# SITE INVESTIGATION AND UNDERGROUND STORAGE TANK CLOSURE REPORT

**FOR**

**45 EAST GENESEE STREET**
**CLYDE, WAYNE COUNTY, NEW YORK**
**NYSDEC SPILL NO. 13-02111**

**PREPARED FOR:**

**NYS DEPARTMENT OF ENVIRONMENTAL CONSERVATION**
**DIVISION OF SPILLS AND REMEDIATION**
**REGION 8 OFFICE**
**6274 EAST AVON-LIMA ROAD**
**AVON, NEW YORK 14414**

**PREPARED BY:**

**EMPIRE GEO-SERVICES, INC.**
**535 SUMMIT POINT DRIVE**
**HENRIETTA, NEW YORK 14467**

**DECEMBER 3, 2013**

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## I. INTRODUCTION

Empire Geo-Services, Inc. (Empire) has prepared this report to document the results of site investigation and underground storage tank (UST) closure activities completed at the NYSDEC 45 East Genesee Street, Clyde, New York (Spill No. 13-02111) site in October and November 2013. These activities are described in the following sections.

Figure 1 is a site layout map showing relevant site features referenced in this report. Empire understands the property was previously utilized as a gasoline filling station. Fill ports to three apparent USTs could be observed on the southeast end of the site. No other site history is known to Empire.

## II. SITE INVESTIGATION

In October 2013 Empire conducted a site investigation of the property. The site investigation consisted of advancing soil borings for the purposes of evaluating the site geology and hydrogeology and qualitatively evaluating potential environmental impacts, and collecting and submitting soil samples for laboratory analysis to quantitatively evaluate environmental impacts. These activities are discussed in the following subsections.

### Soil Borings

On October 8, 2013, Empire conducted a site investigation of the property. The site investigation consisted of advancing 11 soil borings (SB-1 through SB-11) at the locations shown on Figure 2.

The investigation was completed in general accordance with *ASTM D6282 – Standard Guide for Direct Push Soil Sampling for Environmental Site Characterizations.* The borings were generally advanced to a depth of about 16 feet below ground surface (bgs).

At each boring location, continuous soil sampling was performed from the ground surface to the termination depth using the Geoprobe® Macro-Core (MC) soil sampler. The recovered soil

samples were visually classified by a geologist in the field and field screened with an Ion Science Model 1000 PID equipped with a 10.6 eV lamp probe assembly that was calibrated in the field at the beginning of each day utilizing isobutylene calibration gas. Individual subsurface logs were prepared presenting soil types encountered, groundwater occurrence, indications of contamination, and other pertinent observations. The individual subsurface logs are presented in Appendix A.

The only measurable PID reading occurred in the 8-9 feet below ground surface (bgs) interval of boring SB-4. The reading at this location was 0.4 parts per million (ppm). No visual or olfactory evidence of impacts were present at any of the boring locations.

The site geology consists of a thin layer of topsoil, beneath which lies sand with varying amounts of silt and gravel. Some evidence of fill material, such as bricks, is present in the shallower depths of the sandy soil. This sand extends to between about 8 and 10 feet bgs. Silt is present beneath the sand. The silt extends to the bottom of the investigated depth, which is generally around 16 feet bgs. Bedrock was not encountered at any of the boring locations. Refusal was encountered in two of the borings (SB-1 at 8.2 feet bgs and SB-10 at 9 feet bgs). This refusal was likely caused by concrete or fill-type material.

Of the 9 borings advanced to 16 feet bgs, water-saturated soil was present in four of the borings (SB-2, SB-4, SB-6, and SB-11). This saturated soil was generally present over a thickness of about 1 to 2 feet directly above the underlying silt. Soil in the remaining borings was generally observed to be moist, but not saturated. The silt underlying the sand was observed to be dry in all of the borings in which it was encountered.

**Soil Sampling**

A total of four samples were selected and sent to TestAmerica Laboratories, Inc. (TestAmerica) in Buffalo, New York. The four samples selected were:

SB-4 (8-9')
SB-6 (8-9')

SB-8 (8-9')
SB-11 (8-9')

The SB-4 sample, located on the south side of the building was selected for analysis due to its elevated PID reading. The remaining three samples were selected as representing the remaining three sides of the building.

The samples were analyzed for the NYSDEC CP-51 Soil Cleanup Guidance document list of volatile organic compounds (VOCs) by Method 8260 and semivolatile organic compounds (SVOCs) by Method 8270. The laboratory analytical report is included in Appendix B. The results of the soil sampling are discussed in Section IV.

## III. TEST PITS

On October 11, 2013, Empire mobilized a backhoe to the site to excavate test pits above and adjacent to the three known USTs. The purpose of the test pits was to confirm sizes of the tanks and evaluate whether additional tanks may be present.

Testing pitting above and adjacent to the tanks confirmed that the three known USTs were approximately 4 feet in diameter and approximately 11 feet long. These dimensions correspond to a tank capacity of approximately 1,000 gallons. The western tank was observed to be completely full of water, the middle and eastern tanks were observed to be dry.

A test pit dug to the east of the eastern tank indicated there was not an additional tank located adjacent to the three known USTs.

During the test pit activities, a petroleum odor and PID reading of 135 ppm was observed in soil located near the fill port of the westernmost UST. A soil sample was collected and sent to TestAmerica and analyzed for the NYSDEC CP-51 list of VOCs by Method 8260 and SVOCs by Method 8270. The laboratory analytical report is included in Appendix B. The results of the soil sampling are discussed in Section IV.

## IV. SOIL SAMPLING RESULTS

The soil sampling results for the four samples collected during the site investigation and the one sample collected during the test pitting are summarized in Table 1 (for VOCs) and Table 2 (for SVOCs). As shown in Table 1, no VOCs exceedences occurred in any of the five samples.

As shown in Table 2, seven individual SVOCs exceeded their respective soil cleanup levels as presented in the NYSDEC CP-51 Soil Cleanup Guidance document in borings SB-6 and SB-11. These individual SVOCs exceed their respective cleanup levels by factors ranging between about 2.2 and 7.5. In no instances does the measured concentration exceed the soil cleanup objective by an order of magnitude.

Figure 3 summarizes the total SVOC concentrations in the soil borings. On Figure 3, if the total SVOC concentration is presented in green, no individual SVOCs exceed their respective soil cleanup level (borings SB-4, SB-8 and the Fill Port sample). If the total SVOC concentration is presented in red, one or more individual SVOCs exceed their respective soil cleanup level (borings SB-6 and SB-11).

As shown in Figure 3, based on the locations of borings SB-6 and SB-11 and the location of the USTs, the soil in borings SB-1, SB-2, SB-5, and SB-10 potentially contain SVOC concentrations that exceed the soil cleanup levels. However, based on the lack of evidence of impacts at the time of the site investigation, samples for laboratory analysis were not collected at these locations.

## V. UNDERGROUND STORAGE TANK CLOSURE AND CONFIRMATION SAMPLING

On November 7 and 8, 2013, Empire personnel closed the three site USTs through removal, cleaning, and disposal. Following the tank closure, confirmation soil samples were collected from the excavation. These activities are discussed in the following subsections.

**UST Closure**

Prior to removing the tanks from the ground, National Vacuum (under direct contract to NYSDEC) extracted approximately 1,000 gallons of water from the western tank. Each tank was then removed from the ground. The eastern and western tanks were observed to be intact, with no holes and little or no pitting of the steel. The center tank was observed to be rusted through in a small area on the west side of the tank, but was otherwise noted to be in good condition. Each tank was cut and cleaned, and transported to Trout Auto Recycling in Waterloo, New York for recycling. The receipts for the tanks are included in Appendix C.

After collecting confirmation samples (see the following subsection), the excavation was backfilled with stockpiled materials from the excavation and clean, sandy backfill from the Syracuse Sand & Gravel pit in Fulton, New York. Following backfilling, the work area was graded to the approximate original grade.

**Confirmation Sampling**

A total of five confirmation samples were collected following the UST closure activities. These consisted of the north sidewall, the south sidewall, east bottom, west bottom, and the stockpile. No samples were collected from the west side wall due to the proximity of soil boring SB-2 (which showed no visual or olfactory evidence of impacts, but did not have a sample for laboratory analysis collected) or the east side due to the proximity of soil boring SB-4 (which laboratory analysis indicated contained no VOCs or SVOCs at concentrations greater than the NYSDEC soil cleanup levels; see Tables 1 and 2).

The confirmation samples were sent to TestAmerica and analyzed for the NYSDEC CP-51 list of VOCs by Method 8260 and SVOCs by Method 8270. The laboratory analytical report is included in Appendix D.

The soil sampling results for the five confirmation samples are summarized in Table 3 (for VOCs) and Table 4 (for SVOCs). As shown in Table 3, no VOCs were detected in any of the five samples.

As shown in Table 4, there was one minor exceedence (by a factor of 1.1) of a single SVOC in the South Sidewall sample. No other SVOCs exceed the soil cleanup levels in any of the confirmation samples.

## VI. SUMMARY OF CURRENT SITE CONDITIONS

Samples collected during the site investigation and tank closure have indicated that there are no VOC impacts in the site soil. This data is summarized in Tables 1 and 3.

The current site conditions with regard to SVOC impacts are summarized in Tables 2 and 4. Total SVOC concentrations from both the site investigation and UST closure sampling are presented on Figure 4 (note that boring locations SB-7 and SB-9, which are assumed to be non-impacted, and SB-8 which was shown to be non-impacted by laboratory analysis are not shown for clarity). On Figure 4, if the total SVOC concentration is presented in green, no individual SVOCs exceed their respective soil cleanup level. If the total SVOC concentration is presented in red, one or more individual SVOCs exceed their respective soil cleanup level.

Relatively elevated SVOC impacts are present at the locations of borings SB-6 and SB-11. The soil in borings SB-1, SB-2, SB-5, and SB-10 potentially contain SVOC concentrations that exceed the soil cleanup levels, however this has not been documented through laboratory sampling. One minor exceedence of a single SVOC is present in the South Sidewall sample.

It should be noted that the soil cleanup levels presented in the CP-51 Soil Cleanup Guidance are equivalent to the Unrestricted Use soil cleanup objectives presented in Table 375-6.8(a) of NYSDEC 6 NYCRR Part 375, Environmental Remediation Programs (Part 375). Part 375 also includes Restricted Use soil cleanup objectives for “Residential”, “Restricted-Residential”, “Commercial”, and “Industrial” settings. Depending on the planned future use of the site, it may be more appropriate to apply one of these less stringent cleanup objectives.

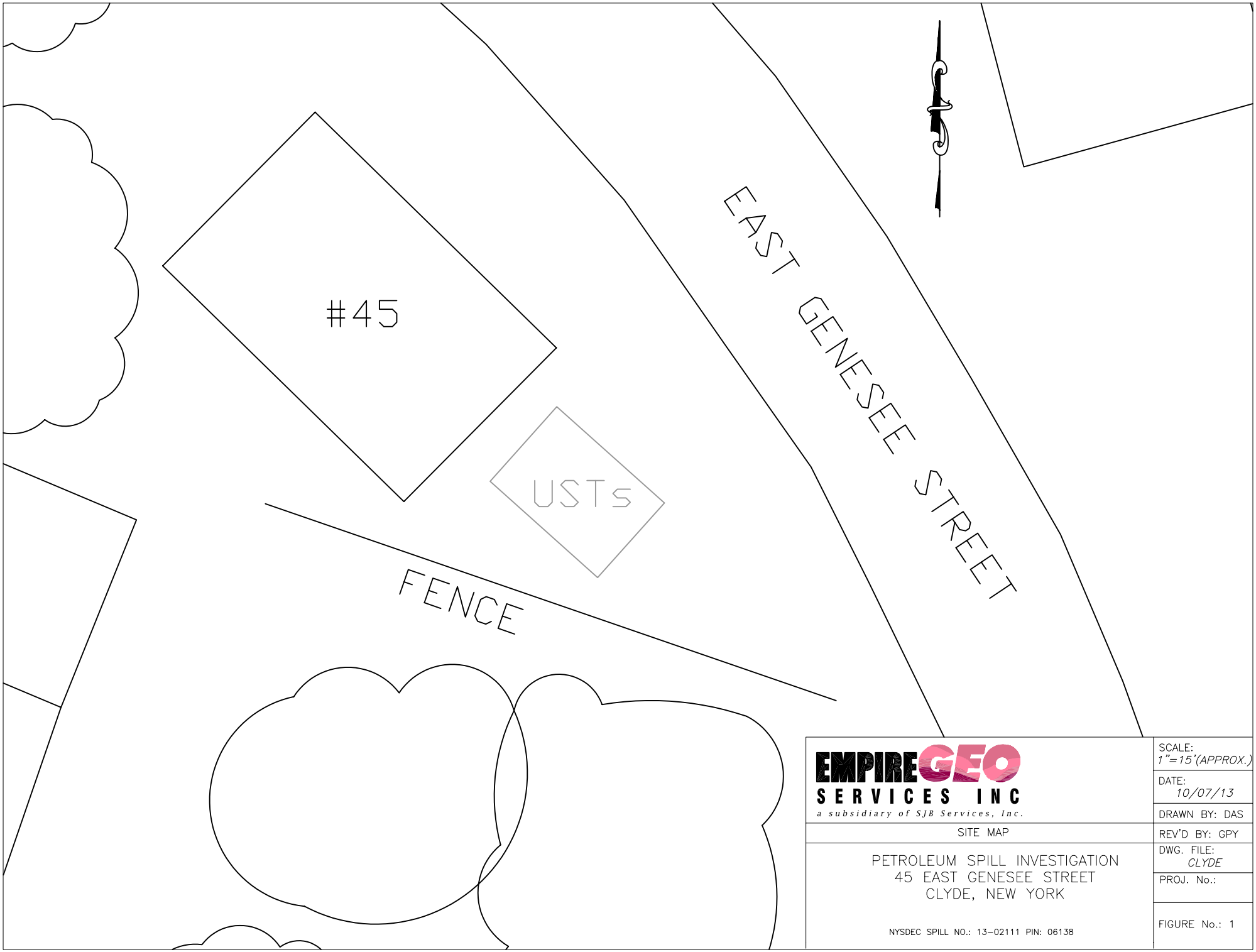
For example, Table 5 compares all of the laboratory analytical samples for SVOCs to the Commercial soil cleanup objectives presented in Table 375-6.8(b) of Part 375. Using the Commercial soil cleanup objectives instead of the CP-51 soil cleanup levels results in the following:

- The exceedence for benzo(b)fluoranthene in the South Sidewall confirmation sample is eliminated;
- The exceedences for benzo(k)fluoranthene, chrysene, and ideno(1,2,3-cd) pyrene in soil borings SB-6 and SB-11 are eliminated; and,
- Four individual SVOCs still exceed their respective soil cleanup objectives in soil borings SB-6 and SB-11. However, the magnitude of these exceedences now range from about 1.2 to 5.6 times the Commercial cleanup objective, compared to 2.2 to 7.5 times the Unrestricted Use cleanup objective.

## VII. FUTURE ACTIVITIES

No site activities are currently planned. Future site activities will be conducted at the direction of NYSDEC.

# FIGURES




EMPIRE GEO SERVICES INC
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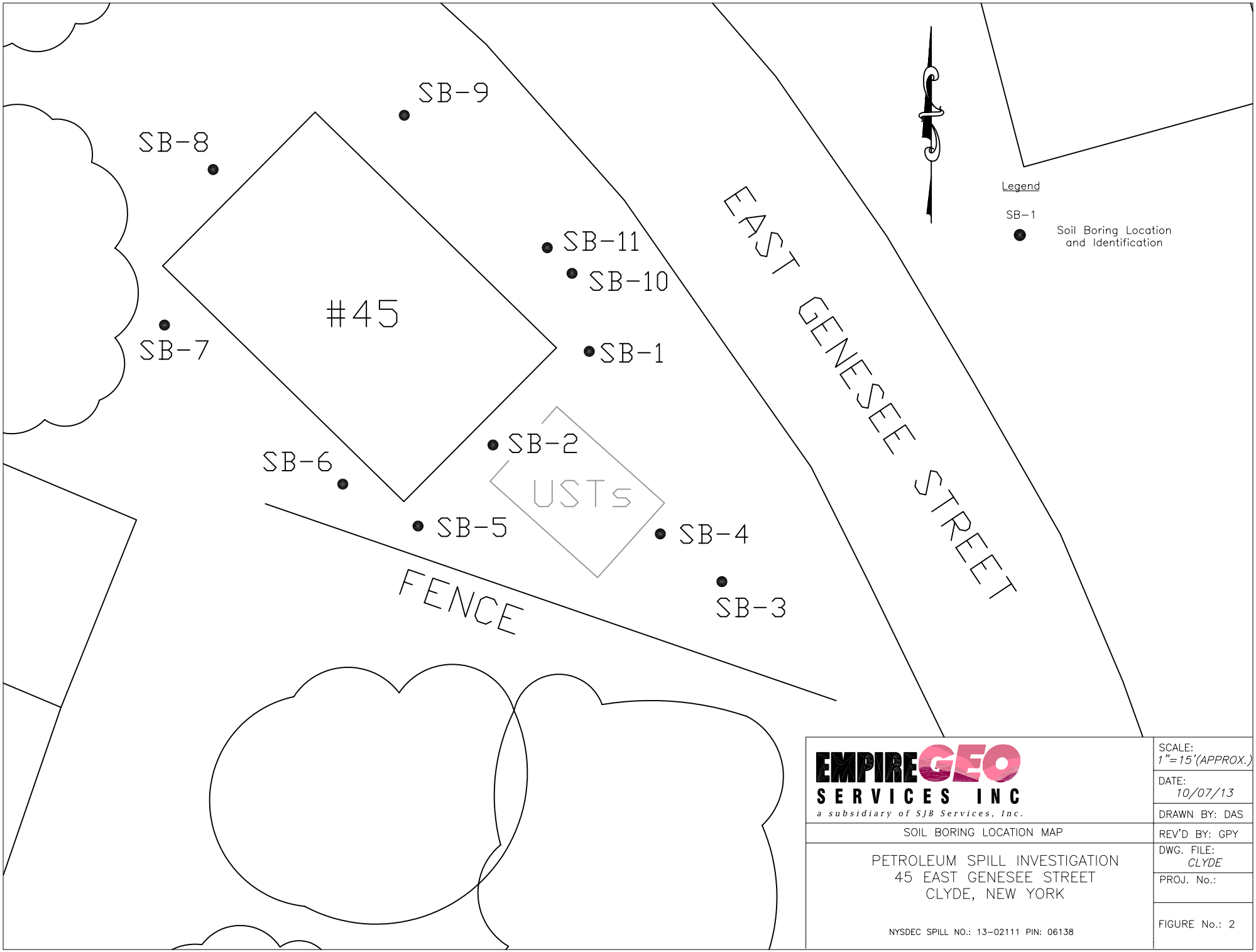
SITE MAP

PETROLEUM SPILL INVESTIGATION
45 EAST GENESEE STREET
CLYDE, NEW YORK

NYSDEC SPILL NO.: 13-02111 PIN: 06138

| | |
|---|---|
| SCALE: | *1"=15'(APPROX.)* |
| DATE: | *10/07/13* |
| DRAWN BY: | DAS |
| REV'D BY: | GPY |
| DWG. FILE: | *CLYDE* |
| PROJ. No.: | |
| FIGURE No.: | 1 |

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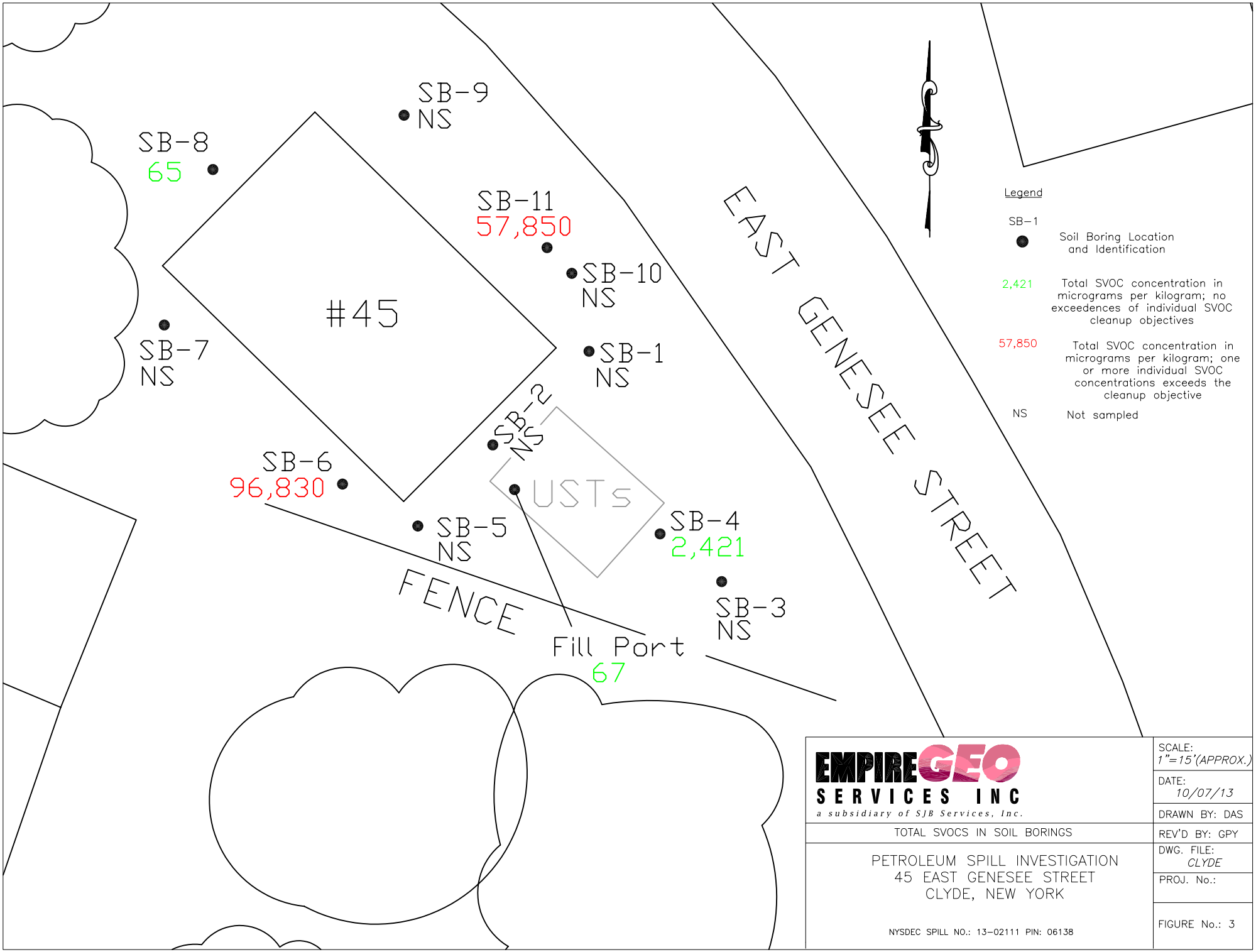
SOIL BORING LOCATION MAP

PETROLEUM SPILL INVESTIGATION
45 EAST GENESEE STREET
CLYDE, NEW YORK

NYSDEC SPILL NO.: 13-02111 PIN: 06138

| | |
|---|---|
| SCALE: | *1"=15'(APPROX.)* |
| DATE: | *10/07/13* |
| DRAWN BY: | DAS |
| REV'D BY: | GPY |
| DWG. FILE: | *CLYDE* |
| PROJ. No.: | |
| FIGURE No.: | 2 |

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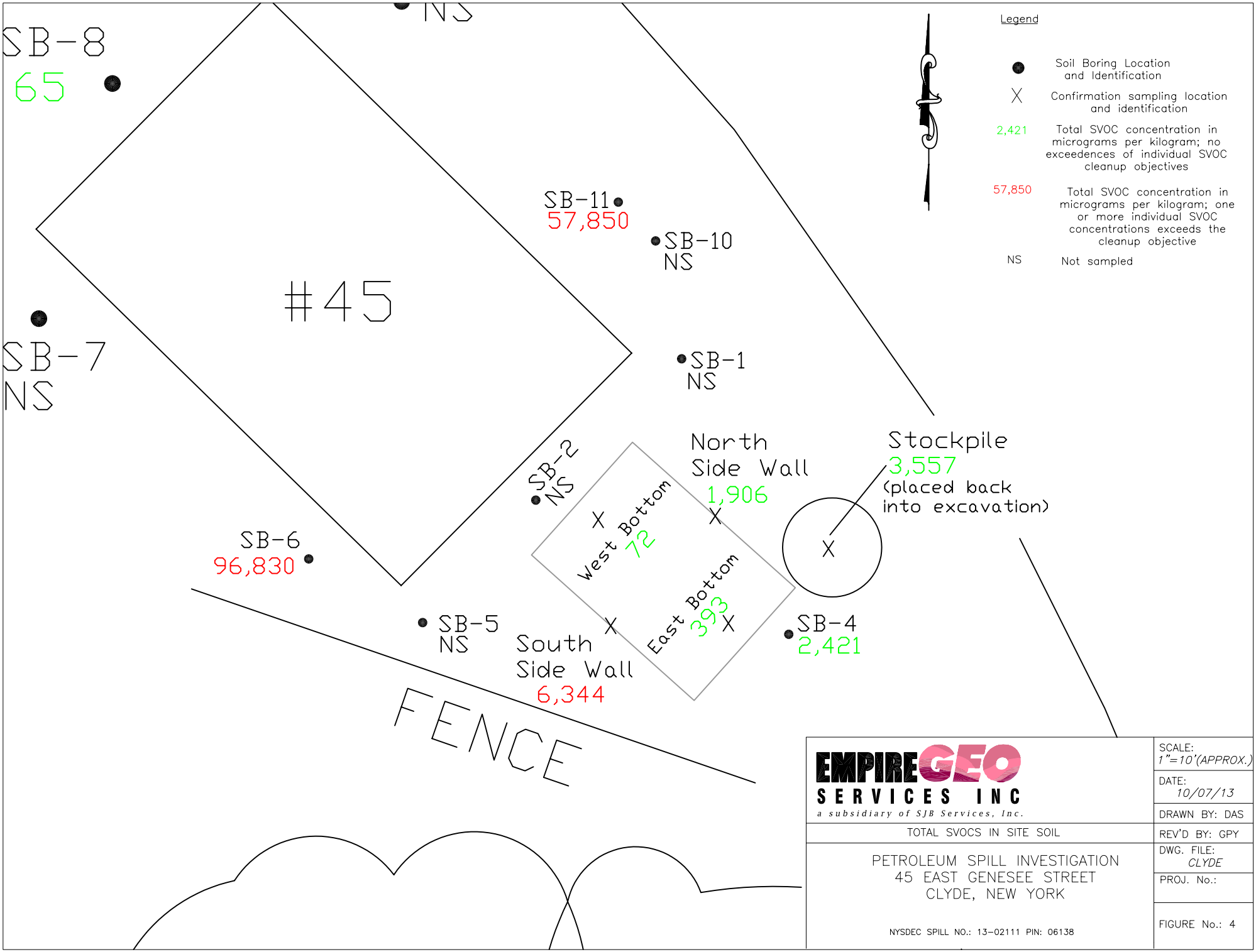
TOTAL SVOCS IN SOIL BORINGS

PETROLEUM SPILL INVESTIGATION
45 EAST GENESEE STREET
CLYDE, NEW YORK

NYSDEC SPILL NO.: 13-02111 PIN: 06138

SCALE: 1"=15'(APPROX.)
DATE: 10/07/13
DRAWN BY: DAS
REV'D BY: GPY
DWG. FILE: CLYDE
PROJ. No.:
FIGURE No.: 3

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TOTAL SVOCS IN SITE SOIL

PETROLEUM SPILL INVESTIGATION
45 EAST GENESEE STREET
CLYDE, NEW YORK

NYSDEC SPILL NO.: 13-02111 PIN: 06138

SCALE: 1"=10'(APPROX.)
DATE: 10/07/13
DRAWN BY: DAS
REV'D BY: GPY
DWG. FILE: CLYDE
PROJ. No.:
FIGURE No.: 4

# TABLES

**TABLE 1**
**VOLATILE ORGANIC COMPOUND CONCENTRATIONS IN SOIL BORINGS**
**45 East Genesee Street, Clyde, New York**
**NYSDEC Spill No. 13-02111**

| Analyte | CP-51 Soil Cleanup Level | SB-4 (8-9) | SB-6 (8-9') | SB-8 (8-9') | SB-11 (8-9') | Fill Port |
|---|---|---|---|---|---|---|
| PID reading | No Std. | 0.4 | 0 | 0 | 0 | 135 |
| 1,2,4-Trimethylbenzene | 3,600 | ND | ND | ND | ND | ND |
| 1,3,5-Trimethylbenzene | 8,400 | ND | ND | ND | ND | ND |
| 4-Isopropyltoluene | 10,000 | ND | ND | ND | ND | ND |
| Benzene | 60 | ND | ND | ND | ND | ND |
| Ethylbenzene | 1,000 | ND | ND | ND | ND | ND |
| Isopropylbenzene | 2,300 | ND | ND | ND | ND | ND |
| Total Xylenes | 260 | ND | ND | ND | ND | 1.1 |
| Methyl tertiarybutyl ether | 930 | ND | ND | ND | ND | ND |
| n-Butylbenzene | 12,000 | ND | ND | ND | ND | ND |
| n-Propylbenzene | 3,900 | ND | ND | ND | ND | ND |
| Naphthalene | 12,000 | ND | ND | ND | ND | ND |
| sec-Butylbenzene | 11,000 | ND | ND | ND | ND | ND |
| tert-Butylbenzene | 5,900 | ND | ND | ND | ND | ND |
| Toluene | 700 | ND | ND | ND | ND | ND |
| Total VOCs | No Std. | 0 | 0 | 0 | 0 | 1.1 |

**Notes:**

All results are reported in micrograms per kilogram
ND = Not detected

**TABLE 2**
**SEMIVOLATILE ORGANIC COMPOUND CONCENTRATIONS IN SOIL BORINGS**
**45 East Genesee Street, Clyde, New York**
**NYSDEC Spill No. 13-02111**

| Analyte | CP-51 Soil Cleanup Level | SB-4 (8-9) | SB-6 (8-9') | SB-8 (8-9') | SB-11 (8-9') | Fill Port |
|---|---|---|---|---|---|---|
| PID Reading | No Std. | 0.4 | 0 | 0 | 0 | 135 |
| Acenaphthene | 20,000 | 61 | 2,900 | ND | 430 | 21 |
| Acenaphthylene | 100,000 | ND | 310 | ND | 1,100 | ND |
| Anthracene | 100,000 | 110 | 6,100 | ND | 1,400 | 16 |
| Benzo(a)anthracene | 1,000 | 270 | 7,500 | ND | 6,000 | ND |
| Benzo(a)pyrene | 1,000 | ND | 5,100 | 8.2 | 5,600 | ND |
| Benzo(b)fluoranthene | 1,000 | ND | 6,500 | 9.0 | 7,100 | ND |
| Benzo(g,h,i)perylene | 100,000 | ND | 1,800 | ND | 2,500 | ND |
| Benzo(k)fluoranthene | 800 | ND | 2,500 | 9.9 | 3,600 | ND |
| Chrysene | 1,000 | 250 | 6,900 | 11 | 5,900 | ND |
| Dibenzo(a,h)anthracene | 330 | ND | 720 | ND | 770 | ND |
| Fluoranthene | 100,000 | 540 | 17,000 | 11 | 12,000 | 8.7 |
| Fluorene | 30,000 | ND | 2,800 | ND | 600 | ND |
| Ideno(1,2,3-cd)pyrene | 500 | ND | 1,500 | 7.7 | 2,300 | ND |
| Naphthalene | 12,000 | 120 | 2,200 | ND | 200 | ND |
| Phenanthrene | 100,000 | 500 | 22,000 | ND | 550 | 21 |
| Pyrene | 100,000 | 570 | 11,000 | 7.8 | 8,700 | ND |
| **Total SVOCs** | No Std. | 2,421 | 96,830 | 65 | 58,750 | 67 |

**Notes:**

All results are reported in micrograms per kilogram
Yellow shading indicates the value exceedes the cleanup level
ND = Not detected

**TABLE 3**
**VOLATILE ORGANIC COMPOUND CONCENTRATIONS IN CONFIRMATION SAMPLES**
**45 East Genesee Street, Clyde, New York**
**NYSDEC Spill No. 13-02111**

| Analyte | CP-51 Soil Cleanup Level | North Side Wall | South Side Wall | West Bottom | East Bottom | Stockpile |
|---|---|---|---|---|---|---|
| PID reading | No Std. | 0 | 0 | 0 | 0 | 0 |
| 1,2,4-Trimethylbenzene | 3,600 | ND | ND | ND | ND | ND |
| 1,3,5-Trimethylbenzene | 8,400 | ND | ND | ND | ND | ND |
| 4-Isopropyltoluene | 10,000 | ND | ND | ND | ND | ND |
| Benzene | 60 | ND | ND | ND | ND | ND |
| Ethylbenzene | 1,000 | ND | ND | ND | ND | ND |
| Isopropylbenzene | 2,300 | ND | ND | ND | ND | ND |
| Total Xylenes | 260 | ND | ND | ND | ND | ND |
| Methyl tertiarybutyl ether | 930 | ND | ND | ND | ND | ND |
| n-Butylbenzene | 12,000 | ND | ND | ND | ND | ND |
| n-Propylbenzene | 3,900 | ND | ND | ND | ND | ND |
| Naphthalene | 12,000 | ND | ND | ND | ND | ND |
| sec-Butylbenzene | 11,000 | ND | ND | ND | ND | ND |
| tert-Butylbenzene | 5,900 | ND | ND | ND | ND | ND |
| Toluene | 700 | ND | ND | ND | ND | ND |
| Total VOCs | No Std. | 0 | 0 | 0 | 0 | 0 |

**Notes:**

All results are reported in micrograms per kilogram
ND = Not detected

**TABLE 4**
**SEMIVOLATILE ORGANIC COMPOUND CONCENTRATIONS IN CONFIRMATION SAMPLES**
**45 East Genesee Street, Clyde, New York**
**NYSDEC Spill No. 13-02111**

| Analyte | CP-51 Soil Cleanup Level | North Side Wall | South Side Wall | West Bottom | East Bottom | Stockpile |
|---|---|---|---|---|---|---|
| PID Reading | No Std. | 0 | 0 | 0 | 0 | 0 |
| Acenaphthene | 20,000 | 11 | 22 | ND | ND | 17 |
| Acenaphthylene | 100,000 | ND | 27 | ND | ND | 33 |
| Anthracene | 100,000 | 42 | 100 | ND | ND | 60 |
| Benzo(a)anthracene | 1,000 | 190 | 610 | ND | 9.1 | 370 |
| Benzo(a)pyrene | 1,000 | 160 | 750 | 7.8 | 42 | 340 |
| Benzo(b)fluoranthene | 1,000 | 190 | 1,100 | 16 | 61 | 540 |
| Benzo(g,h,i)perylene | 100,000 | 62 | 210 | ND | 11 | 81 |
| Benzo(k)fluoranthene | 800 | 94 | 440 | 6.9 | 30 | 220 |
| Chrysene | 1,000 | 180 | 630 | 11 | 50 | 360 |
| Dibenzo(a,h)anthracene | 330 | 25 | 85 | ND | ND | ND |
| Fluoranthene | 100,000 | 380 | 870 | 17 | 82 | 630 |
| Fluorene | 30,000 | 13 | 20 | ND | ND | 20 |
| Ideno(1,2,3-cd)pyrene | 500 | 59 | 210 | ND | 11 | 86 |
| Naphthalene | 12,000 | ND | 180 | ND | ND | ND |
| Phenanthrene | 100,000 | 220 | 370 | ND | 40 | 340 |
| Pyrene | 100,000 | 280 | 720 | 13 | 57 | 460 |
| **Total SVOCs** | No Std. | 1,906 | 6,344 | 72 | 393 | 3,557 |

**Notes:**

All results are reported in micrograms per kilogram
Yellow shading indicates the value exceedes the cleanup level
ND = Not detected

**TABLE 5**
**SEMIVOLATILE ORGANIC COMPOUND CONCENTRATIONS IN SOIL - COMMERCIAL CLEANUP OBJECTIVES**
**45 East Genesee Street, Clyde, New York**
**NYSDEC Spill No. 13-02111**

| Analyte | Commercial Cleanup Objective | SB-4 (8-9) | SB-6 (8-9') | SB-8 (8-9') | SB-11 (8-9') | Fill Port | North Side Wall | South Side Wall | West Bottom | East Bottom | Stockpile |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | 500,000 | 61 | 2,900 | ND | 430 | 21 | 11 | 22 | ND | ND | 17 |
| Acenaphthylene | 500,000 | ND | 310 | ND | 1,100 | ND | ND | 27 | ND | ND | 33 |
| Anthracene | 500,000 | 110 | 6,100 | ND | 1,400 | 16 | 42 | 100 | ND | ND | 60 |
| Benzo(a)anthracene | 5,600 | 270 | 7,500 | ND | 6,000 | ND | 190 | 610 | ND | 9.1 | 370 |
| Benzo(a)pyrene | 1,000 | ND | 5,100 | 8.2 | 5,600 | ND | 160 | 750 | 7.8 | 42 | 340 |
| Benzo(b)fluoranthene | 5,600 | ND | 6,500 | 9.0 | 7,100 | ND | 190 | 1,100 | 16 | 61 | 540 |
| Benzo(g,h,i)perylene | 500,000 | ND | 1,800 | ND | 2,500 | ND | 62 | 210 | ND | 11 | 81 |
| Benzo(k)fluoranthene | 56,000 | ND | 2,500 | 9.9 | 3,600 | ND | 94 | 440 | 6.9 | 30 | 220 |
| Chrysene | 56,000 | 250 | 6,900 | 11 | 5,900 | ND | 180 | 630 | 11 | 50 | 360 |
| Dibenzo(a,h)anthracene | 560 | ND | 720 | ND | 770 | ND | 25 | 85 | ND | ND | ND |
| Fluoranthene | 500,000 | 540 | 17,000 | 11 | 12,000 | 8.7 | 380 | 870 | 17 | 82 | 630 |
| Fluorene | 500,000 | ND | 2,800 | ND | 600 | ND | 13 | 20 | ND | ND | 20 |
| Ideno(1,2,3-cd)pyrene | 5,600 | ND | 1,500 | 7.7 | 2,300 | ND | 59 | 210 | ND | 11 | 86 |
| Naphthalene | 500,000 | 120 | 2,200 | ND | 200 | ND | ND | 180 | ND | ND | ND |
| Phenanthrene | 500,000 | 500 | 22,000 | ND | 550 | 21 | 220 | 370 | ND | 40 | 340 |
| Pyrene | 500,000 | 570 | 11,000 | 7.8 | 8,700 | ND | 280 | 720 | 13 | 57 | 460 |
| **Total SVOCs** | No Std. | 2,421 | 96,830 | 65 | 58,750 | 67 | 1,906 | 6,344 | 72 | 393 | 3,557 |

**Notes:**

All results are reported in micrograms per kilogram
Yellow shading indicates the value exceedes the cleanup level
ND = Not detected

**APPENDIX A**
**Soil Boring Logs**

DATE:
STARTED 10/08/13
FINISHED 10/08/13
SHEET 1 OF 1

**DIRECT PUSH SAMPLING**
**SUBSURFACE LOG**

SJB SERVICES, INC.

HOLE NO. SB-1
SURF. ELEV
G.W. DEPTH

PROJECT: NYSDEC Region 8
PROJ. NO.: Spill No. 13-02111
LOCATION: 45 East Genesee Street
Clyde, New York

| DEPTH FT. | SMPL NO. | PID (ppm) | SOIL OR ROCK CLASSIFICATION | NOTES |
|---|---|---|---|---|
| | 1 | | Topsoil (0-0.2') | |
| | | 0 | Brown SILTY SAND, some gravel, moist, no odor | |
| 4 | | | | |
| | 2 | | | |
| | | 0 | Gray SAND, with gravel, dry, no odor (concrete?) | |
| 8 | | | | |
| | 3 | 0 | | |
| | | | Refusal at 8.2 feet bgs | |
| 12 | | | | |
| 16 | | | | |
| 20 | | | | |
| 24 | | | | |
| 28 | | | | |
| | | | Empire's on site Geologist utilized an Ion Science Phocheck 1000 photoionization | |
| 32 | | | detector (PID) , equipped with 10.6eV light source, expressed in parts-per-million | |
| | | | (ppm) | |
| | | | BKG=Background (<0.1ppm) | |
| 36 | | | | |
| 40 | | | | |

CLASSIFIED BY:

DRILLER:
DRILL RIG TYPE :
METHOD OF INVESTIGATION Direct Push Sampling

DATE:
STARTED 10/08/13
FINISHED 10/08/13
SHEET 1 OF 1

# DIRECT PUSH SAMPLING SUBSURFACE LOG

SJB SERVICES, INC.

HOLE NO. SB-2
SURF. ELEV
G.W. DEPTH

PROJECT: NYSDEC Region 8
PROJ. NO.: Spill No. 13-02111
LOCATION: 45 East Genesee Street
Clyde, New York

| DEPTH FT. | SMPL NO. | PID (ppm) | SOIL OR ROCK CLASSIFICATION | NOTES |
|---|---|---|---|---|
| 4 | 1 | 0 | Topsoil (0-0.2')<br>Brown SAND, trace-little silt, trace gravel, moist, no odor | |
| 8 | 2 | 0 | Brown SILT, dry, no odor<br>Brown SILTY SAND, moist, no odor | |
| 12 | 3 | 0 | becomes wet<br>Dark brown CLAYEY SILT, little fine sand, moist to wet, no odor<br>Red SILT, dry, no odor | |
| 16 | 4 | 0 | | |
| 20 | | | End of boring | |
| 24 | | | | |
| 28 | | | | |
| 32 | | | Empire's on site Geologist utilized an Ion Science Phocheck 1000 photoionization detector (PID) , equipped with 10.6eV light source, expressed in parts-per-million (ppm)<br><br>BKG=Background (<0.1ppm) | |
| 36 | | | | |
| 40 | | | | |

CLASSIFIED BY:

DRILLER:
DRILL RIG TYPE :
METHOD OF INVESTIGATION Direct Push Sampling

DATE:
STARTED 10/08/13
FINISHED 10/08/13
SHEET 1 OF 1

**DIRECT PUSH SAMPLING**
**SUBSURFACE LOG**

SJB SERVICES, INC.

HOLE NO. SB-3
SURF. ELEV
G.W. DEPTH

PROJECT: NYSDEC Region 8
PROJ. NO.: Spill No. 13-02111

LOCATION: 45 East Genesee Street
Clyde, New York

| DEPTH FT. | SMPL NO. | PID (ppm) | SOIL OR ROCK CLASSIFICATION | NOTES |
|---|---|---|---|---|
| 4 | 1 | 0 | Topsoil (0-0.2')<br>Brown SAND, trace-little silt, gravel, and brick, moist, no odor | |
| 8 | 2 | 0 | | |
| 12 | 3 | 0 | Red SILT, dry, no odor | |
| 16 | 4 | 0 | (no recovery) | |
| 20 | | | End of boring | |
| 24 | | | | |
| 28 | | | | |
| 32 | | | Empire's on site Geologist utilized an Ion Science Phocheck 1000 photoionization detector (PID) , equipped with 10.6eV light source, expressed in parts-per-million (ppm)<br><br>BKG=Background (<0.1ppm) | |
| 36 | | | | |
| 40 | | | | |

CLASSIFIED BY:

DRILLER:

DRILL RIG TYPE :

METHOD OF INVESTIGATION Direct Push Sampling

DATE:
STARTED 10/08/13
FINISHED 10/08/13
SHEET 1 OF 1

# DIRECT PUSH SAMPLING SUBSURFACE LOG

SJB SERVICES, INC.

HOLE NO. SB-4
SURF. ELEV
G.W. DEPTH

PROJECT: NYSDEC Region 8
PROJ. NO.: Spill No. 13-02111
LOCATION: 45 East Genesee Street
Clyde, New York

| DEPTH FT. | SMPL NO. | PID (ppm) | SOIL OR ROCK CLASSIFICATION | NOTES |
|---|---|---|---|---|
| 4 | 1 | 0 | Topsoil (0-0.2')<br>Brown SILTY SAND, trace gravel, moist, no odor | |
| 8 | 2 | 0 | brick layer | |
| 12 | 3 | 0.4<br>0 | Brown SAND, trace gravel, wet, no odor<br>Red SILT, dry, no odor | |
| 16 | 4 | 0 | | |
| 20 | | | End of boring | |
| 24 | | | | |
| 28 | | | | |
| 32 | | | Empire's on site Geologist utilized an Ion Science Phocheck 1000 photoionization detector (PID) , equipped with 10.6eV light source, expressed in parts-per-million (ppm)<br><br>BKG=Background (<0.1ppm) | |
| 36 | | | | |
| 40 | | | | |

CLASSIFIED BY:

DRILLER:
DRILL RIG TYPE :
METHOD OF INVESTIGATION Direct Push Sampling

DATE:
STARTED 10/08/13
FINISHED 10/08/13
SHEET 1 OF 1

**DIRECT PUSH SAMPLING**
**SUBSURFACE LOG**

SJB SERVICES, INC.

HOLE NO. SB-5
SURF. ELEV
G.W. DEPTH

PROJECT: NYSDEC Region 8
PROJ. NO.: Spill No. 13-02111
LOCATION: 45 East Genesee Street
Clyde, New York

| DEPTH FT. | SMPL NO. | PID (ppm) | SOIL OR ROCK CLASSIFICATION | NOTES |
|---|---|---|---|---|
| | 1 | | Topsoil (0-0.2') | |
| 4 | | 0 | Brown SAND, with silt, trace gravel and brick, moist, no odor | |
| | 2 | | | |
| 8 | | 0 | | |
| | 3 | | Red SILT, dry, no odor | |
| 12 | | 0 | | |
| | 4 | | | |
| 16 | | 0 | | |
| | | | End of boring | |
| 20 | | | | |
| 24 | | | | |
| 28 | | | | |
| | | | Empire's on site Geologist utilized an Ion Science Phocheck 1000 photoionization | |
| 32 | | | detector (PID) , equipped with 10.6eV light source, expressed in parts-per-million (ppm) | |
| | | | BKG=Background (<0.1ppm) | |
| 36 | | | | |
| 40 | | | | |

CLASSIFIED BY:

DRILLER:
DRILL RIG TYPE :
METHOD OF INVESTIGATION Direct Push Sampling

DATE:
STARTED 10/08/13
FINISHED 10/08/13
SHEET 1 OF 1

# DIRECT PUSH SAMPLING SUBSURFACE LOG

SJB SERVICES, INC.

HOLE NO. SB-6
SURF. ELEV
G.W. DEPTH

PROJECT: NYSDEC Region 8
PROJ. NO.: Spill No. 13-02111
LOCATION: 45 East Genesee Street
Clyde, New York

| DEPTH FT. | SMPL NO. | PID (ppm) | SOIL OR ROCK CLASSIFICATION | NOTES |
|---|---|---|---|---|
| 4 | 1 | 0 | Topsoil (0-0.2')<br>Brown-gray SAND, trace to little silt, dry, no odor | |
| 8 | 2 | 0 | moist | |
| 12 | 3 | 0 | Brown SAND, wet, no odor<br>Red SILT, dry, no odor | |
| 16 | 4 | 0 | | |
| 20 | | | End of boring | |
| 24 | | | | |
| 28 | | | | |
| 32 | | | Empire's on site Geologist utilized an Ion Science Phocheck 1000 photoionization detector (PID) , equipped with 10.6eV light source, expressed in parts-per-million (ppm) | |
| 36 | | | BKG=Background (<0.1ppm) | |
| 40 | | | | |

CLASSIFIED BY:

DRILLER:
DRILL RIG TYPE :
METHOD OF INVESTIGATION Direct Push Sampling

DATE:
STARTED 10/08/13
FINISHED 10/08/13
SHEET 1 OF 1

**DIRECT PUSH SAMPLING**
**SUBSURFACE LOG**

SJB SERVICES, INC.

HOLE NO. SB-7
SURF. ELEV
G.W. DEPTH

PROJECT: NYSDEC Region 8
PROJ. NO.: Spill No. 13-02111
LOCATION: 45 East Genesee Street
Clyde, New York

| DEPTH FT. | SMPL NO. | PID (ppm) | SOIL OR ROCK CLASSIFICATION | NOTES |
|---|---|---|---|---|
| | 1 | | Topsoil (0-0.2') | |
| | | 0 | Brown SAND, with gravel, little silt, dry, no odor | |
| 4 | | | | |
| | 2 | | moist | |
| | | 0 | | |
| 8 | | | | |
| | 3 | | Brown SILTY SAND, moist, no odor | |
| | | 0 | | |
| 12 | | | Red SILT, dry, no odor | |
| | 4 | | | |
| | | 0 | | |
| 16 | | | | |
| | | | End of boring | |
| 20 | | | | |
| 24 | | | | |
| 28 | | | | |
| | | | Empire's on site Geologist utilized an Ion Science Phocheck 1000 photoionization | |
| 32 | | | detector (PID) , equipped with 10.6eV light source, expressed in parts-per-million | |
| | | | (ppm) | |
| | | | BKG=Background (<0.1ppm) | |
| 36 | | | | |
| 40 | | | | |

CLASSIFIED BY:

DRILLER:
DRILL RIG TYPE :
METHOD OF INVESTIGATION Direct Push Sampling

DATE:
STARTED 10/08/13
FINISHED 10/08/13
SHEET 1 OF 1

# DIRECT PUSH SAMPLING SUBSURFACE LOG

SJB SERVICES, INC.

HOLE NO. SB-8
SURF. ELEV
G.W. DEPTH

PROJECT: NYSDEC Region 8
PROJ. NO.: Spill No. 13-02111
LOCATION: 45 East Genesee Street
Clyde, New York

| DEPTH FT. | SMPL NO. | PID (ppm) | SOIL OR ROCK CLASSIFICATION | NOTES |
|---|---|---|---|---|
| 0 | 1 | 0 | Topsoil (0-0.2')<br>Brown SILTY SAND, dry, no odor<br>Gray SAND, dry, no odor | |
| 4 | 2 | 0 | Brown SILTY SAND, dry, no odor | |
| 8 | 3 | 0 | moist<br>Red SILT, dry, no odor | |
| 12 | 4 | 0 | | |
| 16 | | | End of boring | |
| 20 | | | | |
| 24 | | | | |
| 28 | | | | |
| 32 | | | Empire's on site Geologist utilized an Ion Science Phocheck 1000 photoionization detector (PID) , equipped with 10.6eV light source, expressed in parts-per-million (ppm)<br><br>BKG=Background (<0.1ppm) | |
| 36 | | | | |
| 40 | | | | |

CLASSIFIED BY:

DRILLER:
DRILL RIG TYPE :
METHOD OF INVESTIGATION Direct Push Sampling

DATE:
STARTED 10/08/13
FINISHED 10/08/13
SHEET 1 OF 1

# DIRECT PUSH SAMPLING SUBSURFACE LOG

HOLE NO. SB-9
SURF. ELEV
G.W. DEPTH

PROJECT: NYSDEC Region 8
PROJ. NO.: Spill No. 13-02111
LOCATION: 45 East Genesee Street
Clyde, New York

| DEPTH FT. | SMPL NO. | PID (ppm) | SOIL OR ROCK CLASSIFICATION | NOTES |
|---|---|---|---|---|
| | 1 | | Topsoil (0-0.2') | |
| | | 0 | Brown-gray SAND, little silt, dry, no odor | |
| 4 | | | Dark brown SILTY SAND, moist, no odor | |
| | 2 | | | |
| | | 0 | | |
| 8 | | | | |
| | 3 | | wet | |
| | | 0 | Black SANDY SILT, moist, no odor | |
| 12 | | | Red SILT, dry, no odor | |
| | 4 | | | |
| | | 0 | | |
| 16 | | | | |
| | | | End of boring | |
| 20 | | | | |
| 24 | | | | |
| 28 | | | | |
| | | | Empire's on site Geologist utilized an Ion Science Phocheck 1000 photoionization | |
| 32 | | | detector (PID) , equipped with 10.6eV light source, expressed in parts-per-million | |
| | | | (ppm) | |
| | | | BKG=Background (<0.1ppm) | |
| 36 | | | | |
| 40 | | | | |

CLASSIFIED BY:

DRILLER:
DRILL RIG TYPE :
METHOD OF INVESTIGATION Direct Push Sampling

DATE:
STARTED 10/08/13
FINISHED 10/08/13
SHEET 1 OF 1

# DIRECT PUSH SAMPLING SUBSURFACE LOG

SJB SERVICES, INC.

HOLE NO. SB-10
SURF. ELEV
G.W. DEPTH

PROJECT: NYSDEC Region 8
PROJ. NO.: Spill No. 13-02111
LOCATION: 45 East Genesee Street
Clyde, New York

| DEPTH FT. | SMPL NO. | PID (ppm) | SOIL OR ROCK CLASSIFICATION | NOTES |
|---|---|---|---|---|
| 4 | 1 | 0 | Topsoil (0-0.2')<br>Brown SAND, little silt, trace gravel, moist, no odor | |
| 8 | 2 | 0 | | |
| 12 | 3 | 0 | Concrete<br>Refusal at 9 feet bgs | |
| 16 | | | | |
| 20 | | | | |
| 24 | | | | |
| 28 | | | | |
| 32 | | | Empire's on site Geologist utilized an Ion Science Phocheck 1000 photoionization detector (PID) , equipped with 10.6eV light source, expressed in parts-per-million (ppm)<br><br>BKG=Background (<0.1ppm) | |
| 36 | | | | |
| 40 | | | | |

CLASSIFIED BY:

DRILLER:
DRILL RIG TYPE :
METHOD OF INVESTIGATION Direct Push Sampling

DATE:
STARTED 10/08/13
FINISHED 10/08/13
SHEET 1 OF 1

# DIRECT PUSH SAMPLING SUBSURFACE LOG

SJB SERVICES, INC.

HOLE NO. SB-11
SURF. ELEV
G.W. DEPTH

PROJECT: NYSDEC Region 8
PROJ. NO.: Spill No. 13-02111
LOCATION: 45 East Genesee Street
Clyde, New York

| DEPTH FT. | SMPL NO. | PID (ppm) | SOIL OR ROCK CLASSIFICATION | NOTES |
|---|---|---|---|---|
| 4 | 1 | 0 | Topsoil (0-0.2')<br>Brown SAND, with silt and gravel<br>Brown SILT, moist, no odor | |
| 8 | 2 | 0 | | |
| 12 | 3 | 0 | Brown SAND, trace silt and gravel, wet, no odor<br>Red SILT, dry, no odor | |
| 16 | 4 | 0 | | |
| 20 | | | End of boring | |
| 24 | | | | |
| 28 | | | | |
| 32 | | | Empire's on site Geologist utilized an Ion Science Phocheck 1000 photoionization detector (PID) , equipped with 10.6eV light source, expressed in parts-per-million (ppm)<br><br>BKG=Background (<0.1ppm) | |
| 36 | | | | |
| 40 | | | | |

CLASSIFIED BY:

DRILLER:
DRILL RIG TYPE :
METHOD OF INVESTIGATION Direct Push Sampling

**APPENDIX B**
**Laboratory Analytical Reports for Soil Borings**

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

# ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

TestAmerica Job ID: 480-47593-1
Client Project/Site: NYSDEC-45 E. Genesee St:Sitel# 1302111

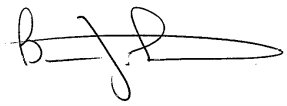
For:
New York State D.E.C.
6274 E. Avon-Lima Rd.
Avon, New York 14414

Attn: Joe Marchitell

*Authorized for release by:*
*10/21/2013 11:45:32 AM*

Brian Fischer, Project Manager II
(716)504-9835
brian.fischer@testamericainc.com

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverable has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.



Brian Fischer
Project Manager II
*10/21/2013 11:45:32 AM*

# Table of Contents

# Definitions/Glossary

Client: New York State D.E.C.
Project/Site: NYSDEC-45 E. Genesee St:Sitel# 1302111

TestAmerica Job ID: 480-47593-1

## Qualifiers

### GC/MS Semi VOA

| Qualifier | Qualifier Description |
|---|---|
| J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |
| * | ISTD response or retention time outside acceptable limits |

## Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|---|---|
| ¤ | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CNF | Contains no Free Liquid |
| DER | Duplicate error ratio (normalized absolute difference) |
| Dil Fac | Dilution Factor |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision level concentration |
| MDA | Minimum detectable activity |
| EDL | Estimated Detection Limit |
| MDC | Minimum detectable concentration |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| NC | Not Calculated |
| ND | Not detected at the reporting limit (or MDL or EDL if shown) |
| PQL | Practical Quantitation Limit |
| QC | Quality Control |
| RER | Relative error ratio |
| RL | Reporting Limit or Requested Limit (Radiochemistry) |
| RPD | Relative Percent Difference, a measure of the relative difference between two points |
| TEF | Toxicity Equivalent Factor (Dioxin) |
| TEQ | Toxicity Equivalent Quotient (Dioxin) |

## Job ID: 480-47593-1

### Laboratory: TestAmerica Buffalo

**Narrative**

**Job Narrative**
**480-47593-1**

**Comments**
No additional comments.

**Receipt**
The samples were received on 10/9/2013 4:20 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.4° C.

Except:

The Chain of Custody was received without a specified TAT listed.

**GC/MS VOA**
Method(s) 8260C: Reported analyte concentrations in the following sample(s) are below 200ug/kg and may be biased low due to the sample(s) not being collected according to 5035-L/5035A-L low-level specifications: (480-47593-4 MS), (480-47593-4 MSD), SB-11 (8-9') (480-47593-4), SB-4 (8-9') (480-47593-1), SB-6 (8-9') (480-47593-2), SB-8 (8-9') (480-47593-3).

Method(s) 8260C: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 146126 were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria.

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: SB-11 (8-9') (480-47593-4), SB-6 (8-9') (480-47593-2). Elevated reporting limits (RLs) are provided.

Method(s) 8270D: The following samples were diluted due to the nature of the sample matrix: SB-4 (8-9') (480-47593-1). Elevated reporting limits (RLs) are provided.

Method(s) 8270D: Due to matrix interference, internal standard response for the following samples exceeded the lower control limit: SB-4 (8-9') (480-47593-1). As such, the sample results may be biased high. The analytes associated with the failing internal standard were below the reporting limit, therefore the data has been qualified and reported.

No other analytical or quality issues were noted.

**Organic Prep**
No analytical or quality issues were noted.

## Client Sample ID: SB-4 (8-9')

**Date Collected: 10/08/13 11:00**
**Date Received: 10/09/13 16:20**

## Lab Sample ID: 480-47593-1

**Matrix: Solid**
**Percent Solids: 92.9**

### Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | ND | | 5.3 | 0.26 | ug/Kg | ☼ | 10/18/13 12:07 | 10/19/13 18:40 | 1 |
| Ethylbenzene | ND | | 5.3 | 0.37 | ug/Kg | ☼ | 10/18/13 12:07 | 10/19/13 18:40 | 1 |
| Toluene | ND | | 5.3 | 0.40 | ug/Kg | ☼ | 10/18/13 12:07 | 10/19/13 18:40 | 1 |
| m-Xylene & p-Xylene | ND | | 11 | 0.90 | ug/Kg | ☼ | 10/18/13 12:07 | 10/19/13 18:40 | 1 |
| o-Xylene | ND | | 5.3 | 0.70 | ug/Kg | ☼ | 10/18/13 12:07 | 10/19/13 18:40 | 1 |
| Xylenes, Total | ND | | 11 | 0.90 | ug/Kg | ☼ | 10/18/13 12:07 | 10/19/13 18:40 | 1 |
| Isopropylbenzene | ND | | 5.3 | 0.81 | ug/Kg | ☼ | 10/18/13 12:07 | 10/19/13 18:40 | 1 |
| N-Propylbenzene | ND | | 5.3 | 0.43 | ug/Kg | ☼ | 10/18/13 12:07 | 10/19/13 18:40 | 1 |
| 4-Isopropyltoluene | ND | | 5.3 | 0.43 | ug/Kg | ☼ | 10/18/13 12:07 | 10/19/13 18:40 | 1 |
| 1,2,4-Trimethylbenzene | ND | | 5.3 | 1.0 | ug/Kg | ☼ | 10/18/13 12:07 | 10/19/13 18:40 | 1 |
| 1,3,5-Trimethylbenzene | ND | | 5.3 | 0.34 | ug/Kg | ☼ | 10/18/13 12:07 | 10/19/13 18:40 | 1 |
| n-Butylbenzene | ND | | 5.3 | 0.46 | ug/Kg | ☼ | 10/18/13 12:07 | 10/19/13 18:40 | 1 |
| sec-Butylbenzene | ND | | 5.3 | 0.46 | ug/Kg | ☼ | 10/18/13 12:07 | 10/19/13 18:40 | 1 |
| Naphthalene | ND | | 5.3 | 0.72 | ug/Kg | ☼ | 10/18/13 12:07 | 10/19/13 18:40 | 1 |
| Methyl tert-butyl ether | ND | | 5.3 | 0.52 | ug/Kg | ☼ | 10/18/13 12:07 | 10/19/13 18:40 | 1 |
| tert-Butylbenzene | ND | | 5.3 | 0.56 | ug/Kg | ☼ | 10/18/13 12:07 | 10/19/13 18:40 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *99* | | *64 - 126* | *10/18/13 12:07* | *10/19/13 18:40* | *1* |
| *Toluene-d8 (Surr)* | *101* | | *71 - 125* | *10/18/13 12:07* | *10/19/13 18:40* | *1* |
| *4-Bromofluorobenzene (Surr)* | *102* | | *72 - 126* | *10/18/13 12:07* | *10/19/13 18:40* | *1* |

### Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Acenaphthene** | **61** | **J** | 1800 | 21 | ug/Kg | ☼ | 10/15/13 10:48 | 10/16/13 15:24 | 10 |
| Acenaphthylene | ND | | 1800 | 15 | ug/Kg | ☼ | 10/15/13 10:48 | 10/16/13 15:24 | 10 |
| **Anthracene** | **110** | **J** | 1800 | 46 | ug/Kg | ☼ | 10/15/13 10:48 | 10/16/13 15:24 | 10 |
| **Benzo(a)anthracene** | **270** | **J *** | 1800 | 31 | ug/Kg | ☼ | 10/15/13 10:48 | 10/16/13 15:24 | 10 |
| Benzo(a)pyrene | ND | * | 1800 | 43 | ug/Kg | ☼ | 10/15/13 10:48 | 10/16/13 15:24 | 10 |
| Benzo(b)fluoranthene | ND | * | 1800 | 35 | ug/Kg | ☼ | 10/15/13 10:48 | 10/16/13 15:24 | 10 |
| Benzo(g,h,i)perylene | ND | * | 1800 | 21 | ug/Kg | ☼ | 10/15/13 10:48 | 10/16/13 15:24 | 10 |
| Benzo(k)fluoranthene | ND | * | 1800 | 20 | ug/Kg | ☼ | 10/15/13 10:48 | 10/16/13 15:24 | 10 |
| **Chrysene** | **250** | **J *** | 1800 | 18 | ug/Kg | ☼ | 10/15/13 10:48 | 10/16/13 15:24 | 10 |
| Dibenz(a,h)anthracene | ND | * | 1800 | 21 | ug/Kg | ☼ | 10/15/13 10:48 | 10/16/13 15:24 | 10 |
| **Fluoranthene** | **540** | **J** | 1800 | 26 | ug/Kg | ☼ | 10/15/13 10:48 | 10/16/13 15:24 | 10 |
| Fluorene | ND | | 1800 | 41 | ug/Kg | ☼ | 10/15/13 10:48 | 10/16/13 15:24 | 10 |
| Indeno(1,2,3-cd)pyrene | ND | * | 1800 | 50 | ug/Kg | ☼ | 10/15/13 10:48 | 10/16/13 15:24 | 10 |
| **Naphthalene** | **120** | **J** | 1800 | 30 | ug/Kg | ☼ | 10/15/13 10:48 | 10/16/13 15:24 | 10 |
| **Phenanthrene** | **500** | **J** | 1800 | 38 | ug/Kg | ☼ | 10/15/13 10:48 | 10/16/13 15:24 | 10 |
| **Pyrene** | **570** | **J *** | 1800 | 12 | ug/Kg | ☼ | 10/15/13 10:48 | 10/16/13 15:24 | 10 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *2,4,6-Tribromophenol* | *69* | | *39 - 146* | *10/15/13 10:48* | *10/16/13 15:24* | *10* |
| *2-Fluorophenol* | *78* | | *18 - 120* | *10/15/13 10:48* | *10/16/13 15:24* | *10* |
| *2-Fluorobiphenyl* | *86* | | *37 - 120* | *10/15/13 10:48* | *10/16/13 15:24* | *10* |
| *Phenol-d5* | *82* | | *11 - 120* | *10/15/13 10:48* | *10/16/13 15:24* | *10* |
| *p-Terphenyl-d14* | *111* | * | *65 - 153* | *10/15/13 10:48* | *10/16/13 15:24* | *10* |
| *Nitrobenzene-d5* | *71* | | *34 - 132* | *10/15/13 10:48* | *10/16/13 15:24* | *10* |

## Client Sample ID: SB-6 (8-9')

**Date Collected: 10/08/13 11:45**
**Date Received: 10/09/13 16:20**

## Lab Sample ID: 480-47593-2

**Matrix: Solid**
**Percent Solids: 79.1**

### Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | ND | | 6.3 | 0.31 | ug/Kg | ☼ | 10/18/13 12:07 | 10/19/13 19:06 | 1 |
| Ethylbenzene | ND | | 6.3 | 0.43 | ug/Kg | ☼ | 10/18/13 12:07 | 10/19/13 19:06 | 1 |
| Toluene | ND | | 6.3 | 0.47 | ug/Kg | ☼ | 10/18/13 12:07 | 10/19/13 19:06 | 1 |
| m-Xylene & p-Xylene | ND | | 13 | 1.1 | ug/Kg | ☼ | 10/18/13 12:07 | 10/19/13 19:06 | 1 |
| o-Xylene | ND | | 6.3 | 0.82 | ug/Kg | ☼ | 10/18/13 12:07 | 10/19/13 19:06 | 1 |
| Xylenes, Total | ND | | 13 | 1.1 | ug/Kg | ☼ | 10/18/13 12:07 | 10/19/13 19:06 | 1 |
| Isopropylbenzene | ND | | 6.3 | 0.95 | ug/Kg | ☼ | 10/18/13 12:07 | 10/19/13 19:06 | 1 |
| N-Propylbenzene | ND | | 6.3 | 0.50 | ug/Kg | ☼ | 10/18/13 12:07 | 10/19/13 19:06 | 1 |
| 4-Isopropyltoluene | ND | | 6.3 | 0.50 | ug/Kg | ☼ | 10/18/13 12:07 | 10/19/13 19:06 | 1 |
| 1,2,4-Trimethylbenzene | ND | | 6.3 | 1.2 | ug/Kg | ☼ | 10/18/13 12:07 | 10/19/13 19:06 | 1 |
| 1,3,5-Trimethylbenzene | ND | | 6.3 | 0.40 | ug/Kg | ☼ | 10/18/13 12:07 | 10/19/13 19:06 | 1 |
| n-Butylbenzene | ND | | 6.3 | 0.55 | ug/Kg | ☼ | 10/18/13 12:07 | 10/19/13 19:06 | 1 |
| sec-Butylbenzene | ND | | 6.3 | 0.55 | ug/Kg | ☼ | 10/18/13 12:07 | 10/19/13 19:06 | 1 |
| Naphthalene | ND | | 6.3 | 0.84 | ug/Kg | ☼ | 10/18/13 12:07 | 10/19/13 19:06 | 1 |
| Methyl tert-butyl ether | ND | | 6.3 | 0.62 | ug/Kg | ☼ | 10/18/13 12:07 | 10/19/13 19:06 | 1 |
| tert-Butylbenzene | ND | | 6.3 | 0.65 | ug/Kg | ☼ | 10/18/13 12:07 | 10/19/13 19:06 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *101* | | *64 - 126* | *10/18/13 12:07* | *10/19/13 19:06* | *1* |
| *Toluene-d8 (Surr)* | *101* | | *71 - 125* | *10/18/13 12:07* | *10/19/13 19:06* | *1* |
| *4-Bromofluorobenzene (Surr)* | *102* | | *72 - 126* | *10/18/13 12:07* | *10/19/13 19:06* | *1* |

### Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Acenaphthene** | **2900** | | 2100 | 25 | ug/Kg | ☼ | 10/11/13 15:22 | 10/14/13 16:50 | 10 |
| **Acenaphthylene** | **310** | **J** | 2100 | 17 | ug/Kg | ☼ | 10/11/13 15:22 | 10/14/13 16:50 | 10 |
| **Anthracene** | **6100** | | 2100 | 54 | ug/Kg | ☼ | 10/11/13 15:22 | 10/14/13 16:50 | 10 |
| **Benzo(a)anthracene** | **7500** | | 2100 | 37 | ug/Kg | ☼ | 10/11/13 15:22 | 10/14/13 16:50 | 10 |
| **Benzo(a)pyrene** | **5100** | | 2100 | 51 | ug/Kg | ☼ | 10/11/13 15:22 | 10/14/13 16:50 | 10 |
| **Benzo(b)fluoranthene** | **6500** | | 2100 | 41 | ug/Kg | ☼ | 10/11/13 15:22 | 10/14/13 16:50 | 10 |
| **Benzo(g,h,i)perylene** | **1800** | **J** | 2100 | 25 | ug/Kg | ☼ | 10/11/13 15:22 | 10/14/13 16:50 | 10 |
| **Benzo(k)fluoranthene** | **2500** | | 2100 | 23 | ug/Kg | ☼ | 10/11/13 15:22 | 10/14/13 16:50 | 10 |
| **Chrysene** | **6900** | | 2100 | 21 | ug/Kg | ☼ | 10/11/13 15:22 | 10/14/13 16:50 | 10 |
| **Dibenz(a,h)anthracene** | **720** | **J** | 2100 | 25 | ug/Kg | ☼ | 10/11/13 15:22 | 10/14/13 16:50 | 10 |
| **Fluoranthene** | **17000** | | 2100 | 31 | ug/Kg | ☼ | 10/11/13 15:22 | 10/14/13 16:50 | 10 |
| **Fluorene** | **2800** | | 2100 | 49 | ug/Kg | ☼ | 10/11/13 15:22 | 10/14/13 16:50 | 10 |
| **Indeno(1,2,3-cd)pyrene** | **1500** | **J** | 2100 | 59 | ug/Kg | ☼ | 10/11/13 15:22 | 10/14/13 16:50 | 10 |
| **Naphthalene** | **2200** | | 2100 | 35 | ug/Kg | ☼ | 10/11/13 15:22 | 10/14/13 16:50 | 10 |
| **Phenanthrene** | **22000** | | 2100 | 44 | ug/Kg | ☼ | 10/11/13 15:22 | 10/14/13 16:50 | 10 |
| **Pyrene** | **11000** | | 2100 | 14 | ug/Kg | ☼ | 10/11/13 15:22 | 10/14/13 16:50 | 10 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *2,4,6-Tribromophenol* | *70* | | *39 - 146* | *10/11/13 15:22* | *10/14/13 16:50* | *10* |
| *2-Fluorophenol* | *79* | | *18 - 120* | *10/11/13 15:22* | *10/14/13 16:50* | *10* |
| *2-Fluorobiphenyl* | *94* | | *37 - 120* | *10/11/13 15:22* | *10/14/13 16:50* | *10* |
| *Phenol-d5* | *83* | | *11 - 120* | *10/11/13 15:22* | *10/14/13 16:50* | *10* |
| *p-Terphenyl-d14* | *86* | | *65 - 153* | *10/11/13 15:22* | *10/14/13 16:50* | *10* |
| *Nitrobenzene-d5* | *74* | | *34 - 132* | *10/11/13 15:22* | *10/14/13 16:50* | *10* |

## Client Sample ID: SB-8 (8-9')

**Date Collected: 10/08/13 12:35**
**Date Received: 10/09/13 16:20**

## Lab Sample ID: 480-47593-3

**Matrix: Solid**
**Percent Solids: 87.9**

### Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | ND | | 5.7 | 0.28 | ug/Kg | ☼ | 10/18/13 12:07 | 10/19/13 19:32 | 1 |
| Ethylbenzene | ND | | 5.7 | 0.39 | ug/Kg | ☼ | 10/18/13 12:07 | 10/19/13 19:32 | 1 |
| Toluene | ND | | 5.7 | 0.43 | ug/Kg | ☼ | 10/18/13 12:07 | 10/19/13 19:32 | 1 |
| m-Xylene & p-Xylene | ND | | 11 | 0.95 | ug/Kg | ☼ | 10/18/13 12:07 | 10/19/13 19:32 | 1 |
| o-Xylene | ND | | 5.7 | 0.74 | ug/Kg | ☼ | 10/18/13 12:07 | 10/19/13 19:32 | 1 |
| Xylenes, Total | ND | | 11 | 0.95 | ug/Kg | ☼ | 10/18/13 12:07 | 10/19/13 19:32 | 1 |
| Isopropylbenzene | ND | | 5.7 | 0.86 | ug/Kg | ☼ | 10/18/13 12:07 | 10/19/13 19:32 | 1 |
| N-Propylbenzene | ND | | 5.7 | 0.45 | ug/Kg | ☼ | 10/18/13 12:07 | 10/19/13 19:32 | 1 |
| 4-Isopropyltoluene | ND | | 5.7 | 0.46 | ug/Kg | ☼ | 10/18/13 12:07 | 10/19/13 19:32 | 1 |
| 1,2,4-Trimethylbenzene | ND | | 5.7 | 1.1 | ug/Kg | ☼ | 10/18/13 12:07 | 10/19/13 19:32 | 1 |
| 1,3,5-Trimethylbenzene | ND | | 5.7 | 0.37 | ug/Kg | ☼ | 10/18/13 12:07 | 10/19/13 19:32 | 1 |
| n-Butylbenzene | ND | | 5.7 | 0.49 | ug/Kg | ☼ | 10/18/13 12:07 | 10/19/13 19:32 | 1 |
| sec-Butylbenzene | ND | | 5.7 | 0.49 | ug/Kg | ☼ | 10/18/13 12:07 | 10/19/13 19:32 | 1 |
| Naphthalene | ND | | 5.7 | 0.76 | ug/Kg | ☼ | 10/18/13 12:07 | 10/19/13 19:32 | 1 |
| Methyl tert-butyl ether | ND | | 5.7 | 0.56 | ug/Kg | ☼ | 10/18/13 12:07 | 10/19/13 19:32 | 1 |
| tert-Butylbenzene | ND | | 5.7 | 0.59 | ug/Kg | ☼ | 10/18/13 12:07 | 10/19/13 19:32 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *103* | | *64 - 126* | *10/18/13 12:07* | *10/19/13 19:32* | *1* |
| *Toluene-d8 (Surr)* | *98* | | *71 - 125* | *10/18/13 12:07* | *10/19/13 19:32* | *1* |
| *4-Bromofluorobenzene (Surr)* | *99* | | *72 - 126* | *10/18/13 12:07* | *10/19/13 19:32* | *1* |

### Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | ND | | 190 | 2.2 | ug/Kg | ☼ | 10/11/13 15:22 | 10/14/13 17:15 | 1 |
| Acenaphthylene | ND | | 190 | 1.5 | ug/Kg | ☼ | 10/11/13 15:22 | 10/14/13 17:15 | 1 |
| Anthracene | ND | | 190 | 4.8 | ug/Kg | ☼ | 10/11/13 15:22 | 10/14/13 17:15 | 1 |
| Benzo(a)anthracene | ND | | 190 | 3.2 | ug/Kg | ☼ | 10/11/13 15:22 | 10/14/13 17:15 | 1 |
| **Benzo(a)pyrene** | **8.2** | **J** | 190 | 4.5 | ug/Kg | ☼ | 10/11/13 15:22 | 10/14/13 17:15 | 1 |
| **Benzo(b)fluoranthene** | **9.0** | **J** | 190 | 3.6 | ug/Kg | ☼ | 10/11/13 15:22 | 10/14/13 17:15 | 1 |
| Benzo(g,h,i)perylene | ND | | 190 | 2.3 | ug/Kg | ☼ | 10/11/13 15:22 | 10/14/13 17:15 | 1 |
| **Benzo(k)fluoranthene** | **9.9** | **J** | 190 | 2.1 | ug/Kg | ☼ | 10/11/13 15:22 | 10/14/13 17:15 | 1 |
| **Chrysene** | **11** | **J** | 190 | 1.9 | ug/Kg | ☼ | 10/11/13 15:22 | 10/14/13 17:15 | 1 |
| Dibenz(a,h)anthracene | ND | | 190 | 2.2 | ug/Kg | ☼ | 10/11/13 15:22 | 10/14/13 17:15 | 1 |
| **Fluoranthene** | **11** | **J** | 190 | 2.7 | ug/Kg | ☼ | 10/11/13 15:22 | 10/14/13 17:15 | 1 |
| Fluorene | ND | | 190 | 4.3 | ug/Kg | ☼ | 10/11/13 15:22 | 10/14/13 17:15 | 1 |
| **Indeno(1,2,3-cd)pyrene** | **7.7** | **J** | 190 | 5.2 | ug/Kg | ☼ | 10/11/13 15:22 | 10/14/13 17:15 | 1 |
| Naphthalene | ND | | 190 | 3.1 | ug/Kg | ☼ | 10/11/13 15:22 | 10/14/13 17:15 | 1 |
| Phenanthrene | ND | | 190 | 3.9 | ug/Kg | ☼ | 10/11/13 15:22 | 10/14/13 17:15 | 1 |
| **Pyrene** | **7.8** | **J** | 190 | 1.2 | ug/Kg | ☼ | 10/11/13 15:22 | 10/14/13 17:15 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *2,4,6-Tribromophenol* | *97* | | *39 - 146* | *10/11/13 15:22* | *10/14/13 17:15* | *1* |
| *2-Fluorophenol* | *87* | | *18 - 120* | *10/11/13 15:22* | *10/14/13 17:15* | *1* |
| *2-Fluorobiphenyl* | *97* | | *37 - 120* | *10/11/13 15:22* | *10/14/13 17:15* | *1* |
| *Phenol-d5* | *91* | | *11 - 120* | *10/11/13 15:22* | *10/14/13 17:15* | *1* |
| *p-Terphenyl-d14* | *98* | | *65 - 153* | *10/11/13 15:22* | *10/14/13 17:15* | *1* |
| *Nitrobenzene-d5* | *84* | | *34 - 132* | *10/11/13 15:22* | *10/14/13 17:15* | *1* |

## Client Sample ID: SB-11 (8-9')

**Date Collected: 10/08/13 13:55**
**Date Received: 10/09/13 16:20**

## Lab Sample ID: 480-47593-4

**Matrix: Solid**
**Percent Solids: 73.6**

### Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | ND | | 6.7 | 0.33 | ug/Kg | ☼ | 10/18/13 12:07 | 10/19/13 19:57 | 1 |
| Ethylbenzene | ND | | 6.7 | 0.46 | ug/Kg | ☼ | 10/18/13 12:07 | 10/19/13 19:57 | 1 |
| Toluene | ND | | 6.7 | 0.51 | ug/Kg | ☼ | 10/18/13 12:07 | 10/19/13 19:57 | 1 |
| m-Xylene & p-Xylene | ND | | 13 | 1.1 | ug/Kg | ☼ | 10/18/13 12:07 | 10/19/13 19:57 | 1 |
| o-Xylene | ND | | 6.7 | 0.88 | ug/Kg | ☼ | 10/18/13 12:07 | 10/19/13 19:57 | 1 |
| Xylenes, Total | ND | | 13 | 1.1 | ug/Kg | ☼ | 10/18/13 12:07 | 10/19/13 19:57 | 1 |
| Isopropylbenzene | ND | | 6.7 | 1.0 | ug/Kg | ☼ | 10/18/13 12:07 | 10/19/13 19:57 | 1 |
| N-Propylbenzene | ND | | 6.7 | 0.54 | ug/Kg | ☼ | 10/18/13 12:07 | 10/19/13 19:57 | 1 |
| 4-Isopropyltoluene | ND | | 6.7 | 0.54 | ug/Kg | ☼ | 10/18/13 12:07 | 10/19/13 19:57 | 1 |
| 1,2,4-Trimethylbenzene | ND | | 6.7 | 1.3 | ug/Kg | ☼ | 10/18/13 12:07 | 10/19/13 19:57 | 1 |
| 1,3,5-Trimethylbenzene | ND | | 6.7 | 0.43 | ug/Kg | ☼ | 10/18/13 12:07 | 10/19/13 19:57 | 1 |
| n-Butylbenzene | ND | | 6.7 | 0.59 | ug/Kg | ☼ | 10/18/13 12:07 | 10/19/13 19:57 | 1 |
| sec-Butylbenzene | ND | | 6.7 | 0.59 | ug/Kg | ☼ | 10/18/13 12:07 | 10/19/13 19:57 | 1 |
| Naphthalene | ND | | 6.7 | 0.90 | ug/Kg | ☼ | 10/18/13 12:07 | 10/19/13 19:57 | 1 |
| Methyl tert-butyl ether | ND | | 6.7 | 0.66 | ug/Kg | ☼ | 10/18/13 12:07 | 10/19/13 19:57 | 1 |
| tert-Butylbenzene | ND | | 6.7 | 0.70 | ug/Kg | ☼ | 10/18/13 12:07 | 10/19/13 19:57 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *101* | | *64 - 126* | *10/18/13 12:07* | *10/19/13 19:57* | *1* |
| *Toluene-d8 (Surr)* | *99* | | *71 - 125* | *10/18/13 12:07* | *10/19/13 19:57* | *1* |
| *4-Bromofluorobenzene (Surr)* | *100* | | *72 - 126* | *10/18/13 12:07* | *10/19/13 19:57* | *1* |

### Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Acenaphthene** | **430** | **J** | 1100 | 13 | ug/Kg | ☼ | 10/11/13 15:22 | 10/14/13 17:40 | 5 |
| **Acenaphthylene** | **1100** | | 1100 | 9.3 | ug/Kg | ☼ | 10/11/13 15:22 | 10/14/13 17:40 | 5 |
| **Anthracene** | **1400** | | 1100 | 29 | ug/Kg | ☼ | 10/11/13 15:22 | 10/14/13 17:40 | 5 |
| **Benzo(a)anthracene** | **6000** | | 1100 | 20 | ug/Kg | ☼ | 10/11/13 15:22 | 10/14/13 17:40 | 5 |
| **Benzo(a)pyrene** | **5600** | | 1100 | 27 | ug/Kg | ☼ | 10/11/13 15:22 | 10/14/13 17:40 | 5 |
| **Benzo(b)fluoranthene** | **7100** | | 1100 | 22 | ug/Kg | ☼ | 10/11/13 15:22 | 10/14/13 17:40 | 5 |
| **Benzo(g,h,i)perylene** | **2500** | | 1100 | 14 | ug/Kg | ☼ | 10/11/13 15:22 | 10/14/13 17:40 | 5 |
| **Benzo(k)fluoranthene** | **3600** | | 1100 | 13 | ug/Kg | ☼ | 10/11/13 15:22 | 10/14/13 17:40 | 5 |
| **Chrysene** | **5900** | | 1100 | 11 | ug/Kg | ☼ | 10/11/13 15:22 | 10/14/13 17:40 | 5 |
| **Dibenz(a,h)anthracene** | **770** | **J** | 1100 | 13 | ug/Kg | ☼ | 10/11/13 15:22 | 10/14/13 17:40 | 5 |
| **Fluoranthene** | **12000** | | 1100 | 16 | ug/Kg | ☼ | 10/11/13 15:22 | 10/14/13 17:40 | 5 |
| **Fluorene** | **600** | **J** | 1100 | 26 | ug/Kg | ☼ | 10/11/13 15:22 | 10/14/13 17:40 | 5 |
| **Indeno(1,2,3-cd)pyrene** | **2300** | | 1100 | 31 | ug/Kg | ☼ | 10/11/13 15:22 | 10/14/13 17:40 | 5 |
| **Naphthalene** | **200** | **J** | 1100 | 19 | ug/Kg | ☼ | 10/11/13 15:22 | 10/14/13 17:40 | 5 |
| **Phenanthrene** | **5500** | | 1100 | 24 | ug/Kg | ☼ | 10/11/13 15:22 | 10/14/13 17:40 | 5 |
| **Pyrene** | **8700** | | 1100 | 7.4 | ug/Kg | ☼ | 10/11/13 15:22 | 10/14/13 17:40 | 5 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *2,4,6-Tribromophenol* | *83* | | *39 - 146* | *10/11/13 15:22* | *10/14/13 17:40* | *5* |
| *2-Fluorophenol* | *83* | | *18 - 120* | *10/11/13 15:22* | *10/14/13 17:40* | *5* |
| *2-Fluorobiphenyl* | *91* | | *37 - 120* | *10/11/13 15:22* | *10/14/13 17:40* | *5* |
| *Phenol-d5* | *87* | | *11 - 120* | *10/11/13 15:22* | *10/14/13 17:40* | *5* |
| *p-Terphenyl-d14* | *89* | | *65 - 153* | *10/11/13 15:22* | *10/14/13 17:40* | *5* |
| *Nitrobenzene-d5* | *81* | | *34 - 132* | *10/11/13 15:22* | *10/14/13 17:40* | *5* |

# Lab Chronicle

Client: New York State D.E.C.
Project/Site: NYSDEC-45 E. Genesee St:Sitel# 1302111

TestAmerica Job ID: 480-47593-1

## Client Sample ID: SB-4 (8-9')

**Lab Sample ID: 480-47593-1**

**Date Collected: 10/08/13 11:00**
**Matrix: Solid**
**Date Received: 10/09/13 16:20**
**Percent Solids: 92.9**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 5035 | | | 145963 | 10/18/13 12:07 | PJQ | TAL BUF |
| Total/NA | Analysis | 8260C | | 1 | 146126 | 10/19/13 18:40 | CDC | TAL BUF |
| Total/NA | Prep | 3550C | | | 144976 | 10/15/13 10:48 | CAM | TAL BUF |
| Total/NA | Analysis | 8270D | | 10 | 145199 | 10/16/13 15:24 | RMM | TAL BUF |
| Total/NA | Analysis | Moisture | | 1 | 144467 | 10/11/13 21:32 | GTG | TAL BUF |

## Client Sample ID: SB-6 (8-9')

**Lab Sample ID: 480-47593-2**

**Date Collected: 10/08/13 11:45**
**Matrix: Solid**
**Date Received: 10/09/13 16:20**
**Percent Solids: 79.1**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 5035 | | | 145963 | 10/18/13 12:07 | PJQ | TAL BUF |
| Total/NA | Analysis | 8260C | | 1 | 146126 | 10/19/13 19:06 | CDC | TAL BUF |
| Total/NA | Prep | 3550C | | | 144428 | 10/11/13 15:22 | JRL | TAL BUF |
| Total/NA | Analysis | 8270D | | 10 | 144681 | 10/14/13 16:50 | HTL | TAL BUF |
| Total/NA | Analysis | Moisture | | 1 | 144165 | 10/11/13 00:33 | GTG | TAL BUF |

## Client Sample ID: SB-8 (8-9')

**Lab Sample ID: 480-47593-3**

**Date Collected: 10/08/13 12:35**
**Matrix: Solid**
**Date Received: 10/09/13 16:20**
**Percent Solids: 87.9**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 5035 | | | 145963 | 10/18/13 12:07 | PJQ | TAL BUF |
| Total/NA | Analysis | 8260C | | 1 | 146126 | 10/19/13 19:32 | CDC | TAL BUF |
| Total/NA | Prep | 3550C | | | 144428 | 10/11/13 15:22 | JRL | TAL BUF |
| Total/NA | Analysis | 8270D | | 1 | 144681 | 10/14/13 17:15 | HTL | TAL BUF |
| Total/NA | Analysis | Moisture | | 1 | 144165 | 10/11/13 00:33 | GTG | TAL BUF |

## Client Sample ID: SB-11 (8-9')

**Lab Sample ID: 480-47593-4**

**Date Collected: 10/08/13 13:55**
**Matrix: Solid**
**Date Received: 10/09/13 16:20**
**Percent Solids: 73.6**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 5035 | | | 145963 | 10/18/13 12:07 | PJQ | TAL BUF |
| Total/NA | Analysis | 8260C | | 1 | 146126 | 10/19/13 19:57 | CDC | TAL BUF |
| Total/NA | Prep | 3550C | | | 144428 | 10/11/13 15:22 | JRL | TAL BUF |
| Total/NA | Analysis | 8270D | | 5 | 144681 | 10/14/13 17:40 | HTL | TAL BUF |
| Total/NA | Analysis | Moisture | | 1 | 144165 | 10/11/13 00:33 | GTG | TAL BUF |

**Laboratory References:**

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

# Certification Summary

Client: New York State D.E.C.
Project/Site: NYSDEC-45 E. Genesee St:Sitel# 1302111

TestAmerica Job ID: 480-47593-1

## Laboratory: TestAmerica Buffalo

The certifications listed below are applicable to this report.

| Authority | Program | EPA Region | Certification ID | Expiration Date |
|---|---|---|---|---|
| New York | NELAP | 2 | 10026 | 04-01-14 |

# Method Summary

Client: New York State D.E.C.
Project/Site: NYSDEC-45 E. Genesee St:Sitel# 1302111

TestAmerica Job ID: 480-47593-1

| Method | Method Description | Protocol | Laboratory |
|---|---|---|---|
| 8260C | Volatile Organic Compounds by GC/MS | SW846 | TAL BUF |
| 8270D | Semivolatile Organic Compounds (GC/MS) | SW846 | TAL BUF |
| Moisture | Percent Moisture | EPA | TAL BUF |

**Protocol References:**

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

**Laboratory References:**

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

# Sample Summary

Client: New York State D.E.C.
Project/Site: NYSDEC-45 E. Genesee St:Sitel# 1302111

TestAmerica Job ID: 480-47593-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 480-47593-1 | SB-4 (8-9') | Solid | 10/08/13 11:00 | 10/09/13 16:20 |
| 480-47593-2 | SB-6 (8-9') | Solid | 10/08/13 11:45 | 10/09/13 16:20 |
| 480-47593-3 | SB-8 (8-9') | Solid | 10/08/13 12:35 | 10/09/13 16:20 |
| 480-47593-4 | SB-11 (8-9') | Solid | 10/08/13 13:55 | 10/09/13 16:20 |

# Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes☐ No☐

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

| Client | Project Manager | Date | Chain of Custody Number |
|---|---|---|---|
| NYSDEC Region 8 | Joe Machtell | 10/8/13 | 251052 |
| **Address** | **Telephone Number (Area Code)/Fax Number** | **Lab Number** | **Page** 1 of 1 |
| **City** / **State** / **Zip Code** | **Site Contact** Greg Yax 585 313 8588 | **Lab Contact** | |
| **Project Name and Location (State)** 45 East Genesee St, Clyde | **Carrier/Waybill Number** | | |
| **Contract/Purchase Order/Quote No.** Spill No. 13-02411 | | | |

| Sample I.D. No. and Description (Containers for each sample may be combined on one line) | Date | Time | Matrix: Air | Aqueous | Sed | Soil | Containers & Preservatives: Unpres. | H2SO4 | HNO3 | HCl | NaOH | ZnAc/NaOH | Analysis: 8260 STARS | 8270 STARS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SB-4 (8-9') | 10/8/13 | 1100 | | | | X | X | | | | | | X | X |
| SB-6 (8-9') | | 1145 | | | | X | X | | | | | | X | X |
| SB-8 (8-9') | | 1235 | | | | X | X | | | | | | X | X |
| SB-11 (8-9') | | 1355 | | | | X | X | | | | | | X | X |

Special Instructions/ Conditions of Receipt

480-47593 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

| | Date | Time | | Date | Time |
|---|---|---|---|---|---|
| 1. Relinquished By | 10/9 | 1:58 | 1. Received By | | |
| 2. Relinquished By | 10/8/13 | 1620 | 2. Received By | 10/9/13 | 1400 |
| 3. Relinquished By | | | 3. Received By | 10/9/13 | 1620 |

Comments

Temp 4.4 ICE#1

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

# Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-47593-1

**Login Number: 47593**

**List Source: TestAmerica Buffalo**

**List Number: 1**

**Creator: Kolb, Chris M**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity either was not measured or, if measured, is at or below background | True | |
| The cooler's custody seal, if present, is intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | False | no tat on coc |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the sample IDs on the containers and the COC. | True | |
| Samples are received within Holding Time. | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified | True | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter. | N/A | |
| If necessary, staff have been informed of any short hold time or quick TAT needs | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Sampling Company provided. | N/A | |
| Samples received within 48 hours of sampling. | True | |
| Samples requiring field filtration have been filtered in the field. | True | |
| Chlorine Residual checked. | N/A | |

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

# ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

TestAmerica Job ID: 480-48073-1
Client Project/Site: NYSDEC-45 E. Genesee St:Sitel# 1302111

For:
New York State D.E.C.
6274 E. Avon-Lima Rd.
Avon, New York 14414

Attn: Joe Marchitell

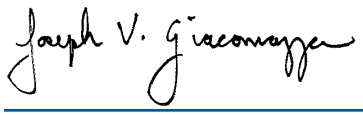
Joseph V. Giacomazza

*Authorized for release by:*
*10/25/2013 11:46:37 AM*
Joe Giacomazza, Project Administrator
joe.giacomazza@testamericainc.com

Designee for

Brian Fischer, Project Manager II
(716)504-9835
brian.fischer@testamericainc.com

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverable has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.



Joe Giacomazza
Project Administrator
*10/25/2013 11:46:37 AM*

# Table of Contents

Client: New York State D.E.C.
Project/Site: NYSDEC-45 E. Genesee St:Sitel# 1302111

TestAmerica Job ID: 480-48073-1

## Qualifiers

### GC/MS VOA

| Qualifier | Qualifier Description |
|---|---|
| J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

### GC/MS Semi VOA

| Qualifier | Qualifier Description |
|---|---|
| J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

## Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|---|---|
| ¤ | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CNF | Contains no Free Liquid |
| DER | Duplicate error ratio (normalized absolute difference) |
| Dil Fac | Dilution Factor |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision level concentration |
| MDA | Minimum detectable activity |
| EDL | Estimated Detection Limit |
| MDC | Minimum detectable concentration |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| NC | Not Calculated |
| ND | Not detected at the reporting limit (or MDL or EDL if shown) |
| PQL | Practical Quantitation Limit |
| QC | Quality Control |
| RER | Relative error ratio |
| RL | Reporting Limit or Requested Limit (Radiochemistry) |
| RPD | Relative Percent Difference, a measure of the relative difference between two points |
| TEF | Toxicity Equivalent Factor (Dioxin) |
| TEQ | Toxicity Equivalent Quotient (Dioxin) |

Client: New York State D.E.C.
Project/Site: NYSDEC-45 E. Genesee St:Sitel# 1302111

TestAmerica Job ID: 480-48073-1

## Job ID: 480-48073-1

### Laboratory: TestAmerica Buffalo

**Narrative**

**Job Narrative**
**480-48073-1**

**Receipt**
The sample was received on 10/16/2013 4:25 PM; the sample arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.0º C.

Except:

The Chain of Custody was received without a specified TAT listed.

**GC/MS VOA**
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: Fill Port Soil (480-48073-1).

No other analytical or quality issues were noted.

**GC/MS Semi VOA**
No analytical or quality issues were noted.

**Organic Prep**
No analytical or quality issues were noted.

Client: New York State D.E.C.
Project/Site: NYSDEC-45 E. Genesee St:Sitel# 1302111

TestAmerica Job ID: 480-48073-1

**Client Sample ID: Fill Port Soil**
**Date Collected: 10/11/13 12:00**
**Date Received: 10/16/13 16:25**

**Lab Sample ID: 480-48073-1**
**Matrix: Solid**
**Percent Solids: 89.4**

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | ND | | 5.6 | 0.27 | ug/Kg | ☼ | 10/24/13 00:24 | 10/24/13 01:42 | 1 |
| Ethylbenzene | ND | | 5.6 | 0.38 | ug/Kg | ☼ | 10/24/13 00:24 | 10/24/13 01:42 | 1 |
| Toluene | ND | | 5.6 | 0.42 | ug/Kg | ☼ | 10/24/13 00:24 | 10/24/13 01:42 | 1 |
| **m-Xylene & p-Xylene** | **1.1** | **J** | 11 | 0.94 | ug/Kg | ☼ | 10/24/13 00:24 | 10/24/13 01:42 | 1 |
| o-Xylene | ND | | 5.6 | 0.73 | ug/Kg | ☼ | 10/24/13 00:24 | 10/24/13 01:42 | 1 |
| **Xylenes, Total** | **1.1** | **J** | 11 | 0.94 | ug/Kg | ☼ | 10/24/13 00:24 | 10/24/13 01:42 | 1 |
| Isopropylbenzene | ND | | 5.6 | 0.84 | ug/Kg | ☼ | 10/24/13 00:24 | 10/24/13 01:42 | 1 |
| N-Propylbenzene | ND | | 5.6 | 0.45 | ug/Kg | ☼ | 10/24/13 00:24 | 10/24/13 01:42 | 1 |
| 4-Isopropyltoluene | ND | | 5.6 | 0.45 | ug/Kg | ☼ | 10/24/13 00:24 | 10/24/13 01:42 | 1 |
| 1,2,4-Trimethylbenzene | ND | | 5.6 | 1.1 | ug/Kg | ☼ | 10/24/13 00:24 | 10/24/13 01:42 | 1 |
| 1,3,5-Trimethylbenzene | ND | | 5.6 | 0.36 | ug/Kg | ☼ | 10/24/13 00:24 | 10/24/13 01:42 | 1 |
| n-Butylbenzene | ND | | 5.6 | 0.48 | ug/Kg | ☼ | 10/24/13 00:24 | 10/24/13 01:42 | 1 |
| sec-Butylbenzene | ND | | 5.6 | 0.48 | ug/Kg | ☼ | 10/24/13 00:24 | 10/24/13 01:42 | 1 |
| Naphthalene | ND | | 5.6 | 0.75 | ug/Kg | ☼ | 10/24/13 00:24 | 10/24/13 01:42 | 1 |
| Methyl tert-butyl ether | ND | | 5.6 | 0.55 | ug/Kg | ☼ | 10/24/13 00:24 | 10/24/13 01:42 | 1 |
| tert-Butylbenzene | ND | | 5.6 | 0.58 | ug/Kg | ☼ | 10/24/13 00:24 | 10/24/13 01:42 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *98* | | *64 - 126* | *10/24/13 00:24* | *10/24/13 01:42* | *1* |
| *Toluene-d8 (Surr)* | *106* | | *71 - 125* | *10/24/13 00:24* | *10/24/13 01:42* | *1* |
| *4-Bromofluorobenzene (Surr)* | *113* | | *72 - 126* | *10/24/13 00:24* | *10/24/13 01:42* | *1* |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Acenaphthene** | **21** | **J** | 190 | 2.2 | ug/Kg | ☼ | 10/17/13 07:27 | 10/18/13 21:26 | 1 |
| Acenaphthylene | ND | | 190 | 1.5 | ug/Kg | ☼ | 10/17/13 07:27 | 10/18/13 21:26 | 1 |
| **Anthracene** | **16** | **J** | 190 | 4.7 | ug/Kg | ☼ | 10/17/13 07:27 | 10/18/13 21:26 | 1 |
| Benzo(a)anthracene | ND | | 190 | 3.2 | ug/Kg | ☼ | 10/17/13 07:27 | 10/18/13 21:26 | 1 |
| Benzo(a)pyrene | ND | | 190 | 4.4 | ug/Kg | ☼ | 10/17/13 07:27 | 10/18/13 21:26 | 1 |
| Benzo(b)fluoranthene | ND | | 190 | 3.6 | ug/Kg | ☼ | 10/17/13 07:27 | 10/18/13 21:26 | 1 |
| Benzo(g,h,i)perylene | ND | | 190 | 2.2 | ug/Kg | ☼ | 10/17/13 07:27 | 10/18/13 21:26 | 1 |
| Benzo(k)fluoranthene | ND | | 190 | 2.0 | ug/Kg | ☼ | 10/17/13 07:27 | 10/18/13 21:26 | 1 |
| Chrysene | ND | | 190 | 1.8 | ug/Kg | ☼ | 10/17/13 07:27 | 10/18/13 21:26 | 1 |
| Dibenz(a,h)anthracene | ND | | 190 | 2.2 | ug/Kg | ☼ | 10/17/13 07:27 | 10/18/13 21:26 | 1 |
| **Fluoranthene** | **8.7** | **J** | 190 | 2.7 | ug/Kg | ☼ | 10/17/13 07:27 | 10/18/13 21:26 | 1 |
| Fluorene | ND | | 190 | 4.3 | ug/Kg | ☼ | 10/17/13 07:27 | 10/18/13 21:26 | 1 |
| Indeno(1,2,3-cd)pyrene | ND | | 190 | 5.1 | ug/Kg | ☼ | 10/17/13 07:27 | 10/18/13 21:26 | 1 |
| Naphthalene | ND | | 190 | 3.1 | ug/Kg | ☼ | 10/17/13 07:27 | 10/18/13 21:26 | 1 |
| **Phenanthrene** | **21** | **J** | 190 | 3.9 | ug/Kg | ☼ | 10/17/13 07:27 | 10/18/13 21:26 | 1 |
| Pyrene | ND | | 190 | 1.2 | ug/Kg | ☼ | 10/17/13 07:27 | 10/18/13 21:26 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *2,4,6-Tribromophenol* | *88* | | *39 - 146* | *10/17/13 07:27* | *10/18/13 21:26* | *1* |
| *2-Fluorophenol* | *71* | | *18 - 120* | *10/17/13 07:27* | *10/18/13 21:26* | *1* |
| *2-Fluorobiphenyl* | *84* | | *37 - 120* | *10/17/13 07:27* | *10/18/13 21:26* | *1* |
| *Phenol-d5* | *75* | | *11 - 120* | *10/17/13 07:27* | *10/18/13 21:26* | *1* |
| *p-Terphenyl-d14* | *115* | | *65 - 153* | *10/17/13 07:27* | *10/18/13 21:26* | *1* |
| *Nitrobenzene-d5* | *75* | | *34 - 132* | *10/17/13 07:27* | *10/18/13 21:26* | *1* |

# Lab Chronicle

Client: New York State D.E.C.
Project/Site: NYSDEC-45 E. Genesee St:Sitel# 1302111

TestAmerica Job ID: 480-48073-1

**Client Sample ID: Fill Port Soil**
**Date Collected: 10/11/13 12:00**
**Date Received: 10/16/13 16:25**

**Lab Sample ID: 480-48073-1**
**Matrix: Solid**
**Percent Solids: 89.4**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 5035 | | | 147095 | 10/24/13 00:24 | CDC | TAL BUF |
| Total/NA | Analysis | 8260C | | 1 | 147088 | 10/24/13 01:42 | PJQ | TAL BUF |
| Total/NA | Prep | 3550C | | | 145524 | 10/17/13 07:27 | DLE | TAL BUF |
| Total/NA | Analysis | 8270D | | 1 | 145936 | 10/18/13 21:26 | RMM | TAL BUF |
| Total/NA | Analysis | Moisture | | 1 | 145433 | 10/16/13 21:07 | GTG | TAL BUF |

**Laboratory References:**

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

# Certification Summary

Client: New York State D.E.C.
Project/Site: NYSDEC-45 E. Genesee St:Sitel# 1302111

TestAmerica Job ID: 480-48073-1

## Laboratory: TestAmerica Buffalo

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

| Authority | Program | EPA Region | Certification ID | Expiration Date |
|---|---|---|---|---|
| Arkansas DEQ | State Program | 6 | 88-0686 | 07-06-14 |
| California | NELAP | 9 | 1169CA | 09-30-14 |
| Connecticut | State Program | 1 | PH-0568 | 09-30-14 |
| Florida | NELAP | 4 | E87672 | 06-30-14 |
| Georgia | State Program | 4 | N/A | 03-31-14 |
| Illinois | NELAP | 5 | 200003 | 09-30-14 |
| Iowa | State Program | 7 | 374 | 03-15-15 |
| Kansas | NELAP | 7 | E-10187 | 01-31-14 |
| Kentucky | State Program | 4 | 90029 | 12-31-13 |
| Kentucky (UST) | State Program | 4 | 30 | 04-01-14 |
| Louisiana | NELAP | 6 | 02031 | 06-30-14 |
| Maine | State Program | 1 | NY00044 | 12-04-14 |
| Maryland | State Program | 3 | 294 | 03-31-14 |
| Massachusetts | State Program | 1 | M-NY044 | 06-30-14 |
| Michigan | State Program | 5 | 9937 | 04-01-14 |
| Minnesota | NELAP | 5 | 036-999-337 | 12-31-13 |
| New Hampshire | NELAP | 1 | 2973 | 09-11-14 |
| New Jersey | NELAP | 2 | NY455 | 06-30-14 |
| New York | NELAP | 2 | 10026 | 04-01-14 |
| North Dakota | State Program | 8 | R-176 | 03-31-14 |
| Oklahoma | State Program | 6 | 9421 | 08-31-14 |
| Oregon | NELAP | 10 | NY200003 | 06-09-14 |
| Pennsylvania | NELAP | 3 | 68-00281 | 07-31-14 |
| Rhode Island | State Program | 1 | LAO00328 | 12-31-13 |
| Tennessee | State Program | 4 | TN02970 | 04-01-14 |
| Texas | NELAP | 6 | T104704412-11-2 | 07-31-14 |
| USDA | Federal | | P330-11-00386 | 11-22-14 |
| Virginia | NELAP | 3 | 460185 | 09-14-14 |
| Washington | State Program | 10 | C784 | 02-10-14 |
| West Virginia DEP | State Program | 3 | 252 | 12-31-13 |
| Wisconsin | State Program | 5 | 998310390 | 08-31-14 |

# Method Summary

Client: New York State D.E.C.
Project/Site: NYSDEC-45 E. Genesee St:Sitel# 1302111

TestAmerica Job ID: 480-48073-1

| Method | Method Description | Protocol | Laboratory |
|---|---|---|---|
| 8260C | Volatile Organic Compounds by GC/MS | SW846 | TAL BUF |
| 8270D | Semivolatile Organic Compounds (GC/MS) | SW846 | TAL BUF |
| Moisture | Percent Moisture | EPA | TAL BUF |

**Protocol References:**

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

**Laboratory References:**

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

# Sample Summary

Client: New York State D.E.C.
Project/Site: NYSDEC-45 E. Genesee St:Sitel# 1302111

TestAmerica Job ID: 480-48073-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 480-48073-1 | Fill Port Soil | Solid | 10/11/13 12:00 | 10/16/13 16:25 |

# Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☐

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

| Client | Project Manager | Date | Chain of Custody Number |
|---|---|---|---|
| NYSDEC Region 8 | Joe Machitell | 10/11/13 | 251057 |
| Address | Telephone Number (Area Code)/Fax Number | Lab Number | Page 1 of 1 |
| City / State / Zip Code | Site Contact | Lab Contact | |
| Project Name and Location (State): 45 East Genesee St Clyde, NY | Carrier/Waybill Number | | |
| Contract/Purchase Order/Quote No.: Spill no 13-02111 | | | |

| Sample I.D. No. and Description (Containers for each sample may be combined on one line) | Date | Time | Matrix: Air | Aqueous | Sed. | Soil | Containers & Preservatives: Unpres. | H2SO4 | HNO3 | HCl | NaOH | ZnAc/NaOH | Analysis: 8260 STARS | 8270 STARS | Special Instructions/ Conditions of Receipt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Fill Port Soil | 10/11/13 | 1200 | | | | X | X | | | | | | X | X | |

480-48073 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
(A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

| | Date | Time | | Date | Time |
|---|---|---|---|---|---|
| 1. Relinquished By | 10-16-13 | 1345 | 1. Received By | 10/16/13 | 1345 |
| 2. Relinquished By | 10/16/13 | 1625 | 2. Received By | 10/16/13 | 1625 |
| 3. Relinquished By | | | 3. Received By | | |

Comments: 4.0 ICE#1

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

# Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-48073-1

**Login Number: 48073**

**List Source: TestAmerica Buffalo**

**List Number: 1**

**Creator: Kolb, Chris M**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity either was not measured or, if measured, is at or below background | True | |
| The cooler's custody seal, if present, is intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | False | no tat on coc |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the sample IDs on the containers and the COC. | True | |
| Samples are received within Holding Time. | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified | True | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter. | N/A | |
| If necessary, staff have been informed of any short hold time or quick TAT needs | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Sampling Company provided. | N/A | |
| Samples received within 48 hours of sampling. | False | sample collected on 10/11/13 |
| Samples requiring field filtration have been filtered in the field. | True | |
| Chlorine Residual checked. | N/A | |

**APPENDIX C**
**Tank Disposal Receipts**

RECEIPT NO. 61670

Trout Auto Recycling
2410 Edwards Road
Waterloo, NY 13165
phone 315-789-5742

Sold to:
Koske, Arthur
1711 Center Rd
East Aurora, NY 14052

cust-#: 137823241

Ship to:

| date | by | code | terms | phone# | reference |
|---|---|---|---|---|---|
| 07-NOV-13 | | | | | |

| item-# | veh# | qty | unit | price | description | amount |
|---|---|---|---|---|---|---|
| LONG STEEL | | -12.5000 | 100 | 11.10 | long steel | n -138.75 |

I hereby affirm the above listed items
are mine and I am authorized to sell them.

All parts are as is. No warranties.
Labor and deposits are non-refundable

| | |
|---|---|
| SUBTOTAL: | -138.75 |
| ( 8.000%) TAX: | 0.00 |
| S & H: | 0.00 |
| TOTAL: | -138.75 |
| AMOUNT PAID: | -138.75 |
| BALANCE: | 0.00 |
| HOW PAID: | cash |

RECEIPT NO. 61675

Trout Auto Recycling
2410 Edwards Road
Waterloo, NY 13165
phone 315-789-5742

Sold to: cust-#: 137823241 Ship to:

Koske, Arthur
1711 Center Rd
East Aurora, NY 14052

| date | by | code | terms | phone# | reference |
|---|---|---|---|---|---|
| 07-NOV-13 | | | | | |

| item-# | veh# | qty | unit | price | description | amount |
|---|---|---|---|---|---|---|
| LONG STEEL | | -15.3000 | 100 | 11.10 | long steel | n -169.83 |

I hereby affirm the above listed items
are mine and I am authorized to sell them.

All parts are as is. No warranties.
Labor and deposits are non-refundable

| | |
|---|---|
| SUBTOTAL: | -169.83 |
| ( 8.000%) TAX: | 0.00 |
| S & H: | 0.00 |
| TOTAL: | -169.83 |
| AMOUNT PAID: | -169.83 |
| BALANCE: | 0.00 |
| HOW PAID: | CASH |

RECEIPT NO. 61683

Trout Auto Recycling
2410 Edwards Road
Waterloo, NY 13165
phone 315-789-5742

Sold to:
Koske, Arthur
1711 Center Rd
East Aurora, NY 14052

cust-#: 137823241

Ship to:

| date | by | code | terms | phone# | reference |
|---|---|---|---|---|---|
| 08-NOV-13 | | | | | |

| item-# | veh# | qty | unit | price | description | amount |
|---|---|---|---|---|---|---|
| LONG STEEL | | -15.1000 | 100 | 11.10 | long steel | n -167.61 |

I hereby affirm the above listed items
are mine and I am authorized to sell them.

All parts are as is. No warranties.
Labor and deposits are non-refundable

| | |
|---|---|
| SUBTOTAL: | -167.61 |
| ( 8.000%) TAX: | 0.00 |
| S & H: | 0.00 |
| TOTAL: | -167.61 |
| AMOUNT PAID: | -167.61 |
| BALANCE: | 0.00 |
| HOW PAID: | cash |

**APPENDIX D**
**Laboratory Analytical Report for Confirmation Samples**

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

# ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

TestAmerica Job ID: 480-49787-1
Client Project/Site: NYSDEC-45 E. Genesee St:Sitel# 1302111

For:
New York State D.E.C.
6274 E. Avon-Lima Rd.
Avon, New York 14414

Attn: Joe Marchitell

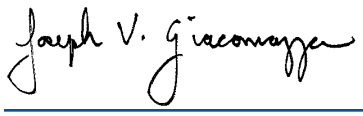
Joseph V. Giacomazza

*Authorized for release by:*
*11/18/2013 4:36:05 PM*
Joe Giacomazza, Project Management Assistant II
joe.giacomazza@testamericainc.com

Designee for

Brian Fischer, Manager of Project Management
(716)504-9835
brian.fischer@testamericainc.com

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverable has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.



Joe Giacomazza
Project Management Assistant II
*11/18/2013 4:36:05 PM*

# Table of Contents

## Qualifiers

### GC/MS Semi VOA

| Qualifier | Qualifier Description |
|---|---|
| J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

## Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|---|---|
| ¤ | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CNF | Contains no Free Liquid |
| DER | Duplicate error ratio (normalized absolute difference) |
| Dil Fac | Dilution Factor |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision level concentration |
| MDA | Minimum detectable activity |
| EDL | Estimated Detection Limit |
| MDC | Minimum detectable concentration |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| NC | Not Calculated |
| ND | Not detected at the reporting limit (or MDL or EDL if shown) |
| PQL | Practical Quantitation Limit |
| QC | Quality Control |
| RER | Relative error ratio |
| RL | Reporting Limit or Requested Limit (Radiochemistry) |
| RPD | Relative Percent Difference, a measure of the relative difference between two points |
| TEF | Toxicity Equivalent Factor (Dioxin) |
| TEQ | Toxicity Equivalent Quotient (Dioxin) |

## Job ID: 480-49787-1

**Laboratory: TestAmerica Buffalo**

**Narrative**

**Job Narrative**
**480-49787-1**

**Receipt**
The samples were received on 11/8/2013 5:25 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.8º C.

Except:

The Chain of Custody was received without a specified TAT listed.

**GC/MS VOA**
Method(s) 8260C: The large number of analytes included in the continuing calibration verification (CCV) in batch 152170 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: 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: AOC-9-SS-8 (480-49955-12 MSD), East Bottom (480-49787-4), North Side Wall (480-49787-1), South Side Wall (480-49787-2), Stockpile (480-49787-5), West Bottom (480-49787-3).

No other analytical or quality issues were noted.

**GC/MS Semi VOA**
No analytical or quality issues were noted.

**Organic Prep**
No analytical or quality issues were noted.

**Client Sample ID: North Side Wall**
**Date Collected: 11/07/13 14:15**
**Date Received: 11/08/13 17:25**

**Lab Sample ID: 480-49787-1**
**Matrix: Solid**
**Percent Solids: 88.6**

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | ND | | 5.6 | 0.28 | ug/Kg | ☼ | 11/14/13 14:00 | 11/15/13 01:18 | 1 |
| Ethylbenzene | ND | | 5.6 | 0.39 | ug/Kg | ☼ | 11/14/13 14:00 | 11/15/13 01:18 | 1 |
| Toluene | ND | | 5.6 | 0.43 | ug/Kg | ☼ | 11/14/13 14:00 | 11/15/13 01:18 | 1 |
| m-Xylene & p-Xylene | ND | | 11 | 0.95 | ug/Kg | ☼ | 11/14/13 14:00 | 11/15/13 01:18 | 1 |
| o-Xylene | ND | | 5.6 | 0.74 | ug/Kg | ☼ | 11/14/13 14:00 | 11/15/13 01:18 | 1 |
| Xylenes, Total | ND | | 11 | 0.95 | ug/Kg | ☼ | 11/14/13 14:00 | 11/15/13 01:18 | 1 |
| Isopropylbenzene | ND | | 5.6 | 0.85 | ug/Kg | ☼ | 11/14/13 14:00 | 11/15/13 01:18 | 1 |
| N-Propylbenzene | ND | | 5.6 | 0.45 | ug/Kg | ☼ | 11/14/13 14:00 | 11/15/13 01:18 | 1 |
| 4-Isopropyltoluene | ND | | 5.6 | 0.45 | ug/Kg | ☼ | 11/14/13 14:00 | 11/15/13 01:18 | 1 |
| 1,2,4-Trimethylbenzene | ND | | 5.6 | 1.1 | ug/Kg | ☼ | 11/14/13 14:00 | 11/15/13 01:18 | 1 |
| 1,3,5-Trimethylbenzene | ND | | 5.6 | 0.36 | ug/Kg | ☼ | 11/14/13 14:00 | 11/15/13 01:18 | 1 |
| n-Butylbenzene | ND | | 5.6 | 0.49 | ug/Kg | ☼ | 11/14/13 14:00 | 11/15/13 01:18 | 1 |
| sec-Butylbenzene | ND | | 5.6 | 0.49 | ug/Kg | ☼ | 11/14/13 14:00 | 11/15/13 01:18 | 1 |
| Naphthalene | ND | | 5.6 | 0.76 | ug/Kg | ☼ | 11/14/13 14:00 | 11/15/13 01:18 | 1 |
| Methyl tert-butyl ether | ND | | 5.6 | 0.55 | ug/Kg | ☼ | 11/14/13 14:00 | 11/15/13 01:18 | 1 |
| tert-Butylbenzene | ND | | 5.6 | 0.59 | ug/Kg | ☼ | 11/14/13 14:00 | 11/15/13 01:18 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *109* | | *64 - 126* | *11/14/13 14:00* | *11/15/13 01:18* | *1* |
| *Toluene-d8 (Surr)* | *93* | | *71 - 125* | *11/14/13 14:00* | *11/15/13 01:18* | *1* |
| *4-Bromofluorobenzene (Surr)* | *96* | | *72 - 126* | *11/14/13 14:00* | *11/15/13 01:18* | *1* |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Acenaphthene** | **11** | **J** | 190 | 2.2 | ug/Kg | ☼ | 11/13/13 07:30 | 11/16/13 07:28 | 1 |
| Acenaphthylene | ND | | 190 | 1.5 | ug/Kg | ☼ | 11/13/13 07:30 | 11/16/13 07:28 | 1 |
| **Anthracene** | **42** | **J** | 190 | 4.8 | ug/Kg | ☼ | 11/13/13 07:30 | 11/16/13 07:28 | 1 |
| **Benzo(a)anthracene** | **190** | | 190 | 3.3 | ug/Kg | ☼ | 11/13/13 07:30 | 11/16/13 07:28 | 1 |
| **Benzo(a)pyrene** | **160** | **J** | 190 | 4.6 | ug/Kg | ☼ | 11/13/13 07:30 | 11/16/13 07:28 | 1 |
| **Benzo(b)fluoranthene** | **190** | | 190 | 3.7 | ug/Kg | ☼ | 11/13/13 07:30 | 11/16/13 07:28 | 1 |
| **Benzo(g,h,i)perylene** | **62** | **J** | 190 | 2.3 | ug/Kg | ☼ | 11/13/13 07:30 | 11/16/13 07:28 | 1 |
| **Benzo(k)fluoranthene** | **94** | **J** | 190 | 2.1 | ug/Kg | ☼ | 11/13/13 07:30 | 11/16/13 07:28 | 1 |
| **Chrysene** | **180** | **J** | 190 | 1.9 | ug/Kg | ☼ | 11/13/13 07:30 | 11/16/13 07:28 | 1 |
| **Dibenz(a,h)anthracene** | **25** | **J** | 190 | 2.2 | ug/Kg | ☼ | 11/13/13 07:30 | 11/16/13 07:28 | 1 |
| **Fluoranthene** | **380** | | 190 | 2.7 | ug/Kg | ☼ | 11/13/13 07:30 | 11/16/13 07:28 | 1 |
| **Fluorene** | **13** | **J** | 190 | 4.4 | ug/Kg | ☼ | 11/13/13 07:30 | 11/16/13 07:28 | 1 |
| **Indeno(1,2,3-cd)pyrene** | **59** | **J** | 190 | 5.2 | ug/Kg | ☼ | 11/13/13 07:30 | 11/16/13 07:28 | 1 |
| Naphthalene | ND | | 190 | 3.1 | ug/Kg | ☼ | 11/13/13 07:30 | 11/16/13 07:28 | 1 |
| **Phenanthrene** | **220** | | 190 | 4.0 | ug/Kg | ☼ | 11/13/13 07:30 | 11/16/13 07:28 | 1 |
| **Pyrene** | **280** | | 190 | 1.2 | ug/Kg | ☼ | 11/13/13 07:30 | 11/16/13 07:28 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *2,4,6-Tribromophenol* | *84* | | *39 - 146* | *11/13/13 07:30* | *11/16/13 07:28* | *1* |
| *2-Fluorophenol* | *74* | | *18 - 120* | *11/13/13 07:30* | *11/16/13 07:28* | *1* |
| *2-Fluorobiphenyl* | *80* | | *37 - 120* | *11/13/13 07:30* | *11/16/13 07:28* | *1* |
| *Phenol-d5* | *76* | | *11 - 120* | *11/13/13 07:30* | *11/16/13 07:28* | *1* |
| *p-Terphenyl-d14* | *82* | | *65 - 153* | *11/13/13 07:30* | *11/16/13 07:28* | *1* |
| *Nitrobenzene-d5* | *80* | | *34 - 132* | *11/13/13 07:30* | *11/16/13 07:28* | *1* |

## Client Sample ID: South Side Wall

**Date Collected: 11/07/13 14:25**
**Date Received: 11/08/13 17:25**

## Lab Sample ID: 480-49787-2

**Matrix: Solid**
**Percent Solids: 93.1**

### Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | ND | | 5.4 | 0.26 | ug/Kg | ☼ | 11/14/13 14:00 | 11/15/13 01:43 | 1 |
| Ethylbenzene | ND | | 5.4 | 0.37 | ug/Kg | ☼ | 11/14/13 14:00 | 11/15/13 01:43 | 1 |
| Toluene | ND | | 5.4 | 0.41 | ug/Kg | ☼ | 11/14/13 14:00 | 11/15/13 01:43 | 1 |
| m-Xylene & p-Xylene | ND | | 11 | 0.90 | ug/Kg | ☼ | 11/14/13 14:00 | 11/15/13 01:43 | 1 |
| o-Xylene | ND | | 5.4 | 0.70 | ug/Kg | ☼ | 11/14/13 14:00 | 11/15/13 01:43 | 1 |
| Xylenes, Total | ND | | 11 | 0.90 | ug/Kg | ☼ | 11/14/13 14:00 | 11/15/13 01:43 | 1 |
| Isopropylbenzene | ND | | 5.4 | 0.81 | ug/Kg | ☼ | 11/14/13 14:00 | 11/15/13 01:43 | 1 |
| N-Propylbenzene | ND | | 5.4 | 0.43 | ug/Kg | ☼ | 11/14/13 14:00 | 11/15/13 01:43 | 1 |
| 4-Isopropyltoluene | ND | | 5.4 | 0.43 | ug/Kg | ☼ | 11/14/13 14:00 | 11/15/13 01:43 | 1 |
| 1,2,4-Trimethylbenzene | ND | | 5.4 | 1.0 | ug/Kg | ☼ | 11/14/13 14:00 | 11/15/13 01:43 | 1 |
| 1,3,5-Trimethylbenzene | ND | | 5.4 | 0.35 | ug/Kg | ☼ | 11/14/13 14:00 | 11/15/13 01:43 | 1 |
| n-Butylbenzene | ND | | 5.4 | 0.47 | ug/Kg | ☼ | 11/14/13 14:00 | 11/15/13 01:43 | 1 |
| sec-Butylbenzene | ND | | 5.4 | 0.47 | ug/Kg | ☼ | 11/14/13 14:00 | 11/15/13 01:43 | 1 |
| Naphthalene | ND | | 5.4 | 0.72 | ug/Kg | ☼ | 11/14/13 14:00 | 11/15/13 01:43 | 1 |
| Methyl tert-butyl ether | ND | | 5.4 | 0.53 | ug/Kg | ☼ | 11/14/13 14:00 | 11/15/13 01:43 | 1 |
| tert-Butylbenzene | ND | | 5.4 | 0.56 | ug/Kg | ☼ | 11/14/13 14:00 | 11/15/13 01:43 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *108* | | *64 - 126* | *11/14/13 14:00* | *11/15/13 01:43* | *1* |
| *Toluene-d8 (Surr)* | *94* | | *71 - 125* | *11/14/13 14:00* | *11/15/13 01:43* | *1* |
| *4-Bromofluorobenzene (Surr)* | *98* | | *72 - 126* | *11/14/13 14:00* | *11/15/13 01:43* | *1* |

### Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Acenaphthene** | **22** | **J** | 180 | 2.1 | ug/Kg | ☼ | 11/13/13 07:30 | 11/16/13 07:52 | 1 |
| **Acenaphthylene** | **27** | **J** | 180 | 1.5 | ug/Kg | ☼ | 11/13/13 07:30 | 11/16/13 07:52 | 1 |
| **Anthracene** | **100** | **J** | 180 | 4.6 | ug/Kg | ☼ | 11/13/13 07:30 | 11/16/13 07:52 | 1 |
| **Benzo(a)anthracene** | **610** | | 180 | 3.1 | ug/Kg | ☼ | 11/13/13 07:30 | 11/16/13 07:52 | 1 |
| **Benzo(a)pyrene** | **750** | | 180 | 4.3 | ug/Kg | ☼ | 11/13/13 07:30 | 11/16/13 07:52 | 1 |
| **Benzo(b)fluoranthene** | **1100** | | 180 | 3.5 | ug/Kg | ☼ | 11/13/13 07:30 | 11/16/13 07:52 | 1 |
| **Benzo(g,h,i)perylene** | **210** | | 180 | 2.2 | ug/Kg | ☼ | 11/13/13 07:30 | 11/16/13 07:52 | 1 |
| **Benzo(k)fluoranthene** | **440** | | 180 | 2.0 | ug/Kg | ☼ | 11/13/13 07:30 | 11/16/13 07:52 | 1 |
| **Chrysene** | **630** | | 180 | 1.8 | ug/Kg | ☼ | 11/13/13 07:30 | 11/16/13 07:52 | 1 |
| **Dibenz(a,h)anthracene** | **85** | **J** | 180 | 2.1 | ug/Kg | ☼ | 11/13/13 07:30 | 11/16/13 07:52 | 1 |
| **Fluoranthene** | **870** | | 180 | 2.6 | ug/Kg | ☼ | 11/13/13 07:30 | 11/16/13 07:52 | 1 |
| **Fluorene** | **20** | **J** | 180 | 4.1 | ug/Kg | ☼ | 11/13/13 07:30 | 11/16/13 07:52 | 1 |
| **Indeno(1,2,3-cd)pyrene** | **210** | | 180 | 5.0 | ug/Kg | ☼ | 11/13/13 07:30 | 11/16/13 07:52 | 1 |
| **Naphthalene** | **180** | | 180 | 3.0 | ug/Kg | ☼ | 11/13/13 07:30 | 11/16/13 07:52 | 1 |
| **Phenanthrene** | **370** | | 180 | 3.8 | ug/Kg | ☼ | 11/13/13 07:30 | 11/16/13 07:52 | 1 |
| **Pyrene** | **720** | | 180 | 1.2 | ug/Kg | ☼ | 11/13/13 07:30 | 11/16/13 07:52 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *2,4,6-Tribromophenol* | *88* | | *39 - 146* | *11/13/13 07:30* | *11/16/13 07:52* | *1* |
| *2-Fluorophenol* | *71* | | *18 - 120* | *11/13/13 07:30* | *11/16/13 07:52* | *1* |
| *2-Fluorobiphenyl* | *80* | | *37 - 120* | *11/13/13 07:30* | *11/16/13 07:52* | *1* |
| *Phenol-d5* | *76* | | *11 - 120* | *11/13/13 07:30* | *11/16/13 07:52* | *1* |
| *p-Terphenyl-d14* | *79* | | *65 - 153* | *11/13/13 07:30* | *11/16/13 07:52* | *1* |
| *Nitrobenzene-d5* | *81* | | *34 - 132* | *11/13/13 07:30* | *11/16/13 07:52* | *1* |

## Client Sample ID: West Bottom

**Date Collected: 11/07/13 14:35**
**Date Received: 11/08/13 17:25**

**Lab Sample ID: 480-49787-3**
**Matrix: Solid**
**Percent Solids: 89.8**

### Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | ND | | 5.5 | 0.27 | ug/Kg | ☼ | 11/14/13 14:00 | 11/15/13 02:09 | 1 |
| Ethylbenzene | ND | | 5.5 | 0.38 | ug/Kg | ☼ | 11/14/13 14:00 | 11/15/13 02:09 | 1 |
| Toluene | ND | | 5.5 | 0.42 | ug/Kg | ☼ | 11/14/13 14:00 | 11/15/13 02:09 | 1 |
| m-Xylene & p-Xylene | ND | | 11 | 0.93 | ug/Kg | ☼ | 11/14/13 14:00 | 11/15/13 02:09 | 1 |
| o-Xylene | ND | | 5.5 | 0.72 | ug/Kg | ☼ | 11/14/13 14:00 | 11/15/13 02:09 | 1 |
| Xylenes, Total | ND | | 11 | 0.93 | ug/Kg | ☼ | 11/14/13 14:00 | 11/15/13 02:09 | 1 |
| Isopropylbenzene | ND | | 5.5 | 0.83 | ug/Kg | ☼ | 11/14/13 14:00 | 11/15/13 02:09 | 1 |
| N-Propylbenzene | ND | | 5.5 | 0.44 | ug/Kg | ☼ | 11/14/13 14:00 | 11/15/13 02:09 | 1 |
| 4-Isopropyltoluene | ND | | 5.5 | 0.44 | ug/Kg | ☼ | 11/14/13 14:00 | 11/15/13 02:09 | 1 |
| 1,2,4-Trimethylbenzene | ND | | 5.5 | 1.1 | ug/Kg | ☼ | 11/14/13 14:00 | 11/15/13 02:09 | 1 |
| 1,3,5-Trimethylbenzene | ND | | 5.5 | 0.36 | ug/Kg | ☼ | 11/14/13 14:00 | 11/15/13 02:09 | 1 |
| n-Butylbenzene | ND | | 5.5 | 0.48 | ug/Kg | ☼ | 11/14/13 14:00 | 11/15/13 02:09 | 1 |
| sec-Butylbenzene | ND | | 5.5 | 0.48 | ug/Kg | ☼ | 11/14/13 14:00 | 11/15/13 02:09 | 1 |
| Naphthalene | ND | | 5.5 | 0.74 | ug/Kg | ☼ | 11/14/13 14:00 | 11/15/13 02:09 | 1 |
| Methyl tert-butyl ether | ND | | 5.5 | 0.54 | ug/Kg | ☼ | 11/14/13 14:00 | 11/15/13 02:09 | 1 |
| tert-Butylbenzene | ND | | 5.5 | 0.57 | ug/Kg | ☼ | 11/14/13 14:00 | 11/15/13 02:09 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *106* | | *64 - 126* | *11/14/13 14:00* | *11/15/13 02:09* | *1* |
| *Toluene-d8 (Surr)* | *92* | | *71 - 125* | *11/14/13 14:00* | *11/15/13 02:09* | *1* |
| *4-Bromofluorobenzene (Surr)* | *96* | | *72 - 126* | *11/14/13 14:00* | *11/15/13 02:09* | *1* |

### Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | ND | | 190 | 2.2 | ug/Kg | ☼ | 11/13/13 07:30 | 11/16/13 08:15 | 1 |
| Acenaphthylene | ND | | 190 | 1.5 | ug/Kg | ☼ | 11/13/13 07:30 | 11/16/13 08:15 | 1 |
| Anthracene | ND | | 190 | 4.8 | ug/Kg | ☼ | 11/13/13 07:30 | 11/16/13 08:15 | 1 |
| Benzo(a)anthracene | ND | | 190 | 3.2 | ug/Kg | ☼ | 11/13/13 07:30 | 11/16/13 08:15 | 1 |
| **Benzo(a)pyrene** | **7.8** | **J** | 190 | 4.5 | ug/Kg | ☼ | 11/13/13 07:30 | 11/16/13 08:15 | 1 |
| **Benzo(b)fluoranthene** | **16** | **J** | 190 | 3.6 | ug/Kg | ☼ | 11/13/13 07:30 | 11/16/13 08:15 | 1 |
| Benzo(g,h,i)perylene | ND | | 190 | 2.2 | ug/Kg | ☼ | 11/13/13 07:30 | 11/16/13 08:15 | 1 |
| **Benzo(k)fluoranthene** | **6.9** | **J** | 190 | 2.1 | ug/Kg | ☼ | 11/13/13 07:30 | 11/16/13 08:15 | 1 |
| **Chrysene** | **11** | **J** | 190 | 1.9 | ug/Kg | ☼ | 11/13/13 07:30 | 11/16/13 08:15 | 1 |
| Dibenz(a,h)anthracene | ND | | 190 | 2.2 | ug/Kg | ☼ | 11/13/13 07:30 | 11/16/13 08:15 | 1 |
| **Fluoranthene** | **17** | **J** | 190 | 2.7 | ug/Kg | ☼ | 11/13/13 07:30 | 11/16/13 08:15 | 1 |
| Fluorene | ND | | 190 | 4.3 | ug/Kg | ☼ | 11/13/13 07:30 | 11/16/13 08:15 | 1 |
| Indeno(1,2,3-cd)pyrene | ND | | 190 | 5.2 | ug/Kg | ☼ | 11/13/13 07:30 | 11/16/13 08:15 | 1 |
| Naphthalene | ND | | 190 | 3.1 | ug/Kg | ☼ | 11/13/13 07:30 | 11/16/13 08:15 | 1 |
| Phenanthrene | ND | | 190 | 3.9 | ug/Kg | ☼ | 11/13/13 07:30 | 11/16/13 08:15 | 1 |
| **Pyrene** | **13** | **J** | 190 | 1.2 | ug/Kg | ☼ | 11/13/13 07:30 | 11/16/13 08:15 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *2,4,6-Tribromophenol* | *91* | | *39 - 146* | *11/13/13 07:30* | *11/16/13 08:15* | *1* |
| *2-Fluorophenol* | *83* | | *18 - 120* | *11/13/13 07:30* | *11/16/13 08:15* | *1* |
| *2-Fluorobiphenyl* | *88* | | *37 - 120* | *11/13/13 07:30* | *11/16/13 08:15* | *1* |
| *Phenol-d5* | *86* | | *11 - 120* | *11/13/13 07:30* | *11/16/13 08:15* | *1* |
| *p-Terphenyl-d14* | *83* | | *65 - 153* | *11/13/13 07:30* | *11/16/13 08:15* | *1* |
| *Nitrobenzene-d5* | *89* | | *34 - 132* | *11/13/13 07:30* | *11/16/13 08:15* | *1* |

## Client Sample ID: East Bottom

**Date Collected: 11/07/13 14:45**
**Date Received: 11/08/13 17:25**

**Lab Sample ID: 480-49787-4**
**Matrix: Solid**
**Percent Solids: 89.6**

### Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | ND | | 5.5 | 0.27 | ug/Kg | ☼ | 11/14/13 14:00 | 11/15/13 02:35 | 1 |
| Ethylbenzene | ND | | 5.5 | 0.38 | ug/Kg | ☼ | 11/14/13 14:00 | 11/15/13 02:35 | 1 |
| Toluene | ND | | 5.5 | 0.42 | ug/Kg | ☼ | 11/14/13 14:00 | 11/15/13 02:35 | 1 |
| m-Xylene & p-Xylene | ND | | 11 | 0.93 | ug/Kg | ☼ | 11/14/13 14:00 | 11/15/13 02:35 | 1 |
| o-Xylene | ND | | 5.5 | 0.72 | ug/Kg | ☼ | 11/14/13 14:00 | 11/15/13 02:35 | 1 |
| Xylenes, Total | ND | | 11 | 0.93 | ug/Kg | ☼ | 11/14/13 14:00 | 11/15/13 02:35 | 1 |
| Isopropylbenzene | ND | | 5.5 | 0.83 | ug/Kg | ☼ | 11/14/13 14:00 | 11/15/13 02:35 | 1 |
| N-Propylbenzene | ND | | 5.5 | 0.44 | ug/Kg | ☼ | 11/14/13 14:00 | 11/15/13 02:35 | 1 |
| 4-Isopropyltoluene | ND | | 5.5 | 0.44 | ug/Kg | ☼ | 11/14/13 14:00 | 11/15/13 02:35 | 1 |
| 1,2,4-Trimethylbenzene | ND | | 5.5 | 1.1 | ug/Kg | ☼ | 11/14/13 14:00 | 11/15/13 02:35 | 1 |
| 1,3,5-Trimethylbenzene | ND | | 5.5 | 0.36 | ug/Kg | ☼ | 11/14/13 14:00 | 11/15/13 02:35 | 1 |
| n-Butylbenzene | ND | | 5.5 | 0.48 | ug/Kg | ☼ | 11/14/13 14:00 | 11/15/13 02:35 | 1 |
| sec-Butylbenzene | ND | | 5.5 | 0.48 | ug/Kg | ☼ | 11/14/13 14:00 | 11/15/13 02:35 | 1 |
| Naphthalene | ND | | 5.5 | 0.74 | ug/Kg | ☼ | 11/14/13 14:00 | 11/15/13 02:35 | 1 |
| Methyl tert-butyl ether | ND | | 5.5 | 0.54 | ug/Kg | ☼ | 11/14/13 14:00 | 11/15/13 02:35 | 1 |
| tert-Butylbenzene | ND | | 5.5 | 0.57 | ug/Kg | ☼ | 11/14/13 14:00 | 11/15/13 02:35 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *107* | | *64 - 126* | *11/14/13 14:00* | *11/15/13 02:35* | *1* |
| *Toluene-d8 (Surr)* | *92* | | *71 - 125* | *11/14/13 14:00* | *11/15/13 02:35* | *1* |
| *4-Bromofluorobenzene (Surr)* | *97* | | *72 - 126* | *11/14/13 14:00* | *11/15/13 02:35* | *1* |

### Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | ND | | 190 | 2.2 | ug/Kg | ☼ | 11/13/13 07:30 | 11/16/13 08:39 | 1 |
| Acenaphthylene | ND | | 190 | 1.5 | ug/Kg | ☼ | 11/13/13 07:30 | 11/16/13 08:39 | 1 |
| **Anthracene** | **9.1** | **J** | 190 | 4.7 | ug/Kg | ☼ | 11/13/13 07:30 | 11/16/13 08:39 | 1 |
| **Benzo(a)anthracene** | **47** | **J** | 190 | 3.2 | ug/Kg | ☼ | 11/13/13 07:30 | 11/16/13 08:39 | 1 |
| **Benzo(a)pyrene** | **42** | **J** | 190 | 4.5 | ug/Kg | ☼ | 11/13/13 07:30 | 11/16/13 08:39 | 1 |
| **Benzo(b)fluoranthene** | **61** | **J** | 190 | 3.6 | ug/Kg | ☼ | 11/13/13 07:30 | 11/16/13 08:39 | 1 |
| **Benzo(g,h,i)perylene** | **11** | **J** | 190 | 2.2 | ug/Kg | ☼ | 11/13/13 07:30 | 11/16/13 08:39 | 1 |
| **Benzo(k)fluoranthene** | **30** | **J** | 190 | 2.0 | ug/Kg | ☼ | 11/13/13 07:30 | 11/16/13 08:39 | 1 |
| **Chrysene** | **50** | **J** | 190 | 1.9 | ug/Kg | ☼ | 11/13/13 07:30 | 11/16/13 08:39 | 1 |
| Dibenz(a,h)anthracene | ND | | 190 | 2.2 | ug/Kg | ☼ | 11/13/13 07:30 | 11/16/13 08:39 | 1 |
| **Fluoranthene** | **82** | **J** | 190 | 2.7 | ug/Kg | ☼ | 11/13/13 07:30 | 11/16/13 08:39 | 1 |
| Fluorene | ND | | 190 | 4.3 | ug/Kg | ☼ | 11/13/13 07:30 | 11/16/13 08:39 | 1 |
| **Indeno(1,2,3-cd)pyrene** | **11** | **J** | 190 | 5.1 | ug/Kg | ☼ | 11/13/13 07:30 | 11/16/13 08:39 | 1 |
| Naphthalene | ND | | 190 | 3.1 | ug/Kg | ☼ | 11/13/13 07:30 | 11/16/13 08:39 | 1 |
| **Phenanthrene** | **40** | **J** | 190 | 3.9 | ug/Kg | ☼ | 11/13/13 07:30 | 11/16/13 08:39 | 1 |
| **Pyrene** | **57** | **J** | 190 | 1.2 | ug/Kg | ☼ | 11/13/13 07:30 | 11/16/13 08:39 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *2,4,6-Tribromophenol* | *96* | | *39 - 146* | *11/13/13 07:30* | *11/16/13 08:39* | *1* |
| *2-Fluorophenol* | *79* | | *18 - 120* | *11/13/13 07:30* | *11/16/13 08:39* | *1* |
| *2-Fluorobiphenyl* | *88* | | *37 - 120* | *11/13/13 07:30* | *11/16/13 08:39* | *1* |
| *Phenol-d5* | *83* | | *11 - 120* | *11/13/13 07:30* | *11/16/13 08:39* | *1* |
| *p-Terphenyl-d14* | *86* | | *65 - 153* | *11/13/13 07:30* | *11/16/13 08:39* | *1* |
| *Nitrobenzene-d5* | *87* | | *34 - 132* | *11/13/13 07:30* | *11/16/13 08:39* | *1* |

**Client Sample ID: Stockpile**
**Date Collected: 11/08/13 09:00**
**Date Received: 11/08/13 17:25**

**Lab Sample ID: 480-49787-5**
**Matrix: Solid**
**Percent Solids: 87.6**

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | ND | | 5.6 | 0.28 | ug/Kg | ☼ | 11/14/13 14:00 | 11/15/13 03:00 | 1 |
| Ethylbenzene | ND | | 5.6 | 0.39 | ug/Kg | ☼ | 11/14/13 14:00 | 11/15/13 03:00 | 1 |
| Toluene | ND | | 5.6 | 0.43 | ug/Kg | ☼ | 11/14/13 14:00 | 11/15/13 03:00 | 1 |
| m-Xylene & p-Xylene | ND | | 11 | 0.95 | ug/Kg | ☼ | 11/14/13 14:00 | 11/15/13 03:00 | 1 |
| o-Xylene | ND | | 5.6 | 0.74 | ug/Kg | ☼ | 11/14/13 14:00 | 11/15/13 03:00 | 1 |
| Xylenes, Total | ND | | 11 | 0.95 | ug/Kg | ☼ | 11/14/13 14:00 | 11/15/13 03:00 | 1 |
| Isopropylbenzene | ND | | 5.6 | 0.85 | ug/Kg | ☼ | 11/14/13 14:00 | 11/15/13 03:00 | 1 |
| N-Propylbenzene | ND | | 5.6 | 0.45 | ug/Kg | ☼ | 11/14/13 14:00 | 11/15/13 03:00 | 1 |
| 4-Isopropyltoluene | ND | | 5.6 | 0.45 | ug/Kg | ☼ | 11/14/13 14:00 | 11/15/13 03:00 | 1 |
| 1,2,4-Trimethylbenzene | ND | | 5.6 | 1.1 | ug/Kg | ☼ | 11/14/13 14:00 | 11/15/13 03:00 | 1 |
| 1,3,5-Trimethylbenzene | ND | | 5.6 | 0.36 | ug/Kg | ☼ | 11/14/13 14:00 | 11/15/13 03:00 | 1 |
| n-Butylbenzene | ND | | 5.6 | 0.49 | ug/Kg | ☼ | 11/14/13 14:00 | 11/15/13 03:00 | 1 |
| sec-Butylbenzene | ND | | 5.6 | 0.49 | ug/Kg | ☼ | 11/14/13 14:00 | 11/15/13 03:00 | 1 |
| Naphthalene | ND | | 5.6 | 0.76 | ug/Kg | ☼ | 11/14/13 14:00 | 11/15/13 03:00 | 1 |
| Methyl tert-butyl ether | ND | | 5.6 | 0.55 | ug/Kg | ☼ | 11/14/13 14:00 | 11/15/13 03:00 | 1 |
| tert-Butylbenzene | ND | | 5.6 | 0.59 | ug/Kg | ☼ | 11/14/13 14:00 | 11/15/13 03:00 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *108* | | *64 - 126* | *11/14/13 14:00* | *11/15/13 03:00* | *1* |
| *Toluene-d8 (Surr)* | *93* | | *71 - 125* | *11/14/13 14:00* | *11/15/13 03:00* | *1* |
| *4-Bromofluorobenzene (Surr)* | *97* | | *72 - 126* | *11/14/13 14:00* | *11/15/13 03:00* | *1* |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Acenaphthene** | **17** | **J** | 190 | 2.2 | ug/Kg | ☼ | 11/13/13 07:30 | 11/16/13 09:03 | 1 |
| **Acenaphthylene** | **33** | **J** | 190 | 1.6 | ug/Kg | ☼ | 11/13/13 07:30 | 11/16/13 09:03 | 1 |
| **Anthracene** | **60** | **J** | 190 | 4.9 | ug/Kg | ☼ | 11/13/13 07:30 | 11/16/13 09:03 | 1 |
| **Benzo(a)anthracene** | **370** | | 190 | 3.3 | ug/Kg | ☼ | 11/13/13 07:30 | 11/16/13 09:03 | 1 |
| **Benzo(a)pyrene** | **340** | | 190 | 4.6 | ug/Kg | ☼ | 11/13/13 07:30 | 11/16/13 09:03 | 1 |
| **Benzo(b)fluoranthene** | **540** | | 190 | 3.7 | ug/Kg | ☼ | 11/13/13 07:30 | 11/16/13 09:03 | 1 |
| **Benzo(g,h,i)perylene** | **81** | **J** | 190 | 2.3 | ug/Kg | ☼ | 11/13/13 07:30 | 11/16/13 09:03 | 1 |
| **Benzo(k)fluoranthene** | **220** | | 190 | 2.1 | ug/Kg | ☼ | 11/13/13 07:30 | 11/16/13 09:03 | 1 |
| **Chrysene** | **360** | | 190 | 1.9 | ug/Kg | ☼ | 11/13/13 07:30 | 11/16/13 09:03 | 1 |
| Dibenz(a,h)anthracene | ND | | 190 | 2.2 | ug/Kg | ☼ | 11/13/13 07:30 | 11/16/13 09:03 | 1 |
| **Fluoranthene** | **630** | | 190 | 2.7 | ug/Kg | ☼ | 11/13/13 07:30 | 11/16/13 09:03 | 1 |
| **Fluorene** | **20** | **J** | 190 | 4.4 | ug/Kg | ☼ | 11/13/13 07:30 | 11/16/13 09:03 | 1 |
| **Indeno(1,2,3-cd)pyrene** | **86** | **J** | 190 | 5.2 | ug/Kg | ☼ | 11/13/13 07:30 | 11/16/13 09:03 | 1 |
| Naphthalene | ND | | 190 | 3.2 | ug/Kg | ☼ | 11/13/13 07:30 | 11/16/13 09:03 | 1 |
| **Phenanthrene** | **340** | | 190 | 4.0 | ug/Kg | ☼ | 11/13/13 07:30 | 11/16/13 09:03 | 1 |
| **Pyrene** | **460** | | 190 | 1.2 | ug/Kg | ☼ | 11/13/13 07:30 | 11/16/13 09:03 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *2,4,6-Tribromophenol* | *90* | | *39 - 146* | *11/13/13 07:30* | *11/16/13 09:03* | *1* |
| *2-Fluorophenol* | *77* | | *18 - 120* | *11/13/13 07:30* | *11/16/13 09:03* | *1* |
| *2-Fluorobiphenyl* | *84* | | *37 - 120* | *11/13/13 07:30* | *11/16/13 09:03* | *1* |
| *Phenol-d5* | *80* | | *11 - 120* | *11/13/13 07:30* | *11/16/13 09:03* | *1* |
| *p-Terphenyl-d14* | *81* | | *65 - 153* | *11/13/13 07:30* | *11/16/13 09:03* | *1* |
| *Nitrobenzene-d5* | *82* | | *34 - 132* | *11/13/13 07:30* | *11/16/13 09:03* | *1* |

# Lab Chronicle

Client: New York State D.E.C.
Project/Site: NYSDEC-45 E. Genesee St:Sitel# 1302111

TestAmerica Job ID: 480-49787-1

## Client Sample ID: North Side Wall

**Lab Sample ID: 480-49787-1**
**Date Collected: 11/07/13 14:15**
**Matrix: Solid**
**Date Received: 11/08/13 17:25**
**Percent Solids: 88.6**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 5035 | | | 152110 | 11/14/13 14:00 | PJQ | TAL BUF |
| Total/NA | Analysis | 8260C | | 1 | 152172 | 11/15/13 01:18 | PJQ | TAL BUF |
| Total/NA | Prep | 3550C | | | 151640 | 11/13/13 07:30 | CAM | TAL BUF |
| Total/NA | Analysis | 8270D | | 1 | 152436 | 11/16/13 07:28 | ANM | TAL BUF |
| Total/NA | Analysis | Moisture | | 1 | 151603 | 11/13/13 00:16 | GTG | TAL BUF |

## Client Sample ID: South Side Wall

**Lab Sample ID: 480-49787-2**
**Date Collected: 11/07/13 14:25**
**Matrix: Solid**
**Date Received: 11/08/13 17:25**
**Percent Solids: 93.1**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 5035 | | | 152110 | 11/14/13 14:00 | PJQ | TAL BUF |
| Total/NA | Analysis | 8260C | | 1 | 152172 | 11/15/13 01:43 | PJQ | TAL BUF |
| Total/NA | Prep | 3550C | | | 151640 | 11/13/13 07:30 | CAM | TAL BUF |
| Total/NA | Analysis | 8270D | | 1 | 152436 | 11/16/13 07:52 | ANM | TAL BUF |
| Total/NA | Analysis | Moisture | | 1 | 151603 | 11/13/13 00:16 | GTG | TAL BUF |

## Client Sample ID: West Bottom

**Lab Sample ID: 480-49787-3**
**Date Collected: 11/07/13 14:35**
**Matrix: Solid**
**Date Received: 11/08/13 17:25**
**Percent Solids: 89.8**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 5035 | | | 152110 | 11/14/13 14:00 | PJQ | TAL BUF |
| Total/NA | Analysis | 8260C | | 1 | 152172 | 11/15/13 02:09 | PJQ | TAL BUF |
| Total/NA | Prep | 3550C | | | 151640 | 11/13/13 07:30 | CAM | TAL BUF |
| Total/NA | Analysis | 8270D | | 1 | 152436 | 11/16/13 08:15 | ANM | TAL BUF |
| Total/NA | Analysis | Moisture | | 1 | 151603 | 11/13/13 00:16 | GTG | TAL BUF |

## Client Sample ID: East Bottom

**Lab Sample ID: 480-49787-4**
**Date Collected: 11/07/13 14:45**
**Matrix: Solid**
**Date Received: 11/08/13 17:25**
**Percent Solids: 89.6**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 5035 | | | 152110 | 11/14/13 14:00 | PJQ | TAL BUF |
| Total/NA | Analysis | 8260C | | 1 | 152172 | 11/15/13 02:35 | PJQ | TAL BUF |
| Total/NA | Prep | 3550C | | | 151640 | 11/13/13 07:30 | CAM | TAL BUF |
| Total/NA | Analysis | 8270D | | 1 | 152436 | 11/16/13 08:39 | ANM | TAL BUF |
| Total/NA | Analysis | Moisture | | 1 | 151603 | 11/13/13 00:16 | GTG | TAL BUF |

# Lab Chronicle

Client: New York State D.E.C.
Project/Site: NYSDEC-45 E. Genesee St:Sitel# 1302111

TestAmerica Job ID: 480-49787-1

**Client Sample ID: Stockpile**
**Date Collected: 11/08/13 09:00**
**Date Received: 11/08/13 17:25**

**Lab Sample ID: 480-49787-5**
**Matrix: Solid**
**Percent Solids: 87.6**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 5035 | | | 152110 | 11/14/13 14:00 | PJQ | TAL BUF |
| Total/NA | Analysis | 8260C | | 1 | 152172 | 11/15/13 03:00 | PJQ | TAL BUF |
| Total/NA | Prep | 3550C | | | 151640 | 11/13/13 07:30 | CAM | TAL BUF |
| Total/NA | Analysis | 8270D | | 1 | 152436 | 11/16/13 09:03 | ANM | TAL BUF |
| Total/NA | Analysis | Moisture | | 1 | 151603 | 11/13/13 00:16 | GTG | TAL BUF |

**Laboratory References:**

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

# Certification Summary

Client: New York State D.E.C.
Project/Site: NYSDEC-45 E. Genesee St:Sitel# 1302111

TestAmerica Job ID: 480-49787-1

## Laboratory: TestAmerica Buffalo

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

| Authority | Program | EPA Region | Certification ID | Expiration Date |
|---|---|---|---|---|
| Arkansas DEQ | State Program | 6 | 88-0686 | 07-06-14 |
| California | NELAP | 9 | 1169CA | 09-30-14 |
| Connecticut | State Program | 1 | PH-0568 | 09-30-14 |
| Florida | NELAP | 4 | E87672 | 06-30-14 |
| Georgia | State Program | 4 | N/A | 03-31-14 |
| Illinois | NELAP | 5 | 200003 | 09-30-14 |
| Iowa | State Program | 7 | 374 | 03-01-15 |
| Kansas | NELAP | 7 | E-10187 | 01-31-14 |
| Kentucky | State Program | 4 | 90029 | 12-31-13 * |
| Kentucky (UST) | State Program | 4 | 30 | 04-01-14 |
| Louisiana | NELAP | 6 | 02031 | 06-30-14 |
| Maine | State Program | 1 | NY00044 | 12-04-14 |
| Maryland | State Program | 3 | 294 | 03-31-14 |
| Massachusetts | State Program | 1 | M-NY044 | 06-30-14 |
| Michigan | State Program | 5 | 9937 | 04-01-14 |
| Minnesota | NELAP | 5 | 036-999-337 | 12-31-13 * |
| New Hampshire | NELAP | 1 | 2973 | 09-11-14 |
| New Jersey | NELAP | 2 | NY455 | 06-30-14 |
| New York | NELAP | 2 | 10026 | 04-01-14 |
| North Dakota | State Program | 8 | R-176 | 03-31-14 |
| Oklahoma | State Program | 6 | 9421 | 08-31-14 |
| Oregon | NELAP | 10 | NY200003 | 06-09-14 |
| Pennsylvania | NELAP | 3 | 68-00281 | 07-31-14 |
| Rhode Island | State Program | 1 | LAO00328 | 12-31-13 |
| Tennessee | State Program | 4 | TN02970 | 04-01-14 |
| Texas | NELAP | 6 | T104704412-11-2 | 07-31-14 |
| USDA | Federal | | P330-11-00386 | 11-22-14 |
| Virginia | NELAP | 3 | 460185 | 09-14-14 |
| Washington | State Program | 10 | C784 | 02-10-14 |
| West Virginia DEP | State Program | 3 | 252 | 12-31-13 |
| Wisconsin | State Program | 5 | 998310390 | 08-31-14 |

* Expired certification is currently pending renewal and is considered valid.

# Method Summary

Client: New York State D.E.C.
Project/Site: NYSDEC-45 E. Genesee St:Sitel# 1302111

TestAmerica Job ID: 480-49787-1

| Method | Method Description | Protocol | Laboratory |
|---|---|---|---|
| 8260C | Volatile Organic Compounds by GC/MS | SW846 | TAL BUF |
| 8270D | Semivolatile Organic Compounds (GC/MS) | SW846 | TAL BUF |
| Moisture | Percent Moisture | EPA | TAL BUF |

**Protocol References:**

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

**Laboratory References:**

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

# Sample Summary

Client: New York State D.E.C.
Project/Site: NYSDEC-45 E. Genesee St:Sitel# 1302111

TestAmerica Job ID: 480-49787-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 480-49787-1 | North Side Wall | Solid | 11/07/13 14:15 | 11/08/13 17:25 |
| 480-49787-2 | South Side Wall | Solid | 11/07/13 14:25 | 11/08/13 17:25 |
| 480-49787-3 | West Bottom | Solid | 11/07/13 14:35 | 11/08/13 17:25 |
| 480-49787-4 | East Bottom | Solid | 11/07/13 14:45 | 11/08/13 17:25 |
| 480-49787-5 | Stockpile | Solid | 11/08/13 09:00 | 11/08/13 17:25 |

# Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☐

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

| Client | Project Manager | Date | Chain of Custody Number |
|---|---|---|---|
| NYSDEC Region 8 | Joe Machtell | 11/8/13 | 251059 |
| **Address** | **Telephone Number (Area Code)/Fax Number** | **Lab Number** | **Page 1 of 1** |
| **City / State / Zip Code** | **Site Contact** 585-313 Greg Young 8588 | **Lab Contact** | |
| **Project Name and Location (State)** 45 East Genesee St Clyde, NY | **Carrier/Waybill Number** | | |
| **Contract/Purchase Order/Quote No.** Spill No. 13-02111 | | | |

| Sample I.D. No. and Description (Containers for each sample may be combined on one line) | Date | Time | Matrix: Air | Aqueous | Sed. | Soil | Containers & Preservatives: Unpres. | H2SO4 | HNO3 | HCl | NaOH | ZnAc/NaOH | Analysis: 8260 STARS | 8270 STARS | Special Instructions/ Conditions of Receipt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| North Side wall | 11/7/13 | 1415 | | | | X | X | | | | | | X | X | |
| South Side wall | 11/7/13 | 1425 | | | | X | X | | | | | | X | X | |
| West Bottom | 11/7/13 | 1435 | | | | X | X | | | | | | X | X | |
| East Bottom | 11/7/13 | 1445 | | | | X | X | | | | | | X | X | |
| Stockpile | 11/8/13 | 900 | | | | X | X | | | | | | X | X | |

480-49787 Chain of Custody

**Possible Hazard Identification**
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

**Sample Disposal**
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
(A fee may be assessed if samples are retained longer than 1 month)

**Turn Around Time Required**
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other _____

**QC Requirements (Specify)**

| | Date | Time | | Date | Time |
|---|---|---|---|---|---|
| 1. Relinquished By | 11/8/13 | 1600 | 1. Received By | 11/8/13 | 16:00 |
| 2. Relinquished By | 11/8/13 | 17:25 | 2. Received By | 11/8/13 | 1725 |
| 3. Relinquished By | | | 3. Received By | | |

Comments

Temp 3.8 ICE#1

**DISTRIBUTION:** WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

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11/18/2013

# Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-49787-1

**Login Number: 49787**

**List Source: TestAmerica Buffalo**

**List Number: 1**

**Creator: Kolb, Chris M**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity either was not measured or, if measured, is at or below background | True | |
| The cooler's custody seal, if present, is intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | False | no tat on coc |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the sample IDs on the containers and the COC. | True | |
| Samples are received within Holding Time. | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified | True | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter. | N/A | |
| If necessary, staff have been informed of any short hold time or quick TAT needs | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Sampling Company provided. | N/A | |
| Samples received within 48 hours of sampling. | True | |
| Samples requiring field filtration have been filtered in the field. | True | |
| Chlorine Residual checked. | N/A | |