

## APPENDIX A

### PROJECT PHOTOLOG

## SITE PHOTOGRAPHS

Photo 1:



Photo 2:



Photo 3:



Photo 4:



Photo 1: Installation of RI groundwater monitoring well (MW-2) - Looking east

Photo 2: Installation of RI off-site groundwater monitoring well (MW-4) - Looking west

Photo 3: Installation of RI groundwater monitoring well (MW-3 – in courtyard) - Looking east

Photo 4: Example of finished well casing (MW-3)

## SITE PHOTOGRAPHS

Photo 5:



Photo 6:



Photo 7:

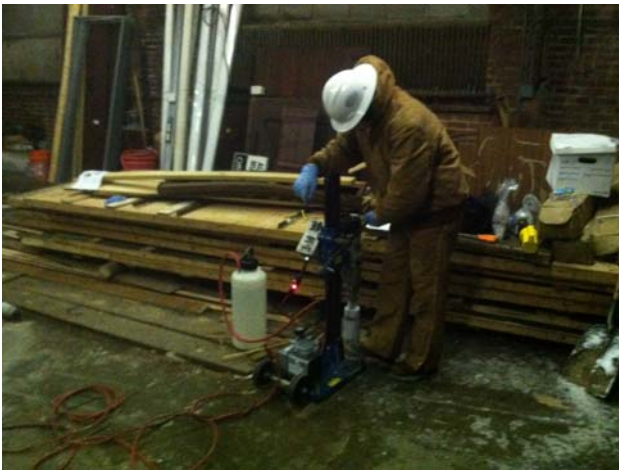


Photo 8:



Photo 5: RI soil boring investigation (SB-15) - Looking east

Photo 6: RI soil boring location (SB-1 – former garage building)

Photo 7: Example of core drill (prior to SB advancement in former garage building).

Photo 8: Example of hand core subslab soil sample location (HC-4) in boiler-mechanical room off courtyard



## SITE PHOTOGRAPHS

Photo 9:



Photo 10:



Photo 11:



Photo 12:



Photo 9: Soil Vapor Intrusion sampling point (SSV-1)

Photo 10: Basement investigation – Motor #2 Housing PCB wipe sample

Photo 11: Basement Investigation - Post-PCB wipe sampling (Motor #2 housing)

Photo 12: Basement Investigation – Motor #2 floor location

## SITE PHOTOGRAPHS

Photo 13:



Photo 14:



Photo 15:



Photo 16:



Photo 13: Petroleum IRM – slab and footer removal post-above grade demolition

Photo 14: Petroleum IRM – slab and footer removal post-above grade demolition (northern property boundary along Myrtle Ave.)

Photo 15: Residual petroleum impacted soil/fill

Photo 16: Direct loading of petroleum impacted soil/fill (petroleum IRM)



## SITE PHOTOGRAPHS

Photo 17:



Photo 18:



Photo 19:



Photo 20:



Photo 17: Backfilling of petroleum IRM excavation

Photo 18: Backfilling of petroleum IRM excavation.

Photo 19: IRM excavation of the SS-3 area – Looking south.

Photo 20: IRM excavation of the SS-3 area – Looking south

## SITE PHOTOGRAPHS

Photo 21:



Photo22:



Photo 23:



Photo 24:



Photo 21: Loading Dock IRM excavation – removal of concrete slab in western most bay.

Photo 22: Loading Dock IRM – assessment of subgrade structural building piers.

Photo 23: Loading Dock IRM excavation (note removed stormwater conveyance pipe from roof leaders)

Photo 24: Loading Dock IRM excavation (capping of former roof stormwater conveyance pipe)



## SITE PHOTOGRAPHS

Photo 25:



Photo 26:



Photo 27:



Photo 28:



Photo 25: Loading Dock IRM – installation of in-Situ groundwater treatment chemical feed piping at base of excavation (approx. 12.5-13 fbgs).

Photo 26: Installation of steel casing to allow for future installation of MW-5.

Photo 27: Loading Dock IRM excavation – replacement of stormwater conveyance piping for roof drains

Photo 28: Installation of ASD system subslab extraction pipe.



## SITE PHOTOGRAPHS

Photo 29:



Photo 30:



Photo 31:



Photo 32:



Photo 29: Loading Dock IRM excavation after completion of backfilling with NYSDEC approved stone.

Photo 30: West parking lot construction. Placement of demarcation layer prior to utility corridor excavation.

Photo 31: West parking lot – utility corridor – Looking northeast

Photo 32: Placement of demarcation layer along building in area planned for vegetative cover – Looking south

## SITE PHOTOGRAPHS

Photo 33:



Photo 34:



Photo 35:



Photo 36:



Photo 33: Excavation and direct loading of structurally unsuitable subgrade material. Soil was disposed at WM Chaffee landfill.

Photo 34: Placement of structural stone backfill in the west parking lot area.

Photo 35: Placement of parking lot geofabric and subbase stone for asphalt paving.

Photo 36: West parking lot.



## APPENDIX B

### PREVIOUS INVESTIGATION LABORATORY REPORTS

(PROVIDED ELECTRONICALLY ON CD)

## APPENDIX C

### FIELD BOREHOLE LOGS & WELL/PIEZOMETER COMPLETION DETAILS



Project No: 0270-012-001

Borehole Number: MW-1

Project: 500 Seneca Street Site

A.K.A.:

Client: 500 Seneca Street, LLC

Logged By: BMG

Site Location: 500 Seneca Street, Buffalo, NY

Checked By: CZB



Benchmark Environmental Engineering & Science, PLLC  
2558 Hamburg Turnpike, Suite 300  
Buffalo, NY 14218  
(716) 856-0599

| SUBSURFACE PROFILE |                 |   | SAMPLE     |             |               |        | PID<br>VOCs     | Lab<br>Sample | Well Completion<br>Details<br>or<br>Remarks |
|--------------------|-----------------|---|------------|-------------|---------------|--------|-----------------|---------------|---|
| Depth<br>(fbgs)    | Elev.<br>/Depth | Description<br>(ASTM D2488: Visual-Manual Procedure)  | Sample No. | SPT N-Value | Recovery (ft) | Symbol |                 |               |   |
| 0.0                | 0.0             | Ground Surface  |            |             |               |        | 0 ppm 1000 2000 |               |   |
|                    | -1.0            | <b>Silty Gravel with Sand and Fill</b><br>Gray, moist, angular fine to coarse gravel with some fine to coarse sand, little cinders and ash, and few nonplastic fines, dense | SS1        | 11          | 1.7           | ●      | 0.1             |               |   |
|                    | -5.0            | <b>Fill</b><br>Gray, moist, concrete with little brick, and few medium plasticity fines, dense  |            |             |               |        |                 |               |   |
|                    | -6.0            | <b>Lean Clay with Fill</b><br>Brown, moist, medium plasticity fines with few fine sand, trace cinders, stiff  |            |             |               |        |                 |               |   |
|                    | -10.0           | <b>Lean Clay</b><br>Reddish brown, moist, medium plasticity fines, soft   |            |             |               |        |                 |               |   |
|                    | -10.5           | <b>Lean Clay with Sand and Gravel</b><br>Grayish brown, wet, low plasticity fines with some fine sand and little rounded fine to coarse gravel, soft                        |            |             |               |        |                 |               |   |
|                    | -13.0           | Refusal at 13' suspected rock   |            |             |               |        |                 |               |   |
|                    | 13.0            | End of Borehole   |            |             |               |        |                 |               |   |
| 15.0               |                 |   |            |             |               |        |                 |               |   |
|                    |                 |   |            |             |               |        |                 |               |   |
| 20.0               |                 |   |            |             |               |        |                 |               |   |

Drilled By: Earth Dimensions

Drill Rig Type: CME 550

Drill Method: Hollow Stem Auger - Standard Split-Spoon Sampling

Comments: 12.8' hit hard rock like surface

Drill Date(s): 10-4-13

Hole Size: 8.5"

Stick-up: NA

Datum: Mean Sea Level

Sheet: 1 of 1

Project No: 0270-012-001

Borehole Number: MW-2

Project: 500 Seneca Street Site

A.K.A.:

Client: 500 Seneca Street, LLC

Logged By: BMG

Site Location: 500 Seneca Street, Buffalo, NY

Checked By: CZB



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| SUBSURFACE PROFILE |                    |  | SAMPLE     |             |               |        | PID<br>VOCs<br><br>ppm<br>1000 2000 | Lab<br>Sample | Well Completion<br>Details<br>or<br>Remarks  |
|--------------------|--------------------|--|------------|-------------|---------------|--------|-------------------------------------|---------------|--|
| Depth<br>(fbgs)    | Elev.<br>/Depth    | Description<br>(ASTM D2488: Visual-Manual Procedure)   | Sample No. | SPT N-Value | Recovery (ft) | Symbol |                                     |               |  |
| 0.0                | 0.0                | Ground Surface   |            |             |               |        |                                     |               |  |
|                    | 0.0<br>-0.5<br>0.5 | <b>Silty Gravel with Sand</b><br>Gray, moist, angular fine to coarse gravel with some fine to coarse sand and few non-plastic fines, dense             | SS1        | 6           | 1.5           | 0.1    |                                     |               | <p>Road box<br/>Concrete<br/>2" PVC Riser<br/>Bentonite chips<br/>2" PVC Screen, 0.010" slot<br/>First water 10 fbgs<br/>00N Silica Sand</p> |
|                    |                    | <b>Fill</b><br>Black, moist, cinders and ash with few medium plasticity fines and trace brick, medium dense  |            |             |               |        |                                     |               |  |
| 5.0                | -5.0<br>5.0        | <b>Lean Clay with Fill</b><br>Dark brown, moist, medium plasticity fines with trace wood and ash, stiff, looks reworked                                | SS2        | 5           | 1.9           | 0.2    |                                     |               |  |
|                    | -6.0<br>6.0        | <b>Lean Clay</b><br>Brown, moist, medium plasticity fines, stiff   |            |             |               |        |                                     |               |  |
| 10.0               | -10.0<br>10.0      | <b>Lean Clay with Sand and Gravel</b><br>Yellowish brown, wet, low plasticity fines with some fine sand and little rounded fine to coarse gravel, soft | SS3        | 19          | 1.7           | 0.1    |                                     |               |  |
|                    | -13.9<br>13.9      | Refusal at 13.9' suspected rock  |            |             |               |        |                                     |               |  |
| 15.0               |                    | End of Borehole  |            |             |               |        |                                     |               |  |
| 20.0               |                    |  |            |             |               |        |                                     |               |  |

Drilled By: Earth Dimensions

Drill Rig Type: CME 550

Drill Method: Hollow Stem Auger - Standard Split-Spoon Sampling

Comments: at 9' hit rock/bolder when drilling, 13.9' grinding to advance auger

Drill Date(s): 10-3-13

Hole Size: 8.5"

Stick-up: NA

Datum: Mean Sea Level

Sheet: 1 of 1



Project No: 0270-012-001

Borehole Number: MW-3

Project: 500 Seneca Street Site

A.K.A.:

Client: 500 Seneca Street, LLC

Logged By: BMG

Site Location: 500 Seneca Street, Buffalo, NY

Checked By: CZB



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| SUBSURFACE PROFILE |                    |   | SAMPLE     |             |               |        | PID<br>VOCs<br><br>ppm<br>1000 2000 | Lab<br>Sample | Well Completion<br>Details<br>or<br>Remarks |
|--------------------|--------------------|---|------------|-------------|---------------|--------|-------------------------------------|---------------|---|
| Depth<br>(fbgs)    | Elev.<br>/Depth    | Description<br>(ASTM D2488: Visual-Manual Procedure)  | Sample No. | SPT N-Value | Recovery (ft) | Symbol |                                     |               |   |
| 0.0                | 0.0                | Ground Surface  |            |             |               |        |                                     |               |   |
|                    | 0.0<br>-0.5<br>0.5 | <b>Concrete and subbase</b><br><b>Lean Clay with Fill</b><br>Brown, moist, medium plasticity fines with few fine sand, trace tile, stiff                      | SS1        | 4           | 1.3           |        | 0.0                                 |               |   |
| 5.0                | -5.0<br>5.0        | <b>Lean Clay</b><br>Reddish brown, moist, medium plasticity fines, stiff  | SS2        | 13          | 2.0           |        | 0.0                                 |               |   |
| 10.0               | -10.0<br>10.0      | <b>Lean Clay with Sand and Gravel</b><br>Grayish brown, wet, low plasticity fines with some fine sand and little rounded fine to coarse gravel, soft, no odor | SS3        | 2           | 2.0           |        | 1.6                                 |               |   |
|                    | -13.0<br>13.0      | Refusal at 13' suspected rock<br>End of Borehole  | SS4        | 50/0.1      | 0.01          |        |                                     |               |   |
| 15.0               |                    |   |            |             |               |        |                                     |               |   |
| 20.0               |                    |   |            |             |               |        |                                     |               |   |

Drilled By: Earth Dimensions

Drill Rig Type: CME 550

Drill Method: Hollow Stem Auger - Standard Split-Spoon Sampling

Comments:

Drill Date(s): 10-3-13

Hole Size: 8.5"

Stick-up: NA

Datum: Mean Sea Level

Sheet: 1 of 1

Project No: 0270-012-001

Borehole Number: MW-4

Project: 500 Seneca Street Site

A.K.A.:

Client: 500 Seneca Street, LLC

Logged By: BMG

Site Location: 500 Seneca Street, Buffalo, NY

Checked By: CZB



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| SUBSURFACE PROFILE |                 |  | SAMPLE     |             |               |        | PID<br>VOCs | Lab<br>Sample | Well Completion<br>Details<br>or<br>Remarks |
|--------------------|-----------------|--|------------|-------------|---------------|--------|-------------|---------------|---|
| Depth<br>(fbgs)    | Elev.<br>/Depth | Description<br>(ASTM D2488: Visual-Manual Procedure)   | Sample No. | SPT N-Value | Recovery (ft) | Symbol |             |               |   |
| 0.0                | 0.0             | Ground Surface   |            |             |               |        | 0           |               |   |
|                    | -1.0            | <b>Silty Gravel with Sand</b><br>Gray, moist, angular fine to coarse gravel with some fine to coarse sand and few nonplastic fines, dense            | SS1        | 15          | 1.3           |        | 0.0         |               |   |
|                    | 1.0             | <b>Lean Clay with few Fill</b><br>Brown, moist, medium plastic fines with few fine sand, trace brick fragments, stiff                                |            |             |               |        |             |               |   |
| 5.0                | -5.0            | <b>Lean Clay</b><br>Reddish brown, moist, medium plasticity fines, stiff to soft at 6'   | SS2        | 12          | 2.0           |        | 0.1         |               |   |
|                    | 5.0             |  |            |             |               |        |             |               |   |
| 10.0               | -10.0           | <b>Lean Clay with Sand and Gravel</b><br>Grayish brown, wet, low plasticity fines with some fine sand and little rounded fine to coarse gravel, soft | SS3        | 2           | 1.8           |        | 0.1         |               |   |
|                    | 10.0            |  |            |             |               |        |             |               |   |
| 15.0               | -15.0           | <b>Well Graded Gravel with Silt and Sand</b><br>Gray, wet, rock fragments with some fine to coarse sand and little low plastic fines, very dense     | SS4        | 117         | 0.5           |        | 5.3         |               |   |
|                    | -15.5           | Refusal at 15.5' suspected rock  |            | 0.5'        |               |        |             |               |   |
|                    | 15.5            | End of Borehole  |            |             |               |        |             |               |   |
| 20.0               |                 |  |            |             |               |        |             |               |   |

Drilled By: Earth Dimensions

Drill Rig Type: CME 550

Drill Method: Hollow Stem Auger - Standard Split-Spoon Sampling

Comments:

Drill Date(s): 10-3-13

Hole Size: 8.5"

Stick-up: NA

Datum: Mean Sea Level

Sheet: 1 of 1

Project No: 0270-012-001

Borehole Number: MW-5

Project: 500 Seneca Street Site

A.K.A.:

Client: 500 Seneca Street, LLC

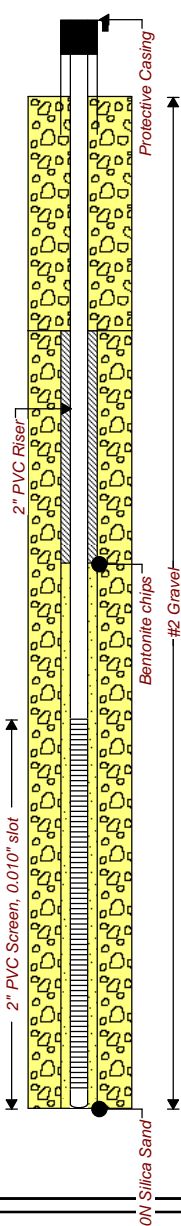
Logged By: JJR

Site Location: 500 Seneca Street, Buffalo, New York

Checked By: NTM



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| SUBSURFACE PROFILE |                 |  | SAMPLE     |             |               |        | PID<br>VOCs<br><br>ppm<br>0 12.5 25 | Lab<br>Sample | Well Completion<br>Details<br>or<br>Remarks  |
|--------------------|-----------------|--|------------|-------------|---------------|--------|-------------------------------------|---------------|--|
| Depth<br>(fbgs)    | Elev.<br>/Depth | Description<br>(ASTM D2488: Visual-Manual Procedure) | Sample No. | SPT N-Value | Recovery (ft) | Symbol |                                     |               |  |
| -1.0               |                 |  |            |             |               |        |                                     |               |  |
|                    | 0.0<br>0.0      | Ground Surface                                       |            |             |               |        |                                     |               |  |
|                    |                 |  |            |             |               |        |                                     |               |  |
|                    |                 |  |            |             |               |        |                                     |               |  |
| 4.0                |                 |  |            |             |               |        |                                     |               |  |
|                    |                 |  |            |             |               |        |                                     |               |  |
|                    |                 |  |            |             |               |        |                                     |               |  |
|                    |                 |  |            |             |               |        |                                     |               |  |
| 9.0                |                 |  |            |             |               |        |                                     |               |  |
|                    |                 |  |            |             |               |        |                                     |               |  |
|                    | -13.0<br>13.0   | End of Borehole                                      |            |             |               |        |                                     |               |  |
| 14.0               |                 |  |            |             |               |        |                                     |               |  |

Drilled By: Earth Dimensions, Inc.  
Drill Rig Type: Diedrich D120  
Drill Method: Continuous SS with 4 1/4 inch HSA.  
Comments:  
Drill Date(s): 4-8-15

Hole Size: 8 1/4"  
Stick-up: NA  
Datum: Mean Sea Level

Sheet: 1 of 1



**Borehole Number: MW-6**

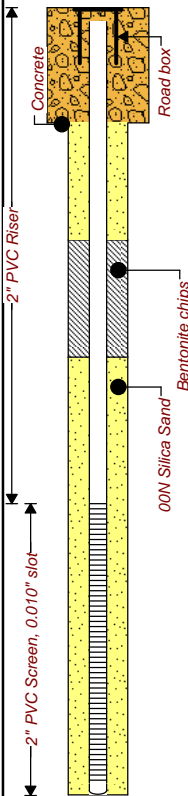
**A.K.A.:**

**Logged By:** JJR

**Checked By:** NTM



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(716) 856-0599

| SUBSURFACE PROFILE |                                |   | SAMPLE     |             |               |        | PID<br>VOCs |                        | Lab<br>Sample | Well Completion<br>Details<br>or<br>Remarks  |
|--------------------|--------------------------------|---|------------|-------------|---------------|--------|-------------|------------------------|---------------|--|
| Depth<br>(fbgs)    | Elev.<br>/Depth                | Description<br>(ASTM D2488: Visual-Manual Procedure)  | Sample No. | SPT N-Value | Recovery (ft) | Symbol |             |                        |               |  |
| 0.0                | 0.0<br>0.0                     | Ground Surface  |            |             |               |        |             | 0<br>ppm<br>12.5<br>25 |               |  |
|                    |                                | Augered to 4 fbgs.  |            |             |               |        |             |                        |               |  |
|                    | -4.0<br>4.0                    | <b>Fill Material</b><br>Light brown, moist, mostly fine sand, little brick, trace non-plastic fines, medium dense, loose when disturbed       | S1         | 21          | 0.40          |        |             | 0.0<br>0.0<br>0.0      |               |  |
| 5.0                | -6.0<br>6.0                    | Augered to 9 fbgs.  |            |             |               |        |             |                        |               |  |
|                    | -9.0<br>9.0                    | <b>Sandy Silt</b><br>Reddish brown, wet, mostly non-plastic fines, little fine sand, medium dense   | S2         | 15          | 1.80          |        |             | 0.0<br>0.0<br>0.0      |               |  |
| 10.0               | -10.5<br>10.5<br>-11.0<br>11.0 | <b>Silty Sand with Gravel</b><br>Reddish brown, wet, mostly fine sand, little non-plastic fines, little sub-rounded fine gravel, medium dense |            |             |               |        |             |                        |               |  |
|                    | -13.0<br>13.0<br>-13.5<br>13.5 | Augered to 13.5 fbgs.   |            |             |               |        |             |                        |               |  |
|                    |                                | Auger Refusal at 13.5 fbgs.   |            |             |               |        |             |                        |               |  |
| 15.0               |                                | End of Borehole   |            |             |               |        |             |                        |               |  |
| 20.0               |                                |   |            |             |               |        |             |                        |               |  |

**Hole Size: 8 1/4"**  
**Stick-up: NA**  
**Datum: Mean Sea Level**

**Sheet: 1 of 1**

**Borehole Number: MW-7**

**A.K.A.:**

**Logged By:** JJR

**Checked By:** NTM



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[illegible]

**Hole Size: 8 1/4"**  
**Stick-up: NA**  
**Datum: Mean Sea Level**

**Sheet: 1 of 1**

Project No: 0270-012-001

Borehole Number: SB-1/TW-1

Project: 500 Seneca Street Site

A.K.A.:

Client: 500 Seneca Street, LLC

Logged By: TAB

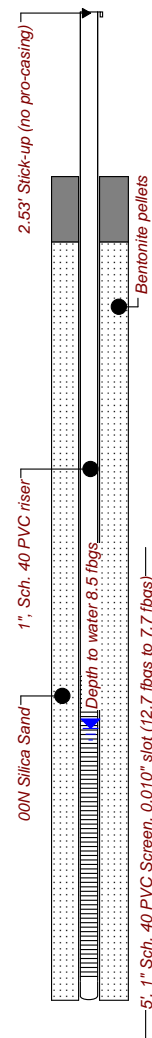
Site Location: 500 Seneca Street, Buffalo, NY

Checked By: CZB



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Buffalo, NY 14218  
(716) 856-0599

| SUBSURFACE PROFILE |                 |   | SAMPLE     |             |               |        | PID<br>VOCs<br><br>ppm<br>12.5 25 | Lab<br>Sample | Well Completion<br>Details<br>or<br>Remarks |
|--------------------|-----------------|---|------------|-------------|---------------|--------|-----------------------------------|---------------|---|
| Depth<br>(fbgs)    | Elev.<br>/Depth | Description<br>(ASTM D2488: Visual-Manual Procedure)  | Sample No. | SPT N-Value | Recovery (ft) | Symbol |                                   |               |   |
| -3.0               |                 |   |            |             |               |        |                                   |               |   |
|                    | 0.0             | Ground Surface  |            |             |               |        |                                   |               |   |
|                    | 0.0             | <b>Concrete</b>   |            |             |               |        |                                   |               |   |
|                    | -0.5            |   |            |             |               |        |                                   |               |   |
|                    | 0.5             | <b>Fill</b><br>Black/Brown, moist, mostly fine sand, some non-plastic fines, few angular coarse gravels, cinders, orange brick fragment, medium dense, loose when disturbed.                      |            |             |               |        | 0.0                               |               |   |
| 2.0                |                 |   | C1         | NA          | 1.5           |        |                                   |               |   |
|                    | -3.0            |   |            |             |               |        |                                   |               |   |
|                    | 3.0             | <b>Lean Clay with Fill</b><br>Reddish brown, moist, medium plasticity fines, few fine sand, medium toughness, medium dry strength, soft, orange brick fragment orange brick fragments and ciders. |            |             |               |        | 2.2                               |               |   |
|                    | -4.5            |   |            |             |               |        |                                   |               |   |
|                    | 4.5             | <b>Sandy Lean Clay</b><br>Reddish Brown, moist, mostly medium plastic fines, little fine sand, trace sub-rounded fine gravels, medium toughness, medium dry strength, stiff.                      |            |             |               |        |                                   |               |   |
|                    |                 |   | C2         | NA          | 1.9           |        | 0.3                               |               |   |
| 7.0                |                 |   |            |             |               |        |                                   |               |   |
|                    | -8.5            |   |            |             |               |        |                                   |               |   |
|                    | 8.5             | As above, Brown, wet (8.5fbgs), mostly low plasticity fines.  |            |             |               |        |                                   |               |   |
|                    |                 |   | C3         | NA          | 1.0           |        | 0.4                               |               |   |
| 12.0               |                 |   |            |             |               |        |                                   |               |   |
|                    | -12.5           |   |            |             |               |        |                                   |               |   |
|                    | 12.5            | No recovery.<br>Refusal at 12.7 fbgs.   | C4         | NA          | 0.2           |        |                                   |               |   |
|                    |                 | End of Borehole   |            |             |               |        |                                   |               |   |



Drilled By: DDS Environmental Construction  
Drill Rig Type: Geoprobe 66DT  
Drill Method: Direct Push  
Comments: Assumed Top of Bedrock 12.7-fbgs  
Drill Date(s): 3-6-14

Hole Size: 3-inch  
Stick-up: NA  
Datum: Mean Sea Level.

Sheet: 1 of 1



**Borehole Number: SB-2**

**Project:** 500 Seneca Street Site

**A.K.A.:**

**Client:** 500 Seneca Street, LLC

**Logged By:** TAB

**Site Location:** 500 Seneca Street, Buffalo, NY

**Checked By:** CZB



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| SUBSURFACE PROFILE |              |   | SAMPLE     |             |               |        | PID VOCs         | Lab Sample | Well Completion Details or Remarks |
|--------------------|--------------|---|------------|-------------|---------------|--------|------------------|------------|------------------------------------|
| Depth (fbgs)       | Elev. /Depth | Description<br>(ASTM D2488: Visual-Manual Procedure)  | Sample No. | SPT N-Value | Recovery (ft) | Symbol | ppm<br>0 12.5 25 |            |                                    |
| 0.0                | 0.0          | Ground Surface  |            |             |               |        |                  |            |                                    |
|                    | 0.0          | <b>Concrete</b>   |            |             |               |        |                  |            |                                    |
|                    | -0.5         |   |            |             |               |        |                  |            |                                    |
|                    | 0.5          | <b>Fill</b><br>Black, moist, mostly fine sand, some non-plastic fines,<br>few angular fine gravels, cinders and orange brick,<br>medium dense, loose when disturbed.          |            |             |               |        |                  |            |                                    |
|                    | -1.5         |   |            |             |               |        | 1.1              |            |                                    |
|                    | 1.5          | <b>Lean Clay with few Fill</b><br>Reddish Brown, moist, medium plastic fines, few fine<br>sand, trace orange brick fragments and cinders, stiff.                              | C1         | NA          | 2.2           |        | 2.1              |            |                                    |
|                    | -4.5         |   |            |             |               |        |                  |            |                                    |
|                    | 4.5          | <b>Sandy Lean Clay</b><br>Reddish brown, moist, medium plasticity fines, little fine<br>sand, trace sub-rounded fine gravel, stiff, medium dry<br>strength, medium toughness. | C2         | NA          | 4.0           |        | 2.4              |            | Sample Location                    |
|                    | -8.5         |   |            |             |               |        |                  |            |                                    |
|                    | 8.5          | As above, brown, medium grading to low plasticity<br>fines, wet at 8.5 fbgs.  | C3         | NA          | 2.5           |        | 3.3              |            |                                    |
|                    | -12.5        |   |            |             |               |        |                  |            |                                    |
|                    | 12.5         | As above  | C4         | NA          | 0.0           |        | 3.6              |            |                                    |
|                    | -13.0        | Refusal 13.0 fbgs.  |            |             |               |        |                  |            |                                    |
|                    | 13.0         | End of Borehole   |            |             |               |        |                  |            |                                    |
|                    | -15.0        |   |            |             |               |        |                  |            |                                    |

Depth to water 8.5 fbgs.

**Drilled By: DDS Environmental Construction**  
**Drill Rig Type: Geoprobe 66DT**  
**Drill Method: Direct Push**  
**Comments: Assumed Top of Bedrock 13.0 fbgs.**  
**Drill Date(s): 3-6-14**

**Hole Size: 3-inch**  
**Stick-up: NA**  
**Datum: Mean Sea Level**

Sheet: 1 of 1

Project No: 0270-012-001

Borehole Number: SB-3

Project: 500 Seneca Street Site

A.K.A.:

Client: 500 Seneca Street, LLC

Logged By: TAB

Site Location: 500 Seneca Street, Buffalo, NY

Checked By: CZB



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Buffalo, NY 14218  
(716) 856-0599

| SUBSURFACE PROFILE |                 |  | SAMPLE     |             |               |        | PID<br>VOCs<br><br>ppm<br>0 12.5 25 | Lab<br>Sample   | Well Completion<br>Details<br>or<br>Remarks |
|--------------------|-----------------|--|------------|-------------|---------------|--------|-------------------------------------|-----------------|---|
| Depth<br>(fbgs)    | Elev.<br>/Depth | Description<br>(ASTM D2488: Visual-Manual Procedure)   | Sample No. | SPT N-Value | Recovery (ft) | Symbol |                                     |                 |   |
| 0.0                | 0.0             | Ground Surface   |            |             |               |        |                                     |                 |   |
|                    | 0.0             | <b>Concrete</b>  |            |             |               |        |                                     |                 |   |
|                    | -0.6            |  |            |             |               |        |                                     |                 |   |
|                    | 0.6             | <b>Fill</b><br>Black, moist, mostly fine sand, some non-plastic fines, few angular coarse gravels, cinders, brick fragments, medium dense, loose when disturbed.         | C1         | NA          | 1.2           |        | 1.1                                 |                 |   |
|                    |                 |  |            |             |               |        |                                     | Sample location |   |
| 5.0                | -4.6            |  |            |             |               |        |                                     |                 |   |
|                    | 4.6             | <b>Lean Clay</b><br>Reddish brown, moist, medium plasticity fines, few fine sand, medium toughness, medium dry strength, stiff.  | C2         | NA          | 3.5           |        | 2.2                                 |                 |   |
|                    |                 |  |            |             |               |        |                                     |                 |   |
|                    | -8.6            |  |            |             |               |        |                                     |                 |   |
|                    | 8.6             | <b>Sandy Lean Clay</b><br>Brown, wet (8.5 fbgs), mostly low plasticity fines, some fine sand, few sub-rounded fine gravels, medium toughness, medium dry strength, soft. | C3         | NA          | 1.8           |        | 2.5                                 |                 |   |
| 10.0               |                 |  |            |             |               |        |                                     |                 |   |
|                    | -12.6           |  |            |             |               |        |                                     |                 |   |
|                    | 12.6            | As above.  | C4         | NA          | 3.3           |        | 1.9                                 |                 |   |
|                    | -13.1           | Refusal at 13.1 fbgs.  |            |             |               |        |                                     |                 |   |
|                    | 13.1            | End of Borehole  |            |             |               |        |                                     |                 |   |
| 15.0               |                 |  |            |             |               |        |                                     |                 |   |

Depth to water 8.5 fbgs

Drilled By: DDS Environmental Construction  
Drill Rig Type: Geoprobe 66DT  
Drill Method: Direct Push  
Comments: Assumed Top of Bedrock 13.1-fbgs  
Drill Date(s): 3-6-14

Hole Size: 3-inch  
Stick-up: NA  
Datum: Mean Sea Level.

Sheet: 1 of 1

**Project No:** 0270-012-001

**Borehole Number:** SB-4

**Project:** 500 Seneca Street Site

**A.K.A.:**

**Client:** 500 Seneca Street, LLC

**Logged By:** TAB

**Site Location:** 500 Seneca Street, Buffalo, NY

**Checked By:** CZB



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(716) 856-0599

| SUBSURFACE PROFILE |                 |   | SAMPLE     |             |               |        | PID<br>VOCs<br><br>ppm<br>12.5 25 | Lab<br>Sample      | Well Completion<br>Details<br>or<br>Remarks |
|--------------------|-----------------|---|------------|-------------|---------------|--------|-----------------------------------|--------------------|---|
| Depth<br>(fbgs)    | Elev.<br>/Depth | Description<br>(ASTM D2488: Visual-Manual Procedure)  | Sample No. | SPT N-Value | Recovery (ft) | Symbol |                                   |                    |   |
| 0.0                | 0.0             | Ground Surface  |            |             |               |        |                                   |                    |   |
|                    | 0.0             | <b>Concrete</b>   |            |             |               |        |                                   |                    |   |
|                    | -0.5            |   |            |             |               |        |                                   |                    |   |
|                    | 0.5             | <b>Fill</b><br>Black, moist, mostly fine sand, some non-plastic fines,<br>few angular coarse gravels, cinders, yellow brick<br>fragment, medium dense, loose when disturbed.              | C1         | NA          | 1.0           |        | 0.0                               | Sample<br>location |   |
|                    | -4.5            |   |            |             |               |        |                                   |                    |   |
| 5.0                | 4.5             | <b>Lean Clay with Sand</b><br>Reddish brown, moist, medium plasticity fines, little fine<br>sand, medium toughness, medium dry strength, stiff.   | C2         | NA          | 3.1           |        | 3.3                               |                    |   |
|                    |                 |   |            |             |               |        | 3.0                               |                    |   |
|                    | -8.5            |   |            |             |               |        |                                   |                    |   |
|                    | 8.5             | <b>Sandy Lean Clay</b><br>Reddish Brown, wet (8.5 fbgs), mostly low plasticity<br>fines, little fine sand, few sub-rounded fine gravels,<br>medium toughness, medium dry strength, stiff. | C3         | NA          | 3.3           |        | 2.1                               |                    |   |
| 10.0               |                 |   |            |             |               |        | 2.4                               |                    |   |
|                    | -12.5           |   |            |             |               |        | 0.0                               |                    |   |
|                    | 12.5            | As above.   | C4         | NA          | 0.5           |        |                                   |                    |   |
|                    | -13.0           | Refusal at 13.0 fbgs suspected rock   |            |             |               |        |                                   |                    |   |
|                    | 13.0            | End of Borehole   |            |             |               |        |                                   |                    |   |
| 15.0               |                 |   |            |             |               |        |                                   |                    |   |

Depth to water 8.5 fbgs

**Drilled By:** DDS Environmental Construction  
**Drill Rig Type:** Geoprobe66DT  
**Drill Method:** Direct Push  
**Comments:** Assumed Top of Bedrock 13.0-fbgs  
**Drill Date(s):** 3-6-14

**Hole Size:** 3-inch  
**Stick-up:** NA  
**Datum:** Mean Sea Level.

**Sheet:** 1 of 1



Project No: 0270-012-001

Borehole Number: SB-5

Project: 500 Seneca Street Site

A.K.A.:

Client: 500 Seneca Street, LLC

Logged By: TAB

Site Location: 500 Seneca Street, Buffalo, NY

Checked By: CZB



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| SUBSURFACE PROFILE |                 |  | SAMPLE     |             |               |        | PID<br>VOCs<br><br>ppm<br>0 1000 2000 | Lab<br>Sample   | Well Completion<br>Details<br>or<br>Remarks |
|--------------------|-----------------|--|------------|-------------|---------------|--------|---------------------------------------|-----------------|---|
| Depth<br>(fbgs)    | Elev.<br>/Depth | Description<br>(ASTM D2488: Visual-Manual Procedure)   | Sample No. | SPT N-Value | Recovery (ft) | Symbol |                                       |                 |   |
| 0.0                | 0.0             | Ground Surface   |            |             |               |        |                                       |                 |   |
|                    | 0.0             | <b>Concrete</b>  |            |             |               |        |                                       |                 |   |
|                    | -0.5            |  |            |             |               |        |                                       |                 |   |
|                    | 0.5             | <b>Fill</b><br>Black, moist, mostly fine sand, some non-plastic fines, few angular coarse gravels, cinders, brick fragments, medium dense, loose when disturbed.         |            |             |               |        | 0.0                                   |                 |   |
|                    | -2.5            |  |            |             |               |        |                                       |                 |   |
|                    | 2.5             | <b>Lean Clay</b><br>Brow to black, moist, medium plasticity fines, few fine sand, medium toughness, medium dry strength, stiff, slight petroleum-like odor.              | C1         | NA          | 2.1           |        | 122                                   |                 |   |
|                    | -4.5            |  |            |             |               |        |                                       |                 |   |
|                    | 4.5             | As above no black coloring, strong petroleum-like odor.  |            |             |               |        | 1147                                  | Sample location |   |
| 5.0                |                 |  |            |             |               |        |                                       |                 |   |
|                    | -6.5            |  |            |             |               |        |                                       |                 |   |
|                    | 6.5             | As above no petroleum-like odor.   | C2         | NA          | 3.6           |        | 15                                    |                 |   |
|                    | -8.5            |  |            |             |               |        |                                       |                 |   |
|                    | 8.5             | <b>Sandy Lean Clay</b><br>Brown, wet (8.5 fbgs), mostly low plasticity fines, some fine sand, few sub-rounded fine gravels, medium toughness, medium dry strength, soft. |            |             |               |        | 0.0                                   |                 |   |
| 10.0               |                 |  |            |             |               |        |                                       |                 |   |
|                    | -12.0           |  |            |             |               |        |                                       |                 |   |
|                    | 12.0            | Refusal at 12.5 fbgs.  | C3         | NA          | 2.9           |        | 0.0                                   |                 |   |
|                    | -12.5           |  |            |             |               |        |                                       |                 |   |
|                    | 12.5            | End of Borehole  |            |             |               |        |                                       |                 |   |
| 15.0               |                 |  |            |             |               |        |                                       |                 |   |

Depth to water 8.5 fbgs

Drilled By: DDS Environmental Construction  
Drill Rig Type: Geoprobe 66DT  
Drill Method: Direct Push  
Comments: Assumed Top of Bedrock 12.5-fbgs  
Drill Date(s): 3-6-14

Hole Size: 3-inch  
Stick-up: NA  
Datum: Mean Sea Level.

Sheet: 1 of 1

Project No: 0270-012-001

Borehole Number: SB-6

Project: 500 Seneca Street Site

A.K.A.:

Client: 500 Seneca Street, LLC

Logged By: TAB

Site Location: 500 Seneca Street, Buffalo, NY

Checked By: CZB



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| SUBSURFACE PROFILE |                 |  | SAMPLE     |             |               |        | PID<br>VOCs<br><br>ppm<br>12.5 25 | Lab<br>Sample   | Well Completion<br>Details<br>or<br>Remarks |
|--------------------|-----------------|--|------------|-------------|---------------|--------|-----------------------------------|-----------------|---|
| Depth<br>(fbgs)    | Elev.<br>/Depth | Description<br>(ASTM D2488: Visual-Manual Procedure)   | Sample No. | SPT N-Value | Recovery (ft) | Symbol |                                   |                 |   |
| 0.0                | 0.0<br>0.0      | Ground Surface   |            |             |               |        |                                   |                 |   |
|                    |                 | <b>Fill</b><br>Black/brown, moist, mostly low plasticity fines, with some fine sand, little angular fine gravels, cinders, slag, brick fragments, medium dense, loose when disturbed.                    | C1         | NA          | 3.2           |        | 0.0                               |                 |   |
|                    |                 |  |            |             |               |        | 0.0                               |                 |   |
|                    | -4.0<br>4.0     | As above.  |            |             |               |        | 0.0                               |                 |   |
| 5.0                |                 |  | C2         | NA          | 2.8           |        | 0.0                               | Sample location |   |
|                    | -7.0<br>7.0     |  |            |             |               |        | 0.0                               |                 |   |
|                    | -8.0<br>8.0     | <b>Lean Clay</b><br>Reddish brown, moist, medium plasticity fines, few fine sand, with orange brick and slag, medium toughness, medium dry strength, stiff.  |            |             |               |        | 0.0                               |                 |   |
|                    |                 | <b>Sandy Lean Clay</b><br>Brown, wet (8.0 fbgs), mostly medium plastic fines grading to low plasticity fines, some fine sand, few sub-rounded fine gravels, medium toughness, medium dry strength, soft. | C3         | NA          | 3.3           |        | 0.0                               |                 |   |
| 10.0               |                 |  |            |             |               |        | 0.0                               |                 |   |
|                    | -12.0<br>12.0   |  | C4         | NA          | 2.4           |        | 0.0                               |                 |   |
|                    |                 | As above.<br>Refusal at 14.0 fbgs.   |            |             |               |        |                                   |                 |   |
|                    | -14.0<br>14.0   |  |            |             |               |        |                                   |                 |   |
|                    |                 | End of Borehole  |            |             |               |        |                                   |                 |   |
| 15.0               |                 |  |            |             |               |        |                                   |                 |   |

Depth to water 8.0 fbgs.

Drilled By: DDS Environmental Construction  
Drill Rig Type: Geoprobe 66DT  
Drill Method: Direct Push  
Comments: Assumed Top of Bedrock 14.0-fbgs  
Drill Date(s): 3-6-14

Hole Size: 3-inch  
Stick-up: NA  
Datum: Mean Sea Level.

Sheet: 1 of 1

**Project No:** 0270-012-001

**Borehole Number:** SB-7

**Project:** 500 Seneca Street Site

**A.K.A.:**

**Client:** 500 Seneca Street, LLC

**Logged By:** TAB

**Site Location:** 500 Seneca Street, Buffalo, NY

**Checked By:** CZB



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| SUBSURFACE PROFILE |                 |  | SAMPLE     |             |               |        | PID<br>VOCs<br><br>ppm<br>12.5 25 | Lab<br>Sample   | Well Completion<br>Details<br>or<br>Remarks |
|--------------------|-----------------|--|------------|-------------|---------------|--------|-----------------------------------|-----------------|---|
| Depth<br>(fbgs)    | Elev.<br>/Depth | Description<br>(ASTM D2488: Visual-Manual Procedure)   | Sample No. | SPT N-Value | Recovery (ft) | Symbol |                                   |                 |   |
| 0.0                | 0.0             | Ground Surface   |            |             |               |        |                                   |                 |   |
|                    | -1.0            | <b>Fill</b><br>Black/grey, moist, mostly fine sand, some non-plastic fines, little angular fine gravels, cinders, slag, brick fragments, medium dense, loose when disturbed. |            |             |               |        | 0.0                               |                 |   |
|                    | 1.0             | <b>Lean Clay with Fill</b><br>Reddish brown, moist, medium plasticity fines, few fine sand, with orange brick and slag, medium toughness, medium dry strength, stiff.        | C1         | NA          | 3.2           |        | 0.0                               | Sample location |   |
|                    | -4.0            | <b>Lean Clay with Sand</b><br>Reddish brown, moist, medium plasticity fines, little fine sand, medium toughness, medium dry strength, stiff.                                 |            |             |               |        | 0.0                               |                 |   |
| 5.0                | 4.0             |  | C2         | NA          | 2.8           |        | 0.0                               |                 |   |
|                    | -8.0            | As above   |            |             |               |        | 0.0                               |                 |   |
|                    | 8.0             |  |            |             |               |        | 0.0                               |                 |   |
|                    | -9.0            | <b>Sandy Lean Clay</b><br>Brown, wet (9.0 fbgs), mostly low plasticity fines, some fine sand, few sub-rounded fine gravels, medium toughness, medium dry strength, soft.     | C3         | NA          | 3.3           |        | 0.0                               |                 |   |
| 10.0               | 9.0             |  |            |             |               |        | 0.0                               |                 |   |
|                    | -12.0           | As above.  | C4         | NA          | 2.4           |        | 0.0                               |                 |   |
|                    | 12.0            | Refusal at 14.0 fbgs.  |            |             |               |        | 0.0                               |                 |   |
|                    | -14.0           | End of Borehole  |            |             |               |        |                                   |                 |   |
| 15.0               | 14.0            |  |            |             |               |        |                                   |                 |   |

Depth to water 9.0 fbgs.

**Drilled By:** DDS Environmental Construction  
**Drill Rig Type:** Geoprobe 66DT  
**Drill Method:** Direct Push  
**Comments:** Assumed Top of Bedrock 14.0-fbgs  
**Drill Date(s):** 3-6-14

**Hole Size:** 3-inch  
**Stick-up:** NA  
**Datum:** Mean Sea Level.

**Sheet:** 1 of 1



Project No: 0270-012-001

Borehole Number: SB-8

Project: 500 Seneca Street Site

A.K.A.:

Client: 500 Seneca Street, LLC

Logged By: TAB

Site Location: 500 Seneca Street, Buffalo, NY

Checked By: CZB



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(716) 856-0599

| SUBSURFACE PROFILE |                                |  | SAMPLE     |             |               |        | PID<br>VOCs<br><br>ppm<br>12.5 25 | Lab<br>Sample   | Well Completion<br>Details<br>or<br>Remarks |
|--------------------|--------------------------------|--|------------|-------------|---------------|--------|-----------------------------------|-----------------|---|
| Depth<br>(fbgs)    | Elev.<br>/Depth                | Description<br>(ASTM D2488: Visual-Manual Procedure)   | Sample No. | SPT N-Value | Recovery (ft) | Symbol |                                   |                 |   |
| 0.0                | 0.0<br>0.0                     | Ground Surface   |            |             |               |        |                                   |                 |   |
|                    |                                | <b>Fill</b><br>Black/brown, moist, mostly low plasticity fines, with some fine sand, little angular fine gravels, cinders, slag, brick fragments, medium dense, loose when disturbed.                    | C1         | NA          | 2.0           |        | 0.4                               |                 |   |
|                    | -4.0<br>4.0                    | As above.  | C2         | NA          | 1.1           |        | 0.0<br>0.5                        | Sample location |   |
|                    | -8.0<br>8.0                    | <b>Sandy Lean Clay</b><br>Brown, wet (8.0 fbgs), mostly medium plastic fines grading to low plasticity fines, some fine sand, few sub-rounded fine gravels, medium toughness, medium dry strength, soft. | C3         | NA          | 3.3           |        | 0.0<br>0.2                        |                 |   |
|                    | -11.5<br>11.5<br>-12.0<br>12.0 | Refusal at 12.0 fbgs..   |            |             |               |        |                                   |                 |   |
|                    |                                | End of Borehole  |            |             |               |        |                                   |                 |   |
| 15.0               |                                |  |            |             |               |        |                                   |                 |   |

Depth to water 8.0 fbgs.

Drilled By: DDS Environmental Construction  
Drill Rig Type: Geoprobe 66DT  
Drill Method: Direct Push  
Comments: Assumed Top of Bedrock 12.0-fbgs  
Drill Date(s): 3-6-14

Hole Size: 3-inch  
Stick-up: NA  
Datum: Mean Sea Level.

Sheet: 1 of 1

Project No: 0270-012-001

Borehole Number: SB-9

Project: 500 Seneca Street Site

A.K.A.:

Client: 500 Seneca Street, LLC

Logged By: TAB

Site Location: 500 Seneca Street, Buffalo, NY

Checked By: CZB



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| SUBSURFACE PROFILE |                 |   | SAMPLE     |             |               |        | PID<br>VOCs<br><br>ppm<br>12.5 25 | Lab<br>Sample   | Well Completion<br>Details<br>or<br>Remarks |
|--------------------|-----------------|---|------------|-------------|---------------|--------|-----------------------------------|-----------------|---|
| Depth<br>(fbgs)    | Elev.<br>/Depth | Description<br>(ASTM D2488: Visual-Manual Procedure)  | Sample No. | SPT N-Value | Recovery (ft) | Symbol |                                   |                 |   |
| 0.0                | 0.0<br>0.0      | Ground Surface  |            |             |               |        |                                   |                 |   |
|                    |                 | <b>Fill</b><br>Black/brown, moist, mostly low plasticity fines, with some fine sand, little angular fine gravels, cinders, slag, brick fragments, medium dense, loose when disturbed. | C1         | NA          | 3.1           |        | 0.0                               |                 |   |
|                    |                 |   |            |             |               |        | 0.0                               | Sample Location |   |
|                    | -4.0<br>4.0     | <b>Lean Clay with Fill</b><br>Reddish brown, moist, medium plasticity fines, few fine sand, medium toughness, medium dry strength, stiff, peice of rail road tie in shoe.             | C2         | NA          | 2.0           |        | 3.0                               |                 |   |
| 5.0                |                 | Equipment refusal at 6.0 fbgs.  |            |             |               |        |                                   |                 |   |
|                    | -6.0<br>6.0     | End of Borehole   |            |             |               |        |                                   |                 |   |
| 10.0               |                 |   |            |             |               |        |                                   |                 |   |

Drilled By: DDS Environmental Construction  
Drill Rig Type: Geoprobe 66DT  
Drill Method: Direct Push  
Comments: Equipment refusal at 6.0 fbgs.  
Drill Date(s): 3-6-14

Hole Size: 3-inch  
Stick-up: NA  
Datum: Mean Sea Level.

Sheet: 1 of 1

Project No: 0270-012-001

Borehole Number: SB-10/TW-2

Project: 500 Seneca Street Site

A.K.A.:

Client: 500 Seneca Street, LLC

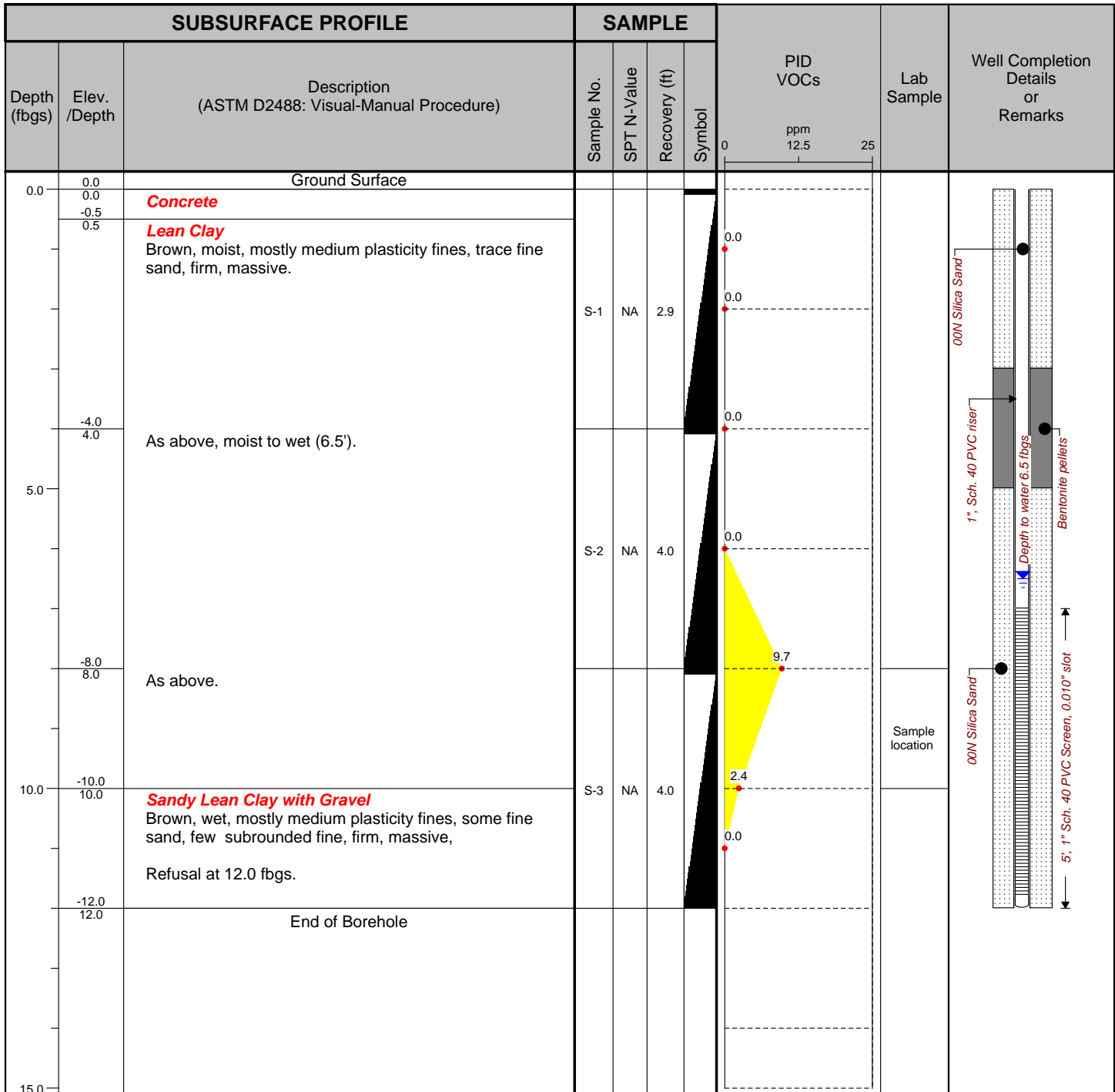
Logged By: PWW

Site Location: 500 Seneca Street, Buffalo, New York

Checked By: CZB



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Drilled By: DDS Companies  
Drill Rig Type: Track Mounted Geoprobe 66DT  
Drill Method: Direct Push  
Comments: Assumed Top of Bedrock 12.0 fbgs.  
Drill Date(s): 4-2-14

Hole Size: 3"  
Stick-up: NA  
Datum: Mean Sea Level

Sheet: 1 of 1

**Project No:** 0270-012-001

**Borehole Number:** SB-11

**Project:** 500 Seneca Street Site

**A.K.A.:**

**Client:** 500 Seneca Street, LLC

**Logged By:** PWW

**Site Location:** 500 Seneca Street, Buffalo, New York

**Checked By:** CZB



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(716) 856-0599

| SUBSURFACE PROFILE |                 |  | SAMPLE     |             |               |        | PID<br>VOCs<br><br>ppm<br>12.5 25 | Lab<br>Sample | Well Completion<br>Details<br>or<br>Remarks |
|--------------------|-----------------|--|------------|-------------|---------------|--------|-----------------------------------|---------------|---|
| Depth<br>(fbgs)    | Elev.<br>/Depth | Description<br>(ASTM D2488: Visual-Manual Procedure)   | Sample No. | SPT N-Value | Recovery (ft) | Symbol |                                   |               |   |
| 0.0                | 0.0             | Ground Surface   |            |             |               |        |                                   |               |   |
|                    | 0.0             | <b>Concrete</b>  |            |             |               |        |                                   |               |   |
|                    | -0.5            |  |            |             |               |        |                                   |               |   |
|                    | 0.5             | <b>Brick</b><br>Orange brick.  |            |             |               |        | 0.0                               |               |   |
|                    | -2.0            |  |            |             |               |        |                                   |               |   |
|                    | 2.0             | <b>Lean Clay</b><br>Brown, moist, mostly medium plasticity fines, trace fine sand, firm, massive.                                      | S-1        | NA          | 2.7           |        | 0.0                               |               |   |
|                    | -4.0            |  |            |             |               |        |                                   |               |   |
|                    | 4.0             | As above, moist to wet (5.0 fbgs)  |            |             |               |        | 0.0                               |               |   |
|                    | 5.0             |  |            |             |               |        |                                   |               |   |
|                    |                 |  | S-2        | NA          | 4.0           |        | 0.0                               |               |   |
|                    | -8.0            |  |            |             |               |        |                                   |               |   |
|                    | 8.0             | As above.  |            |             |               |        | 0.0                               |               |   |
|                    |                 |  |            |             |               |        |                                   |               |   |
|                    |                 |  | S-3        | NA          | 4.0           |        | 0.0                               |               |   |
|                    | -12.0           |  |            |             |               |        |                                   |               |   |
|                    | 12.0            | <b>Lean Clay with Gravel</b><br>Brown, moist, mostly medium plasticity fines, trace fine sand, some sub-rounded gravel, firm, massive. | S-4        | NA          | 1.3           |        | 0.0                               |               |   |
|                    | -13.5           |  |            |             |               |        |                                   |               |   |
|                    | 13.5            | Refusal at 13.5 fbgs.  |            |             |               |        |                                   |               |   |
|                    |                 | End of Borehole  |            |             |               |        |                                   |               |   |
|                    | 15.0            |  |            |             |               |        |                                   |               |   |

**Drilled By:** DDS Companies

**Drill Rig Type:** Track Mounted Geoprobe 66DT

**Drill Method:** Direct Push

**Comments:** Assumed Top of Bedrock 12.7 fbgs.

**Drill Date(s):** 4-2-14

**Hole Size:** 3"

**Stick-up:** NA

**Datum:** Mean Sea Level

**Sheet:** 1 of 1



**Project No:** 0270-012-001

**Borehole Number:** SB-12

**Project:** 500 Seneca Street Site

**A.K.A.:**

**Client:** 500 Seneca Street, LLC

**Logged By:** PWW

**Site Location:** 500 Seneca Street, Buffalo, New York

**Checked By:** CZB



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Buffalo, NY 14218  
(716) 856-0599

| SUBSURFACE PROFILE |                 |  | SAMPLE     |             |               |        | PID<br>VOCs<br><br>ppm<br>12.5 25 | Lab<br>Sample   | Well Completion<br>Details<br>or<br>Remarks |
|--------------------|-----------------|--|------------|-------------|---------------|--------|-----------------------------------|-----------------|---|
| Depth<br>(fbgs)    | Elev.<br>/Depth | Description<br>(ASTM D2488: Visual-Manual Procedure)                         | Sample No. | SPT N-Value | Recovery (ft) | Symbol |                                   |                 |   |
| 0.0                | 0.0             | Ground Surface   |            |             |               |        |                                   |                 |   |
|                    | 0.0             | <b>Concrete</b>  |            |             |               |        |                                   |                 |   |
|                    | -0.5            | <b>Brick Fill</b>  |            |             |               |        |                                   |                 |   |
|                    | 0.5             | Orange Brick.  |            |             |               |        |                                   |                 |   |
|                    | -2.0            | <b>Lean Clay</b>   | S-1        | NA          | 2.7           |        | 0.0                               |                 |   |
|                    | 2.0             | Brown, moist, mostly medium plasticity fines, trace fine sand, firm, massive |            |             |               |        | 0.0                               |                 |   |
|                    | -4.0            | As above, moist to wet (5.0 fbgs).   |            |             |               |        | 0.0                               | Sample Location |   |
|                    | 4.0             |  | S-2        | NA          | 4.0           |        | 0.0                               |                 |   |
|                    | -8.0            | As above.  |            |             |               |        | 0.0                               |                 |   |
|                    | 8.0             |  | S-3        | NA          | 4.0           |        | 0.0                               |                 |   |
|                    | -12.0           | As above.  |            |             |               |        | 0.0                               |                 |   |
|                    | 12.0            |  | S-4        | NA          | 2.5           |        | 0.0                               |                 |   |
|                    | -14.5           | Refusal at 14.5 fbgs.  |            |             |               |        | 0.0                               |                 |   |
|                    | 14.5            |  |            |             |               |        |                                   |                 |   |
| 15.0               |                 | End of Borehole  |            |             |               |        |                                   |                 |   |

Depth to water 5.0 fbgs.

**Drilled By:** DDS Companies

**Drill Rig Type:** Track Mounted Geoprobe 66DT

**Drill Method:** Direct Push

**Comments:** Assumed Top of Bedrock 14.5 fbgs.

**Drill Date(s):** 4-2-14

**Hole Size:** 3"

**Stick-up:** NA

**Datum:** Mean Sea Level

**Sheet:** 1 of 1

Project No: 0270-012-001

Borehole Number: SB-13/TW-3

Project: 500 Seneca Street Site

A.K.A.:

Client: 500 Seneca Street, LLC

Logged By: TAB

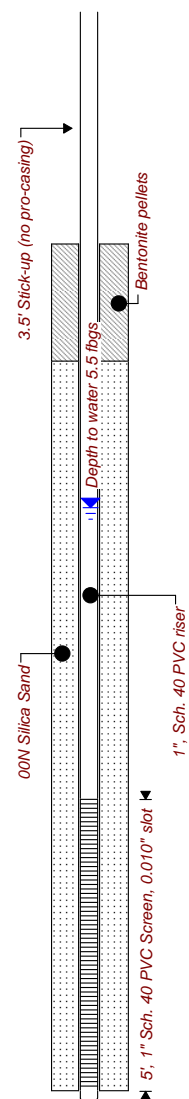
Site Location: 500 Seneca Street, Buffalo, NY

Checked By: CZB



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Buffalo, NY 14218  
(716) 856-0599

| SUBSURFACE PROFILE |                 |  | SAMPLE     |             |               |        | PID<br>VOCs<br><br>ppm<br>12.5 25 | Lab<br>Sample | Well Completion<br>Details<br>or<br>Remarks |
|--------------------|-----------------|--|------------|-------------|---------------|--------|-----------------------------------|---------------|---|
| Depth<br>(fbgs)    | Elev.<br>/Depth | Description<br>(ASTM D2488: Visual-Manual Procedure)   | Sample No. | SPT N-Value | Recovery (ft) | Symbol |                                   |               |   |
| -3.0               |                 |  |            |             |               |        |                                   |               |   |
|                    | 0.0             | Ground Surface   |            |             |               |        |                                   |               |   |
|                    | 0.0             | <b>Concrete</b>  |            |             |               |        |                                   |               |   |
|                    | -0.6            |  |            |             |               |        |                                   |               |   |
|                    | 0.6             | <b>Sandy Lean Clay with Fill</b><br>Black/Reddish brown, moist, mostly medium plastic fines, some fine sand, some cinders, stiff.                                  | C1         | NA          | 1.0           |        | 0.0                               |               |   |
| 2.0                |                 |  |            |             |               |        | 0.0                               |               |   |
|                    | -4.6            |  |            |             |               |        | 0.0                               |               |   |
|                    | 4.6             | As above, orange brick, wet lense from (5.5 to 6.0fbgs)  | C2         | NA          | 3.0           |        | 0.0                               |               |   |
| 7.0                |                 |  |            |             |               |        | 0.0                               |               |   |
|                    | -7.0            | <b>Lean Clay</b><br>Brown, moist, mostly medium plasticity fines, little fine sand, medium toughness, medium dry strength, stiff.                                  |            |             |               |        | 0.0                               |               |   |
|                    | -8.0            | As above.  | C3         | NA          | 4.0           |        | 0.0                               |               |   |
|                    | 8.0             |  |            |             |               |        | 0.0                               |               |   |
|                    |                 |  |            |             |               |        | 0.0                               |               |   |
| 12.0               |                 |  |            |             |               |        | 0.0                               |               |   |
|                    | -12.0           | <b>Sandy Lean Clay</b><br>Grey, wet (12.0 fbgs), mostly medium plastic fines, some fine sand, few sub-rounded fine gravels, medium toughness, medium dry strength. | C4         | NA          | 2.4           |        | 0.0                               |               |   |
|                    |                 | Refusal at 15.5 fbgs.  |            |             |               |        | 0.0                               |               |   |
|                    | -15.5           |  |            |             |               |        | 0.0                               |               |   |
|                    | 15.5            | End of Borehole  |            |             |               |        |                                   |               |   |
| 17.0               |                 |  |            |             |               |        |                                   |               |   |



Drilled By: TREC Environmental Inc.  
Drill Rig Type: Geoprobe 54LT  
Drill Method: Direct Push  
Comments: Assumed Top of Bedrock 15.5-fbgs  
Drill Date(s): 4-8-14

Hole Size: 3-inch  
Stick-up: NA  
Datum: Mean Sea Level.

Sheet: 1 of 1

**Project No:** 0270-012-001

**Borehole Number:** SB-14

**Project:** 500 Seneca Street Site

**A.K.A.:**

**Client:** 500 Seneca Street, LLC

**Logged By:** TAB

**Site Location:** 500 Seneca Street, Buffalo, NY

**Checked By:** CZB



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Buffalo, NY 14218  
(716) 856-0599

| SUBSURFACE PROFILE |                 |   | SAMPLE     |             |               |        | PID<br>VOCs<br><br>ppm<br>12.5 25 | Lab<br>Sample   | Well Completion<br>Details<br>or<br>Remarks |
|--------------------|-----------------|---|------------|-------------|---------------|--------|-----------------------------------|-----------------|---|
| Depth<br>(fbgs)    | Elev.<br>/Depth | Description<br>(ASTM D2488: Visual-Manual Procedure)  | Sample No. | SPT N-Value | Recovery (ft) | Symbol |                                   |                 |   |
| 0.0                | 0.0             | Ground Surface  |            |             |               |        |                                   |                 |   |
|                    | 0.0             | <b>Concrete and Brick</b><br>Concrete and orange brick with some cinders.   |            |             |               |        | 0.0                               |                 |   |
|                    | -1.0            |   |            |             |               |        | 0.0                               | Sample Location |   |
|                    | 1.0             | <b>Lean Clay</b><br>Reddish brown, moist, medium plasticity fines, few fine sand, trace cinders, medium toughness, medium dry strength, stiff.                | C1         | NA          | 3.2           |        | 0.0                               | Sample Location |   |
|                    | -4.0            |   |            |             |               |        | 0.0                               |                 |   |
|                    | 4.0             | As above, no cinders.   |            |             |               |        | 0.0                               |                 |   |
| 5.0                |                 |   |            |             |               |        | 0.0                               |                 |   |
|                    |                 |   | C2         | NA          | 2.8           |        | 0.0                               |                 |   |
|                    |                 |   |            |             |               |        | 0.0                               |                 |   |
|                    | -8.0            |   |            |             |               |        | 0.0                               |                 |   |
|                    | 8.0             | As above, wet (8.0 fbgs)  |            |             |               |        | 0.0                               |                 |   |
|                    |                 |   |            |             |               |        | 0.0                               |                 |   |
| 10.0               |                 |   |            |             |               |        | 0.0                               |                 |   |
|                    |                 |   | C3         | NA          | 3.3           |        | 0.0                               |                 |   |
|                    |                 |   |            |             |               |        | 0.0                               |                 |   |
|                    | -12.0           |   |            |             |               |        | 0.0                               |                 |   |
|                    | 12.0            | As above.   |            |             |               |        | 0.0                               |                 |   |
|                    |                 |   |            |             |               |        | 0.0                               |                 |   |
|                    |                 |   | C4         | NA          | 2.3           |        | 0.0                               |                 |   |
|                    |                 |   |            |             |               |        | 0.0                               |                 |   |
| 15.0               |                 |   |            |             |               |        | 0.0                               |                 |   |
|                    |                 |   |            |             |               |        | 0.0                               |                 |   |
|                    | -16.0           |   |            |             |               |        | 0.0                               |                 |   |
|                    | 16.0            |   | C5         | NA          | 0.6           |        | 0.0                               |                 |   |
|                    | -16.6           | <b>Sandy Lean Clay</b><br>Grey, mostly medium plastic fines, some fine sand trace coarse sand, medium toughness medium dry strength.<br>Refusal at 16.6 fbgs. |            |             |               |        | 0.0                               |                 |   |
|                    | 16.6            |   |            |             |               |        | 0.0                               |                 |   |
|                    |                 | End of Borehole   |            |             |               |        |                                   |                 |   |
| 20.0               |                 |   |            |             |               |        |                                   |                 |   |

Depth to water 8.0 fbgs.

**Drilled By:** TREC Environmental Inc.

**Drill Rig Type:** Geoprobe 54LT

**Drill Method:** Direct Push

**Comments:** Assumed Top of Bedrock 16.6-fbgs

**Drill Date(s):** 4-8-14

**Hole Size:** 3-inch

**Stick-up:** NA

**Datum:** Mean Sea Level.

**Sheet:** 1 of 1

**Borehole Number: SB-15**

**Project:** 500 Seneca Street Site

**A.K.A.:**

**Client:** 500 Seneca Street, LLC

**Logged By:** TAB

**Site Location:** 500 Seneca Street, Buffalo, NY

**Checked By:** CZB



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Buffalo, NY 14218  
(716) 856-0599

[illegible]

**Drilled By: TREC Environmental Inc.**  
**Drill Rig Type: Geoprobe 54LT**  
**Drill Method: Direct Push**  
**Comments: Assumed Top of Bedrock 10.8-fbgs**  
**Drill Date(s): 4-8-14**

**Hole Size: 3-inch**  
**Stick-up: NA**  
**Datum: Mean Sea Level.**

Sheet: 1 of 1



**Project No:** 0270-012-001

**Borehole Number:** SB-16

**Project:** 500 Seneca Street Site

**A.K.A.:**

**Client:** 500 Seneca Street, LLC

**Logged By:** TAB

**Site Location:** 500 Seneca Street, Buffalo, NY

**Checked By:** CZB



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| SUBSURFACE PROFILE |                 |   | SAMPLE     |             |               |        | PID<br>VOCs<br><br>ppm<br>12.5 25 | Lab<br>Sample   | Well Completion<br>Details<br>or<br>Remarks |
|--------------------|-----------------|---|------------|-------------|---------------|--------|-----------------------------------|-----------------|---|
| Depth<br>(fbgs)    | Elev.<br>/Depth | Description<br>(ASTM D2488: Visual-Manual Procedure)  | Sample No. | SPT N-Value | Recovery (ft) | Symbol |                                   |                 |   |
| 0.0                | 0.0             | Ground Surface  |            |             |               |        |                                   |                 |   |
|                    | 0.0             | <b>Concrete</b>   |            |             |               |        |                                   |                 |   |
|                    | -0.5            | <b>Silty Sand with Gravel and Fill</b><br>Brown/Dark grey, moist, mostly fine sand, some non-plastic fines, medium dens, loose when disturbed, with slag brick and cinders. |            |             |               |        | 0.0                               | Sample Location |   |
|                    | 0.5             | <b>Lean Clay</b><br>Reddish brown, moist, medium plasticity fines, little fine sand, medium toughness, medium dry strength, grey fine sand partings, laminated, stiff.      | C1         | NA          | 3.8           |        | 0.0                               | Sample Location |   |
|                    | -4.0            | As above  |            |             |               |        |                                   |                 |   |
|                    | 4.0             |   |            |             |               |        |                                   |                 |   |
| 5.0                |                 |   | C2         | NA          | 3.8           |        | 0.0                               |                 |   |
|                    | -6.5            | <b>Sandy Lean Clay</b><br>Grey, wet (6.5 fbgs), mostly medium plastic fines, some fine sand, trace coarse sand, medium toughness medium dry strength, stiff.                |            |             |               |        | 0.0                               |                 |   |
|                    | 6.5             |   |            |             |               |        |                                   |                 |   |
|                    | -8.0            | As above.   |            |             |               |        |                                   |                 |   |
|                    | 8.0             |   |            |             |               |        |                                   |                 |   |
|                    | -9.0            | Refusal at 9.0 fbgs.  | C3         | NA          | 1.4           |        | 0.0                               |                 |   |
|                    | 9.0             |   |            |             |               |        |                                   |                 |   |
|                    |                 | End of Borehole   |            |             |               |        |                                   |                 |   |
| 10.0               |                 |   |            |             |               |        |                                   |                 |   |

Depth to water 6.5 fbgs.

**Drilled By:** TREC Environmental Inc.

**Drill Rig Type:** Geoprobe 54LT

**Drill Method:** Direct Push

**Comments:** Assumed Top of Bedrock 9.0-fbgs

**Drill Date(s):** 4-8-14

**Hole Size:** 3-inch

**Stick-up:** NA

**Datum:** Mean Sea Level.

**Sheet:** 1 of 1

## APPENDIX D

### FIELD FORMS

# EQUIPMENT CALIBRATION LOG

## PROJECT INFORMATION:

Project Name: 500 Seneca  
Project No.: 0270-012-001  
Client: 500 Seneca

Date: 10/10/13

Instrument Source: ☐ BM ☐ Rental

| METER TYPE   | UNITS             | TIME | MAKE/MODEL                        | SERIAL NUMBER   | CAL. BY | STANDARD                            | POST CAL. READING           | SETTINGS                      |
|--|-------------------|------|-----------------------------------|---|---------|-------------------------------------|-----------------------------|-------------------------------|
| <input checked="" type="checkbox"/> pH meter         | units             | 0730 | Myron L Company<br>Ultra Meter 6P | 6213516 <input checked="" type="checkbox"/><br>6212375 <input type="checkbox"/>           | TAB     | 4.00<br>7.00<br>10.01               | 4.0<br>7.03<br>10.0         | 4.0<br>7.0<br>10.0            |
| <input checked="" type="checkbox"/> Turbidity meter  | NTU               | 0730 | Hach 2100P<br>Turbidimeter        | 06120C020523 <input checked="" type="checkbox"/><br>07110C026405 <input type="checkbox"/> | TAB     | < 0.4<br>20<br>100<br>800           | 0.32<br>19.8<br>99.3<br>804 | 0.1<br>20<br>100<br>800       |
| <input checked="" type="checkbox"/> Sp. Cond. meter  | uS<br>mS          | 0730 | Myron L Company<br>Ultra Meter 6P | 6213516 <input checked="" type="checkbox"/><br>6212375 <input type="checkbox"/>           | TAB     | 1413 mS @ 25 °C                     | 1413                        | 1413                          |
| <input type="checkbox"/> PID                         | ppm               |      | MinRAE 2000                       |   |         | open air zero<br>_____ ppm Iso. Gas |                             | MIBK response<br>factor = 1.0 |
| <input checked="" type="checkbox"/> Dissolved Oxygen | ppm               | 073  | HACH Model HQ30d                  | 0807000023281 <input checked="" type="checkbox"/><br>10050041867 <input type="checkbox"/> | TAB     | 100% Satuartion                     | ✓                           | 100.6%<br>Shim                |
| <input type="checkbox"/> Particulate meter           | mg/m <sup>3</sup> |      |                                   |   |         | zero air                            |                             |                               |
| <input type="checkbox"/> Oxygen                      | %                 |      |                                   |   |         | open air                            |                             |                               |
| <input type="checkbox"/> Hydrogen sulfide            | ppm               |      |                                   |   |         | open air                            |                             |                               |
| <input type="checkbox"/> Carbon monoxide             | ppm               |      |                                   |   |         | open air                            |                             |                               |
| <input type="checkbox"/> LEL                         | %                 |      |                                   |   |         | open air                            |                             |                               |
| <input type="checkbox"/> Radiation Meter             | uR/H              |      |                                   |   |         | background area                     |                             |                               |
| <input type="checkbox"/>                             |                   |      |                                   |   |         |                                     |                             |                               |

## ADDITIONAL REMARKS:

PREPARED BY: TAB  
Equipment Calibration Log

DATE: 10/10/13

# EQUIPMENT CALIBRATION LOG

## PROJECT INFORMATION:

Project Name: 500 Series  
Project No.: 0270-02-001  
Client: 500 Series

Date: 10/9/13

Instrument Source: ☐ BM ☐ Rental

| METER TYPE   | UNITS             | TIME | MAKE/MODEL                        | SERIAL NUMBER   | CAL. BY | STANDARD                            | POST CAL. READING           | SETTINGS                      |
|--|-------------------|------|-----------------------------------|---|---------|-------------------------------------|-----------------------------|-------------------------------|
| <input checked="" type="checkbox"/> pH meter         | units             | 0730 | Myron L Company<br>Ultra Meter 6P | 6213516 <input checked="" type="checkbox"/><br>6212375 <input type="checkbox"/>           | TAB     | 4.00<br>7.00<br>10.01               | 4.0<br>6.96<br>10.01        | 4<br>7<br>10                  |
| <input checked="" type="checkbox"/> Turbidity meter  | NTU               | 0730 | Hach 2100P<br>Turbidimeter        | 06120C020523 <input checked="" type="checkbox"/><br>07110C026405 <input type="checkbox"/> | TAB     | < 0.1<br>20<br>100<br>800           | 0.13<br>19.3<br>99.1<br>801 | 0.1<br>20<br>100<br>800       |
| <input checked="" type="checkbox"/> Sp. Cond. meter  | uS<br>mS          | 0730 | Myron L Company<br>Ultra Meter 6P | 6213516 <input checked="" type="checkbox"/><br>6212375 <input type="checkbox"/>           | TAB     | 1413 mS @ 25 °C                     | 1413                        | 1413                          |
| <input type="checkbox"/> PID                         | ppm               |      | MinRAE 2000                       |   |         | open air zero<br>_____ ppm Iso. Gas |                             | MIBK response<br>factor = 1.0 |
| <input checked="" type="checkbox"/> Dissolved Oxygen | ppm               | 0730 | HACH Model HQ30d                  | 0807000023281 <input checked="" type="checkbox"/><br>10050041867 <input type="checkbox"/> | TAB     | 100% Saturation                     | ✓                           | 100%<br>slope                 |
| <input type="checkbox"/> Particulate meter           | mg/m <sup>3</sup> |      |                                   |   |         | zero air                            |                             |                               |
| <input type="checkbox"/> Oxygen                      | %                 |      |                                   |   |         | open air                            |                             |                               |
| <input type="checkbox"/> Hydrogen sulfide            | ppm               |      |                                   |   |         | open air                            |                             |                               |
| <input type="checkbox"/> Carbon monoxide             | ppm               |      |                                   |   |         | open air                            |                             |                               |
| <input type="checkbox"/> LEL                         | %                 |      |                                   |   |         | open air                            |                             |                               |
| <input type="checkbox"/> Radiation Meter             | uR/H              |      |                                   |   |         | background area                     |                             |                               |
| <input type="checkbox"/>                             |                   |      |                                   |   |         |                                     |                             |                               |

## ADDITIONAL REMARKS:

PREPARED BY: TAB  
Equipment Calibration Log

DATE: 10/9/13

# EQUIPMENT CALIBRATION LOG

## PROJECT INFORMATION:

Project Name: 500 Screen RI

Project No.: 0270-012-001

Client: 500 Screen

Date: 3/7/14

Instrument Source: ☒ BM ☐ Rental

| METER TYPE  | UNITS             | TIME | MAKE/MODEL                        | SERIAL NUMBER   | CAL. BY | STANDARD                            | POST CAL. READING          | SETTINGS                      |
|---|-------------------|------|-----------------------------------|---|---------|-------------------------------------|----------------------------|-------------------------------|
| <input checked="" type="checkbox"/> pH meter        | units             | 1100 | Myron L Company<br>Ultra Meter 6P | 6213516 <input type="checkbox"/><br>6212375 <input checked="" type="checkbox"/>           | TAB     | 4.00<br>7.00<br>10.01               | 4.03<br>7.04<br>9.95       | 4.0<br>7.0<br>10.0            |
| <input checked="" type="checkbox"/> Turbidity meter | NTU               | 1100 | Hach 2100P<br>Turbidimeter        | 06120C020523 <input checked="" type="checkbox"/><br>07110C026405 <input type="checkbox"/> | TAB     | < 0.4<br>20<br>100<br>800           | 0.4<br>20.0<br>99.0<br>767 | 0.1<br>20<br>100<br>800       |
| <input checked="" type="checkbox"/> Sp. Cond. meter | uS<br>mS          | 1100 | Myron L Company<br>Ultra Meter 6P | 6213516 <input type="checkbox"/><br>6212375 <input checked="" type="checkbox"/>           | TAB     | 1413 mS @ 25 °C                     | 1414                       | 1413                          |
| <input type="checkbox"/> PID                        | ppm               |      | MinRAE 2000                       |   |         | open air zero<br>_____ ppm Iso. Gas |                            | MIBK response<br>factor = 1.0 |
| <input type="checkbox"/> Dissolved Oxygen           | ppm               |      | HACH Model HQ30d                  | 0807000023281 <input type="checkbox"/><br>10050041867 <input type="checkbox"/>            |         | 100% Satuartion                     |                            |                               |
| <input type="checkbox"/> Particulate meter          | mg/m <sup>3</sup> |      |                                   |   |         | zero air                            |                            |                               |
| <input type="checkbox"/> Oxygen                     | %                 |      |                                   |   |         | open air                            |                            |                               |
| <input type="checkbox"/> Hydrogen sulfide           | ppm               |      |                                   |   |         | open air                            |                            |                               |
| <input type="checkbox"/> Carbon monoxide            | ppm               |      |                                   |   |         | open air                            |                            |                               |
| <input type="checkbox"/> LEL                        | %                 |      |                                   |   |         | open air                            |                            |                               |
| <input type="checkbox"/> Radiation Meter            | uR/H              |      |                                   |   |         | background area                     |                            |                               |
| <input type="checkbox"/>                            |                   |      |                                   |   |         |                                     |                            |                               |

## ADDITIONAL REMARKS:

PREPARED BY: TAB  
Equipment Calibration Log.xls

DATE: 3/7/14



# AIR CANISTER FIELD RECORD

## PROJECT INFORMATION:

Project: 500 Seneca St RE  
Job No: 0270-012-001  
Location: Buffalo NY  
Field Staff: TAB  
Client: 500 Seneca

### SAMPLE I.D.:

SSU-1

## WEATHER CONDITIONS:

Ambient Air Temp. - A.M.: 8°F  
Ambient Air Temp. - P.M.: 8°F  
Wind Direction: W  
Wind Speed: 15-20  
Precipitation: NONE

Size of Canister: 6L  
Canister Serial No.: 3290  
Flow Controller No.: 3943  
Sample Date(s): 2/26/14 - 2/27  
Shipping Date:  
Sample Type: ☐ Indoor Air ☐ Outdoor Air  
☒ Subslab, complete section below ☐ Soil Gas  
Soil Gas Probe Depth: ~ 8" inch

## FIELD SAMPLING INFORMATION:

| READING                           | TIME        | VACUUM (inches Hg)<br>or PRESSURE (psig) | DATE           | INITIALS   |
|-----------------------------------|-------------|--|----------------|------------|
| Lab Vacuum (on tag)               | <u>233</u>  | <u>-30.1</u>                             | <u>2/26/14</u> | <u>TAB</u> |
| Field Vacuum Check <sup>1</sup>   | <u>237</u>  | <u>-30</u>                               | <u>2/26/14</u> | <u>TAB</u> |
| Initial Field Vacuum <sup>2</sup> | <u>237</u>  | <u>-30</u>                               | <u>2/26/14</u> | <u>TAB</u> |
| Final Field Vacuum <sup>3</sup>   | <u>1008</u> | <u>-12</u>                               | <u>2/27/14</u> | <u>TAB</u> |
| Duration of Sample Collection     |             |  |                |            |

## LABORATORY CANISTER PRESSURIZATION:

|                                     |  |
|-------------------------------------|--|
| Initial Vacuum (inches Hg and psia) |  |
| Final Pressure (psia)               |  |
| Pressurization Gas                  |  |

## SUBSLAB SHROUD:

Shroud Helium Concentration: 2.6%  
Calculated tubing volume: 9.653 x 3 = 24.13  
Purged Tubing Volume Concentration: 0%  
Is the purged volume concentration less than or equal to 10% in shroud?

- ☒ YES, continue sampling  
☐ NO, improve surface seal and retest

| COMPOSITE<br>TIME (hours) | FLOW RATE RANGE<br>(ml/min) |
|---------------------------|-----------------------------|
| 15 Min.                   | 316 - 333                   |
| 0.5 Hours                 | 158 - 166.7                 |
| 1                         | 79.2 - 83.3                 |
| 2                         | 39.6 - 41.7                 |
| 4                         | 19.8 - 20.8                 |
| 6                         | 13.2 - 13.9                 |
| 8                         | 9.9 - 10.4                  |
| 10                        | 7.92 - 8.3                  |
| 12                        | 6.6 - 6.9                   |
| 24                        | 3.5 - 4.0                   |

## NOTES:

- Vacuum measured using portable vacuum gauge (provided by Lab)
- Vacuum measured by canister gauge upon opening valve
- Vacuum measured by canister gauge prior to closing valve

Signed: TAB

# AIR CANISTER FIELD RECORD

## PROJECT INFORMATION:

Project: 500 Geneva St RI  
Job No: 0270-012-001  
Location: Buffalo NY  
Field Staff: TAB  
Client: 500 Geneva

### SAMPLE I.D.:

Dup # 1

## WEATHER CONDITIONS:

Ambient Air Temp. - A.M.: 8° F  
Ambient Air Temp. - P.M.: 8° F  
Wind Direction: W  
Wind Speed: 15-20  
Precipitation: NONE

Size of Canister: 6L  
Canister Serial No.: 3759  
Flow Controller No.: 3936  
Sample Date(s): 2/26/14  
Shipping Date:  
Sample Type: ☐ Indoor Air ☐ Outdoor Air  
☒ Subslab, complete section below ☐ Soil Gas  
Soil Gas Probe Depth: ~8-inch

## FIELD SAMPLING INFORMATION:

| READING                           | TIME | VACUUM (inches Hg)<br>or PRESSURE (psig) | DATE    | INITIALS |
|-----------------------------------|------|--|---------|----------|
| Lab Vacuum (on tag)               | 233  | -30.1                                    | 2/26/14 | TAB      |
| Field Vacuum Check <sup>1</sup>   | 236  | -30                                      | 2/26/14 | TAB      |
| Initial Field Vacuum <sup>2</sup> | 236  | -30                                      | 2/26/14 | TAB      |
| Final Field Vacuum <sup>3</sup>   | 1010 | -11                                      | 2/27/14 | TAB      |
| Duration of Sample Collection     |      |  |         |          |

## LABORATORY CANISTER PRESSURIZATION:

|                                     |  |
|-------------------------------------|--|
| Initial Vacuum (inches Hg and psia) |  |
| Final Pressure (psia)               |  |
| Pressurization Gas                  |  |

## SUBSLAB SHROUD:

Shroud Helium Concentration:  
Calculated tubing volume: x 3 =  
Purged Tubing Volume Concentration:  
Is the purged volume concentration less than or equal to 10% in shroud?  
☐ YES, continue sampling  
☐ NO, Improve surface seal and retest

| COMPOSITE<br>TIME (hours) | FLOW RATE RANGE<br>(ml/min) |
|---------------------------|-----------------------------|
| 15 Min.                   | 316 - 333                   |
| 0.5 Hours                 | 158 - 166.7                 |
| 1                         | 79.2 - 83.3                 |
| 2                         | 39.6 - 41.7                 |
| 4                         | 19.8 - 20.8                 |
| 6                         | 13.2 - 13.9                 |
| 8                         | 9.9 - 10.4                  |
| 10                        | 7.92 - 8.3                  |
| 12                        | 6.6 - 6.9                   |
| 24                        | 3.5 - 4.0                   |

## NOTES:

- Vacuum measured using portable vacuum gauge (provided by Lab)
- Vacuum measured by canister gauge upon opening valve
- Vacuum measured by canister gauge prior to closing valve

Signed: TAB

## AIR CANISTER FIELD RECORD

### PROJECT INFORMATION:

Project: 500 Screen  
Job No: 0270-012-001  
Location: Buffalo NY  
Field Staff: TAB  
Client: 500 Screen

### SAMPLE I.D.:

Ambient #1

### WEATHER CONDITIONS:

Ambient Air Temp. - A.M.: 8°F  
Ambient Air Temp. - P.M.: 8°F  
Wind Direction: W  
Wind Speed: 15-20  
Precipitation: NONE

Size of Canister: 6L  
Canister Serial No.: 3290  
Flow Controller No.: 3943  
Sample Date(s): 2/26/14 - 2/27  
Shipping Date:  
Sample Type: ☒ Indoor Air ☐ Outdoor Air  
☐ Subslab, complete section below ☐ Soil Gas  
Soil Gas Probe Depth:

### FIELD SAMPLING INFORMATION:

| READING                           | TIME        | VACUUM (inches Hg)<br>or PRESSURE (psig) | DATE           | INITIALS   |
|-----------------------------------|-------------|--|----------------|------------|
| Lab Vacuum (on tag)               | <u>233</u>  | <u>-30.1</u>                             | <u>2/26/14</u> | <u>TAB</u> |
| Field Vacuum Check <sup>1</sup>   | <u>234</u>  | <u>-30</u>                               | <u>2/26/14</u> | <u>TAB</u> |
| Initial Field Vacuum <sup>2</sup> | <u>234</u>  | <u>-30</u>                               | <u>2/26/14</u> | <u>TAB</u> |
| Final Field Vacuum <sup>3</sup>   | <u>1007</u> | <u>-10</u>                               | <u>2/27/14</u> | <u>TAB</u> |
| Duration of Sample Collection     |             |  |                |            |

### LABORATORY CANISTER PRESSURIZATION:

|                                     |  |
|-------------------------------------|--|
| Initial Vacuum (inches Hg and psia) |  |
| Final Pressure (psia)               |  |
| Pressurization Gas                  |  |

### SUBSLAB SHROUD:

Shroud Helium Concentration:

Calculated tubing volume:                      x 3 =

Purged Tubing Volume Concentration:

Is the purged volume concentration less than or equal to 10% in shroud?

- ☐ YES, continue sampling  
☐ NO, improve surface seal and retest

| COMPOSITE<br>TIME (hours) | FLOW RATE RANGE<br>(ml/min) |
|---------------------------|-----------------------------|
| 15 Min.                   | 316 - 333                   |
| 0.5 Hours                 | 158 - 166.7                 |
| 1                         | 79.2 - 83.3                 |
| 2                         | 39.6 - 41.7                 |
| 4                         | 19.8 - 20.8                 |
| 6                         | 13.2 - 13.9                 |
| 8                         | 9.9 - 10.4                  |
| 10                        | 7.92 - 8.3                  |
| 12                        | 6.6 - 6.9                   |
| 24                        | 3.5 - 4.0                   |

### NOTES:

- <sup>1</sup> Vacuum measured using portable vacuum gauge (provided by Lab)  
<sup>2</sup> Vacuum measured by canister gauge upon opening valve  
<sup>3</sup> Vacuum measured by canister gauge prior to closing valve

Signed: TAB

# AIR CANISTER FIELD RECORD

## PROJECT INFORMATION:

Project: 500 Sereen RI  
Job No: 0270-012-001  
Location: Buffalo NY  
Field Staff: TAB  
Client: 500 Sereen

### SAMPLE I.D.:

SSV-2

## WEATHER CONDITIONS:

Ambient Air Temp. - A.M.: 80°F  
Ambient Air Temp. - P.M.: 80°F  
Wind Direction: W  
Wind Speed: 10-15  
Precipitation: NONE

Size of Canister: 6L  
Canister Serial No.: 3477  
Flow Controller No.: 3742  
Sample Date(s): 2/26/14 - 12/27  
Shipping Date:  
Sample Type: ☐ Indoor Air ☐ Outdoor Air  
☒ Subslab, complete section below ☐ Soil Gas  
Soil Gas Probe Depth: ~ 6"

## FIELD SAMPLING INFORMATION:

| READING                           | TIME | VACUUM (inches Hg)<br>or PRESSURE (psig) | DATE    | INITIALS |
|-----------------------------------|------|--|---------|----------|
| Lab Vacuum (on tag)               | 228  | -30.1                                    | 2/26/14 | TAB      |
| Field Vacuum Check <sup>1</sup>   | 229  | -30                                      | 2/26/14 |          |
| Initial Field Vacuum <sup>2</sup> | 230  | -30                                      | 2/26/14 |          |
| Final Field Vacuum <sup>3</sup>   | 6014 | -3                                       | 2/27/14 |          |
| Duration of Sample Collection     |      |  |         |          |

## LABORATORY CANISTER PRESSURIZATION:

|                                     |  |
|-------------------------------------|--|
| Initial Vacuum (inches Hg and psia) |  |
| Final Pressure (psia)               |  |
| Pressurization Gas                  |  |

## SUBSLAB SHROUD:

Shroud Helium Concentration: 3.4%  
Calculated tubing volume: 2.5' x 3 = 65.157  
Purged Tubing Volume Concentration: 0%  
Is the purged volume concentration less than or equal to 10% in shroud?  
☒ YES, continue sampling  
☐ NO, Improve surface seal and retest

| COMPOSITE<br>TIME (hours) | FLOW RATE RANGE<br>(ml/min) |
|---------------------------|-----------------------------|
| 15 Min.                   | 316 - 333                   |
| 0.5 Hours                 | 158 - 166.7                 |
| 1                         | 79.2 - 83.3                 |
| 2                         | 39.6 - 41.7                 |
| 4                         | 19.8 - 20.8                 |
| 6                         | 13.2 - 13.9                 |
| 8                         | 9.9 - 10.4                  |
| 10                        | 7.92 - 8.3                  |
| 12                        | 6.6 - 6.9                   |
| 24                        | 3.5 - 4.0                   |

## NOTES:

- Vacuum measured using portable vacuum gauge (provided by Lab)
- Vacuum measured by canister gauge upon opening valve
- Vacuum measured by canister gauge prior to closing valve

Signed: TAB

## AIR CANISTER FIELD RECORD

### PROJECT INFORMATION:

Project: 500 Jensen  
Job No: 0270-012-001  
Location: Buffalo NY  
Field Staff: TAB  
Client: 500 Jensen

#### SAMPLE I.D.:

Ambient 2

### WEATHER CONDITIONS:

Ambient Air Temp. - A.M.: 8°F  
Ambient Air Temp. - P.M.: 8°F  
Wind Direction: W  
Wind Speed: 15-20  
Precipitation: NO

Size of Canister: 6L  
Canister Serial No.: 4542  
Flow Controller No.: 3040  
Sample Date(s): 2/26/14 - 2/27  
Shipping Date:  
Sample Type: ☒ Indoor Air ☐ Outdoor Air  
☐ Subslab, complete section below ☐ Soil Gas  
Soil Gas Probe Depth:

### FIELD SAMPLING INFORMATION:

| READING                           | TIME | VACUUM (inches Hg)<br>or PRESSURE (psig) | DATE    | INITIALS |
|-----------------------------------|------|--|---------|----------|
| Lab Vacuum (on tag)               | 228  | -30.1                                    | 2/26/14 | TAB      |
| Field Vacuum Check <sup>1</sup>   | 231  | -29                                      | 2/26/14 | TAB      |
| Initial Field Vacuum <sup>2</sup> | 232  | -29                                      | 2/26/14 | TAB      |
| Final Field Vacuum <sup>3</sup>   | 1012 | -11                                      | 2/27/14 | TAB      |
| Duration of Sample Collection     |      |  |         |          |

### LABORATORY CANISTER PRESSURIZATION:

|                                     |  |
|-------------------------------------|--|
| Initial Vacuum (inches Hg and psia) |  |
| Final Pressure (psia)               |  |
| Pressurization Gas                  |  |

### SUBSLAB SHROUD:

Shroud Helium Concentration:

Calculated tubing volume: x 3 =

Purged Tubing Volume Concentration:

Is the purged volume concentration less than or equal to 10% in shroud?

☐ YES, continue sampling

☐ NO, improve surface seal and retest

| COMPOSITE<br>TIME (hours) | FLOW RATE RANGE<br>(ml/min) |
|---------------------------|-----------------------------|
| 15 Min.                   | 316 - 333                   |
| 0.5 Hours                 | 158 - 166.7                 |
| 1                         | 79.2 - 83.3                 |
| 2                         | 39.6 - 41.7                 |
| 4                         | 19.8 - 20.8                 |
| 6                         | 13.2 - 13.9                 |
| 8                         | 9.9 - 10.4                  |
| 10                        | 7.92 - 8.3                  |
| 12                        | 6.6 - 6.9                   |
| 24                        | 3.5 - 4.0                   |

### NOTES:

1 Vacuum measured using portable vacuum gauge (provided by Lab)

2 Vacuum measured by canister gauge upon opening valve

3 Vacuum measured by canister gauge prior to closing valve

Signed:

TAB



## AIR CANISTER FIELD RECORD

### PROJECT INFORMATION:

Project: 500 Geneva RT  
Job No: 0370-012-001  
Location: Buffalo NY  
Field Staff: TAB  
Client: 500 Geneva

#### SAMPLE I.D.:

SSV-3

### WEATHER CONDITIONS:

Ambient Air Temp. - A.M.: 80°F  
Ambient Air Temp. - P.M.: 80°F  
Wind Direction: W  
Wind Speed: 15-20  
Precipitation: NONE

Size of Canister: 6L  
Canister Serial No.: 4261  
Flow Controller No.: 4104  
Sample Date(s): 2/26/14 - 2/27  
Shipping Date:  
Sample Type: ☐ Indoor Air ☐ Outdoor Air  
☒ Subslab, complete section below ☐ Soil Gas  
Soil Gas Probe Depth: ~5-inch

### FIELD SAMPLING INFORMATION:

| READING                           | TIME | VACUUM (inches Hg)<br>or PRESSURE (psig) | DATE    | INITIALS |
|-----------------------------------|------|--|---------|----------|
| Lab Vacuum (on tag)               | 224  | -30.1                                    | 2/26/14 | TAB      |
| Field Vacuum Check <sup>1</sup>   | 225  | -30                                      | 2/26/14 |          |
| Initial Field Vacuum <sup>2</sup> | 226  | -30                                      | 2/26/14 |          |
| Final Field Vacuum <sup>3</sup>   | 1017 | -12                                      | 2/27/14 |          |
| Duration of Sample Collection     |      |  |         |          |

### LABORATORY CANISTER PRESSURIZATION:

|                                     |  |
|-------------------------------------|--|
| Initial Vacuum (inches Hg and psia) |  |
| Final Pressure (psia)               |  |
| Pressurization Gas                  |  |

### SUBSLAB SHROUD:

Shroud Helium Concentration: 4.6%  
Calculated tubing volume: 21.719 x 3 = 65.157  
Purged Tubing Volume Concentration: 0%  
Is the purged volume concentration less than or equal to 10% in shroud?  
☒ YES, continue sampling  
☐ NO, improve surface seal and retest

| COMPOSITE<br>TIME (hours) | FLOW RATE RANGE<br>(ml/min) |
|---------------------------|-----------------------------|
| 15 Min.                   | 316 - 333                   |
| 0.5 Hours                 | 158 - 166.7                 |
| 1                         | 79.2 - 83.3                 |
| 2                         | 39.6 - 41.7                 |
| 4                         | 19.8 - 20.8                 |
| 6                         | 13.2 - 13.9                 |
| 8                         | 9.9 - 10.4                  |
| 10                        | 7.92 - 8.3                  |
| 12                        | 6.6 - 6.9                   |
| 24                        | 3.5 - 4.0                   |

### NOTES:

- Vacuum measured using portable vacuum gauge (provided by Lab)
- Vacuum measured by canister gauge upon opening valve
- Vacuum measured by canister gauge prior to closing valve

Signed: TAB

## AIR CANISTER FIELD RECORD

### PROJECT INFORMATION:

Project: 500 Sereen Rt  
Job No: 0870-012-001  
Location: Buffalo NY  
Field Staff: TAB  
Client: 500 Sereen

### SAMPLE I.D.:

Ambient - 3

### WEATHER CONDITIONS:

Ambient Air Temp. - A.M.: 8°F  
Ambient Air Temp. - P.M.: 8°F  
Wind Direction: W  
Wind Speed: 15-20  
Precipitation: NONE

Size of Canister: 6L  
Canister Serial No.: 3290  
Flow Controller No.: 3943  
Sample Date(s): 2/26/14 - 2/27  
Shipping Date:  
Sample Type: ☒ Indoor Air ☐ Outdoor Air  
☐ Subslab, complete section below ☐ Soil Gas  
Soil Gas Probe Depth:

### FIELD SAMPLING INFORMATION:

| READING                           | TIME | VACUUM (inches Hg)<br>or PRESSURE (psig) | DATE    | INITIALS |
|-----------------------------------|------|--|---------|----------|
| Lab Vacuum (on tag)               | 225  | -30.1                                    | 2/26/14 | TAB      |
| Field Vacuum Check <sup>1</sup>   | 226  | -28                                      | 2/26/14 | TAB      |
| Initial Field Vacuum <sup>2</sup> | 227  | -28                                      | 2/26/14 | TAB      |
| Final Field Vacuum <sup>3</sup>   | 2019 | -9                                       | 2/27/14 | TAB      |
| Duration of Sample Collection     |      |  |         |          |

### LABORATORY CANISTER PRESSURIZATION:

|                                     |  |
|-------------------------------------|--|
| Initial Vacuum (inches Hg and psia) |  |
| Final Pressure (psia)               |  |
| Pressurization Gas                  |  |

### SUBSLAB SHROUD:

Shroud Helium Concentration:

Calculated tubing volume: x 3 =

Purged Tubing Volume Concentration:

Is the purged volume concentration less than or equal to 10% in shroud?

☐ YES, continue sampling

☐ NO, improve surface seal and retest

| COMPOSITE<br>TIME (hours) | FLOW RATE RANGE<br>(ml/min) |
|---------------------------|-----------------------------|
| 15 Min.                   | 316 - 333                   |
| 0.5 Hours                 | 158 - 166.7                 |
| 1                         | 79.2 - 83.3                 |
| 2                         | 39.6 - 41.7                 |
| 4                         | 19.8 - 20.8                 |
| 6                         | 13.2 - 13.9                 |
| 8                         | 9.9 - 10.4                  |
| 10                        | 7.92 - 8.3                  |
| 12                        | 6.6 - 6.9                   |
| 24                        | 3.5 - 4.0                   |

### NOTES:

1 Vacuum measured using portable vacuum gauge (provided by Lab)

2 Vacuum measured by canister gauge upon opening valve

3 Vacuum measured by canister gauge prior to closing valve

Signed:

TAB

# AIR CANISTER FIELD RECORD

## PROJECT INFORMATION:

Project: 500 Sarsen PI  
Job No: 0270-012-001  
Location: Buffalo NY  
Field Staff: TAB  
Client: 500 Sarsen

### SAMPLE I.D.:

Outside  
Ambient

## WEATHER CONDITIONS:

Ambient Air Temp. - A.M.: 8°F  
Ambient Air Temp. - P.M.: 8°F  
Wind Direction: W  
Wind Speed: 15-20  
Precipitation: NONE

Size of Canister: 6L

Canister Serial No.: 3488

Flow Controller No.: 4761

Sample Date(s): 2/26/14 - 2/27/14

Shipping Date:

Sample Type: ☐ Indoor Air ☒ Outdoor Air

☐ Subslab, complete section below ☐ Soil Gas

Soil Gas Probe Depth:

## FIELD SAMPLING INFORMATION:

| READING                           | TIME | VACUUM (inches Hg)<br>or PRESSURE (psig) | DATE    | INITIALS |
|-----------------------------------|------|--|---------|----------|
| Lab Vacuum (on tag)               | 245  | -30.1                                    | 2/26/14 | TAB      |
| Field Vacuum Check <sup>1</sup>   | 251  | -30                                      | 2/26/14 | TAB      |
| Initial Field Vacuum <sup>2</sup> | 251  | -30                                      | 2/26/14 | TAB      |
| Final Field Vacuum <sup>3</sup>   | 955  | -10                                      | 2/27/14 | TAB      |
| Duration of Sample Collection     |      |  |         |          |

## LABORATORY CANISTER PRESSURIZATION:

|                                     |  |
|-------------------------------------|--|
| Initial Vacuum (inches Hg and psia) |  |
| Final Pressure (psia)               |  |
| Pressurization Gas                  |  |

## SUBSLAB SHROUD:

Shroud Helium Concentration:

Calculated tubing volume: x 3 =

Purged Tubing Volume Concentration:

Is the purged volume concentration less than or equal to 10% in shroud?

☐ YES, continue sampling

☐ NO, improve surface seal and retest

| COMPOSITE<br>TIME (hours) | FLOW RATE RANGE<br>(ml/min) |
|---------------------------|-----------------------------|
| 15 Min.                   | 316 - 333                   |
| 0.5 Hours                 | 158 - 166.7                 |
| 1                         | 79.2 - 83.3                 |
| 2                         | 39.6 - 41.7                 |
| 4                         | 19.8 - 20.8                 |
| 6                         | 13.2 - 13.9                 |
| 8                         | 9.9 - 10.4                  |
| 10                        | 7.92 - 8.3                  |
| 12                        | 6.6 - 6.9                   |
| 24                        | 3.5 - 4.0                   |

## NOTES:

1 Vacuum measured using portable vacuum gauge (provided by Lab)

2 Vacuum measured by canister gauge upon opening valve

3 Vacuum measured by canister gauge prior to closing valve

Signed: 

## APPENDIX E

### LABORATORY ANALYTICAL DATA PACKAGES

(PROVIDED ELECTRONICALLY ON CD)

## APPENDIX F

### DATA USABILITY SUMMARY REPORTS (DUSRs)



# Data Validation Services

120 Cobble Creek Road P.O. Box 208

North Creek, NY 12853

Phone 518-251-4429

harry@frontiernet.net

October 25, 2014

Nathan Munley

Benchmark Environmental Engineering & Science, Inc.

2558 Hamburg Turnpike, Suite 300

Buffalo, NY 14218

RE: Data Usability Summary Report (DUSR)

Validation of the 500 Seneca Street Site Analytical Laboratory Data

TAL-Buffalo SDG Nos. 480-47822-1, 480-55442-1, 480-55676-1, 480-55718-1, 480-57215-1,  
and 480-57543-1

Dear Mr. Munley:

Review has been completed for the data packages generated by TestAmerica Laboratories, Inc. that pertain to samples collected between 10/09/13 and 04/08/1 at the 500 Seneca Street, Buffalo, NY site. Soil and aqueous samples were analyzed for various combinations of the Target Compound List (TCL) and/or CP-51 volatile analytes, TCL semivolatile or Base/Neutral semivolatile analytes, Aroclor PCBs, TCL pesticides, TCL herbicides, Target Analyte List (TAL) metals, RCRA metals, and total cyanide. One aqueous sample was also processed for dissolved metals. Seven 6 L canister air samples and a field duplicate were processed for volatile analytes. Matrix spikes, equipment blanks, and trip blanks were also processed. Volatile and semivolatile Tentatively Identified Compounds (TICs) were requested and reported for some of the soil and aqueous samples. Analytical methodologies are those of the USEPA SW846 and USEPA method TO-15.

The data package submitted by the laboratory contains full deliverables for validation, but this usability report is generated from review of the QC summary form information, with full review of sample raw data and limited review of associated QC raw data. The reported QC summary forms and sample raw data have been reviewed for application of validation qualifiers, in accordance with the project QAPP, with guidance from the USEPA national and regional validation documents, and in consideration for the specific requirements of the analytical methodology. The following items were reviewed:

- \* Data Completeness
- \* Case Narrative
- \* Custody Documentation
- \* Holding Times
- \* Surrogate and Internal Standard Recoveries
- \* Equipment/Trip/Method Blanks
- \* Matrix Spikes/Laboratory Duplicates
- \* Blind Field Duplicates
- \* Laboratory Control Sample (LCS)
- \* Instrumental Tunes
- \* Calibration Standards

- \* ICP Serial Dilution Evaluations
- \* ICP Interference Check Samples
- \* Method Compliance
- \* Sample Result Verification

The data review includes evaluation of the specific items noted in The NYS DER-10 Appendix B section 2.0 (c). The items listed above that show deficiencies are discussed within the text of this narrative. The laboratory QC forms illustrating the excursions can be found within the laboratory data package.

**In summary**, sample results are usable either as reported or with minor qualification or edit. No data are rejected. Data completeness, representativeness, and the analytical method comparability are acceptable. Accuracy and precision are good, with the exception of a potential non-homogeneity in the surface soil matrix. However, many of the pesticide reporting limits are elevated due to the dilutions performed at analysis.

Copies of the client sample identifications are attached to this text, and should be reviewed in conjunction with this report. Also attached are client excel files, with recommended qualifiers/edits applied in red.

#### **Chain-of-Custody/Sample Receipt**

Several of the labels on the air canisters do not show the end date and time of collection. Two canister custody entries do not have correct flow controller IDs.

The initial relinquish entries on the custodies pertaining to samples reported in SDGs 480-47822-1 and 480-57215-1 do include the dates and/or times.

#### **Blind Field Duplicates**

Blind duplicate evaluations were performed on MW-1, SSV-1, SB-12(3-5), and SS-2. Correlations are acceptable, with the exception of those for the following analytes, results for which are qualified as estimated in the following parent samples and their duplicates:

- tetrachloroethene ( $\geq \pm$ CRDL) in SSV-1
- copper, chromium, iron, lead, magnesium, manganese, and vanadium (36%RPD to 94%RPD) in SS-2

#### **Volatile Analyses by EPA8260**

Results for analytes initially reported with the laboratory “E” flag are derived from the dilution analyses of those samples.

The following detection of t-butylbenzene in SB-5(4-6) is edited to reflect non-detection due to very poor mass spectral identification.

The matrix spikes of MW-2 show acceptable recoveries and correlations for the thirteen evaluated analytes. All target analytes should have been evaluated.

Encore samplers. Use of recovery values in the calculation produces good correlations. Recoveries are also acceptable.

Calibration standards show acceptable responses, with the following exceptions, results for which are qualified as estimated in the indicated samples:

- 1,1,2-trichloro-1,2,2-trifluoroethane, carbon disulfide, cyclohexane, methylcyclohexane, and bromoform (25%D to 35%D) in samples MW-4 and Trip Blank
- chloroethane, trichlorotrifluoromethane, and bromoform (22%D to 24%D) in samples MW-1, Blind Dup, MW-2, and Equipment Blank
- carbon disulfide (21%D) in samples TW-2 and Trip Blank

Some of the samples were reported at initial dilution due to concentrations of target analytes. This results in elevated reporting limits for the affected samples.

### **TCL Semivolatiles by EPA8270**

The following detections are qualified tentative in identification and estimated in value due to poor mass spectral identification:

- diethylphthalate in Blind Dup (of MW-2)
- sec-butylbenzene in SB-5(4-6)
- fluorene in SB-1(2-4) and SB-9(2-4)
- acenaphthylene in SB-8(6-8)
- dibenzofuran in HC-6(0.3-2.0)
- acenaphthene, dibenz(a,h)anthracene, and dibenzofuran in HC-3(.5-1.5)
- indeno(1,2,3-cd)pyrene in HC-3(1.5-2.5)
- 2,4-dimethylphenol, benzo(a)anthracene, and carbazole in TW-2
- phenol in TW-3

The following detections are edited to reflect non-detection due to very poor mass spectral identification due to matrix interferences or analyst interpretation error:

- acetophenone in SB-5(4-6)
- benzo(a)anthracene in SB-7(2-4), SB-9(2-4), SB-10(8-10), and HC-3(0.5-1.5)
- indeno(1,2,3-cd)pyrene in SB-11(3-5)
- 2,6-dinitrotoluene, butylbenzylphthalate, and isophorone in TW-2

Due to presence in the method associated blanks, the following detections are considered contamination, and edited to reflect non-detection:

- di-n-butyl phthalate, butyl benzyl phthalate, and phenathrene in the aqueous samples reported in SDGs 480-55718-1
- benzaldehyde in samples reported in SDG 480-57543-1

TW-3 exhibited low recoveries for four of the six surrogate standards. Therefore, the results of that sample are qualified as estimated in value.

Matrix spikes of MW-2 show low recoveries for acenaphthene (56% and 58%), and the result for that compound in the parent sample is qualified as estimated. The matrix spikes of SS-1 show acceptable accuracy and precision for the twelve evaluated analytes. All target analytes should have been evaluated.

Matrix spikes of MW-2 show low recoveries for acenaphthene (56% and 58%), and the result for that compound in the parent sample is qualified as estimated. The matrix spikes of SS-1 show acceptable accuracy and precision for the twelve evaluated analytes. All target analytes should have been evaluated.

Due to outlying recoveries (142% and 144%) in the associated LCS, the results for bis-2-(ethylhexyl)phthalate in the samples reported in SDG 480-57543-1 are to be qualified as estimated.

Calibration standards show acceptable responses, with the following exceptions, results for which are qualified as estimated in the indicated samples:

- hexachlorocyclopentadiene and benzo (g,h,i) perylene (23%D and 38%D) in samples SB-1 (2-4), SB-2 (4-6), SB-3 (2-4), SB-4 (0.5-4.0), SB-5 (4-6), SB-6 (5-7), SB-7 (2-4), SB-8 (6-8), SB-9 (2-4), and SS-1
- hexachlorocyclopentadiene and 2,4-dinitrophenol (24%D and 39%D) in samples SS-2, Blind Dup #1, SS-3, HC-4 (0.7-2.0), HC-5 (0.4-1.7), and HC-6 (0.3-2.0)
- caprolactum and pentachlorophenol (low RRFs) in samples reported in SDG 480-47822-1

#### **Aroclor PCBs, TCL Pesticides, and Herbicides by EPA methods 8081B, 8082, and 8151**

Many of the pesticide detections exhibit elevated dual column quantitative correlations. Those detections have been either qualified as estimated, qualified as tentative in identification and estimated in value, or edited to non-detection, depending on the degree of variance and subsequent uncertainty in identification.

Due to presence in the associated blanks, the following detections are considered contamination, and edited to reflect non-detection:

- d-BHC, g-BHC, 4,4'-DDD, 4,4'-DDT, and g-chlordane in the aqueous samples reported in SDGs 480-47822-1
- d-BHC in SS-1, SB-6(5-7), and SB-9(2-4)

Many of the pesticide analyses were performed at fivefold to one hundredfold dilution, for reasons that were not evident in the raw data. Therefore, reporting limits may be unnecessarily elevated proportionally, the evaluations of extraction efficiency through surrogate responses and matrix effect through matrix spikes are inhibited, and detections are at levels below the adjusted reporting limit (lending a greater level of uncertainty). The adjusted reporting limits may be above the levels of concern for this project.

Due to low surrogate standard recoveries, the results for pesticides in MW-4 are qualified as estimated in value, and may have a low bias.

The pesticide matrix spikes of MW-2 were performed at fivefold dilution. They show erratic recoveries, with one value less than 10% (79% and 9%) for heptachlor epoxide. The result of that analyte in the parent sample has been qualified as estimated in value.

The pesticide matrix spikes of SS-1 cannot be evaluated due to processing at one hundred fold dilution.

The Aroclor 1016/1260 and herbicide matrix spikes of MW-2 and SS-1, and the pesticide and Aroclor 1016/1260 matrix spikes of SB-15(0.2-2.0), show recoveries and duplicate correlations that are within validation action limits.

In data package 480-47822-1, the laboratory reported only summary forms for only one of the pesticide analytical columns, and did not report the summary forms (Forms 10A) for the pesticide dual column quantitative correlations. Raw data for that evaluation were reviewed.

**TAL Metals/CN Analyses by EPA 6010, 7470, 7471, and 9012**

Due to delayed filtration and preservation (performed at the laboratory), the results for the dissolved metals are to be qualified as estimated in value.

Matrix spikes/duplicate evaluations for metals in MW-2 and for mercury in SB-7(2-4) show recoveries and correlations within analytical and validation guidelines. The matrix spike of cyanide in MW-2 shows a marginally low recovery (89%); no qualification is made.

Barium and iron produced outlying recoveries (-4% and 27% for the former and 175% and 148% for the latter) in the matrix spikes of SS-1. Iron also produced an elevated duplicate correlation (64%RPD). The results for these two elements in the parent sample are qualified as estimated in value.

The ICP serial dilution evaluations of MW-2 and SS-1 show correlations within validation guidelines.

The blanks show no contamination affecting sample reported results.

**Volatile Analyses by EPA TO-15**

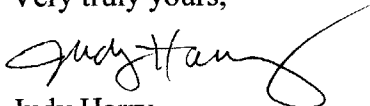
Holding times were met, LCS recoveries are acceptable, and internal standard responses are compliant.

Initial and continuing calibration standard responses fall within validation guidelines.

Holding times and instrument tunes meet requirements. Method and canister blanks show no contamination. The clean canister certifications were reviewed during validation.

Please do not hesitate to contact me if questions or comments arise during your review of this report.

Very truly yours,



Judy Harry

Att: Validation Qualifier Definitions  
Client and Laboratory Sample IDs and Laboratory Case Narratives



## VALIDATION DATA QUALIFIER DEFINITIONS

|             |  |
|-------------|--|
| <b>U</b>    | The analyte was analyzed for, but was not detected above the level of the associated reported quantitation limit.  |
| <b>J</b>    | The analyte was positively identified; the associated numerical value is an approximate concentration of the analyte in the sample.  |
| <b>J-</b>   | The analyte was positively identified; the associated numerical value is an estimated quantity that may be biased low.   |
| <b>J+</b>   | The analyte was positively identified; the associated numerical value is an estimated quantity that may be biased high.  |
| <b>UJ</b>   | The analyte was analyzed for, but was not detected. The associated reported quantitation limit is approximate and may be inaccurate or imprecise.  |
| <b>NJ</b>   | The detection is tentative in identification and estimated in value. Although there is presumptive evidence of the analyte, the result should be used with caution as a potential false positive and/or elevated quantitative value. |
| <b>R</b>    | The data are unusable. The sample results are rejected due to serious deficiencies in meeting Quality Control limits. The analyte may or may not be present.   |
| <b>EMPC</b> | The results do not meet all criteria for a confirmed identification. The quantitative value represents the Estimated Maximum Possible Concentration of the analyte in the sample.  |

**CLIENT and LABORATORY SAMPLE IDs  
and LABORATORY CASE NARRATIVES**

## SAMPLE SUMMARY

Client: Benchmark Env. Eng. & Science, PLLC

Job Number: 480-47822-1

| Lab Sample ID  | Client Sample ID | Client Matrix | Date/Time<br>Sampled | Date/Time<br>Received |
|----------------|------------------|---------------|----------------------|-----------------------|
| 480-47822-1    | MW-1             | Water         | 10/09/2013 1530      | 10/11/2013 1225       |
| 480-47822-2    | Blind Dup        | Water         | 10/09/2013 1200      | 10/11/2013 1225       |
| 480-47822-3    | MW-2             | Water         | 10/09/2013 1407      | 10/11/2013 1225       |
| 480-47822-3MS  | MW-2             | Water         | 10/09/2013 1407      | 10/11/2013 1225       |
| 480-47822-3MSD | MW-2             | Water         | 10/09/2013 1407      | 10/11/2013 1225       |
| 480-47822-4    | MW-4             | Water         | 10/10/2013 0928      | 10/11/2013 1225       |
| 480-47822-5    | Equipment Blank  | Water         | 10/09/2013 1330      | 10/11/2013 1225       |
| 480-47822-6    | Trip Blank       | Water         | 10/09/2013 0000      | 10/11/2013 1225       |

## SAMPLE SUMMARY

Client: Benchmark Env. Eng. & Science, PLLC

Job Number: 480-55442-1

| Lab Sample ID | Client Sample ID | Client Matrix | Date/Time<br>Sampled | Date/Time<br>Received |
|---------------|------------------|---------------|----------------------|-----------------------|
| 480-55442-1   | SSV-1            | Air           | 02/27/2014 1008      | 03/03/2014 1245       |
| 480-55442-2   | DUP #1           | Air           | 02/27/2014 1010      | 03/03/2014 1245       |
| 480-55442-3   | AMBIENT #1       | Air           | 02/27/2014 1007      | 03/03/2014 1245       |
| 480-55442-4   | SSV-2            | Air           | 02/27/2014 1014      | 03/03/2014 1245       |
| 480-55442-5   | AMBIENT #2       | Air           | 02/27/2014 1012      | 03/03/2014 1245       |
| 480-55442-6   | SSV-3            | Air           | 02/27/2014 1017      | 03/03/2014 1245       |
| 480-55442-7   | AMBIENT #3       | Air           | 02/27/2014 1019      | 03/03/2014 1245       |
| 480-55442-8   | OUTSIDE AMBIENT  | Air           | 02/27/2014 0955      | 03/03/2014 1245       |

## SAMPLE SUMMARY

Client: Benchmark Env. Eng. & Science, PLLC

Job Number: 480-55676-1

| Lab Sample ID   | Client Sample ID | Client Matrix | Date/Time<br>Sampled | Date/Time<br>Received |
|-----------------|------------------|---------------|----------------------|-----------------------|
| 480-55676-1     | SB-1 (2-4)       | Solid         | 03/06/2014 1031      | 03/07/2014 1120       |
| 480-55676-2     | SB-2 (4-6)       | Solid         | 03/06/2014 0957      | 03/07/2014 1120       |
| 480-55676-3     | SB-3 (2-4)       | Solid         | 03/06/2014 1155      | 03/07/2014 1120       |
| 480-55676-4     | SB-4 (0.5-4.0)   | Solid         | 03/06/2014 1108      | 03/07/2014 1120       |
| 480-55676-5     | SB-5 (4-6)       | Solid         | 03/06/2014 1538      | 03/07/2014 1120       |
| 480-55676-6     | SB-6 (5-7)       | Solid         | 03/06/2014 1506      | 03/07/2014 1120       |
| 480-55676-7     | SB-7 (2-4)       | Solid         | 03/06/2014 1411      | 03/07/2014 1120       |
| 480-55676-7MS   | SB-7 (2-4)       | Solid         | 03/06/2014 1411      | 03/07/2014 1120       |
| 480-55676-7MSD  | SB-7 (2-4)       | Solid         | 03/06/2014 1411      | 03/07/2014 1120       |
| 480-55676-8     | SB-8 (6-8)       | Solid         | 03/06/2014 1500      | 03/07/2014 1120       |
| 480-55676-9     | SB-9 (2-4)       | Solid         | 03/06/2014 1406      | 03/07/2014 1120       |
| 480-55676-10    | SS-1             | Solid         | 03/06/2014 1354      | 03/07/2014 1120       |
| 480-55676-10MS  | SS-1             | Solid         | 03/06/2014 1354      | 03/07/2014 1120       |
| 480-55676-10MSD | SS-1             | Solid         | 03/06/2014 1354      | 03/07/2014 1120       |
| 480-55676-11    | SS-2             | Solid         | 03/06/2014 1453      | 03/07/2014 1120       |
| 480-55676-12    | Blind Dup #1     | Solid         | 03/06/2014 1300      | 03/07/2014 1120       |
| 480-55676-13    | SS-3             | Solid         | 03/06/2014 1552      | 03/07/2014 1120       |
| 480-55676-14    | HC-1 (0.3-1.4)   | Solid         | 03/05/2014 1220      | 03/07/2014 1120       |
| 480-55676-15    | HC-2 (0.4-2.0)   | Solid         | 03/05/2014 1248      | 03/07/2014 1120       |
| 480-55676-16    | HC-4 (0.7-2.0)   | Solid         | 03/05/2014 1449      | 03/07/2014 1120       |
| 480-55676-17    | HC-5 (0.4-1.7)   | Solid         | 03/05/2014 1520      | 03/07/2014 1120       |
| 480-55676-18    | HC-6 (0.3-2.0)   | Solid         | 03/05/2014 1550      | 03/07/2014 1120       |

## SAMPLE SUMMARY

Client: Benchmark Env. Eng. & Science, PLLC

Job Number: 480-55718-1

| Lab Sample ID | Client Sample ID | Client Matrix | Date/Time<br>Sampled | Date/Time<br>Received |
|---------------|------------------|---------------|----------------------|-----------------------|
| 480-55718-1   | Cistern          | Water         | 03/07/2014 1256      | 03/07/2014 1710       |
| 480-55718-2   | TW-1             | Water         | 03/07/2014 1233      | 03/07/2014 1710       |



## SAMPLE SUMMARY

Client: Benchmark Env. Eng. & Science, PLLC

Job Number: 480-57215-1

| Lab Sample ID | Client Sample ID | Client Matrix | Date/Time<br>Sampled | Date/Time<br>Received |
|---------------|------------------|---------------|----------------------|-----------------------|
| 480-57215-1   | SB-10 (8-10)     | Solid         | 04/02/2014 1130      | 04/03/2014 1405       |
| 480-57215-2   | SB-11 (3-5)      | Solid         | 04/02/2014 1100      | 04/03/2014 1405       |
| 480-57215-3   | SB-12 (3-5)      | Solid         | 04/02/2014 1020      | 04/03/2014 1405       |
| 480-57215-4   | HC-3 (.5-1.5)    | Solid         | 04/02/2014 1510      | 04/03/2014 1405       |
| 480-57215-5   | HC-3 (1.5-2.5)   | Solid         | 04/02/2014 1350      | 04/03/2014 1405       |
| 480-57215-6   | BLIND DUP        | Solid         | 04/02/2014 0800      | 04/03/2014 1405       |

## SAMPLE SUMMARY

Client: Benchmark Env. Eng. & Science, PLLC

Job Number: 480-57543-1

| Lab Sample ID | Client Sample ID | Client Matrix | Date/Time<br>Sampled | Date/Time<br>Received |
|---------------|------------------|---------------|----------------------|-----------------------|
| 480-57543-1   | SB-13 (6-8)      | Solid         | 04/08/2014 1305      | 04/09/2014 1220       |
| 480-57543-2   | SB-14 (0.3-2.0)  | Solid         | 04/08/2014 0928      | 04/09/2014 1220       |
| 480-57543-3   | SB-14 (2-4)      | Solid         | 04/08/2014 0938      | 04/09/2014 1220       |
| 480-57543-4   | SB-15 (0.2-2.0)  | Solid         | 04/08/2014 1011      | 04/09/2014 1220       |
| 480-57543-5   | SB-15 (2-4)      | Solid         | 04/08/2014 1020      | 04/09/2014 1220       |
| 480-57543-6   | SB-16 (0.2-2.0)  | Solid         | 04/08/2014 1050      | 04/09/2014 1220       |
| 480-57543-7   | SB-16 (2-4)      | Solid         | 04/08/2014 1055      | 04/09/2014 1220       |
| 480-57543-8   | TW-2             | Water         | 04/08/2014 1347      | 04/09/2014 1220       |
| 480-57543-9   | TW-3             | Water         | 04/08/2014 1425      | 04/09/2014 1220       |
| 480-57543-10  | MW-3             | Water         | 04/08/2014 1428      | 04/09/2014 1220       |
| 480-57543-11  | TRIP BLANK       | Water         | 04/08/2014 0000      | 04/09/2014 1220       |

**Job Narrative**  
**480-47822-1**

**Receipt**

The samples were received on 10/11/2013 12:25 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 3 coolers at receipt time were 3.0° C, 3.6° C and 4.2° C.

**GC/MS VOA**

Method(s) 8260C: The continuing calibration verification (CCV) associated with analytical batch 146088 recovered outside acceptance criteria, low biased, for multiple analytes. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Since the associated samples were non-detect for these analytes, the data have been reported.

Method(s) 8260C: The large number of analytes included in the continuing calibration verification (CCV) for batch 146167 gives a high probability that one or more analytes will be outside acceptance criteria. As indicated in the reference method, analysis may proceed as long as no more than 20% of the analytes are outside the method-defined %D criteria.

No other analytical or quality issues were noted.

**GC/MS Semi VOA**

Method(s) 8270D: The continuing calibration verification (CCV) for multiple analytes associated with batch 145503 recovered above the upper control limit. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method(s) 8270D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 144942 were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria.

Method(s) 8270D: The matrix spike / matrix spike duplicate (MS/MSD) precision for batch 144942 was outside control limits. These results have been reported and qualified.

Method(s) 8270D: The following sample(s) contained one acid and/or one base surrogate outside acceptance limits: Blind Dup (480-47822-2). The laboratory's SOP allows one acid surrogate and/or one base surrogate to be outside acceptance limits; therefore, re-extraction/re-analysis was not performed. These results have been reported and qualified.

Method(s) 8270D: The following sample(s) contained one acid and/or one base surrogate outside acceptance limits: MW-4 (480-47822-4). The laboratory's SOP allows one acid surrogate and/or one base surrogate to be outside acceptance limits; therefore, re-extraction/re-analysis was not performed. These results have been reported and qualified.

Method(s) 8270C, 8270D: The following sample(s) contained one acid and/or one base surrogate outside acceptance limits: MW-2 (480-47822-3 MS), MW-2 (480-47822-3 MSD). The laboratory's SOP allows one acid surrogate and/or one base surrogate to be outside acceptance limits; therefore, re-extraction/re-analysis was not performed. These results have been reported and qualified.

Method(s) 8270D: The laboratory control sample (LCS) and / or the laboratory control sample duplicate (LCSD) for batch 144942 recovered outside control limits for the following analyte: Acenaphthene. Several other analytes for this spike exceeded recovery limits. Due to the large number of analytes no re-extraction was needed.

Method(s) 8270D: Due to LIMS limitations the form VI for the related job is flagging the data as outside of limits for 8270D when the compounds that are flagged are in fact compliant, this is being addressed with further LIMS development.

No other analytical or quality issues were noted.

**GC Semi VOA**

Method(s) 8081B: The following sample and matrix spikes were diluted due to matrix effects: MW-2 (480-47822-3), MW-2 (480-47822-3 MS), MW-2 (480-47822-3 MSD), elevated reporting limits (RLs) are provided.

Method(s) 8081B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for batch 145223 was outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria. These results have been reported and qualified.

Method(s) 8081B: The following samples were diluted due to the nature of the sample matrix: Blind Dup (480-47822-2), MW-1 (480-47822-1). Elevated reporting limits (RLs) are provided.

Method(s) 8081B: For method 8081, the recovery of the one surrogate in samples Blind Dup (480-47822-2), MW-1 (480-47822-1), MW-2 (480-47822-3), MW-2 (480-47822-3 MSD), MW-4 (480-47822-4) exceeds quality control limits due to the sample matrix. The recovery of the secondary surrogate is within quality control criteria; no corrective action is required

Method(s) 8081B: All primary data is reported from the RTX-CLPI column.

Method(s) 8081B: The method blank MB 480-145223/1-A contained multiple analytes above the method detection limit. These target analyte concentrations were less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method(s) 8082A: The surrogate percent difference in the associated continuing calibration verifications (CCV) for Tetrachloro-m-xylene and was decreased and slightly exceeded 15% on the ZB-5 column, indicating a low bias. (CCV 480-145203/19), (CCV 480-145203/8)

Method(s) 8082A: All primary data is reported from the ZB-5 column.

Method(s) 8082A: The percent difference in a multi-component continuing calibration verification is assessed on the basis of the total amount, individual peak calculations are only listed for completeness.

Method(s) 8151A: All primary data is reported from the RTX-CLPI column.

No other analytical or quality issues were noted.

#### **Metals**

No analytical or quality issues were noted.

#### **General Chemistry**

Method(s) 9012B: The matrix spike (MS) recoveries for batch 145761 were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria. MW-2 (480-47822-3 MS)

No other analytical or quality issues were noted.

#### **Organic Prep**

Method(s) 8151A: During pH adjustment, the following sample required 15mL's of acid to reach the desired pH: Equipment Blank (480-47822-5).

No other analytical or quality issues were noted.

**Job Narrative**  
**480-55442-1**

**Receipt**

The samples were received on 3/3/2014 12:45 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 21.0° C and 21.0° C.

Except:

The container label for the following sample(s) did not match the information listed on the Chain-of-Custody (COC): DUP #1 (480-55442-2). The Flow Controller used has an ID # of 3936. The COC lists a Flow Controller ID# of 3963.

The container label for the following sample(s) did not match the information listed on the Chain-of-Custody (COC): AMBIENT #2 (480-55442-5). The Flow Controller used for sample 5 has a ID # of 3060. The COC lists a Flow Controller # of 3040.

The container label for the following sample(s) did not match the information listed on the Chain-of-Custody (COC): AMBIENT #3 (480-55442-7), DUP #1 (480-55442-2), OUTSIDE AMBIENT (480-55442-8), SSV-1 (480-55442-1). The container labels do not list the sample end date. Logged in per end date (02/27/14) on COC.

The container label for the following sample(s) did not match the information listed on the Chain-of-Custody (COC): AMBIENT #3 (480-55442-7), DUP #1 (480-55442-2), OUTSIDE AMBIENT (480-55442-8), SSV-3 (480-55442-6). The container labels do not list a sample time. Logged in per sample end time on COC.

**Air Toxics**

Method(s) TO15 LL: The continuing calibration verification (CCV) associated with batch <<69375>> recovered above the upper control limit for <<butadiene>>. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: AMBIENT #1 (480-55442-3), AMBIENT #2 (480-55442-5), AMBIENT #3 (480-55442-7), OUTSIDE AMBIENT (480-55442-8).

Method(s) TO15 LL: See internal comments

No other analytical or quality issues were noted.

**Job Narrative**  
**480-55676-1**

**Receipt**

The samples were received on 3/7/2014 11:20 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.9° C.

**GC/MS VOA**

Method(s) 8260C: The method blank for batch 169249 contained Acrylonitrile and/or Naphthalene above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method(s) 8260C: The following sample was analyzed using medium level soil techniques to bring the concentration of target analytes within the calibration range: SB-5 (4-6) (480-55676-5). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

**GC/MS Semi VOA**

Method(s) 8270D: The following samples were diluted due to the nature of the sample matrix : SS-1 (480-55676-10), SS-1 (480-55676-10 MS), SS-1 (480-55676-10 MSD). As such, surrogate and spike recoveries are below the calibration range or are not reported, and elevated reporting limits (RLs) are provided.

Method(s) 8270D: The continuing calibration verification (CCV) for analytical batch 169629 recovered outside control limits for multiple analytes. These analytes were within acceptable limits in the low level calibration verification (CCVL), therefore the data have been qualified and reported.

Method(s) 8270D: The continuing calibration verification (CCV) associated with batch 169629 recovered above the upper control limit for Benzaldehyde. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: (CCV 480-169629/4).

Method(s) 8270D: The laboratory control sample (LCS) for preparation batch 169510 recovered outside control limits for two analytes. Four analytes are allowed outside limits when analyzed using this method; therefore, re-extraction/re-analysis was not performed. These results have been reported and qualified.

Method(s) 8270D: The following sample was diluted due to the nature of the sample matrix: SS-3 (480-55676-13). As such, surrogate recoveries are below the calibration range or are not reported, and elevated reporting limits (RLs) are provided.

Method(s) 8270D: The following samples were diluted due to the nature of the sample matrix: HC-6 (0.3-2.0) (480-55676-18). Elevated reporting limits (RLs) are provided.

Method(s) 8270D: The following sample was diluted to bring the concentration of target analytes within the calibration range: SB-6 (5-7) (480-55676-6). Elevated reporting limits (RLs) are provided.

Method(s) 8270D: The continuing calibration verification (CCV) for analytical batch 169690 recovered outside control limits for multiple analytes. These analytes were within acceptable limits in the low level calibration verification (CCVL), therefore the data have been qualified and reported.

Method(s) 8270D: The continuing calibration verification (CCV) associated with batch 169690 recovered above the upper control limit for Benzaldehyde. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: (CCV 480-169690/4).

No other analytical or quality issues were noted.

**GC Semi VOA**

Method(s) 8081B: The following samples were diluted due to the nature of the sample matrix : Blind Dup #1 (480-55676-12), SB-6 (5-7) (480-55676-6), SB-7 (2-4) (480-55676-7), SB-8 (6-8) (480-55676-8), SS-1 (480-55676-10), SS-1 (480-55676-10 MS), SS-1 (480-55676-10 MSD), SS-2 (480-55676-11), SS-3 (480-55676-13). As such, surrogate and spike recoveries are below the calibration range or are not reported, and elevated reporting limits (RLs) are provided.

Method(s) 8081B: The method blank MB 480-169695/1-A contained the analyte delta-BHC above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method(s) 8081B: All primary data is reported from the RTX-CLPII column.

Method(s) 8081B: The continuing calibration verification (CCV 480-169728/17) for Toxaphene was increased and exceeded control criteria of 20% D, though all associated samples did not show any potential pattern. The data has been reported.

Method(s) 8082A: Surrogate recovery for the following samples was outside control limits: SS-3 (480-55676-13). Evidence of matrix interference is present; therefore, re-extraction and re-analysis was not performed.



Method(s) 8082A: All primary data is reported from the ZB-35 column.

Method(s) 8082A: The following sample(s) was diluted due to the abundance of non-target analytes: SB-8 (6-8) (480-55676-8), SS-1 (480-55676-10), SS-1 (480-55676-10 MS), SS-1 (480-55676-10 MSD). Elevated reporting limits (RLs) are provided.

Method(s) 8151A: The continuing calibration verification (CCV) associated with batch 170053 recovered above the upper control limit. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: (CCV 480-170053/13).

Method(s) 8151A: All primary data is reported from the RTX-CLPI column.

No other analytical or quality issues were noted.

#### **Metals**

Method(s) 6010C: The recoveries of Post Spike, (480-55676-10 PDS), in batch 480-169834 exhibited results outside the quality control limits for total aluminum, chromium, iron, magnesium, and zinc. However, the Serial Dilution of this sample was compliant. Therefore, no corrective action was necessary.

Method(s) 6010C: The following samples were diluted to bring the concentration of target analyte total calcium within the linear range: (480-55676-10 PDS), (480-55676-10 SD), Blind Dup #1 (480-55676-12), SS-1 (480-55676-10), SS-1 (480-55676-10 MS), SS-1 (480-55676-10 MSD), SS-2 (480-55676-11). Elevated reporting limits (RLs) are provided.

Method(s) 7471B: The following samples were diluted to bring the concentration of the target analyte total mercury within the calibration range: HC-5 (0.4-1.7) (480-55676-17), HC-6 (0.3-2.0) (480-55676-18), SB-3 (2-4) (480-55676-3). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

#### **Organic Prep**

Method(s) 3550C: Due to the matrix, the following samples could not be concentrated to the final method required volume: SS-1 (480-55676-10), SS-1 (480-55676-10 MS), SS-1 (480-55676-10 MSD).

Method(s) 3550C: The following samples required a Florisil clean-up, via EPA Method 3620C, to reduce matrix interferences: Blind Dup #1 (480-55676-12), SB-6 (5-7) (480-55676-6), SB-7 (2-4) (480-55676-7), SB-8 (6-8) (480-55676-8), SS-1 (480-55676-10), SS-1 (480-55676-10 MS), SS-1 (480-55676-10 MSD), SS-2 (480-55676-11), SS-3 (480-55676-13).

Method(s) 3550C: The following samples: SB-4 (0.5-4.0) (480-55676-4) was decanted prior to preparation.

Method(s) 8151A: The following samples: SS-1 (480-55676-10), SS-2 (480-55676-11) was decanted prior to preparation.

Method(s) 8151A: Due to the matrix, the initial volumes used for the following samples deviated from the standard procedure: SS-1 (480-55676-10 MS), SS-1 (480-55676-10 MSD).

No other analytical or quality issues were noted.

**Job Narrative**  
**480-55718-1**

**Receipt**

The samples were received on 3/7/2014 5:10 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.8° C.

**GC/MS VOA**

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

**GC/MS Semi VOA**

Method(s) 8270D: The continuing calibration verification (CCV) associated with batch 169671 recovered above the upper control limit for multiple analytes. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: (CCV 480-169671/4).

Method(s) 8270D: The laboratory control sample (LCS) for batch 169485 recovered outside control limits for one analyte. Four analytes are allowed outside limits when analyzed using this method; therefore, re-extraction/re-analysis was not performed. These results have been reported and qualified.

Method(s) 8270D: The method blank MB 480-169485/1-A contained multiple analytes above the method detection limit. These target analyte concentrations were less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

No other analytical or quality issues were noted.

**Metals**

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

**Organic Prep**

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

**Job Narrative**  
**480-57215-1**

**Receipt**

The samples were received on 4/3/2014 2:05 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.0° C.

**GC/MS VOA**

Method(s) 8260C: The large number of analytes included in the continuing calibration verification (CCV) for batch 173750 gives a high probability that one or more analytes will be outside acceptance criteria. As indicated in the reference method, analysis may proceed as long as no more than 20% of the analytes are outside the method-defined %D criteria. (CCVIS 480-173750/4)

Method(s) 8260C: Reported analyte concentrations in the following samples are below 200ug/kg and may be biased low due to the samples not being collected according to 5035-L/5035A-L low-level specifications: SB-10 (8-10) (480-57215-1).

Method(s) 8260C: The following sample was analyzed medium level to bring the concentration of target analytes within the calibration range: SB-10 (8-10) (480-57215-1). Elevated reporting limits (RLs) are provided.

Method(s) 8260C: The large number of analytes included in the continuing calibration verification (CCV) for 174052 gives a high probability that one or more analytes will be outside acceptance criteria. As indicated in the reference method, analysis may proceed as long as no more than 20% of the analytes are outside the method-defined %D criteria.

Method(s) 8260C: The laboratory control sample (LCS) for batch 174052 recovered outside control limits for the following analytes: Bromomethane, Dichlorodifluoromethane, and Trichlorofluoromethane. These analytes were not requested spike compounds; therefore, the data have been qualified and reported.

Method(s) 8260C: The method blank for batch 174078 contained 1,2,4-Trichlorobenzene above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method(s) 8260C: The large number of analytes included in the continuing calibration verification (CCV) in batch 174166 gives a high probability that one or more analytes will be outside acceptance criteria. As indicated in the reference method, analysis may proceed as long as no more than 20% of the analytes are outside the method-defined %D criteria.

Method(s) 8260C: The following sample(s) was analyzed medium level to bring the concentration of target analytes within the calibration range: SB-11 (3-5) (480-57215-2). Elevated reporting limits (RLs) are provided.

Method(s) 8260C: The laboratory control sample (LCS) for batch 174052 recovered outside control limits for the following analyte: Trichlorofluoromethane. This analyte was not requested spike compounds; therefore, the data have been qualified and reported.

No other analytical or quality issues were noted.

**GC/MS Semi VOA**

Method(s) 8270D: The laboratory control sample (LCS) for batch 173815 recovered outside control limits for one analyte. Four analytes are allowed using this method; therefore, re-extraction/re-analysis was not performed. These results have been reported and qualified.

No other analytical or quality issues were noted.

**GC Semi VOA**

Method(s) 8081B: All primary data is reported from the RTX-CLPI column.

Method(s) 8082A: All primary data is reported from the ZB-35 column.

Method(s) 8151A: All primary data is reported from the RTX-CLPI column.

No other analytical or quality issues were noted.

**Metals**

Method(s) 6010C: The continuing calibration blank (CCB 480-175136/25) contained total iron above the reporting limit (RL). All reported samples (LCSSRM 480-174370/2-), (MB 480-174370/1-A) associated with this CCB were either below the laboratory's standard reporting limit for this analyte or contained this analyte at a concentration greater than 10X the value found in the CCB; therefore, re-analysis of samples was not performed.

Method(s) 6010C: The Low Level Continuing Calibration Verification (CCVL 480-175136/26) contained total iron outside the control limits. All reported samples (LCSSRM 480-174370/2-), (MB 480-174370/1-A) associated with this CCVL were either below the laboratory's standard reporting limit for this analyte or contained this analyte at a concentration greater than 10X the value found in the CCVL; therefore, re-analysis of samples was not performed.

Method(s) 6010C: The Low Level Continuing Calibration Verification (CCVL 480-175136/37) contained total iron outside the control limits. All reported samples SB-10 (8-10) (480-57215-1) associated with this CCVL were either below the laboratory's standard reporting limit for

**Job Narrative**  
**480-57543-1**

**Receipt**

The samples were received on 4/9/2014 12:20 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.8° C.

Except:

Headspace in 2 of 3 vials for sample -08 and all 3 vials for sample -09TW-2 (480-57543-8), TW-3 (480-57543-9)

**GC/MS VOA**

Method(s) 8260C: The following samples were diluted to bring the concentration of target analytes within the calibration range: TW-2 (480-57543-8). Elevated reporting limits (RLs) are provided.

Method(s) 8260C: The large number of analytes included in the continuing calibration verification (CCV) for 174797 gives a high probability that one or more analytes will be outside acceptance criteria. As indicated in the reference method, analysis may proceed as long as no more than 20% of the analytes are outside the method-defined %D criteria.

Method(s) 8260C: The following samples were diluted to bring the concentration of target analytes within the calibration range: (480-57543-8 MS), (480-57543-8 MSD), TW-2 (480-57543-8). Elevated reporting limits (RLs) are provided.

Method(s) 8260C: The following sample was collected in properly preserved vials for analysis of volatile organic compounds (VOCs). However, the pH was outside the required criteria when verified by the laboratory, and corrective action was not possible: TW-3 (480-57543-9).

Method(s) 8260C: A dilution was performed creating elevated reporting limits for the following sample due to an excessive amount of sediment in the sample vial: TW-3 (480-57543-9).

No other analytical or quality issues were noted.

**GC/MS Semi VOA**

Method(s) 8270D: The continuing calibration verification (CCV) associated with batch 175383 recovered above the upper control limit for multiple analytes. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: (CCV 480-175383/4), (CCVIS 480-175383/3).

Method(s) 8270D: The laboratory control sample (LCS) for preparation batch 174901 recovered outside control limits for multiple analytes. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method(s) 8270D: The continuing calibration verification (CCV) associated with batch 175693 recovered above the upper control limit for 4-Nitroaniline. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: (CCVIS 480-175693/19).

Method(s) 8270D: The laboratory control sample (LCS) for preparation batch 174858 recovered outside control limits for the following analyte: N-Nitrosodiphenylamine. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported.

Method(s) 8270D: Surrogate recovery for the following samples was outside control limits: TW-2 (480-57543-8), TW-3 (480-57543-9). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method(s) 8270D: The continuing calibration verification (CCV) associated with analytical batch 480-176136 recovered above the upper control limit for 4-Nitroaniline. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: (CCVIS 480-176136/3).

Method(s) 8270D: The following sample was diluted due to the nature of the sample matrix: MW-3 (480-57543-10). Elevated reporting limits (RLs) are provided.

Method(s) 8270D: The method blank MB 480-174858/1-A contained the analyte Benzaldehyde above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

No other analytical or quality issues were noted.

**GC Semi VOA**

Method(s) 8081B: The following sample and matrix spikes were diluted due to matrix effects: (480-57543-4 MS), (480-57543-4 MSD), SB-15 (0.2-2.0) (480-57543-4). Spike and Surrogate recoveries are not reported or not representative, and elevated reporting limits (RLs) are provided.

Method(s) 8081B: All primary data is reported from the RTX-CLPI column.

Method(s) 8082A: All primary data is reported from the ZB-35 column.

No other analytical or quality issues were noted.

#### **Metals**

Method(s) 3005A: Due to the matrix, the initial volume used for the following sample deviated from the standard procedure: TW-3 (480-57543-9). The reporting limits (RLs) have been adjusted proportionately.

Method(s) 6010C: The Low Level Continuing Calibration Verification (CCVL 480-175618/17) contained total vanadium outside the control limits. All reported samples (LCS 480-174859/2-A), (MB 480-174859/1-A) associated with this CCVL were either below the laboratory's standard reporting limit for this analyte or contained this analyte at a concentration greater than 10X the value found in the CCVL; therefore, re-analysis of samples was not performed.

Method(s) 6010C: The following sample was diluted to bring the concentration of target analyte total calcium within the linear range: TW-3 (480-57543-9). Elevated reporting limits (RLs) are provided.

Method(s) 7470A: The Method Blank for preparation batch 175150 contained total mercury above the reporting limit (RL). The associated sample(s) TW-2 (480-57543-8), TW-3 (480-57543-9) contained detects for this analyte at concentrations greater than 10X the value found in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.

Method(s) 245.1, 7470A: Due to interference with the sample matrix, the standard mercury preparation procedure was inadequate for the following samples: TW-3 (480-57543-9). This was demonstrated when the potassium permanganate reagent was added and the characteristic purple color faded rapidly. This loss of color indicates oxidizing conditions were not maintained. The samples was prepared and analyzed at a 5x dilution, which maintained the purple color during digestion.

No other analytical or quality issues were noted.

#### **Organic Prep**

Method(s) 3510C: The following sample: TW-3 (480-57543-9) was decanted prior to preparation.

No other analytical or quality issues were noted.

## APPENDIX G

### TEMPORARY DISCHARGE PERMIT

EPA CATEGORY 40 CFR 403

Expiration Date: May 23, 2015

Date Paid: May 22, 2014

**BUFFALO SEWER AUTHORITY**  
**TEMPORARY DISCHARGE PERMIT**

**Permittee: SAVARINO COMPANIES, LLC**

**Location Address: 95 PERRY STREET, SUITE 104, BUFFALO, NEW YORK 14203**

The above named Permittee is hereby approved to discharge **groundwater** to the BSA Wastewater Treatment Plant only, from:

**500 SENECA STREET, BUFFALO, NEW YORK 14203**

to the Buffalo Sewer Authority facilities in accordance with the Buffalo Sewer Authority Regulations, Article VI, Section 14, and subject to the following conditions:

**ARTICLE 1 CONDITIONS OF ACCEPTANCE**

The discharge of the approved waste by the Permittee shall be subject to the following conditions:

a. **Times, Location & Rate**

The following location is designated for discharge during the hours listed and subject to the limit for rate of discharge specified:

**Location: 500 Seneca Street, from the Primary Discharge Point 001**  
**(see attached site map)**

**Time Discharge is Permitted: 8:00am to 5:00pm**

**Limit on Rate of Discharge: 60 gallons per minute, Buffalo Sewer Authority**  
**Wastewater Treatment Plant only, dry weather only**

b. **Operations**

The Permittee shall maintain cleanliness, minimize odors, ensure necessary sediment control measures are in place and maintained and protect the Buffalo Sewer Authority facilities during the permittee's operations. The Permittee shall not permit any condition to arise which may pose a threat to public health or safety.



c. Samples and Analyses

The Buffalo Sewer Authority may from time to time, require the Permittee to sample and analyze its waste discharges. Such sampling and analyses shall be performed and results submitted by a New York State Dept. of Health certified laboratory. The analyses required shall be as specified by the Buffalo Sewer Authority, which also reserves the right, at its convenience, to sample wastes discharged by the Permittee.

d. Refusal to Discharge

The Buffalo Sewer Authority may refuse the Permittee permission to discharge wastes at any time and for any reason whatsoever, for the protection of sewer facilities against damage or flooding; to assure the proper operation and maintenance of said facilities; or to protect public health, safety or welfare.

e. Local Limits

Except as otherwise specified in this permit, the permit holder shall comply with all specific prohibitions, limits on pollutants or pollutant parameters set forth in the Buffalo Sewer Authority Sewer Use Regulations, as amended from time to time, and such prohibitions, limits and parameters shall be deemed pretreatment standards for purposes for the Clean Water Act.

## ARTICLE 2 REGULATIONS

The Permittee must conform to all Buffalo Sewer Authority regulations and appropriate Federal, State and County Statutes, rules, mandates, directives, and orders concerning the collection, transportation, treatment and disposal of wastewaters.

## ARTICLE 3 INSURANCE AND INDEMNIFICATION

The Permittee, agrees to indemnify and hold harmless the Buffalo Sewer Authority and its agents and employees against any and all claims resulting from work performed under this permit. The permittee shall be solely responsible for any and all injury or damage to its employees or property arising from use of Buffalo Sewer Authority facilities under this permit.

In the event of any alteration, non-renewal or cancellation of these policies, at least (45) forty-five days advance notice shall be given to the Industrial Waste Section, Bird Island Treatment Plant, 90 West Ferry Street, Buffalo, New York 14213 - before such change shall be effective.

**ARTICLE 4 TERMINATION FOR VIOLATION OF AGREEMENT**

In the event of a violation of any of the terms and conditions of this permit by the Permittee or upon the failure to pay the charges herein specified, the Buffalo Sewer Authority shall terminate the permit by service of notice of termination by registered mail at the Permittee's office address as set forth above.

**ARTICLE 5 PERMITTEE APPROVAL**

Official: William R. Paul Title: Sr. Project Manager  
Print Name Print  
Signature: [Signature] Date: 5/29/2014

**ARTICLE 6 BUFFALO SEWER AUTHORITY APPROVAL**

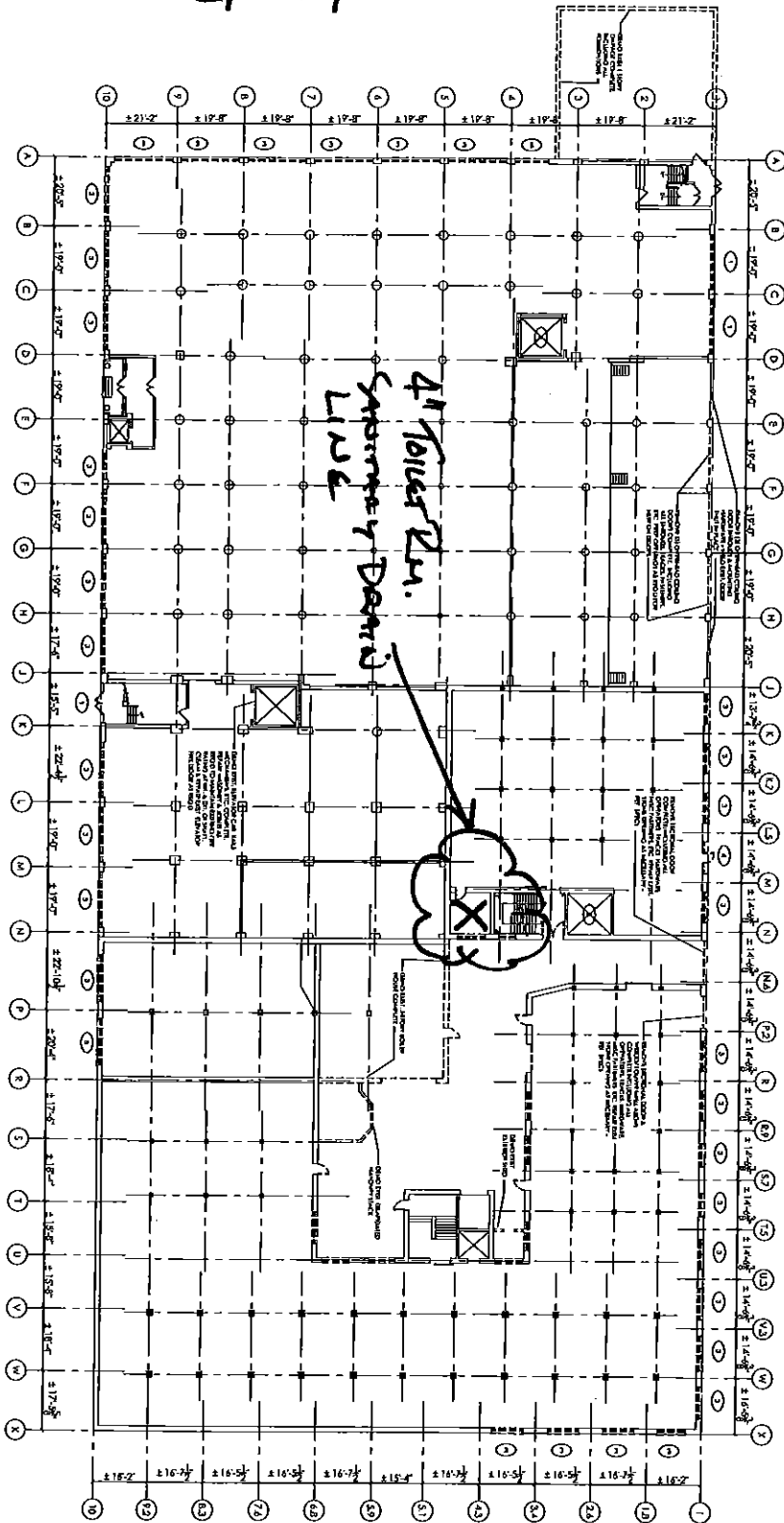
Approved as to Content:

Signature: [Signature] Date: 05/29/2014  
Industrial Waste Administrator

Effective this 30th day of May, 2014

[Signature]  
General Manager  
Buffalo Sewer Authority

Myotis Aztec



HAMBURG ST.

Sett. St.

- [illegible]

- ### PROPOSED CONSTRUCTION SCHEDULE
1. ALL DISTRICTS SHALL BE REQUIRED TO SUBMIT TO DISTRICTS, A DETAILED, MONTHLY SCHEDULE OF CONSTRUCTION, INCLUDING THE TYPE OF CONSTRUCTION, LOCATION, AND THE NUMBER OF PERSONS INVOLVED IN THE CONSTRUCTION. THE SCHEDULE SHALL BE SUBMITTED TO THE DISTRICTS AT LEAST 30 DAYS BEFORE THE CONSTRUCTION BEGINS.
  2. THE DISTRICTS SHALL REVIEW THE SCHEDULE AND, IF NECESSARY, REQUEST MODIFICATIONS TO THE SCHEDULE. THE DISTRICTS SHALL HAVE THE RIGHT TO SCHEDULE CONSTRUCTION AT ANY TIME DURING THE YEAR.
  3. THE DISTRICTS SHALL HAVE THE RIGHT TO SCHEDULE CONSTRUCTION AT ANY TIME DURING THE YEAR.
  4. THE DISTRICTS SHALL HAVE THE RIGHT TO SCHEDULE CONSTRUCTION AT ANY TIME DURING THE YEAR.
  5. THE DISTRICTS SHALL HAVE THE RIGHT TO SCHEDULE CONSTRUCTION AT ANY TIME DURING THE YEAR.
  6. THE DISTRICTS SHALL HAVE THE RIGHT TO SCHEDULE CONSTRUCTION AT ANY TIME DURING THE YEAR.
  7. THE DISTRICTS SHALL HAVE THE RIGHT TO SCHEDULE CONSTRUCTION AT ANY TIME DURING THE YEAR.
  8. THE DISTRICTS SHALL HAVE THE RIGHT TO SCHEDULE CONSTRUCTION AT ANY TIME DURING THE YEAR.

**FIVE HUNDRED  
SENECA**  
500 SENECA ST.  
BUFFALO, NEW YORK

**CHAINTREUIL | JENSEN | RYAN**  
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[www.cjra.com](http://www.cjra.com)

**ARCHITECTS, LLP**

NOT FOR CONSTRUCTION

## APPENDIX H

### ELECTRONIC COPY OF RI/IRM/AA REPORT