks:</b> PID - Photoionization Dector, measure in parts per million (ppm) BG = Background (<1ppm)	<b>ABBREVIATIONS</b> F - FINE            F/M - FINE TO MEDIUM C - COARSE        F/C-FINE/COARSE GR - GRAY         M - MEDIUM BN - BROWN        V-VERY YEL-YELLOW	<b>PROP USED</b> TRACE (TR.)    0-10% LITTLE (LI.)    10 - 20% SOME (SO.)     20 -35% AND              35 - 50%
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## TEST PIT FIELD LOG

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PROJECT	PROPOSED CHARTER SCHOOL	DATE	30-Nov-11
CLIENT	CANNON CONSTRUCTION	LOCATION	154 SOUTH OGDEN STREET
CONTRACTOR	SJB SERVICES	TEST PIT NO.	TP-6
FIELD REP	S. BOCHENEK	PROJECT NO.	BD-11-151
EXCAVATION EQUIP	NEW HOLLAND BACK HOE	WEATHER / TEMP	CLOUDY, LIGHT RAIN, 30s
GROUND ELEV		OPERATOR	A. KOSKE
TIME STARTED	1441	MAKE/ MODEL	FORD 550
TIME FINISHED	1549	CAPACITY	0.3 CY
		REACH	18.5 FT

DEPTH	SOIL DESCRIPTION	PID READING	EXCAV EFFORT
1'	Brown to Grey Brown Clayey SILT, some f-c Sand, tr.roots (moist, FILL)	BG	E
2'	Contains tr.boulder size Concrete	BG	E
3'		BG	E
4'	Red BRICK, little f-c Sand, little wood, little Metal, tr.boulder size Concrete (moist, FILL)	BG	M
5'	Contains some f-c Sand, little f-c Gravel, little Clayey SILT, tr.tires	BG	M
6'	Excavated tree stump at 6.0'	BG	M
7'	Contains little tree trunks	BG	M
8'		BG	M
9'		BG	M
10'	Brown to Grey f-c SAND, little f-c Gravel, little Clayey Silt, tr.brick, tr.glass, tr.metal (moist-wet, FILL)	BG	M
11'		BG	M
12'	Grey f-m SAND, little f-c Gravel, little Silt (wet, SP-SM)	BG	M
13'	Test Pit Complete at 11.8' Unable to Excavate Deeper - Beyond Reach of Backhoe		
14'			

<b>Remarks:</b> PID - Photoionization Dector, measure in parts per million (ppm) <b>BG = Background (&lt;1ppm)</b> Test Pit collasping after 6.0' --- Free standing water excavated at 11.4' . Voids observed in the FILL from approximately 6' - 9'	<b>ABBREVIATIONS</b> F - FINE                      F/M - FINE TO MEDIUM C - COARSE                F/C-FINE/COARSE GR - GRAY                 M - MEDIUM BN - BROWN               V-VERY YEL-YELLOW	<b>PROP USED</b> TRACE (TR.)    0-10% LITTLE (LI.)    10 - 20% SOME (SO.)    20 -35% AND                35 - 50%
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PROJECT	PROPOSED CHARTER SCHOOL	DATE	1-Dec-11
CLIENT	CANNON CONSTRUCTION	LOCATION	154 SOUTH OGDEN STREET
CONTRACTOR	SJB SERVICES	TEST PIT NO.	TP-7
FIELD REP	S. BOCHENEK	PROJECT NO.	BD-11-151
EXCAVATION EQUIP	NEW HOLLAND BACK HOE	WEATHER / TEMP	SUNNY, COLD
GROUND ELEV		OPERATOR	A. KOSKE
TIME STARTED	0827	MAKE/ MODEL	FORD 550
TIME FINISHED	0850	CAPACITY	0.3 CY
		REACH	18.5 FT

DEPTH	SOIL DESCRIPTION	PID READING	EXCAV EFFORT
1'	Brown Clayey SILT, little f-c Sand, little f-c Gravel, some Brick, tr.boulder size Cutstone, tr.wood (moist, FILL)	BG	E
2'	Excavated 3/4" Rebar at 2.0'	BG	E
3'	Excavated 2" Plastic Pipe, contains tr.metal	BG	M
4'		BG	M
5'	Tan Fine SAND, some Silt (moist, SM)	BG	M
6'	Test Pit Complete at 6.0'		
7'			
8'			
9'			
10'			
11'			
12'			
13'			
14'			

<b>Remarks:</b> <b>PID - Photoionization Dector, measure in parts per million (ppm)</b> <b>Test Pit Collapses</b> <b>BG = Background (&lt;1ppm)</b>	<b>ABBREVIATIONS</b> F - FINE            F/M - FINE TO MEDIUM C - COARSE        F/C-FINE/COARSE GR - GRAY         M - MEDIUM BN - BROWN        V-VERY YEL-YELLOW	<b>PROP USED</b> TRACE (TR.)    0-10% LITTLE (LI.)    10 - 20% SOME (SO.)     20 -35% AND                35 - 50%
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PROJECT	PROPOSED CHARTER SCHOOL	DATE	1-Dec-11
CLIENT	CANNON CONSTRUCTION	LOCATION	154 SOUTH OGDEN STREET
CONTRACTOR	SJB SERVICES	TEST PIT NO.	TP-8
FIELD REP	S. BOCHENEK	PROJECT NO.	BD-11-151
EXCAVATION EQUIP	NEW HOLLAND BACK HOE	WEATHER / TEMP	SUNNY, COLD
GROUND ELEV		OPERATOR	A. KOSKE
TIME STARTED	0855	MAKE/ MODEL	FORD 550
TIME FINISHED	0915	CAPACITY	0.3 CY
		REACH	18.5 FT

DEPTH	SOIL DESCRIPTION	PID READING	EXCAV EFFORT
1'	Grey f-c GRAVEL, some f-c Sand, little Clayey Silt (moist, FILL)	BG	E
2'	Brown f-c SAND, little f-c Gravel, little Silt, some Brick, tr.cinder blocks, tr.wood (moist, FILL)	BG	E
3'	Excavated 2" Steel Pipe at 2.5'	BG	E
4'		BG	E
5'	Tan Fine SAND, some Silt (moist, SM)	BG	E
6'	Test Pit Complete at 5.0		
7'			
8'			
9'			
10'			
11'			
12'			
13'			
14'			

<b>Remarks:</b> PID - Photoionization Dector, measure in parts per million (ppm) <b>BG = Background (&lt;1ppm)</b> Gravel layer varies in thickness	<b>ABBREVIATIONS</b> F - FINE                      F/M - FINE TO MEDIUM C - COARSE                F/C-FINE/COARSE GR - GRAY                 M - MEDIUM BN - BROWN               V-VERY YEL-YELLOW	<b>PROP USED</b> TRACE (TR.)    0-10% LITTLE (LI.)    10 - 20% SOME (SO.)    20 -35% AND                35 - 50%
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PROJECT	PROPOSED CHARTER SCHOOL	DATE	1-Dec-11
CLIENT	CANNON CONSTRUCTION	LOCATION	154 SOUTH OGDEN STREET
CONTRACTOR	SJB SERVICES	TEST PIT NO.	TP-9
FIELD REP	S. BOCHENEK	PROJECT NO.	BD-11-151
EXCAVATION EQUIP	NEW HOLLAND BACK HOE	WEATHER / TEMP	SUNNY, COLD
GROUND ELEV		OPERATOR	A. KOSKE
TIME STARTED	0920	MAKE/ MODEL	FORD 550
TIME FINISHED	0955	CAPACITY	0.3 CY
		REACH	18.5 FT

DEPTH	SOIL DESCRIPTION	PID READING	EXCAV EFFORT
1'	Light Brown f-c SAND, little f-c Gravel, little Silt, some Brick, tr.metal (moist, FILL)	BG	E
2'		BG	E
3'	Tan Fine SAND, some Silt, tr.brick (moist, FILL)	BG	E
4'	Contains little Brick, tr.metal, tr.wood, excavated 3 gallon air compressor tank	BG	M
5'	Brown f-c SAND, some Clayey Silt, little f-c Gravel, some Brick, tr.metal, tr.boulder size Concrete, tr.slag (moist, FILL)	BG	M
6'		BG	M
7'		BG	M
8'		BG	M
9'		BG	M
10'		BG	M
11'		BG	M
12'	Test Pit Complete at 10.5'		
13'	Unable to Excavate Deeper - Beyond Reach of Backhoe		
14'			

<b>Remarks:</b> PID - Photoionization Dector, measure in parts per million (ppm) <b>BG = Background (&lt;1ppm)</b> Test Pit continues to collaspe	<b>ABBREVIATIONS</b> F - FINE                      F/M - FINE TO MEDIUM C - COARSE                F/C-FINE/COARSE GR - GRAY                 M - MEDIUM BN - BROWN                V-VERY YEL-YELLOW	<b>PROP USED</b> TRACE (TR.)    0-10% LITTLE (LI.)    10 - 20% SOME (SO.)     20 -35% AND                35 - 50%
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## TEST PIT FIELD LOG

Western New York Office  
 5167 South Park Avenue  
 Hamburg, NY 14075  
 Phone: (716) 649-8110  
 Fax: (716) 649-8051

PROJECT	PROPOSED CHARTER SCHOOL	DATE	1-Dec-11
CLIENT	CANNON CONSTRUCTION	LOCATION	154 SOUTH OGDEN STREET
CONTRACTOR	SJB SERVICES	TEST PIT NO.	TP-10
FIELD REP	S. BOCHENEK	PROJECT NO.	BD-11-151
EXCAVATION EQUIP	NEW HOLLAND BACK HOE	WEATHER / TEMP	SUNNY, COLD
GROUND ELEV		OPERATOR	A. KOSKE
TIME STARTED	1009	MAKE/ MODEL	FORD 550
TIME FINISHED	1050	CAPACITY	0.3 CY
		REACH	18.5 FT

DEPTH	SOIL DESCRIPTION	PID READING	EXCAV EFFORT
1'	Grey to Brown f-c SAND, little Silt, little cobble size Blacktop, tr.brick (moist, FILL) Becomes Brown	BG	E
2'		BG	E
3'	Brown Clayey SILT, little f-c Gravel, little f-c Sand, little Brick, little boulder size concrete (moist, FILL) Excavated Pipe (2") at 3.0'	BG	M
4'		BG	M
5'		BG	M
6'		BG	M
7'	Contain little boulder size Cutstone	BG	D
8'		BG	D
9'	Contains some boulder size Concrete / Cutstone	BG	D
10'		BG	D
11'		BG	D
12'	Test Pit Complete at 10.5' Unable to Excavate Deeper - Beyond Reach of Backhoe		
13'	Free Standing Water at 10.5' at Test Pit Completion		
14'			

<b>Remarks:</b> PID - Photoionization Dector, measure in parts per million (ppm) <b>BG = Background (&lt;1ppm)</b> Test Pit continues to collaspe	<b>ABBREVIATIONS</b> F - FINE                      F/M - FINE TO MEDIUM C - COARSE                F/C-FINE/COARSE GR - GRAY                 M - MEDIUM BN - BROWN               V-VERY YEL-YELLOW	<b>PROP USED</b> TRACE (TR.)    0-10% LITTLE (LI.)    10 - 20% SOME (SO.)    20 -35% AND              35 - 50%
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PROJECT	PROPOSED CHARTER SCHOOL	DATE	1-Dec-11
CLIENT	CANNON CONSTRUCTION	LOCATION	154 SOUTH OGDEN STREET
CONTRACTOR	SJB SERVICES	TEST PIT NO.	TP-11
FIELD REP	S. BOCHENEK	PROJECT NO.	BD-11-151
EXCAVATION EQUIP	NEW HOLLAND BACK HOE	WEATHER / TEMP	SUNNY, COLD
GROUND ELEV		OPERATOR	A. KOSKE
TIME STARTED	1100	MAKE/ MODEL	FORD 550
TIME FINISHED	1125	CAPACITY	0.3 CY
		REACH	18.5 FT

DEPTH	SOIL DESCRIPTION	PID READING	EXCAV EFFORT
1'	Brown Clayey SILT, some f-c Sand, little f-c Gravel (moist, FILL)	BG	E
2'	Contains some Brick, tr.metal	BG	E
3'	Contains little boulder size Concrete, little Brick	BG	M
4'		BG	M
5'	<u>Brown Clayey SILT and Fine Sand (moist, ML)</u>	BG	M
6'	Tan Fine SAND, little Silt (moist, SM)	BG	E
7'	Test Pit Complete at 6.6'	BG	E
8'			
9'			
10'			
11'			
12'			
13'			
14'			

<b>Remarks:</b> PID - Photoionization Dector, measure in parts per million (ppm) <b>BG = Background (&lt;1ppm)</b>	<b>ABBREVIATIONS</b> F - FINE            F/M - FINE TO MEDIUM C - COARSE        F/C-FINE/COARSE GR - GRAY         M - MEDIUM BN - BROWN        V-VERY YEL-YELLOW	<b>PROP USED</b> TRACE (TR.)    0-10% LITTLE (LI.)    10 - 20% SOME (SO.)     20 -35% AND              35 - 50%
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# TEST PIT FIELD LOG

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PROJECT	PROPOSED CHARTER SCHOOL	DATE	1-Dec-11
CLIENT	CANNON CONSTRUCTION	LOCATION	154 SOUTH OGDEN STREET
CONTRACTOR	SJB SERVICES	TEST PIT NO.	TP-12
FIELD REP	S. BOCHENEK	PROJECT NO.	BD-11-151
EXCAVATION EQUIP	NEW HOLLAND BACK HOE	WEATHER / TEMP	SUNNY, COLD
GROUND ELEV		OPERATOR	A. KOSKE
TIME STARTED	1140	MAKE/ MODEL	FORD 550
TIME FINISHED	1216	CAPACITY	0.3 CY
		REACH	18.5 FT

DEPTH	SOIL DESCRIPTION	PID READING	EXCAV EFFORT
1'	Brown Clayey SILT, some f-c Sand, tr.gravel, some Brick, tr.boulder size Cutstone (moist, FILL)	BG	E
2'	Excavated Concrete Stairs at 1.5'	BG	E
3'	Red BRICK, some boulder size Cutstone / Concrete, some Clayey Silt (moist, FILL)	BG	D
4'	Excavated Hotwater Tank at 3.7'	BG	D
5'		BG	M
6'	Tan Fine SAND, some Silt, tr.clay, tr.brick (moist, reworked)	BG	M
7'	Grey SILT, tr.sand, tr.clay, tr.organics (moist, ML)	BG	M
8'	Tan Fine SAND, some Silt, tr.clay (moist, SM)	BG	M
9'			
10'	Test Pit Complete at 9.2'		
11'			
12'			
13'			
14'			

<b>Remarks:</b> PID - Photoionization Dector, measure in parts per million (ppm) <b>BG = Background (&lt;1ppm)</b> Test Pit continues to colllapse	ABREVIATIONS	PROP USED
	F - FINE      F/M - FINE TO MEDIUM	TRACE (TR.)    0-10%
	C - COARSE    F/C-FINE/COARSE	LITTLE (LI.)    10 - 20%
	GR - GRAY      M - MEDIUM	SOME (SO.)     20 -35%
	BN - BROWN    V-VERY	AND              35 - 50%
	YEL-YELLOW	



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PROJECT	PROPOSED CHARTER SCHOOL	DATE	1-Dec-11
CLIENT	CANNON CONSTRUCTION	LOCATION	154 SOUTH OGDEN STREET
CONTRACTOR	SJB SERVICES	TEST PIT NO.	TP-13
FIELD REP	S. BOCHENEK	PROJECT NO.	BD-11-151
EXCAVATION EQUIP	NEW HOLLAND BACK HOE	WEATHER / TEMP	SUNNY, COLD
GROUND ELEV		OPERATOR	A. KOSKE
TIME STARTED	1255	MAKE/ MODEL	FORD 550
TIME FINISHED	1345	CAPACITY	0.3 CY
		REACH	18.5 FT

DEPTH	SOIL DESCRIPTION	PID READING	EXCAV EFFORT
1'	Brown f-c GRAVEL, some f-c Sand, little Clayey Silt, tr.brick, tr.boulder size Cutstone (moist, FILL)	BG	E
2'		BG	M
3'		BG	M
4'	----- Black f-c SAND, little f-c Gravel, little Silt, little cobble size Concrete, little Brick, tr.glas, tr.ash (moist, FILL, possible Cinders / Ash) Contains tr.brick at 4.0'	BG	D
5'		BG	D
6'		2.2	D
7'		6.2	M
8'		BG	M
9'		BG	M
10'		BG	M
11'		BG	M
12'		BG	M
13'		BG	M
14'	Test Pit Complete at 13.2' Unable to Excavate Deeper - Beyond Reach of Backhoe		

<b>Remarks:</b> PID - Photoionization Dector, measure in parts per million (ppm) <b>BG = Background (&lt;1ppm)</b> Sweet like odor at ~ 5' until Test Pit termination Collected Analytical Sample from 6' - 8'	<b>ABBREVIATIONS</b> F - FINE                      F/M - FINE TO MEDIUM C - COARSE                F/C-FINE/COARSE GR - GRAY                 M - MEDIUM BN - BROWN               V-VERY YEL-YELLOW	<b>PROP USED</b> TRACE (TR.)    0-10% LITTLE (LI.)    10 - 20% SOME (SO.)    20 -35% AND                35 - 50%
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## TEST PIT FIELD LOG

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PROJECT	PROPOSED CHARTER SCHOOL	DATE	1-Dec-11
CLIENT	CANNON CONSTRUCTION	LOCATION	154 SOUTH OGDEN STREET
CONTRACTOR	SJB SERVICES	TEST PIT NO.	TP-14
FIELD REP	S. BOCHENEK	PROJECT NO.	BD-11-151
EXCAVATION EQUIP	NEW HOLLAND BACK HOE	WEATHER / TEMP	SUNNY, COLD
GROUND ELEV		OPERATOR	A. KOSKE
TIME STARTED	1350	MAKE/ MODEL	FORD 550
TIME FINISHED	1425	CAPACITY	0.3 CY
		REACH	18.5 FT

DEPTH	SOIL DESCRIPTION	PID READING	EXCAV EFFORT
1'	Brown Clayey SILT, little f-c Gravel, little f-c Sand, tr.brick (moist, FILL)	BG	E
2'	Excavate Brick Wall fragments at 1.5' Contains little boulder size Concrete	BG	E
3'		BG	E
4'	Tan Clayey SILT, some Fine Sand, little cobble size concrete (moist, reworked)	BG	E
5'		BG	E
6'		BG	E
7'	Brown f-c GRAVEL, some Silty Clay, little f-c Sand, tr.cobble size Concrete (moist, FILL)	BG	M
8'	Dark Grey f-c SAND, some Silt, little f-c Gravel, little boulder size Concrete, tr.brick, tr.wood (moist, FILL)	BG	M
9'		BG	M
10'	Grades to Clayey Silt, some wood, little f-c Sand, little boulder size Concrete, tr.brick (moist, FILL)	BG	M
11'		BG	M
12'		BG	M
13'	Test Pit Complete at 12.2'	BG	M
14'	Unable to Excavate Deeper - Beyond Reach of Backhoe		

<b>Remarks:</b> PID - Photoionization Dector, measure in parts per million (ppm) BG = Background (<1ppm)	<b>ABBREVIATIONS</b> F - FINE            F/M - FINE TO MEDIUM C - COARSE        F/C-FINE/COARSE GR - GRAY         M - MEDIUM BN - BROWN        V-VERY YEL-YELLOW	<b>PROP USED</b> TRACE (TR.)    0-10% LITTLE (LI.)    10 - 20% SOME (SO.)     20 -35% AND              35 - 50%
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PROJECT	PROPOSED CHARTER SCHOOL	DATE	1-Dec-11
CLIENT	CANNON CONSTRUCTION	LOCATION	154 SOUTH OGDEN STREET
CONTRACTOR	SJB SERVICES	TEST PIT NO.	TP-15
FIELD REP	S. BOCHENEK	PROJECT NO.	BD-11-151
EXCAVATION EQUIP	NEW HOLLAND BACK HOE	WEATHER / TEMP	SUNNY, COLD
GROUND ELEV		OPERATOR	A. KOSKE
TIME STARTED	1430	MAKE/ MODEL	FORD 550
TIME FINISHED	1500	CAPACITY	0.3 CY
		REACH	18.5 FT

DEPTH	SOIL DESCRIPTION	PID READING	EXCAV EFFORT
1'	Brown Clayey SILT, little f-c Gravel, little f-c Sand (moist, FILL)	BG	E
2'	Contains little boulder size Concrete	BG	E
3'	Contains some boulder size Concrete	BG	E
4'		BG	M
5'	Brown f-c SAND, little f-c Gravel, some boulder size Concrete, tr.glass (moist, FILL)	BG	M
6'		BG	M
7'		BG	M
8'		BG	M
9'		BG	M
10'	Black f-c SAND, some Silt, little f-c Gravel, tr.metal, tr.brick	BG	M
11'		BG	M
12'		BG	M
13'	Test Pit Complete at 12.0'		
14'	Unable to Excavate Deeper - Beyond Reach of Backhoe		

<b>Remarks:</b> PID - Photoionization Dector, measure in parts per million (ppm)      BG = Background (<1ppm) Sweet like odor noted from 9' - 12'	<b>ABBREVIATIONS</b> F - FINE                      F/M - FINE TO MEDIUM C - COARSE                F/C-FINE/COARSE GR - GRAY                 M - MEDIUM BN - BROWN               V-VERY YEL-YELLOW	<b>PROP USED</b> TRACE (TR.)    0-10% LITTLE (LI.)    10 - 20% SOME (SO.)    20 -35% AND              35 - 50%
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## TEST PIT FIELD LOG

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PROJECT	PROPOSED CHARTER SCHOOL	DATE	1-Dec-11
CLIENT	CANNON CONSTRUCTION	LOCATION	154 SOUTH OGDEN STREET
CONTRACTOR	SJB SERVICES	TEST PIT NO.	TP-16
FIELD REP	S. BOCHENEK	PROJECT NO.	BD-11-151
EXCAVATION EQUIP	NEW HOLLAND BACK HOE	WEATHER / TEMP	SUNNY, COLD
GROUND ELEV		OPERATOR	A. KOSKE
TIME STARTED	1506	MAKE/ MODEL	FORD 550
TIME FINISHED	1547	CAPACITY	0.3 CY
		REACH	18.5 FT

DEPTH	SOIL DESCRIPTION	PID READING	EXCAV EFFORT
1'	Brown Clayey SILT, little f-c Gravel, little f-c Sand (moist, FILL)	BG	E
2'	Contains little boulder size Concrete	BG	D
3'	Excavated 2" Steelpipe	BG	D
4'	Tan SILT, tr.sand, tr.clay, tr.brick, tr.wood (moist, reworked)	BG	M
5'	Contains little Wood	BG	M
6'		BG	M
7'		BG	M
8'	Brown f-c SAND, little Fine Gravel, little Silt, little wood (moist, FILL)	BG	M
9'		BG	M
10'	Tan Modeled Fine SAND, little Silt (moist, SW)	BG	M
11'	Test Pit Complete at 11.0' Unable to Excavate Deeper - Beyond Reach of Backhoe		
12'			
13'			
14'			

<b>Remarks:</b> PID - Photoionization Dector, measure in parts per million (ppm) BG = Background (<1ppm)	<b>ABBREVIATIONS</b> F - FINE            F/M - FINE TO MEDIUM C - COARSE        F/C-FINE/COARSE GR - GRAY         M - MEDIUM BN - BROWN        V-VERY YEL-YELLOW	<b>PROP USED</b> TRACE (TR.)    0-10% LITTLE (LI.)    10 - 20% SOME (SO.)     20 -35% AND              35 - 50%
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## TEST PIT FIELD LOG

Western New York Office  
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PROJECT	PROPOSED CHARTER SCHOOL	DATE	2-Dec-11
CLIENT	CANNON CONSTRUCTION	LOCATION	154 SOUTH OGDEN STREET
CONTRACTOR	SJB SERVICES	TEST PIT NO.	TP-17
FIELD REP	S. BOCHENEK	PROJECT NO.	BD-11-151
EXCAVATION EQUIP	NEW HOLLAND BACK HOE	WEATHER / TEMP	RAIN, COLD
GROUND ELEV		OPERATOR	A. KOSKE
TIME STARTED	0802	MAKE/ MODEL	FORD 550
TIME FINISHED	0910	CAPACITY	0.3 CY
		REACH	18.5 FT

DEPTH	SOIL DESCRIPTION	PID READING	EXCAV EFFORT
1'	Brown Clayey SILT, little f-c Gravel, little f-c Sand, tr.cobble size Cutstone (moist, FILL)	BG	E
2'		BG	E
3'		BG	E
4'	Grey f-c GRAVEL, little f-c Sand, tr.silt, tr.wood, tr.boulder size Cutstone (moist, FILL)	BG	M
5'		BG	M
6'	Excavated Tree Trunk at 5.2'	BG	D
7'	Black f-c SAND, little f-c Gravel, little Silt (moist, FILL)  Contains some f-c Gravel, tr.brick, tr.cobble size Cutstone  Contains tr.boulder size Cutstone	bG	D
8'		BG	M
9'		BG	M
10'		BG	M
11'		BG	M
12'		BG	M
13'		BG	M
14'	<b>Test Pit Complete at 12.6'</b> <b>Unable to Excavate Deeper - Beyond Reach of Backhoe</b>		

<b>Remarks:</b> <b>PID - Photoionization Dector, measure in parts per million (ppm)</b> <b>Sweet Like Odor Noted from 7.0' - 12.6'</b> <b>BG = Background (&lt;1ppm)</b>	<b>ABBREVIATIONS</b> F - FINE            F/M - FINE TO MEDIUM C - COARSE        F/C-FINE/COARSE GR - GRAY         M - MEDIUM BN - BROWN        V-VERY YEL-YELLOW	<b>PROP USED</b> TRACE (TR.)    0-10% LITTLE (LI.)    10 - 20% SOME (SO.)     20 -35% AND                35 - 50%
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## TEST PIT FIELD LOG

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PROJECT	PROPOSED CHARTER SCHOOL	DATE	2-Dec-11
CLIENT	CANNON CONSTRUCTION	LOCATION	154 SOUTH OGDEN STREET
CONTRACTOR	SJB SERVICES	TEST PIT NO.	TP-18
FIELD REP	S. BOCHENEK	PROJECT NO.	BD-11-151
EXCAVATION EQUIP	NEW HOLLAND BACK HOE	WEATHER / TEMP	RAIN, COLD
GROUND ELEV		OPERATOR	A. KOSKE
TIME STARTED	1009	MAKE/ MODEL	FORD 550
TIME FINISHED	1021	CAPACITY	0.3 CY
		REACH	18.5 FT

DEPTH	SOIL DESCRIPTION	PID READING	EXCAV EFFORT
1'	Brown SILT, tr.sand (moist, FILL, reworked) Contains tr.cobble Rock fragments, tr.brick	BG	E
2'		BG	E
3'		BG	E
4'		BG	E
5'		Grey to Brown SILT, tr.sand, tr.clay (moist, ML)	BG
6'	BG		M
7'	BG		M
8'	Test Pit Complete at 7.2'		
9'			
10'			
11'			
12'			
13'			
14'			

<b>Remarks:</b> <b>PID - Photoionization Dector, measure in parts per million (ppm)</b> <b>BG = Background (&lt;1ppm)</b>	<b>ABBREVIATIONS</b> F - FINE            F/M - FINE TO MEDIUM C - COARSE        F/C-FINE/COARSE GR - GRAY         M - MEDIUM BN - BROWN        V-VERY YEL-YELLOW	<b>PROP USED</b> TRACE (TR.)    0-10% LITTLE (LI.)    10 - 20% SOME (SO.)     20 -35% AND              35 - 50%
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PROJECT	PROPOSED CHARTER SCHOOL	DATE	2-Dec-11
CLIENT	CANNON CONSTRUCTION	LOCATION	154 SOUTH OGDEN STREET
CONTRACTOR	SJB SERVICES	TEST PIT NO.	TP-19
FIELD REP	S. BOCHENEK	PROJECT NO.	BD-11-151
EXCAVATION EQUIP	NEW HOLLAND BACK HOE	WEATHER / TEMP	RAIN, COLD
GROUND ELEV		OPERATOR	A. KOSKE
TIME STARTED	1038	MAKE/ MODEL	FORD 550
TIME FINISHED	1122	CAPACITY	0.3 CY
		REACH	18.5 FT

DEPTH	SOIL DESCRIPTION	PID READING	EXCAV EFFORT
1'	Brown f-c SAND, little Silt, tr.gravel, little brick, tr.metal (moist, FILL) Excavated 1" Metal Pipe at 1.2'	BG	E
2'	Contains some Brick, some boulder size Cutstone / Concrete, tr.wood	BG	M
3'		BG	M
4'		BG	M
5'		BG	M
6'		BG	M
7'		BG	M
8'		BG	M
9'		BG	M
10'		BG	M
11'		Brown Silty CLAY, some f-c Sand, little Wood, tr.glass (moist, FILL)	BG
12'		BG	M
13'	Test Pit Complete at 12.4' Unable to Excavate Deeper - Beyond Reach of Backhoe	BG	M
14'			

<b>Remarks:</b> PID - Photoionization Dector, measure in parts per million (ppm) <b>BG = Background (&lt;1ppm)</b> Test Pit continues to collaspe. Discarded Concrete present in area.	<b>ABBREVIATIONS</b> F - FINE                      F/M - FINE TO MEDIUM C - COARSE                F/C-FINE/COARSE GR - GRAY                 M - MEDIUM BN - BROWN               V-VERY YEL-YELLOW	<b>PROP USED</b> TRACE (TR.)    0-10% LITTLE (LI.)    10 - 20% SOME (SO.)    20 -35% AND                35 - 50%
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PROJECT	PROPOSED CHARTER SCHOOL	DATE	2-Dec-11
CLIENT	CANNON CONSTRUCTION	LOCATION	154 SOUTH OGDEN STREET
CONTRACTOR	SJB SERVICES	TEST PIT NO.	TP-20
FIELD REP	S. BOCHENEK	PROJECT NO.	BD-11-151
EXCAVATION EQUIP	NEW HOLLAND BACK HOE	WEATHER / TEMP	RAIN, COLD
GROUND ELEV		OPERATOR	A. KOSKE
TIME STARTED	1140	MAKE/ MODEL	FORD 550
TIME FINISHED	1210	CAPACITY	0.3 CY
		REACH	18.5 FT

DEPTH	SOIL DESCRIPTION	PID READING	EXCAV EFFORT
1'	Tan to Brown f-c SAND, some Silt, some Brick, tr.gravel (moist, FILL)	BG	E
2'		BG	E
3'		BG	E
4'		BG	E
5'		BG	E
6'	Tan Fine SAND, some Silt (moist, SM)	BG	E
7'		BG	E
8'	Test Pit Complete at 7.0'		
9'			
10'			
11'			
12'			
13'			
14'			

<b>Remarks:</b> <b>PID - Photoionization Dector, measure in parts per million (ppm)</b> <b>BG = Background (&lt;1ppm)</b>	<b>ABBREVIATIONS</b> F - FINE            F/M - FINE TO MEDIUM C - COARSE        F/C-FINE/COARSE GR - GRAY         M - MEDIUM BN - BROWN        V-VERY YEL-YELLOW	<b>PROP USED</b> TRACE (TR.)    0-10% LITTLE (LI.)    10 - 20% SOME (SO.)     20 -35% AND                35 - 50%
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PROJECT	PROPOSED CHARTER SCHOOL	DATE	2-Dec-11
CLIENT	CANNON CONSTRUCTION	LOCATION	154 SOUTH OGDEN STREET
CONTRACTOR	SJB SERVICES	TEST PIT NO.	TP-21
FIELD REP	S. BOCHENEK	PROJECT NO.	BD-11-151
EXCAVATION EQUIP	NEW HOLLAND BACK HOE	WEATHER / TEMP	RAIN, COLD
GROUND ELEV		OPERATOR	A. KOSKE
TIME STARTED	1315	MAKE/ MODEL	FORD 550
TIME FINISHED	1350	CAPACITY	0.3 CY
		REACH	18.5 FT

DEPTH	SOIL DESCRIPTION	PID READING	EXCAV EFFORT
1'	Tan Clayey SILT, tr.sand, tr.gravel (moist, FILL, reworked)	BG	E
2'	Becomes Brown, contains little f-c Sand	BG	E
3'		BG	E
4'	Grey Silty CLAY, some boulder size Concrete / Cutstone (moist, FILL)	BG	E
5'	Contains No. 1 Crushed Stone seam	BG	M
6'		BG	M
7'		BG	M
8'	Grey SILT, some Fine Sand, tr.clay (moist, ML)	BG	M
9'	Test Pit Complete at 8.7'	BG	M
10'			
11'			
12'			
13'			
14'			

<b>Remarks:</b> PID - Photoionization Dector, measure in parts per million (ppm) <b>BG = Background (&lt;1ppm)</b>	<b>ABBREVIATIONS</b> F - FINE            F/M - FINE TO MEDIUM C - COARSE        F/C-FINE/COARSE GR - GRAY         M - MEDIUM BN - BROWN        V-VERY YEL-YELLOW	<b>PROP USED</b> TRACE (TR.)    0-10% LITTLE (LI.)    10 - 20% SOME (SO.)     20 -35% AND              35 - 50%
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## TEST PIT FIELD LOG

Western New York Office  
 5167 South Park Avenue  
 Hamburg, NY 14075  
 Phone: (716) 649-8110  
 Fax: (716) 649-8051

PROJECT	PROPOSED CHARTER SCHOOL	DATE	2-Dec-11
CLIENT	CANNON CONSTRUCTION	LOCATION	154 SOUTH OGDEN STREET
CONTRACTOR	SJB SERVICES	TEST PIT NO.	TP-22
FIELD REP	S. BOCHENEK	PROJECT NO.	BD-11-151
EXCAVATION EQUIP	NEW HOLLAND BACK HOE	WEATHER / TEMP	RAIN, COLD
GROUND ELEV		OPERATOR	A. KOSKE
TIME STARTED	1359	MAKE/ MODEL	FORD 550
TIME FINISHED	1457	CAPACITY	0.3 CY
		REACH	18.5 FT

DEPTH	SOIL DESCRIPTION	PID READING	EXCAV EFFORT
1'	Grey Clayey SILT, some f-c Sand, tr.gravel, tr.brick (moist, FILL)	BG	E
2'		BG	E
3'	Dark Brown to Grey f-c SAND, some Silt, tr.gravel, tr.glass (moist, FILL)	BG	E
4'	Rust Brown f-c SAND, some Glass, little f-c Gravel (moist, FILL; possible ash)	BG	M
5'	Contains tr.metal	BG	M
6'		BG	M
7'	Dark Brown SILT, some f-c Sand, tr.cinders, tr.gravel (moist, FILL)	BG	M
8'	Contains tr.boulder size Concrete / Cutstone	BG	M
9'		BG	M
10'		BG	M
11'		BG	M
12'		BG	M
13'	<b>Test Pit Complete at 12.5'</b>		
14'	<b>Unable to Excavate Deeper - Beyond Reach of Backhoe</b>		

<b>Remarks:</b> <b>PID - Photoionization Dector, measure in parts per million (ppm)</b> <b>56' West of Street; Align with SW Corner of House, 2nd House North of Mineral Springs</b> <b>BG = Background (&lt;1ppm)</b>	<b>ABBREVIATIONS</b> F - FINE            F/M - FINE TO MEDIUM C - COARSE        F/C-FINE/COARSE GR - GRAY         M - MEDIUM BN - BROWN        V-VERY YEL-YELLOW	<b>PROP USED</b> TRACE (TR.)    0-10% LITTLE (LI.)    10 - 20% SOME (SO.)     20 -35% AND              35 - 50%
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**PARADIGM**  
ENVIRONMENTAL SERVICES, INC.

## Analytical Report Cover Page

### **Empire Geo Services**

For Lab Project # 11-5269

Issued December 14, 2011

This report contains a total of 20 pages

The reported results relate only to the samples as they have been received by the laboratory.

Any noncompliant QC parameters having impact on the data are flagged or documented on the final report.

All soil/sludge samples have been reported on a dry weight basis, unless qualified "reported as received". Other solids are reported as received.

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The Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. Sample condition requirements are defined under the 2003 NELAC Standard, sections 5.5.8.3.1 and 5.5.8.3.2.

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified.

Data qualifiers are used, when necessary, to provide additional information about the data. This information may be communicated as a flag or as text at the bottom of the report. Please refer to the following list of frequently used data flags and their meaning:

**"<" = analyzed for but not detected at or above the reporting limit.**

**"E" = Result has been estimated, calibration limit exceeded.**

**"Z" = See case narrative.**

**"D" = Duplicate results outside QC limits. May indicate a non-homogenous matrix.**

**"M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.**

**"B" = Method blank contained trace levels of analyte. Refer to included method blank report.**







**LABORATORY REPORT FOR REACTIVITY**

**Client:** Empire Geo Services

**Lab Project No.:** 11-5269

**Lab Sample No.:** 17378

**Client Job Site:** Proposed Charter School  
154 S. Ogden Street

**Sample Type:** Soil

**Client Job No.:** N/A

**Date Sampled:** 11/30/2011

**Field Location:** TP-3

**Date Received:** 12/6/2011

Parameter	Date Analyzed	Method Reference	Results (mg/kg)
Reactive Cyanide	12/13/2011	EPA 335.4 / SW 7.3.3.2	<100
Reactive Sulfide	12/14/2011	SW 7.3.4.2	<100

ELAP ID.No.: 10709

**Comments:** Reactivity results are reported as received.

**Approved By:** \_\_\_\_\_

Bruce Hoogesteger, Technical Director






**LABORATORY REPORT FOR REACTIVITY**

<b>Client:</b>	<b><u>Empire Geo Services</u></b>	<b>Lab Project No.:</b> 11-5269
		<b>Lab Sample No.:</b> 17379
<b>Client Job Site:</b>	Proposed Charter School 154 S. Ogden Street	<b>Sample Type:</b> Soil
<b>Client Job No.:</b>	N/A	<b>Date Sampled:</b> 12/1/2011
<b>Field Location:</b>	TP-13	<b>Date Received:</b> 12/6/2011

Parameter	Date Analyzed	Method Reference	Results (mg/kg)
Reactive Cyanide	12/13/2011	EPA 335.4 / SW 7.3.3.2	<100
Reactive Sulfide	12/14/2011	SW 7.3.4.2	<100

ELAP ID.No.: 10709

**Comments:** Reactivity results are reported as received.

**Approved By:**   
Bruce Hoogesteger, Technical Director



**LAB REPORT FOR TAL METALS ANALYSIS IN SOLIDS**

**Client:** Empire Geo Services **Lab Project No.:** 11-5269  
**Client Job Site:** Proposed Charter School **Lab Sample No.:** 17378  
 154 S. Ogden Street  
**Client Job No.:** N/A **Sample Type:** Soil  
**Field Location:** TP-3 **Date Sampled:** 11/30/2011  
**Field ID No.:** N/A **Date Received:** 12/06/2011

Parameter	Date Analyzed	Analytical Method	Result (mg/kg)
Aluminum	12/08/2011	SW846 3050/6010	8150
Antimony	12/08/2011	SW846 3050/6010	< 7.60
Arsenic	12/08/2011	SW846 3050/6010	8.53
Barium	12/08/2011	SW846 3050/6010	168
Beryllium	12/08/2011	SW846 3050/6010	0.761
Cadmium	12/08/2011	SW846 3050/6010	0.822
Calcium	12/08/2011	SW846 3050/6010	10400
Chromium	12/08/2011	SW846 3050/6010	14.3
Cobalt	12/08/2011	SW846 3050/6010	8.85
Copper	12/08/2011	SW846 3050/6010	36.4
Iron	12/08/2011	SW846 3050/6010	25700
Lead	12/08/2011	SW846 3050/6010	237
Magnesium	12/08/2011	SW846 3050/6010	3040
Manganese	12/08/2011	SW846 3050/6010	606
Mercury	12/09/2011	SW846 7471	1.00
Nickel	12/08/2011	SW846 3050/6010	22.4
Potassium	12/08/2011	SW846 3050/6010	869
Selenium	12/08/2011	SW846 3050/6010	< 1.27
Silver	12/08/2011	SW846 3050/6010	< 1.27
Sodium	12/08/2011	SW846 3050/6010	322
Thallium	12/08/2011	SW846 3050/6010	< 3.17
Vanadium	12/08/2011	SW846 3050/6010	23.2
Zinc	12/08/2011	SW846 3050/6010	355

ELAP ID No.:10958

Comments:

Approved By: 

Bruce Hoogestege, Technical Director



**LAB REPORT FOR TAL METALS ANALYSIS IN SOLIDS**

**Client:** Empire Geo Services

**Lab Project No.:** 11-5269

**Client Job Site:** Proposed Charter School  
154 S. Ogden Street

**Lab Sample No.:** 17379

**Client Job No.:** N/A

**Sample Type:** Soil

**Field Location:** TP-13

**Date Sampled:** 12/01/2011

**Field ID No.:** N/A

**Date Received:** 12/06/2011

Parameter	Date Analyzed	Analytical Method	Result (mg/kg)
Aluminum	12/08/2011	SW846 3050/6010	4210
Antimony	12/08/2011	SW846 3050/6010	117
Arsenic	12/08/2011	SW846 3050/6010	88.4
Barium	12/08/2011	SW846 3050/6010	265
Beryllium	12/08/2011	SW846 3050/6010	< 0.686
Cadmium	12/08/2011	SW846 3050/6010	48.7
Calcium	12/08/2011	SW846 3050/6010	37000
Chromium	12/08/2011	SW846 3050/6010	701
Cobalt	12/08/2011	SW846 3050/6010	13.7
Copper	12/08/2011	SW846 3050/6010	847
Iron	12/08/2011	SW846 3050/6010	131000
Lead	12/08/2011	SW846 3050/6010	3990
Magnesium	12/08/2011	SW846 3050/6010	1810
Manganese	12/08/2011	SW846 3050/6010	1030
Mercury	12/09/2011	SW846 7471	0.0794
Nickel	12/08/2011	SW846 3050/6010	180
Potassium	12/08/2011	SW846 3050/6010	475
Selenium	12/08/2011	SW846 3050/6010	< 1.37
Silver	12/08/2011	SW846 3050/6010	2.33
Sodium	12/08/2011	SW846 3050/6010	468
Thallium	12/08/2011	SW846 3050/6010	< 3.43
Vanadium	12/08/2011	SW846 3050/6010	31.6
Zinc	12/08/2011	SW846 3050/6010	6020

ELAP ID No.:10958

Comments:

Approved By: 

Bruce Hoogesteger, Technical Director





Semi-Volatile Analysis Report for Soils/Solids/Sludges

Client: Empire Geo Services

Client Job Site: Proposed Charter School
154 S. Ogden Street

Lab Project Number: 11-5269
Lab Sample Number: 17378

Client Job Number: N/A
Field Location: TP-3
Field ID Number: N/A
Sample Type: Soil

Date Sampled: 11/30/2011
Date Received: 12/06/2011
Date Analyzed: 12/09/2011

Table with 4 columns: Base / Neutrals, Results in ug / Kg, Base / Neutrals, Results in ug / Kg. Lists various chemical compounds and their detection levels.

Table with 4 columns: Acids, Results in ug / Kg, Acids, Results in ug / Kg. Lists various acid compounds and their detection levels.

ELAP Number 10958

Analytical Method: EPA 8270C

Data File: S60276.D

Prep Method: EPA 3550C

Comments: ug / Kg = microgram per Kilogram

Reporting limit elevated due to non-chromatographable interferences

Signature:

Bruce Hoogesteger: Technical Director



**Semi-Volatile Analysis Report for Soils/Solids/Sludges**

**Client:** Empire Geo Services

**Client Job Site:** Proposed Charter School  
154 S. Ogden Street

**Lab Project Number:** 11-5269  
**Lab Sample Number:** 17379

**Client Job Number:** N/A  
**Field Location:** TP-13  
**Field ID Number:** N/A  
**Sample Type:** Soil

**Date Sampled:** 12/01/2011  
**Date Received:** 12/06/2011  
**Date Analyzed:** 12/09/2011

Base / Neutrals	Results in ug / Kg	Base / Neutrals	Results in ug / Kg
Acenaphthene	< 43,000	Dibenz (a,h) anthracene	< 43,000
Anthracene	102,000	Fluoranthene	356,000
Benzo (a) anthracene	130,000	Fluorene	61,300
Benzo (a) pyrene	80,700	Indeno (1,2,3-cd) pyrene	< 43,000
Benzo (b) fluoranthene	81,000	Naphthalene	67,300
Benzo (g,h,i) perylene	< 43,000	Phenanthrene	450,000
Benzo (k) fluoranthene	73,500	Pyrene	250,000
Chrysene	125,000	Acenaphthylene	< 43,000
Diethyl phthalate	< 43,000	1,2-Dichlorobenzene	310,000
Dimethyl phthalate	< 107,000	1,3-Dichlorobenzene	< 43,000
Butylbenzylphthalate	< 43,000	1,4-Dichlorobenzene	< 43,000
Di-n-butyl phthalate	< 43,000	1,2,4-Trichlorobenzene	< 43,000
Di-n-octylphthalate	< 43,000	Nitrobenzene	< 43,000
Bis (2-ethylhexyl) phthalate	< 43,000	2,4-Dinitrotoluene	< 43,000
2-Chloronaphthalene	< 43,000	2,6-Dinitrotoluene	< 43,000
Hexachlorobenzene	< 43,000	Bis (2-chloroethyl) ether	< 43,000
Hexachloroethane	< 43,000	Bis (2-chloroisopropyl) ether	< 43,000
Hexachlorocyclopentadiene	< 43,000	Bis (2-chloroethoxy) methane	< 43,000
Hexachlorobutadiene	< 43,000	4-Bromophenyl phenyl ether	< 43,000
N-Nitroso-di-n-propylamine	< 43,000	4-Chlorophenyl phenyl ether	< 43,000
N-Nitrosodiphenylamine	< 43,000	Benzidine	< 107,000
N-Nitrosodimethylamine	< 43,000	3,3'-Dichlorobenzidine	< 43,000
Isophorone	< 43,000	4-Chloroaniline	< 43,000
Benzyl alcohol	< 107,000	2-Nitroaniline	< 107,000
Dibenzofuran	< 43,000	3-Nitroaniline	< 107,000
2-Methylnaphthalene	< 43,000	4-Nitroaniline	< 107,000
Aniline	< 43,000		

Acids	Results in ug / Kg	Acids	Results in ug / Kg
Phenol	< 43,000	2-Methylphenol	< 43,000
2-Chlorophenol	< 43,000	3&4-Methylphenol	< 43,000
2,4-Dichlorophenol	< 43,000	2,4-Dimethylphenol	< 43,000
2,6-Dichlorophenol	< 43,000	2-Nitrophenol	< 43,000
2,4,5-Trichlorophenol	< 107,000	4-Nitrophenol	< 107,000
2,4,6-Trichlorophenol	< 43,000	2,4-Dinitrophenol	< 107,000
Pentachlorophenol	< 107,000	4,6-Dinitro-2-methylphenol	< 107,000
4-Chloro-3-methylphenol	< 43,000	Benzoic acid	< 107,000

ELAP Number 10958

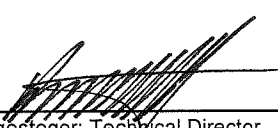
Analytical Method: EPA 8270C

Data File: S60277.D

Prep Method: EPA 3550C

Comments: ug / Kg = microgram per Kilogram

Signature: \_\_\_\_\_

  
Bruce Hoogesteger: Technical Director



**Semi-Volatile Analysis Report for TCLP Extract**

**Client:** Empire Geo Services

**Client Job Site:** Proposed Charter School  
154 S. Ogden Street

**Lab Project Number:** 11-5269  
**Lab Sample Number:** 17378

**Client Job Number:** N/A

**Field Location:** TP-3

**Date Sampled:** 11/30/2011

**Field ID Number:** N/A

**Date Received:** 12/06/2011

**Sample Type:** TCLP Extract

**Date Analyzed:** 12/09/2011

Base / Neutrals	Results in ug / L	Regulatory Limits in ug / L
1,4-Dichlorobenzene	< 40.0	7,500
2,4-Dinitrotoluene	< 40.0	130
Hexachlorobenzene	< 40.0	130
Hexachlorobutadiene	< 40.0	500
Hexachloroethane	< 40.0	3000
Nitrobenzene	< 40.0	2000
Pyridine	< 40.0	5000
Aniline	< 40.0	N/A

Acids	Results in ug / L	Regulatory Limits in ug / L
Cresols (as m,p,o-Cresol)	< 40.0	200,000
Pentachlorophenol	< 100	100,000
2,4,5-Trichlorophenol	< 100	400,000
2,4,6-Trichlorophenol	< 40.0	2000

ELAP Number 10958

Analytical Method: EPA 8270C  
Prep Method: EPA 1311 & 3510C

Data File: S60280.D

Comments: ug / L = microgram per Liter

Signature: \_\_\_\_\_

Bruce Hoogesteger, Technical Director

This report is part of a multipage document and should only be evaluated in its entirety. Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt.

### Semi-Volatile Analysis Report for TCLP Extract

**Client:** Empire Geo Services

<b>Client Job Site:</b>	Proposed Charter School 154 S. Ogden Street	<b>Lab Project Number:</b>	11-5269
<b>Client Job Number:</b>	N/A	<b>Lab Sample Number:</b>	17379
<b>Field Location:</b>	TP-13	<b>Date Sampled:</b>	12/01/2011
<b>Field ID Number:</b>	N/A	<b>Date Received:</b>	12/06/2011
<b>Sample Type:</b>	TCLP Extract	<b>Date Analyzed:</b>	12/09/2011

Base / Neutrals	Results in ug / L	Regulatory Limits in ug / L
1,4-Dichlorobenzene	71.1	7,500
2,4-Dinitrotoluene	< 40.0	130
Hexachlorobenzene	< 40.0	130
Hexachlorobutadiene	< 40.0	500
Hexachloroethane	< 40.0	3000
Nitrobenzene	< 40.0	2000
Pyridine	< 40.0	5000
Aniline	162	N/A

Acids	Results in ug / L	Regulatory Limits in ug / L
Cresols (as m,p,o-Cresol)	< 40.0	200,000
Pentachlorophenol	< 100	100,000
2,4,5-Trichlorophenol	< 100	400,000
2,4,6-Trichlorophenol	< 40.0	2000

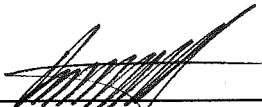
ELAP Number 10958

 Analytical Method: EPA 8270C  
 Prep Method: EPA 1311 & 3510C

Data File: S60281.D

Comments: ug / L = microgram per Liter

Signature:


  
 Bruce Hoogesteger: Technical Director

This report is part of a multipage document and should only be evaluated in its entirety. Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt.



**Volatile Analysis Report for Soils/Solids/Sludges**

**Client:** Empire Geo Services

**Client Job Site:** Proposed Charter School  
154 S. Ogden Street  
**Client Job Number:** N/A  
**Field Location:** TP-3  
**Field ID Number:** N/A  
**Sample Type:** Soil

**Lab Project Number:** 11-5269  
**Lab Sample Number:** 17378  
**Date Sampled:** 11/30/2011  
**Date Received:** 12/06/2011  
**Date Analyzed:** 12/12/2011

<b>Halocarbons</b>	<b>Results in ug / Kg</b>
Bromodichloromethane	< 11.7
Bromomethane	< 11.7
Bromoform	< 29.3
Carbon Tetrachloride	< 11.7
Chloroethane	< 11.7
Chloromethane	< 11.7
2-Chloroethyl vinyl Ether	< 58.5
Chloroform	< 11.7
Dibromochloromethane	< 11.7
1,1-Dichloroethane	< 11.7
1,2-Dichloroethane	< 11.7
1,1-Dichloroethene	< 11.7
cis-1,2-Dichloroethene	< 11.7
trans-1,2-Dichloroethene	< 11.7
1,2-Dichloropropane	< 11.7
cis-1,3-Dichloropropene	< 11.7
trans-1,3-Dichloropropene	< 11.7
Methylene chloride	< 29.3
1,1,2,2-Tetrachloroethane	< 11.7
Tetrachloroethene	< 11.7
1,1,1-Trichloroethane	< 11.7
1,1,2-Trichloroethane	< 11.7
Trichloroethene	< 11.7
Trichlorofluoromethane	< 11.7
Vinyl chloride	< 11.7

<b>Aromatics</b>	<b>Results in ug / Kg</b>
Benzene	< 11.7
Chlorobenzene	< 11.7
Ethylbenzene	< 11.7
Toluene	< 11.7
m,p-Xylene	< 11.7
o-Xylene	< 11.7
Styrene	< 29.3
1,2-Dichlorobenzene	< 11.7
1,3-Dichlorobenzene	< 11.7
1,4-Dichlorobenzene	< 11.7

<b>Ketones</b>	<b>Results in ug / Kg</b>
Acetone	488
2-Butanone	64.9
2-Hexanone	< 29.3
4-Methyl-2-pentanone	< 29.3

<b>Miscellaneous</b>	<b>Results in ug / Kg</b>
Carbon disulfide	< 11.7
Vinyl acetate	< 29.3

ELAP Number 10958

Method: EPA 8260B

Data File: V94066.D

Comments: ug / Kg = microgram per Kilogram

Signature: \_\_\_\_\_

Bruce Hoogesteger, Technical Director

This report is part of a multipage document and should only be evaluated in its entirety. Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt.



**Volatile Analysis Report for Soils/Solids/Sludges (Additional STARS Compounds)**

**Client:** Empire Geo Services

**Client Job Site:** Proposed Charter School  
154 S. Ogden Street

**Lab Project Number:** 11-5269  
**Lab Sample Number:** 17378

**Client Job Number:** N/A  
**Field Location:** TP-3  
**Field ID Number:** N/A  
**Sample Type:** Soil

**Date Sampled:** 11/30/2011  
**Date Received:** 12/06/2011  
**Date Analyzed:** 12/12/2011

Compound	Results in ug / Kg	Compound	Results in ug / Kg
n-Butylbenzene	< 11.7	1,2,4-Trimethylbenzene	< 11.7
sec-Butylbenzene	< 11.7	1,3,5-Trimethylbenzene	< 11.7
tert-Butylbenzene	< 11.7		
n-Propylbenzene	< 11.7	<b>Miscellaneous</b>	
Isopropylbenzene	< 11.7	Methyl tert-butyl Ether	< 11.7
p-Isopropyltoluene	< 11.7		
Naphthalene	< 29.3		


ELAP Number 10958

Method: EPA 8260B

Data File: V94066.D

Comments: ug / Kg = microgram per Kilogram

Signature: \_\_\_\_\_

  
Bruce Hoogesteger, Technical Director

This report is part of a multipage document and should only be evaluated in its entirety. Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt.



**Volatile Analysis Report for Soils/Solids/Sludges**

**Client:** Empire Geo Services

**Client Job Site:** Proposed Charter School  
154 S. Ogden Street  
**Client Job Number:** N/A  
**Field Location:** TP-13  
**Field ID Number:** N/A  
**Sample Type:** Soil

**Lab Project Number:** 11-5269  
**Lab Sample Number:** 17379  
**Date Sampled:** 12/01/2011  
**Date Received:** 12/06/2011  
**Date Analyzed:** 12/13/2011

<b>Halocarbons</b>	<b>Results in ug / Kg</b>
Bromodichloromethane	< 2,840
Bromomethane	< 2,840
Bromoform	< 7,090
Carbon Tetrachloride	< 2,840
Chloroethane	< 2,840
Chloromethane	< 2,840
2-Chloroethyl vinyl Ether	< 14,200
Chloroform	< 2,840
Dibromochloromethane	< 2,840
1,1-Dichloroethane	< 2,840
1,2-Dichloroethane	< 2,840
1,1-Dichloroethene	< 2,840
cis-1,2-Dichloroethene	< 2,840
trans-1,2-Dichloroethene	< 2,840
1,2-Dichloropropane	< 2,840
cis-1,3-Dichloropropene	< 2,840
trans-1,3-Dichloropropene	< 2,840
Methylene chloride	< 7,090
1,1,2,2-Tetrachloroethane	< 2,840
Tetrachloroethene	< 2,840
1,1,1-Trichloroethane	< 2,840
1,1,2-Trichloroethane	< 2,840
Trichloroethene	< 2,840
Trichlorofluoromethane	< 2,840
Vinyl chloride	< 2,840

<b>Aromatics</b>	<b>Results in ug / Kg</b>
Benzene	< 2,840
Chlorobenzene	115,000
Ethylbenzene	< 2,840
Toluene	< 2,840
m,p-Xylene	< 2,840
o-Xylene	< 2,840
Styrene	< 7,090
1,2-Dichlorobenzene	99,500
1,3-Dichlorobenzene	< 2,840
1,4-Dichlorobenzene	16,100

<b>Ketones</b>	<b>Results in ug / Kg</b>
Acetone	< 14,200
2-Butanone	< 14,200
2-Hexanone	< 7,090
4-Methyl-2-pentanone	< 7,090

<b>Miscellaneous</b>	<b>Results in ug / Kg</b>
Carbon disulfide	< 2,840
Vinyl acetate	< 7,090

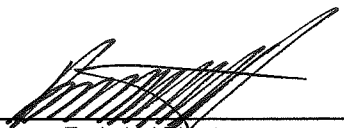
ELAP Number 10958

Method: EPA 8260B

Data File: V94100.D

Comments: ug / Kg = microgram per Kilogram

Signature: \_\_\_\_\_

  
Bruce Hoogesteger: Technical Director

This report is part of a multipage document and should only be evaluated in its entirety. Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt.



**Volatile Analysis Report for Soils/Solids/Sludges (Additional STARS Compounds)**

**Client:** Empire Geo Services

**Client Job Site:** Proposed Charter School  
154 S. Ogden Street

**Lab Project Number:** 11-5269  
**Lab Sample Number:** 17379

**Client Job Number:** N/A  
**Field Location:** TP-13  
**Field ID Number:** N/A  
**Sample Type:** Soil

**Date Sampled:** 12/01/2011  
**Date Received:** 12/06/2011  
**Date Analyzed:** 12/13/2011

Compound	Results in ug / Kg	Compound	Results in ug / Kg
n-Butylbenzene	< 2,840	1,2,4-Trimethylbenzene	< 2,840
sec-Butylbenzene	< 2,840	1,3,5-Trimethylbenzene	< 2,840
tert-Butylbenzene	< 2,840		
n-Propylbenzene	< 2,840	<b>Miscellaneous</b>	
Isopropylbenzene	< 2,840	Methyl tert-butyl Ether	< 2,840
p-Isopropyltoluene	< 2,840		
Naphthalene	13,900		

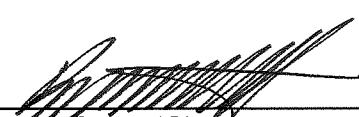
ELAP Number 10958

Method: EPA 8260B

Data File: V94100.D

Comments: ug / Kg = microgram per Kilogram

Signature: \_\_\_\_\_

  
Bruce Hoogesteger: Technical Director

This report is part of a multipage document and should only be evaluated in its entirety. Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt.



**Volatile Analysis Report for TCLP Extract**

**Client:** Empire Geo Services

**Client Job Site:** Proposed Charter School  
154 S. Ogden Street

**Lab Project Number:** 11-5269  
**Lab Sample Number:** 17378

**Client Job Number:** N/A  
**Field Location:** TP-3

**Date Sampled:** 11/30/2011

**Field ID Number:** N/A

**Date Received:** 12/06/2011

**Sample Type:** TCLP Extract

**Date Analyzed:** 12/09/2011

Compound	Results in ug / L	Regulatory Limits in ug / L
Benzene	< 20.0	500
2-Butanone	< 100	200,000
Carbon Tetrachloride	< 20.0	500
Chlorobenzene	< 20.0	100,000
Chloroform	< 20.0	6,000
1,2-Dichloroethane	< 20.0	500
1,1-Dichloroethene	< 20.0	700
Tetrachloroethene	< 20.0	700
Trichloroethene	< 20.0	500
Vinyl chloride	< 20.0	200

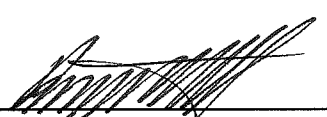
ELAP Number 10958

Method: EPA 8260B

Data File: V94031.D

Comments: ug / L = microgram per Liter

Signature: \_\_\_\_\_

  
Bruce Hoogesteger: Technical Director

This report is part of a multipage document and should only be evaluated in its entirety. Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt.



**Volatile Analysis Report for TCLP Extract**

**Client:** Empire Geo Services

**Client Job Site:** Proposed Charter School  
154 S. Ogden Street

**Lab Project Number:** 11-5269  
**Lab Sample Number:** 17379

**Client Job Number:** N/A

**Field Location:** TP-13

**Date Sampled:** 12/01/2011

**Field ID Number:** N/A

**Date Received:** 12/06/2011

**Sample Type:** TCLP Extract

**Date Analyzed:** 12/09/2011

Compound	Results in ug / L	Regulatory Limits in ug / L
Benzene	< 20.0	500
2-Butanone	< 100	200,000
Carbon Tetrachloride	< 20.0	500
Chlorobenzene	1,640	100,000
Chloroform	< 20.0	6,000
1,2-Dichloroethane	< 20.0	500
1,1-Dichloroethene	< 20.0	700
Tetrachloroethene	< 20.0	700
Trichloroethene	< 20.0	500
Vinyl chloride	< 20.0	200


ELAP Number 10958

Method: EPA 8260B

Data File: V94032.D

Comments: ug / L = microgram per Liter

Signature: \_\_\_\_\_

  
Bruce Hoogesteger: Technical Director

This report is part of a multipage document and should only be evaluated in its entirety. Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt.

# PARADIGM ENVIRONMENTAL SERVICES, INC.

## CHAIN OF CUSTODY

179 Lake Avenue  
Rochester, NY 14608  
(585) 647-2530 • (800) 724-1997  
FAX: (585) 647-3311

REPORT TO:  
INVOICE TO:

PROJECT NAME/SITE NAME:  
*Proposed Charter School*  
1545 Ogden Street

ATTN: COMMENTS:  
*Please Email Results to dsteiner@sjbegs.com*

REQUESTED ANALYSIS  
QUOTE #:

COMPANY: *Empire Geo Services*  
ADDRESS:

COMPANY: ADDRESS:  
CITY: STATE: ZIP: PHONE: FAX:

LAB PROJECT #: *115269*  
CLIENT PROJECT #: *115269*  
TURNAROUND TIME: (WORKING DAYS)

DATE	TIME	C O M P O S I T E	G R A B	SAMPLE LOCATION/FIELD ID	M A T R I X	C O N T A I N E R S	8260 STARS + TEL	8270 TEL + Aniline	TAL Metals + Hg	TCLP 8260	TCLP 8270 + Aniline	TCLP Metals	Ignitability	Corrosivity	Reactivity	REMARKS	PARADIGM LAB SAMPLE NUMBER
11-30-11	1212	X		TP3	Soil 2	X	X	X	X	X	X	X	X	X	X	Requested Analysis:	7378
12-1-11	1318	X		TP13	Soil 3	X	X	X	X	X	X	X	X	X	X	TCL + STARS VOCs + METALS	7378
																TCL SVOCs + Aniline	7379
																TAL Metals + Mercury	
																TCLP Metals	
																TCLP Metals	
																TCLP Metals	
																TCLP Metals	
																TCLP Metals	
																TCLP Metals	
																TCLP Metals	
																TCLP Metals	
																TCLP Metals	

\*\*LAB USE ONLY BELOW THIS LINE\*\*

Sample Condition: Per NELAC/ELAP 210/241/242/243/244

Receipt Parameter: **NELAC Compliance**

Container Type: Y  N

Comments: Preservation: Y  N  *NA*

Holding Time: Y  N

Comments: Temperature: *6°C* Y  N

Sampled By: *[Signature]* Date/Time: *12/9/11*

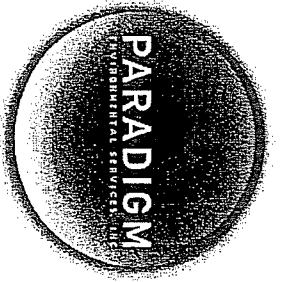
Relinquished By: *[Signature]* Date/Time: *12/9/11*

Received By: *[Signature]* Date/Time: *12/10/11 1408*

Received @ Lab By: *[Signature]* Date/Time: *12/10/11 1408*

Total Cost:

P.I.F.



**CHAIN OF CUSTODY** 11207024

ADDK 10F1

REPORT TO: INVOICE TO:

COMPANY: Paradigm Environmental	ADDRESS:	CITY:	STATE:	ZIP:	LAB PROJECT #:	CLIENT PROJECT #:
COMPANY: Same	ADDRESS:	CITY:	STATE:	ZIP:	TURNAROUND TIME: (WORKING DAYS)	
PHONE:	FAX:	PHONE:	FAX:		1 <input type="checkbox"/>	2 <input type="checkbox"/>
ATTN: Jane Dalioia	ATTN: Meredith Dillman				3 <input type="checkbox"/>	4 <input checked="" type="checkbox"/>
COMMENTS: Please email results to khansen@paradigmenv.com and jdalioia@paradigmenv.com					5 <input type="checkbox"/>	OTHER <input type="checkbox"/>
PROJECT NAME/SITE NAME:					Date Due: 12/14/11	

REQUESTED ANALYSIS

DATE	TIME	COMPOSITE	GRADES	SAMPLE LOCATION/FIELD ID	MATRIX	CONTAMINANTS	REMARKS	PARADIGM LAB SAMPLE NUMBER
11/30	1212			11-5269-17378	soil	1		001
2/12/11	1348			↓ 17379	↓	1	Reactivity	002
3								
4								
5								
6								
7								
8								
9								
10								

\*\*LAB USE ONLY BELOW THIS LINE\*\*

Sample Condition: Per NELAC/ELAP 210/241/242/243/244

Receipt Parameter: **NELAC Compliance**

Container Type: Y  N

Comments: \_\_\_\_\_

Preservation: Y  N

Comments: \_\_\_\_\_

Holding Time: Y  N

Comments: \_\_\_\_\_

Temperature: 10°C Y  N

Comments: \_\_\_\_\_

Client

Sampled By: M. K. Popen Date/Time: 12/10/11 1600

Relinquished By: K. Dalioia Date/Time: \_\_\_\_\_

Received By: [Signature] Date/Time: 12-7-11 10:05 AM

Received @ Lab By: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Total Cost:

P.L.F.