

May 27, 2015

Mr. Albert M. Giannino  
Director of Leasing  
Pioneer Companies  
333 West Washington Street, Suite 600  
Syracuse, New York 13202

Re: Berm Sampling Report  
Pioneer Midler Avenue

File: 1537.005.001

Dear Mr. Giannino:

Barton & Loguidice D.P.C (B&L) has prepared this Sampling Report to describe observations and analytical results from the sampling conducted at the above referenced site. The sampling was conducted in accordance to B&L's proposal dated April 28, 2015. Representative soil/fill samples were collected from the berms at the northwest corner of the Midler Avenue property.

## Background

Additional development may occur at the northwest corner of the site where two grass-covered berms are present with a combined estimated volume of 2,600 cubic yards (approximately 3,600 tons). This area and surrounding site (now occupied by a Lowes and SEFCU) were formerly known as the Midler Avenue Brownfield Project. Interim Remedial Measures (IRMs) were conducted on the site prior to 2007 under the Brownfield Cleanup Program (NYSDEC Site #C734103).

A Site Management Plan (SMP) and Environmental Easement were prepared in 2007 to describe procedures required to manage residual contamination at the site. The SMP includes a site cover system to be maintained to avoid direct contact with pre-existing urban fill and native soils. The berms apparently contain urban fill covered with site cover system materials. The SMP states that one composite and one duplicate sample will be collected for 2,000 cubic yards of stockpiled soil (assuming the material does not exhibit visual evidence of contamination). Further waste characterization of the berms was necessary to determine disposal options pursuant to the SMP.

## Sampling Methodology

### *Sample Collection and Handling Procedures*

B&L retained the services of NYEG Drilling, LLC of Brewerton, New York to provide drilling services. Sample recovery was conducted using a MacroCore® barrel sampler equipped with single-use, disposable acetate sleeves. The barrel sampler was decontaminated prior to each boring with an Alconox solution and potable water rinse.





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B&L supervised the advancement of eight borings using direct-push drilling equipment on May 6, 2015. Four borings were advanced in the western berm (WB-1 to WB-4) and four borings were advanced in the eastern berm (EB-1 to EB-4). The boring locations are shown on the sketch in Attachment A. Boring target depths were approximately 6 to 8 feet to penetrate the soil/fill to the approximate ground surface of the surrounding area. Soil/fill encountered in each boring was logged by a B&L environmental scientist and was field screened using a calibrated photo-ionization detector (PID).

B&L composited aliquots of the samples collected on the western berm to achieve a 4-point composite sample and a duplicate sample from that berm. Similar sampling was conducted from the eastern berm. Soil samples for laboratory analyses were placed into laboratory supplied bottle-ware, packed in a cooler with ice, and submitted with chain of custody documentation.

#### *Analytical Parameters and Laboratory*

The composite samples were analyzed for parameters typically required by non-hazardous waste landfills. Specifically:

- Toxicity characterization leaching procedure (TCLP) volatile organic compounds (VOCs)
- TCLP semi-volatile organic compounds (SVOCs)
- TCLP metals
- Total polychlorinated biphenyls (PCBs)
- Flashpoint
- Corrosivity as pH
- Ignitability
- Paint filter test
- Reactivity

Total VOC and SVOC samples were also collected (two samples and two duplicate samples). All analyses were completed by Spectrum Analytical, Inc., an appropriately accredited laboratory (ELAP Accreditation No. 11393).

#### **Sampling Findings and Analytical Results**

##### *Soil Field Observations*

The berms are mainly composed of mixed urban soil consisting of brown reworked soil (e.g., silt, sand, gravel, and clay) with grey cinders. In locations where the fill unit is generally thinner, a fine to coarse-grained sand unit of limited thickness is present beneath the fill. Water saturated soils were not observed.

In general, visual and/or olfactory impacted soil was not encountered. Petroleum staining, oily sheens or petroleum/chemical odors were not noted in the borings. PID readings were at non-detect or below 1 part per million by volume (ppmv) in each boring with the exception of borings WB-1 and WB-3. The 0 to 4 feet bgs interval in WB-1 contained peak PID readings of 2.4 ppmv. PID readings in this boring



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decreased with depth. The 0 to 4 feet bgs interval in WB-3 contained peak PID readings of 2.3 ppmv. PID readings in this boring also decreased with depth.

### *Soil Quality Results*

Summary tables with the analytical results are provided in Attachment B. Laboratory analytical reports prepared by Spectrum Analytical, Inc. and are provided in Attachment C. Reported concentrations were compared to regulatory thresholds for determining hazardous waste for purposes of land disposal. TCLP VOCs, TCLP SVOCs and TCLP Metals concentrations did not exceed maximum contaminant concentrations (40 CFR 261). Corrosivity, ignitability, and reactivity were also below limits that would result in the material being classified as hazardous waste.

Total organic compound concentrations were compared to NYSDEC Commissioner's Policy 51 Soil Cleanup Guidance (CP-51) Soil Cleanup Levels. Individual SVOCs were detected in each of the four samples and several SVOC concentrations exceeded CP-51 Soil Cleanup Levels in two of the four samples. The sum of individual SVOC concentrations ranged from 4350 to 65,195 micrograms per kilogram (ug/kg) in the samples. PCBs were detected at concentrations ranging from 36.4 to 262 ug/kg below the CP-51 Soil Cleanup Levels of 1,000 ug/kg for surface soils and 10,000 ug/kg for subsurface soils. Individual VOCs were not detected in the samples collected with the exception of a trace concentration of xylene at 19.8 ug/kg in the West Berm sample. The CP-51 Soil Cleanup Level for total xylene is 260 ug/kg. The organic compound concentrations detected appear to be typical of urban fill/soils and not from a point-source petroleum release.

### **Berm Soil Disposal and Reuse Options**

The observations and analytical data demonstrate that the soil within the east and west berm areas do not have characteristics that would cause the material to be classified as hazardous waste. The berm material contains concentrations of organic compounds that exceed CP-51 Soil Cleanup Levels, and therefore the material would not meet the criteria for clean fill. Based on this sampling and consistent with the SMP, berm material that cannot be reused on the property must be disposed of at a facility permitted to receive non-hazardous industrial solid waste in accordance with Local, State and Federal regulations.

The SMP Section 3.4.5 allows for site soil that is excavated to be used as backfill provided it contains no visual or olfactory evidence of contamination and it is placed beneath a cover system component. Therefore, onsite re-use is an option for this material. If onsite re-use is chosen, site development plans should incorporate the use of this material and selecting a suitable cover. Site cover components in the SMP include the following:

- Clean Type 1 or 2 crushed gravel, or combination of clean crushed gravel fill and topsoil. Minimum of 12 inches.
- Asphalt roadways, sidewalks, or parking lots. Minimum of 4 inches.
- Concrete slab-on-grade structures, roads, sidewalks, and parking lots in lieu of asphalt. Minimum of 6 inches.



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### **Other Considerations**

The Contractor or owner representative should prepare a Health and Safety Plan and a Community Air Monitoring Plan prior to excavation of the berm or subsurface materials. The property is part of a Brownfield Cleanup Program project where an Environmental Easement restricts land use and if the lot containing the berm is divided or land use classification changes, then amending the Environmental Easement with the NYSDEC will be necessary.

If you have any questions or require further information, please contact me at (585) 325-7190.

Very truly yours,

BARTON & LOGUIDICE, D.P.C.

A handwritten signature in black ink that reads "Greg V. Lesniak".

Greg V. Lesniak, P.G.  
Senior Project Hydrogeologist

GVL/akg  
Attachments

**Attachment A**

**Soil Boring Locations**



- Soil Boring Locations
- East Berm: EB-1 to EB-4
- West Berm: WB-1 to WB-4

## **Attachment B**

### **Results Summary Table**

Summary Table - Berm Samples Hazardous Characteristics

|                          |                                   |                          |            |                       |            |                      |
|--------------------------|-----------------------------------|--------------------------|------------|-----------------------|------------|----------------------|
| Project:                 | Midler Avenue, Syracuse, New York |                          |            |                       |            |                      |
| Project Number:          | 1537.005.001                      |                          |            |                       |            |                      |
| Client Sample ID:        |                                   | TCLP Maximum Contaminant | East Berm  | East Berm - Duplicate | West Berm  | West Berm- Duplicate |
| Lab Sample ID:           |                                   | Concentrations           | SCO7186-01 | SCO7186-02            | SCO7186-04 | SCO7186-03           |
| Date Sampled:            |                                   | (40 CFR 261              | 5/6/2015   | 5/6/2015              | 5/6/2015   | 5/6/2015             |
| Matrix:                  |                                   | 6/96)                    | Soil       | Soil                  | Soil       | Soil                 |
| General Chemistry        |                                   |                          |            |                       |            |                      |
| pH                       |                                   | -                        | 8.24       | 8.21                  | 7.8        | 7.76                 |
| Flashpoint               | Deg. F                            | -                        | >200       | >200                  | >200       | >200                 |
| Ignitability             |                                   | -                        | Negative   | Negative              | Negative   | Negative             |
| Solids, Percent          | %                                 | -                        | 86         | 83.6                  | 84.5       | 84.5                 |
| Free Liquids             | N/A                               | -                        | Absent     | Absent                | Absent     | Absent               |
| Cyanide Reactivity       | mg/kg                             | -                        | <24.7      | <24.7                 | <24.8      | <25                  |
| Sulfide Reactivity       | mg/kg                             | -                        | <49.4      | <49.4                 | <49.6      | <50                  |
| TCLP VOCs (SW846 8260C)  |                                   |                          |            |                       |            |                      |
| Benzene                  | mg/l                              | 0.5                      | <0.0009    | <0.0009               | <0.0009    | <0.0009              |
| 2-Butanone (MEK)         | mg/l                              | 200                      | <0.0062    | <0.0062               | <0.0062    | <0.0062              |
| Carbon tetrachloride     | mg/l                              | 0.5                      | <0.0011    | <0.0011               | <0.0011    | <0.0011              |
| Chlorobenzene            | mg/l                              | 100                      | <0.001     | <0.001                | <0.001     | <0.001               |
| Chloroform               | mg/l                              | 6                        | <0.002     | 0.0024                | <0.002     | 0.0026               |
| 1,4-Dichlorobenzene      | mg/l                              | 7.5                      | <0.0012    | <0.0012               | <0.0012    | <0.0012              |
| 1,2-Dichloroethane       | mg/l                              | 0.5                      | <0.0008    | <0.0008               | <0.0008    | <0.0008              |
| 1,1-Dichloroethene       | mg/l                              | 0.7                      | <0.0014    | <0.0014               | <0.0014    | <0.0014              |
| Hexachlorobutadiene      | mg/l                              | 0.5                      | <0.002     | <0.002                | <0.002     | <0.002               |
| Tetrachloroethene        | mg/l                              | 0.7                      | 0.0099     | 0.0108                | <0.0029    | <0.0029              |
| Trichloroethene          | mg/l                              | 0.5                      | <0.0019    | <0.0019               | <0.0019    | <0.0019              |
| Vinyl chloride           | mg/l                              | 0.2                      | <0.0017    | <0.0017               | <0.0017    | <0.0017              |
| TCLP SVOCs (SW846 8270D) |                                   |                          |            |                       |            |                      |
| 2-Methylphenol           | mg/l                              | 200                      | < 0.00214  | < 0.00214             | < 0.00214  | < 0.00214            |
| 3&4-Methylphenol         | mg/l                              | 200                      | < 0.00222  | < 0.00222             | < 0.00222  | < 0.00222            |
| Pentachlorophenol        | mg/l                              | 100                      | < 0.00215  | < 0.00215             | < 0.00215  | < 0.00215            |
| 2,4,5-Trichlorophenol    | mg/l                              | 400                      | < 0.00209  | < 0.00209             | < 0.00209  | < 0.00209            |
| 2,4,6-Trichlorophenol    | mg/l                              | 2                        | < 0.00196  | < 0.00196             | < 0.00196  | < 0.00196            |
| 1,4-Dichlorobenzene      | mg/l                              | 7.5                      | < 0.00202  | < 0.00202             | < 0.00202  | < 0.00202            |
| 2,4-Dinitrotoluene       | mg/l                              | 0.13                     | < 0.00238  | < 0.00238             | < 0.00238  | < 0.00238            |
| Hexachlorobenzene        | mg/l                              | 0.13                     | < 0.00215  | < 0.00215             | < 0.00215  | < 0.00215            |
| Hexachlorobutadiene      | mg/l                              | 0.5                      | < 0.00203  | < 0.00203             | < 0.00203  | < 0.00203            |
| Hexachloroethane         | mg/l                              | 3                        | < 0.00215  | < 0.00215             | < 0.00215  | < 0.00215            |
| Nitrobenzene             | mg/l                              | 2                        | < 0.00212  | < 0.00212             | < 0.00212  | < 0.00212            |
| Pyridine                 | mg/l                              | 5                        | < 0.00162  | < 0.00162             | < 0.00162  | < 0.00162            |
| TCLP Metals Analysis     |                                   |                          |            |                       |            |                      |
| Arsenic                  | mg/l                              | 5                        | < 0.0026   | 0.0028                | 0.0049     | 0.0054               |
| Barium                   | mg/l                              | 100                      | 0.374      | 0.418                 | 0.416      | 0.41                 |
| Cadmium                  | mg/l                              | 1                        | 0.0005     | 0.0007                | 0.0012     | 0.0012               |
| Chromium                 | mg/l                              | 5                        | 0.0028     | 0.004                 | 0.0036     | 0.0044               |
| Lead                     | mg/l                              | 5                        | < 0.0018   | 0.0057                | 0.0214     | 0.0136               |
| Mercury                  | mg/l                              | 0.2                      | < 0.00009  | < 0.00009             | < 0.00009  | < 0.00009            |
| Selenium                 | mg/l                              | 1                        | < 0.0043   | 0.0057                | 0.0044     | 0.0072               |
| Silver                   | mg/l                              | 5                        | < 0.0014   | < 0.0014              | < 0.0014   | < 0.0014             |

Notes:

Refer to Laboratory Analytical Reports for full list of compounds analyzed, qualifiers and analytical notes.

Summary Table - Berm Samples - Organic Compounds

|                                                              |       |                                   |            |                       |            |                      |
|--------------------------------------------------------------|-------|-----------------------------------|------------|-----------------------|------------|----------------------|
| Project:                                                     |       | Midler Avenue, Syracuse, New York |            |                       |            |                      |
| Project Number:                                              |       | 1537.005.001                      |            |                       |            |                      |
| Client Sample ID:                                            |       | CP-51<br>Soil Cleanup Levels      | East Berm  | East Berm - Duplicate | West Berm  | West Berm- Duplicate |
| Lab Sample ID:                                               |       |                                   | SC07188-01 | SC07188-02            | SC07188-03 | SC07188-04           |
| Date Sampled:                                                |       |                                   | 5/6/2015   | 5/6/2015              | 5/6/2015   | 5/6/2015             |
| Matrix:                                                      |       |                                   | Soil       | Soil                  | Soil       | Soil                 |
| NYSDEC STARS List Petroleum Constituents VOCs (SW846 8260C)  |       |                                   |            |                       |            |                      |
| Benzene                                                      | ug/kg | 60                                | < 1.4      | < 1.5                 | < 12.0     | < 1.0                |
| n-Butylbenzene                                               | ug/kg | 12000                             | < 2.1      | < 2.3                 | < 18.9     | < 1.6                |
| sec-Butylbenzene                                             | ug/kg | 11000                             | < 5.8      | < 6.3                 | < 51.7     | < 4.4                |
| tert-Butylbenzene                                            | ug/kg | 5900                              | < 4.9      | < 5.3                 | < 43.4     | < 3.7                |
| Ethylbenzene                                                 | ug/kg | 1000                              | < 1.3      | < 1.4                 | < 11.6     | < 1.0                |
| Isopropylbenzene                                             | ug/kg | 100000                            | < 1.4      | < 1.5                 | < 12.6     | < 1.1                |
| 4-Isopropyltoluene                                           | ug/kg | NS                                | < 7.0      | < 7.6                 | < 62.0     | < 5.3                |
| Methyl tert-butyl ether                                      | ug/kg | 930                               | < 2.9      | < 3.1                 | < 25.5     | < 2.2                |
| Naphthalene                                                  | ug/kg | 12000                             | < 6.8      | < 7.4                 | < 60.6     | < 5.1                |
| n-Propylbenzene                                              | ug/kg | 3900                              | < 7.2      | < 7.8                 | < 64.0     | < 5.4                |
| Toluene                                                      | ug/kg | 700                               | < 1.7      | < 1.9                 | < 15.2     | < 1.3                |
| 1,2,4-Trimethylbenzene                                       | ug/kg | 3600                              | < 1.9      | < 2.0                 | < 16.6     | < 1.4                |
| 1,3,5-Trimethylbenzene                                       | ug/kg | 8400                              | < 2.1      | < 2.3                 | < 19.0     | < 1.6                |
| m,p-Xylene                                                   | ug/kg | 260                               | < 1.5      | < 1.6                 | 19.8       | < 1.1                |
| o-Xylene                                                     | ug/kg | 260                               | < 1.6      | < 1.7                 | < 14.1     | < 1.2                |
| NYSDEC STARS List Petroleum Constituents SVOCs (SW846 8270D) |       |                                   |            |                       |            |                      |
| Acenaphthene                                                 | ug/kg | 2000                              | < 99.3     | < 100                 | 1300       | 390                  |
| Acenaphthylene                                               | ug/kg | 100000                            | < 90.3     | < 91.2                | 213        | 185                  |
| Anthracene                                                   | ug/kg | 100000                            | 151        | 120                   | 2720       | 851                  |
| Benzo (a) anthracene                                         | ug/kg | 1000                              | 613        | 410                   | 5450       | 3280                 |
| Benzo (a) pyrene                                             | ug/kg | 1000                              | 598        | 395                   | 4170       | 2850                 |
| Benzo (b) fluoranthene                                       | ug/kg | 1000                              | 764        | 537                   | 6010       | 4220                 |
| Benzo (g,h,i) perylene                                       | ug/kg | 100000                            | 311        | 219                   | 2170       | 1640                 |
| Benzo (k) fluoranthene                                       | ug/kg | 800                               | 292        | 163                   | 1750       | 1200                 |
| Chrysene                                                     | ug/kg | 1000                              | 517        | 376                   | 4280       | 2980                 |
| Dibenzo (a,h) anthracene                                     | ug/kg | 330                               | < 78.2     | < 78.9                | 605        | 411                  |
| Fluoranthene                                                 | ug/kg | 100000                            | 1070       | 743                   | 13100      | 7150                 |
| Fluorene                                                     | ug/kg | 30000                             | < 102      | < 103                 | 1590       | 322                  |
| Indeno (1,2,3-cd) pyrene                                     | ug/kg | 500                               | 387        | 253                   | 2680       | 1890                 |
| 1-Methylnaphthalene                                          | ug/kg | NS                                | < 108      | < 109                 | 492        | < 101                |
| 2-Methylnaphthalene                                          | ug/kg | 410                               | < 87.8     | < 88.7                | 525        | 103                  |
| Naphthalene                                                  | ug/kg | 12000                             | < 86.7     | < 87.6                | 510        | 179                  |
| Phenanthrene                                                 | ug/kg | 10000                             | 474        | 479                   | 9950       | 4140                 |
| Pyrene                                                       | ug/kg | 10000                             | 898        | 655                   | 7680       | 6190                 |
| Total SVOCs                                                  | ug/kg | 500000                            | 6075       | 4350                  | 65195      | 37981                |
| PCBs (SW846 8082)                                            |       |                                   |            |                       |            |                      |
| Aroclor-1016                                                 | ug/kg | 1,000                             | < 20.9     | < 20.9                | < 20.6     | < 20.1               |
| Aroclor-1221                                                 | ug/kg | 1,000                             | < 17.8     | < 17.8                | < 17.5     | < 17.1               |
| Aroclor-1232                                                 | ug/kg | 1,000                             | < 20.8     | < 20.8                | < 20.5     | < 20.0               |
| Aroclor-1242                                                 | ug/kg | 1,000                             | < 14.4     | < 14.4                | < 14.2     | < 13.8               |
| Aroclor-1248                                                 | ug/kg | 1,000                             | < 14.5     | < 14.5                | < 14.3     | < 14.0               |
| Aroclor-1254                                                 | ug/kg | 1,000                             | < 16.0     | < 16.0                | < 15.7     | < 15.4               |
| Aroclor-1260                                                 | ug/kg | 1,000                             | 208        | 262                   | 50         | 36.4                 |
| Aroclor-1262                                                 | ug/kg | 1,000                             | < 20.8     | < 20.8                | < 20.4     | < 20.0               |
| Aroclor-1268                                                 | ug/kg | 1,000                             | < 22.8     | < 22.8                | < 22.4     | < 21.9               |

## Notes:

Refer to Laboratory Analytical Reports for full list of compounds analyzed, qualifiers and analytical notes.

CP-51 Soil Cleanup Levels - NYSDEC Commissioners Policy Soil Cleanup Guidance

PCB CP-51 Soil Cleanup Level is 1,000 ug/kg for surface soils and 10,000 ug/kg for subsurface soils.

Shaded results exceed CP-51 Soil Cleanup Levels

NS - no individual soil cleanup level

## **Attachment C**

### **Laboratory Analytical Report**

Report Date:  
18-May-15 11:40



SPECTRUM ANALYTICAL, INC.

## Laboratory Report

Barton & Loguidice, D.P.C.  
11 Centre Park Suite 203  
Rochester, NY 14614  
Attn: Greg Lesniak

Project: Pioneer Midler Ave - Syracuse, NY  
Project #: 1537.005.001

- ☒ Final Report  
☐ Re-Issued Report  
☐ Revised Report

| <u>Laboratory ID</u> | <u>Client Sample ID</u> | <u>Matrix</u> | <u>Date Sampled</u> | <u>Date Received</u> |
|----------------------|-------------------------|---------------|---------------------|----------------------|
| SC07188-01           | East Berm               | Soil          | 06-May-15 08:51     | 06-May-15 11:30      |
| SC07188-02           | East Berm - Dupe        | Soil          | 06-May-15 08:51     | 06-May-15 11:30      |
| SC07188-03           | West Berm               | Soil          | 06-May-15 09:45     | 06-May-15 11:30      |
| SC07188-04           | West Berm - Dupe        | Soil          | 06-May-15 09:45     | 06-May-15 11:30      |

I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. These results relate only to the sample(s) as received.  
All applicable NELAC requirements have been met.

Massachusetts # M-MA138/MA1110  
Connecticut # PH-0777  
Florida # E87936  
Maine # MA138  
New Hampshire # 2538  
New Jersey # MA011  
New York # 11393  
Pennsylvania # 68-04426/68-02924  
Rhode Island # LAO00098  
USDA # S-51435



Authorized by:

Nicole Leja  
Laboratory Director

Spectrum Analytical holds certification in the State of New York for the analytes as indicated with an X in the "Cert." column within this report. Please note that the State of New York does not offer certification for all analytes. Please refer to our website for specific certification holdings in each state.

Please note that this report contains 19 pages of analytical data plus Chain of Custody document(s). When the Laboratory Report is indicated as revised, this report supersedes any previously dated reports for the laboratory ID(s) referenced above. Where this report identifies subcontracted analyses, copies of the subcontractor's test report are available upon request. This report may not be reproduced, except in full, without written approval from Spectrum Analytical, Inc.

*Spectrum Analytical, Inc. is a NELAC accredited laboratory organization and meets NELAC testing standards. Use of the NELAC logo however does not insure that Spectrum is currently accredited for the specific method or analyte indicated. Please refer to our Quality web page at [www.spectrum-analytical.com](http://www.spectrum-analytical.com) for a full listing of our current certifications and fields of accreditation. States in which Spectrum Analytical, Inc. holds NELAC certification are New York, New Hampshire, New Jersey, Pennsylvania and Florida. All analytical work for Volatile Organic and Air analysis are transferred to and conducted at our 830 Silver Street location (PA-68-04426).*

*Please contact the Laboratory or Technical Director at 800-789-9115 with any questions regarding the data contained in this laboratory report.*

## CASE NARRATIVE:

Data has been reported to the MDL. This report includes estimated concentrations detected below the RDL and above the MDL (J-Flag).

All non-detects and all results below the detection limit are reported as "<" (less than) the detection limit in this report.

The samples were received 12.5 degrees Celsius, please refer to the Chain of Custody for details specific to temperature upon receipt. An infrared thermometer with a tolerance of +/- 1.0 degrees Celsius was used immediately upon receipt of the samples.

If a Matrix Spike (MS), Matrix Spike Duplicate (MSD) or Duplicate (DUP) was not requested on the Chain of Custody, method criteria may have been fulfilled with a source sample not of this Sample Delivery Group.

All VOC soils samples submitted and analyzed in methanol will have a minimum dilution factor of 50. This is the minimum amount of solvent allowed on the instrumentation without causing interference. Soils are run on a manual load instrument. 100ug of sample (MEOH) is spiked into 5ml DI water along with the surrogate and added directly onto the instrument. Additional dilution factors may be required to keep analyte concentration within instrument calibration range.

Method SW846 5035A is designed to use on samples containing low levels of VOCs, ranging from 0.5 to 200 ug/Kg. Target analytes that are less responsive to purge and trap may be present at concentrations over 200ug/Kg but may not be reportable in the methanol preserved vial (SW846 5030). This is the result of the inherent dilution factor required for the methanol preservation.

All volatile soil/product/solid samples should be collected in accordance method SW846 5035/5035A. Any sample with a result below 200ug/Kg that has not been collected in accordance with method 5035/5035A must be evaluated as potentially biased low.

**See below for any non-conformances and issues relating to quality control samples and/or sample analysis/matrix.**

## SW846 8260C

### Calibration:

1504013

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Analyte quantified by quadratic equation type calibration.

Naphthalene

This affected the following samples:

S502844-ICV1

1504015

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Analyte quantified by quadratic equation type calibration.

Naphthalene

This affected the following samples:

1509227-BLK1

1509227-BS1

1509227-BSD1

East Berm

East Berm - Dupe

S503006-ICV1

S504458-CCV1

West Berm - Dupe

### Samples:

SC07188-03

*West Berm*

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Elevated Reporting Limits due to the presence of high levels of non-target analytes; sample may not meet client requested reporting limit for this reason.

**SW846 8270D**

**Samples:**

SC07188-01                      *East Berm*

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The Reporting Limit has been raised to account for matrix interference.

SC07188-02                      *East Berm - Dupe*

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The Reporting Limit has been raised to account for matrix interference.

SC07188-03                      *West Berm*

---

The Reporting Limit has been raised to account for matrix interference.

SC07188-04                      *West Berm - Dupe*

---

The Reporting Limit has been raised to account for matrix interference.

## Sample Acceptance Check Form

Client: Barton & Loguidice, D.P.C. - Rochester, NY  
Project: Pioneer Midler Ave - Syracuse, NY / 1537.005.001  
Work Order: SC07188  
Sample(s) received on: 5/6/2015

*The following outlines the condition of samples for the attached Chain of Custody upon receipt.*

|                                                                                                                                                                                                                                                                                      | <u>Yes</u>                          | <u>No</u>                           | <u>N/A</u>                          |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| Were custody seals present?                                                                                                                                                                                                                                                          | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Were custody seals intact?                                                                                                                                                                                                                                                           | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Were samples received at a temperature of $\leq 6^{\circ}\text{C}$ ?                                                                                                                                                                                                                 | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Were samples cooled on ice upon transfer to laboratory representative?                                                                                                                                                                                                               | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| Were sample containers received intact?                                                                                                                                                                                                                                              | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| Were samples properly labeled (labels affixed to sample containers and include sample ID, site location, and/or project number and the collection date)?                                                                                                                             | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| Were samples accompanied by a Chain of Custody document?                                                                                                                                                                                                                             | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| Does Chain of Custody document include proper, full, and complete documentation, which shall include sample ID, site location, and/or project number, date and time of collection, collector's name, preservation type, sample matrix and any special remarks concerning the sample? | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| Did sample container labels agree with Chain of Custody document?                                                                                                                                                                                                                    | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| Were samples received within method-specific holding times?                                                                                                                                                                                                                          | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |

Sample Identification

East Berm

SC07188-01

Client Project #

1537.005.001

Matrix

Soil

Collection Date/Time

06-May-15 08:51

Received

06-May-15

| CAS No. | Analyte(s) | Result | Flag | Units | *RDL | MDL | Dilution | Method Ref. | Prepared | Analyzed | Analyst | Batch | Cert. |
|---------|------------|--------|------|-------|------|-----|----------|-------------|----------|----------|---------|-------|-------|
|---------|------------|--------|------|-------|------|-----|----------|-------------|----------|----------|---------|-------|-------|

**Volatile Organic Compounds**

VOC Extraction

Lab  
extracted

N/A

1

VOC Soil  
Extraction08-May-1  
508-May-1  
5

DT

1509058

Volatile Organic Full Aromatics by SW846

8260

Prepared by method SW846 5035A Soil (low level)Initial weight: 5.32 g

|             |                         |       |     |           |      |     |   |             |               |               |     |         |   |
|-------------|-------------------------|-------|-----|-----------|------|-----|---|-------------|---------------|---------------|-----|---------|---|
| 71-43-2     | Benzene                 | < 1.4 | UJL | µg/kg dry | 7.5  | 1.4 | 1 | SW846 8260C | 12-May-1<br>5 | 12-May-1<br>5 | SJB | 1509227 | X |
| 104-51-8    | n-Butylbenzene          | < 2.1 | UJL | µg/kg dry | 7.5  | 2.1 | 1 | "           | "             | "             | "   | "       | X |
| 135-98-8    | sec-Butylbenzene        | < 5.8 | UJL | µg/kg dry | 7.5  | 5.8 | 1 | "           | "             | "             | "   | "       | X |
| 98-06-6     | tert-Butylbenzene       | < 4.9 | UJL | µg/kg dry | 7.5  | 4.9 | 1 | "           | "             | "             | "   | "       | X |
| 100-41-4    | Ethylbenzene            | < 1.3 | UJL | µg/kg dry | 7.5  | 1.3 | 1 | "           | "             | "             | "   | "       | X |
| 98-82-8     | Isopropylbenzene        | < 1.4 | UJL | µg/kg dry | 7.5  | 1.4 | 1 | "           | "             | "             | "   | "       | X |
| 99-87-6     | 4-Isopropyltoluene      | < 7.0 | UJL | µg/kg dry | 7.5  | 7.0 | 1 | "           | "             | "             | "   | "       | X |
| 1634-04-4   | Methyl tert-butyl ether | < 2.9 | UJL | µg/kg dry | 7.5  | 2.9 | 1 | "           | "             | "             | "   | "       | X |
| 91-20-3     | Naphthalene             | < 6.8 | UJL | µg/kg dry | 7.5  | 6.8 | 1 | "           | "             | "             | "   | "       | X |
| 103-65-1    | n-Propylbenzene         | < 7.2 | UJL | µg/kg dry | 7.5  | 7.2 | 1 | "           | "             | "             | "   | "       | X |
| 108-88-3    | Toluene                 | < 1.7 | UJL | µg/kg dry | 7.5  | 1.7 | 1 | "           | "             | "             | "   | "       | X |
| 95-63-6     | 1,2,4-Trimethylbenzene  | < 1.9 | UJL | µg/kg dry | 7.5  | 1.9 | 1 | "           | "             | "             | "   | "       | X |
| 108-67-8    | 1,3,5-Trimethylbenzene  | < 2.1 | UJL | µg/kg dry | 7.5  | 2.1 | 1 | "           | "             | "             | "   | "       | X |
| 179601-23-1 | m,p-Xylene              | < 1.5 | UJL | µg/kg dry | 14.9 | 1.5 | 1 | "           | "             | "             | "   | "       | X |
| 95-47-6     | o-Xylene                | < 1.6 | UJL | µg/kg dry | 7.5  | 1.6 | 1 | "           | "             | "             | "   | "       | X |

Surrogate recoveries:

|            |                       |     |  |  |          |  |  |   |   |   |   |   |  |
|------------|-----------------------|-----|--|--|----------|--|--|---|---|---|---|---|--|
| 460-00-4   | 4-Bromofluorobenzene  | 94  |  |  | 70-130 % |  |  | " | " | " | " | " |  |
| 2037-26-5  | Toluene-d8            | 105 |  |  | 70-130 % |  |  | " | " | " | " | " |  |
| 17060-07-0 | 1,2-Dichloroethane-d4 | 113 |  |  | 70-130 % |  |  | " | " | " | " | " |  |
| 1868-53-7  | Dibromofluoromethane  | 121 |  |  | 70-130 % |  |  | " | " | " | " | " |  |

**Semivolatile Organic Compounds by GCMS**PAHs by SW846 8270

R01

Prepared by method SW846 3545A

|          |                          |        |      |           |     |      |   |             |           |               |     |         |   |
|----------|--------------------------|--------|------|-----------|-----|------|---|-------------|-----------|---------------|-----|---------|---|
| 83-32-9  | Acenaphthene             | < 99.3 | U, D | µg/kg dry | 426 | 99.3 | 5 | SW846 8270D | 11-May-15 | 15-May-1<br>5 | MSL | 1509090 | X |
| 208-96-8 | Acenaphthylene           | < 90.3 | U, D | µg/kg dry | 426 | 90.3 | 5 | "           | "         | "             | "   | "       | X |
| 120-12-7 | Anthracene               | 151    | J, D | µg/kg dry | 426 | 97.4 | 5 | "           | "         | "             | "   | "       | X |
| 56-55-3  | Benzo (a) anthracene     | 613    | D    | µg/kg dry | 426 | 88.2 | 5 | "           | "         | "             | "   | "       | X |
| 50-32-8  | Benzo (a) pyrene         | 598    | D    | µg/kg dry | 426 | 88.7 | 5 | "           | "         | "             | "   | "       | X |
| 205-99-2 | Benzo (b) fluoranthene   | 764    | D    | µg/kg dry | 426 | 97.0 | 5 | "           | "         | "             | "   | "       | X |
| 191-24-2 | Benzo (g,h,i) perylene   | 311    | J, D | µg/kg dry | 426 | 92.2 | 5 | "           | "         | "             | "   | "       | X |
| 207-08-9 | Benzo (k) fluoranthene   | 292    | J, D | µg/kg dry | 426 | 97.0 | 5 | "           | "         | "             | "   | "       | X |
| 218-01-9 | Chrysene                 | 517    | D    | µg/kg dry | 426 | 104  | 5 | "           | "         | "             | "   | "       | X |
| 53-70-3  | Dibenzo (a,h) anthracene | < 78.2 | U, D | µg/kg dry | 426 | 78.2 | 5 | "           | "         | "             | "   | "       | X |
| 206-44-0 | Fluoranthene             | 1,070  | D    | µg/kg dry | 426 | 107  | 5 | "           | "         | "             | "   | "       | X |
| 86-73-7  | Fluorene                 | < 102  | U, D | µg/kg dry | 426 | 102  | 5 | "           | "         | "             | "   | "       | X |
| 193-39-5 | Indeno (1,2,3-cd) pyrene | 387    | J, D | µg/kg dry | 426 | 87.1 | 5 | "           | "         | "             | "   | "       | X |
| 90-12-0  | 1-Methylnaphthalene      | < 108  | U, D | µg/kg dry | 426 | 108  | 5 | "           | "         | "             | "   | "       |   |
| 91-57-6  | 2-Methylnaphthalene      | < 87.8 | U, D | µg/kg dry | 426 | 87.8 | 5 | "           | "         | "             | "   | "       | X |
| 91-20-3  | Naphthalene              | < 86.7 | U, D | µg/kg dry | 426 | 86.7 | 5 | "           | "         | "             | "   | "       | X |
| 85-01-8  | Phenanthrene             | 474    | D    | µg/kg dry | 426 | 104  | 5 | "           | "         | "             | "   | "       | X |
| 129-00-0 | Pyrene                   | 898    | D    | µg/kg dry | 426 | 90.7 | 5 | "           | "         | "             | "   | "       | X |

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Sample Identification

|                  |                         |               |                             |                 |
|------------------|-------------------------|---------------|-----------------------------|-----------------|
| <b>East Berm</b> | <u>Client Project #</u> | <u>Matrix</u> | <u>Collection Date/Time</u> | <u>Received</u> |
| SC07188-01       | 1537.005.001            | Soil          | 06-May-15 08:51             | 06-May-15       |

| <i>CAS No.</i> | <i>Analyte(s)</i> | <i>Result</i> | <i>Flag</i> | <i>Units</i> | <i>*RDL</i> | <i>MDL</i> | <i>Dilution</i> | <i>Method Ref.</i> | <i>Prepared</i> | <i>Analyzed</i> | <i>Analyst</i> | <i>Batch</i> | <i>Cert.</i> |
|----------------|-------------------|---------------|-------------|--------------|-------------|------------|-----------------|--------------------|-----------------|-----------------|----------------|--------------|--------------|
|----------------|-------------------|---------------|-------------|--------------|-------------|------------|-----------------|--------------------|-----------------|-----------------|----------------|--------------|--------------|

**Semivolatile Organic Compounds by GCMS**

PAHs by SW846 8270

R01

Prepared by method SW846 3545A*Surrogate recoveries:*

|           |                  |    |  |  |          |  |  |             |           |           |     |         |
|-----------|------------------|----|--|--|----------|--|--|-------------|-----------|-----------|-----|---------|
| 321-60-8  | 2-Fluorobiphenyl | 69 |  |  | 30-130 % |  |  | SW846 8270D | 11-May-15 | 15-May-15 | MSL | 1509090 |
| 1718-51-0 | Terphenyl-dl4    | 66 |  |  | 30-130 % |  |  | "           | "         | "         | "   | "       |
| 4165-60-0 | Nitrobenzene-d5  | 75 |  |  | 30-130 % |  |  | "           | "         | "         | "   | "       |

**General Chemistry Parameters**

|          |      |   |  |  |  |   |               |           |           |    |         |
|----------|------|---|--|--|--|---|---------------|-----------|-----------|----|---------|
| % Solids | 77.9 | % |  |  |  | 1 | SM2540 G Mod. | 11-May-15 | 11-May-15 | DT | 1509145 |
|----------|------|---|--|--|--|---|---------------|-----------|-----------|----|---------|

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## Sample Identification

East Berm - Dupe

SC07188-02

Client Project #

1537.005.001

Matrix

Soil

Collection Date/Time

06-May-15 08:51

Received

06-May-15

| CAS No. | Analyte(s) | Result | Flag | Units | *RDL | MDL | Dilution | Method Ref. | Prepared | Analyzed | Analyst | Batch | Cert. |
|---------|------------|--------|------|-------|------|-----|----------|-------------|----------|----------|---------|-------|-------|
|---------|------------|--------|------|-------|------|-----|----------|-------------|----------|----------|---------|-------|-------|

## Volatile Organic Compounds

VOC Extraction

Lab  
extracted

N/A

1

VOC Soil  
Extraction08-May-1  
508-May-1  
5

DT

1509058

## Volatile Organic Full Aromatics by SW846

8260

Prepared by method SW846 5035A Soil (low level)

Initial weight: 4.99 g

|             |                         |       |     |           |      |     |   |             |               |               |     |         |   |
|-------------|-------------------------|-------|-----|-----------|------|-----|---|-------------|---------------|---------------|-----|---------|---|
| 71-43-2     | Benzene                 | < 1.5 | UJL | µg/kg dry | 8.1  | 1.5 | 1 | SW846 8260C | 12-May-1<br>5 | 12-May-1<br>5 | SJB | 1509227 | X |
| 104-51-8    | n-Butylbenzene          | < 2.3 | UJL | µg/kg dry | 8.1  | 2.3 | 1 | "           | "             | "             | "   | "       | X |
| 135-98-8    | sec-Butylbenzene        | < 6.3 | UJL | µg/kg dry | 8.1  | 6.3 | 1 | "           | "             | "             | "   | "       | X |
| 98-06-6     | tert-Butylbenzene       | < 5.3 | UJL | µg/kg dry | 8.1  | 5.3 | 1 | "           | "             | "             | "   | "       | X |
| 100-41-4    | Ethylbenzene            | < 1.4 | UJL | µg/kg dry | 8.1  | 1.4 | 1 | "           | "             | "             | "   | "       | X |
| 98-82-8     | Isopropylbenzene        | < 1.5 | UJL | µg/kg dry | 8.1  | 1.5 | 1 | "           | "             | "             | "   | "       | X |
| 99-87-6     | 4-Isopropyltoluene      | < 7.6 | UJL | µg/kg dry | 8.1  | 7.6 | 1 | "           | "             | "             | "   | "       | X |
| 1634-04-4   | Methyl tert-butyl ether | < 3.1 | UJL | µg/kg dry | 8.1  | 3.1 | 1 | "           | "             | "             | "   | "       | X |
| 91-20-3     | Naphthalene             | < 7.4 | UJL | µg/kg dry | 8.1  | 7.4 | 1 | "           | "             | "             | "   | "       | X |
| 103-65-1    | n-Propylbenzene         | < 7.8 | UJL | µg/kg dry | 8.1  | 7.8 | 1 | "           | "             | "             | "   | "       | X |
| 108-88-3    | Toluene                 | < 1.9 | UJL | µg/kg dry | 8.1  | 1.9 | 1 | "           | "             | "             | "   | "       | X |
| 95-63-6     | 1,2,4-Trimethylbenzene  | < 2.0 | UJL | µg/kg dry | 8.1  | 2.0 | 1 | "           | "             | "             | "   | "       | X |
| 108-67-8    | 1,3,5-Trimethylbenzene  | < 2.3 | UJL | µg/kg dry | 8.1  | 2.3 | 1 | "           | "             | "             | "   | "       | X |
| 179601-23-1 | m,p-Xylene              | < 1.6 | UJL | µg/kg dry | 16.1 | 1.6 | 1 | "           | "             | "             | "   | "       | X |
| 95-47-6     | o-Xylene                | < 1.7 | UJL | µg/kg dry | 8.1  | 1.7 | 1 | "           | "             | "             | "   | "       | X |

## Surrogate recoveries:

|            |                       |     |  |  |          |  |   |   |   |   |   |   |  |
|------------|-----------------------|-----|--|--|----------|--|---|---|---|---|---|---|--|
| 460-00-4   | 4-Bromofluorobenzene  | 93  |  |  | 70-130 % |  | " | " | " | " | " | " |  |
| 2037-26-5  | Toluene-d8            | 107 |  |  | 70-130 % |  | " | " | " | " | " | " |  |
| 17060-07-0 | 1,2-Dichloroethane-d4 | 113 |  |  | 70-130 % |  | " | " | " | " | " | " |  |
| 1868-53-7  | Dibromofluoromethane  | 115 |  |  | 70-130 % |  | " | " | " | " | " | " |  |

## Semivolatile Organic Compounds by GCMS

PAHs by SW846 8270

R01

Prepared by method SW846 3545A

|          |                          |        |      |           |     |      |   |             |           |               |     |         |   |
|----------|--------------------------|--------|------|-----------|-----|------|---|-------------|-----------|---------------|-----|---------|---|
| 83-32-9  | Acenaphthene             | < 100  | U, D | µg/kg dry | 430 | 100  | 5 | SW846 8270D | 11-May-15 | 15-May-1<br>5 | MSL | 1509090 | X |
| 208-96-8 | Acenaphthylene           | < 91.2 | U, D | µg/kg dry | 430 | 91.2 | 5 | "           | "         | "             | "   | "       | X |
| 120-12-7 | Anthracene               | 120    | J, D | µg/kg dry | 430 | 98.3 | 5 | "           | "         | "             | "   | "       | X |
| 56-55-3  | Benzo (a) anthracene     | 410    | J, D | µg/kg dry | 430 | 89.0 | 5 | "           | "         | "             | "   | "       | X |
| 50-32-8  | Benzo (a) pyrene         | 395    | J, D | µg/kg dry | 430 | 89.6 | 5 | "           | "         | "             | "   | "       | X |
| 205-99-2 | Benzo (b) fluoranthene   | 537    | D    | µg/kg dry | 430 | 97.9 | 5 | "           | "         | "             | "   | "       | X |
| 191-24-2 | Benzo (g,h,i) perylene   | 219    | J, D | µg/kg dry | 430 | 93.1 | 5 | "           | "         | "             | "   | "       | X |
| 207-08-9 | Benzo (k) fluoranthene   | 163    | J, D | µg/kg dry | 430 | 97.9 | 5 | "           | "         | "             | "   | "       | X |
| 218-01-9 | Chrysene                 | 376    | J, D | µg/kg dry | 430 | 105  | 5 | "           | "         | "             | "   | "       | X |
| 53-70-3  | Dibenzo (a,h) anthracene | < 78.9 | U, D | µg/kg dry | 430 | 78.9 | 5 | "           | "         | "             | "   | "       | X |
| 206-44-0 | Fluoranthene             | 743    | D    | µg/kg dry | 430 | 108  | 5 | "           | "         | "             | "   | "       | X |
| 86-73-7  | Fluorene                 | < 103  | U, D | µg/kg dry | 430 | 103  | 5 | "           | "         | "             | "   | "       | X |
| 193-39-5 | Indeno (1,2,3-cd) pyrene | 253    | D, J | µg/kg dry | 430 | 87.9 | 5 | "           | "         | "             | "   | "       | X |
| 90-12-0  | 1-Methylnaphthalene      | < 109  | U, D | µg/kg dry | 430 | 109  | 5 | "           | "         | "             | "   | "       |   |
| 91-57-6  | 2-Methylnaphthalene      | < 88.7 | U, D | µg/kg dry | 430 | 88.7 | 5 | "           | "         | "             | "   | "       | X |
| 91-20-3  | Naphthalene              | < 87.6 | U, D | µg/kg dry | 430 | 87.6 | 5 | "           | "         | "             | "   | "       | X |
| 85-01-8  | Phenanthrene             | 479    | D    | µg/kg dry | 430 | 105  | 5 | "           | "         | "             | "   | "       | X |
| 129-00-0 | Pyrene                   | 655    | D    | µg/kg dry | 430 | 91.6 | 5 | "           | "         | "             | "   | "       | X |

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Sample Identification

East Berm - Dupe

SC07188-02

Client Project #

1537.005.001

Matrix

Soil

Collection Date/Time

06-May-15 08:51

Received

06-May-15

| <i>CAS No.</i> | <i>Analyte(s)</i> | <i>Result</i> | <i>Flag</i> | <i>Units</i> | <i>*RDL</i> | <i>MDL</i> | <i>Dilution</i> | <i>Method Ref.</i> | <i>Prepared</i> | <i>Analyzed</i> | <i>Analyst</i> | <i>Batch</i> | <i>Cert.</i> |
|----------------|-------------------|---------------|-------------|--------------|-------------|------------|-----------------|--------------------|-----------------|-----------------|----------------|--------------|--------------|
|----------------|-------------------|---------------|-------------|--------------|-------------|------------|-----------------|--------------------|-----------------|-----------------|----------------|--------------|--------------|

**Semivolatile Organic Compounds by GCMS**

PAHs by SW846 8270

R01

Prepared by method SW846 3545A*Surrogate recoveries:*

|           |                  |    |  |  |          |  |  |             |           |           |     |         |
|-----------|------------------|----|--|--|----------|--|--|-------------|-----------|-----------|-----|---------|
| 321-60-8  | 2-Fluorobiphenyl | 58 |  |  | 30-130 % |  |  | SW846 8270D | 11-May-15 | 15-May-15 | MSL | 1509090 |
| 1718-51-0 | Terphenyl-dl4    | 56 |  |  | 30-130 % |  |  | "           | "         | "         | "   | "       |
| 4165-60-0 | Nitrobenzene-d5  | 66 |  |  | 30-130 % |  |  | "           | "         | "         | "   | "       |

**General Chemistry Parameters**

|          |      |  |   |  |  |  |   |               |           |           |    |         |
|----------|------|--|---|--|--|--|---|---------------|-----------|-----------|----|---------|
| % Solids | 76.6 |  | % |  |  |  | 1 | SM2540 G Mod. | 11-May-15 | 11-May-15 | DT | 1509145 |
|----------|------|--|---|--|--|--|---|---------------|-----------|-----------|----|---------|

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## Sample Identification

West Berm

SC07188-03

Client Project #

1537.005.001

Matrix

Soil

Collection Date/Time

06-May-15 09:45

Received

06-May-15

| CAS No.                                              | Analyte(s)               | Result        | Flag   | Units     | *RDL     | MDL  | Dilution | Method Ref.         | Prepared  | Analyzed  | Analyst | Batch   | Cert. |
|------------------------------------------------------|--------------------------|---------------|--------|-----------|----------|------|----------|---------------------|-----------|-----------|---------|---------|-------|
| <b>Volatile Organic Compounds</b>                    |                          |               |        |           |          |      |          |                     |           |           |         |         |       |
|                                                      | VOC Extraction           | Lab extracted |        | N/A       |          |      | 1        | VOC Soil Extraction | 08-May-15 | 08-May-15 | DT      | 1509058 |       |
| <b>Volatile Organic Full Aromatics by SW846 8260</b> |                          |               |        |           |          |      |          |                     |           |           |         |         |       |
| Prepared by method SW846 5035A Soil (high level)     |                          |               |        |           |          |      |          |                     |           |           |         |         |       |
| Initial weight: 14.78 g                              |                          |               |        |           |          |      |          |                     |           |           |         |         |       |
| 71-43-2                                              | Benzene                  | < 12.0        | UJL, D | µg/kg dry | 66.1     | 12.0 | 50       | SW846 8260C         | 13-May-15 | 13-May-15 | SJB     | 1509327 | X     |
| 104-51-8                                             | n-Butylbenzene           | < 18.9        | UJL, D | µg/kg dry | 66.1     | 18.9 | 50       | "                   | "         | "         | "       | "       | X     |
| 135-98-8                                             | sec-Butylbenzene         | < 51.7        | UJL, D | µg/kg dry | 66.1     | 51.7 | 50       | "                   | "         | "         | "       | "       | X     |
| 98-06-6                                              | tert-Butylbenzene        | < 43.4        | UJL, D | µg/kg dry | 66.1     | 43.4 | 50       | "                   | "         | "         | "       | "       | X     |
| 100-41-4                                             | Ethylbenzene             | < 11.6        | UJL, D | µg/kg dry | 66.1     | 11.6 | 50       | "                   | "         | "         | "       | "       | X     |
| 98-82-8                                              | Isopropylbenzene         | < 12.6        | UJL, D | µg/kg dry | 66.1     | 12.6 | 50       | "                   | "         | "         | "       | "       | X     |
| 99-87-6                                              | 4-Isopropyltoluene       | < 62.0        | UJL, D | µg/kg dry | 66.1     | 62.0 | 50       | "                   | "         | "         | "       | "       | X     |
| 1634-04-4                                            | Methyl tert-butyl ether  | < 25.5        | UJL, D | µg/kg dry | 66.1     | 25.5 | 50       | "                   | "         | "         | "       | "       | X     |
| 91-20-3                                              | Naphthalene              | < 60.6        | UJL, D | µg/kg dry | 66.1     | 60.6 | 50       | "                   | "         | "         | "       | "       | X     |
| 103-65-1                                             | n-Propylbenzene          | < 64.0        | UJL, D | µg/kg dry | 66.1     | 64.0 | 50       | "                   | "         | "         | "       | "       | X     |
| 108-88-3                                             | Toluene                  | < 15.2        | UJL, D | µg/kg dry | 66.1     | 15.2 | 50       | "                   | "         | "         | "       | "       | X     |
| 95-63-6                                              | 1,2,4-Trimethylbenzene   | < 16.6        | UJL, D | µg/kg dry | 66.1     | 16.6 | 50       | "                   | "         | "         | "       | "       | X     |
| 108-67-8                                             | 1,3,5-Trimethylbenzene   | < 19.0        | UJL, D | µg/kg dry | 66.1     | 19.0 | 50       | "                   | "         | "         | "       | "       | X     |
| 179601-23-1                                          | m,p-Xylene               | 19.8          | JL, D  | µg/kg dry | 132      | 13.0 | 50       | "                   | "         | "         | "       | "       | X     |
| 95-47-6                                              | o-Xylene                 | < 14.1        | UJL, D | µg/kg dry | 66.1     | 14.1 | 50       | "                   | "         | "         | "       | "       | X     |
| <b>Surrogate recoveries:</b>                         |                          |               |        |           |          |      |          |                     |           |           |         |         |       |
| 460-00-4                                             | 4-Bromofluorobenzene     | 102           |        |           | 70-130 % |      |          | "                   | "         | "         | "       | "       |       |
| 2037-26-5                                            | Toluene-d8               | 100           |        |           | 70-130 % |      |          | "                   | "         | "         | "       | "       |       |
| 17060-07-0                                           | 1,2-Dichloroethane-d4    | 89            |        |           | 70-130 % |      |          | "                   | "         | "         | "       | "       |       |
| 1868-53-7                                            | Dibromofluoromethane     | 95            |        |           | 70-130 % |      |          | "                   | "         | "         | "       | "       |       |
| <b>Semivolatile Organic Compounds by GCMS</b>        |                          |               |        |           |          |      |          |                     |           |           |         |         |       |
| <b>PAHs by SW846 8270</b>                            |                          |               |        |           |          |      |          |                     |           |           |         |         |       |
| Prepared by method SW846 3545A                       |                          |               |        |           |          |      |          |                     |           |           |         |         |       |
| 83-32-9                                              | Acenaphthene             | 1,300         | D      | µg/kg dry | 383      | 89.4 | 5        | SW846 8270D         | 11-May-15 | 15-May-15 | MSL     | 1509090 | X     |
| 208-96-8                                             | Acenaphthylene           | 213           | D, J   | µg/kg dry | 383      | 81.3 | 5        | "                   | "         | "         | "       | "       | X     |
| 120-12-7                                             | Anthracene               | 2,720         | D      | µg/kg dry | 383      | 87.7 | 5        | "                   | "         | "         | "       | "       | X     |
| 56-55-3                                              | Benzo (a) anthracene     | 5,450         | D      | µg/kg dry | 383      | 79.4 | 5        | "                   | "         | "         | "       | "       | X     |
| 50-32-8                                              | Benzo (a) pyrene         | 4,170         | D      | µg/kg dry | 383      | 79.9 | 5        | "                   | "         | "         | "       | "       | X     |
| 205-99-2                                             | Benzo (b) fluoranthene   | 6,010         | D      | µg/kg dry | 383      | 87.4 | 5        | "                   | "         | "         | "       | "       | X     |
| 191-24-2                                             | Benzo (g,h,i) perylene   | 2,170         | D      | µg/kg dry | 383      | 83.1 | 5        | "                   | "         | "         | "       | "       | X     |
| 207-08-9                                             | Benzo (k) fluoranthene   | 1,750         | D      | µg/kg dry | 383      | 87.4 | 5        | "                   | "         | "         | "       | "       | X     |
| 218-01-9                                             | Chrysene                 | 4,280         | D      | µg/kg dry | 383      | 93.7 | 5        | "                   | "         | "         | "       | "       | X     |
| 53-70-3                                              | Dibenzo (a,h) anthracene | 605           | D      | µg/kg dry | 383      | 70.4 | 5        | "                   | "         | "         | "       | "       | X     |
| 206-44-0                                             | Fluoranthene             | 13,100        | D      | µg/kg dry | 383      | 96.3 | 5        | "                   | "         | "         | "       | "       | X     |
| 86-73-7                                              | Fluorene                 | 1,590         | D      | µg/kg dry | 383      | 91.9 | 5        | "                   | "         | "         | "       | "       | X     |
| 193-39-5                                             | Indeno (1,2,3-cd) pyrene | 2,680         | D      | µg/kg dry | 383      | 78.4 | 5        | "                   | "         | "         | "       | "       | X     |
| 90-12-0                                              | 1-Methylnaphthalene      | 492           | D      | µg/kg dry | 383      | 97.0 | 5        | "                   | "         | "         | "       | "       |       |
| 91-57-6                                              | 2-Methylnaphthalene      | 525           | D      | µg/kg dry | 383      | 79.1 | 5        | "                   | "         | "         | "       | "       | X     |
| 91-20-3                                              | Naphthalene              | 510           | D      | µg/kg dry | 383      | 78.1 | 5        | "                   | "         | "         | "       | "       | X     |
| 85-01-8                                              | Phenanthrene             | 9,950         | D      | µg/kg dry | 383      | 93.6 | 5        | "                   | "         | "         | "       | "       | X     |
| 129-00-0                                             | Pyrene                   | 7,680         | D      | µg/kg dry | 383      | 81.7 | 5        | "                   | "         | "         | "       | "       | X     |

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Sample Identification**West Berm**

SC07188-03

Client Project #

1537.005.001

Matrix

Soil

Collection Date/Time

06-May-15 09:45

Received

06-May-15

| <i>CAS No.</i> | <i>Analyte(s)</i> | <i>Result</i> | <i>Flag</i> | <i>Units</i> | <i>*RDL</i> | <i>MDL</i> | <i>Dilution</i> | <i>Method Ref.</i> | <i>Prepared</i> | <i>Analyzed</i> | <i>Analyst</i> | <i>Batch</i> | <i>Cert.</i> |
|----------------|-------------------|---------------|-------------|--------------|-------------|------------|-----------------|--------------------|-----------------|-----------------|----------------|--------------|--------------|
|----------------|-------------------|---------------|-------------|--------------|-------------|------------|-----------------|--------------------|-----------------|-----------------|----------------|--------------|--------------|

**Semivolatile Organic Compounds by GCMS**PAHs by SW846 8270

R01

Prepared by method SW846 3545A*Surrogate recoveries:*

|           |                  |    |  |  |          |  |  |             |           |           |     |         |
|-----------|------------------|----|--|--|----------|--|--|-------------|-----------|-----------|-----|---------|
| 321-60-8  | 2-Fluorobiphenyl | 56 |  |  | 30-130 % |  |  | SW846 8270D | 11-May-15 | 15-May-15 | MSL | 1509090 |
| 1718-51-0 | Terphenyl-dl4    | 57 |  |  | 30-130 % |  |  | "           | "         | "         | "   | "       |
| 4165-60-0 | Nitrobenzene-d5  | 59 |  |  | 30-130 % |  |  | "           | "         | "         | "   | "       |

**General Chemistry Parameters**

|          |      |  |  |   |  |  |   |               |           |           |    |         |
|----------|------|--|--|---|--|--|---|---------------|-----------|-----------|----|---------|
| % Solids | 86.8 |  |  | % |  |  | 1 | SM2540 G Mod. | 11-May-15 | 11-May-15 | DT | 1509145 |
|----------|------|--|--|---|--|--|---|---------------|-----------|-----------|----|---------|

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## Sample Identification

West Berm - Dupe

SC07188-04

Client Project #

1537.005.001

Matrix

Soil

Collection Date/Time

06-May-15 09:45

Received

06-May-15

| CAS No. | Analyte(s) | Result | Flag | Units | *RDL | MDL | Dilution | Method Ref. | Prepared | Analyzed | Analyst | Batch | Cert. |
|---------|------------|--------|------|-------|------|-----|----------|-------------|----------|----------|---------|-------|-------|
|---------|------------|--------|------|-------|------|-----|----------|-------------|----------|----------|---------|-------|-------|

## Volatile Organic Compounds

VOC Extraction

Lab  
extracted

N/A

1

VOC Soil  
Extraction08-May-1  
508-May-1  
5

DT

1509058

## Volatile Organic Full Aromatics by SW846

8260

Prepared by method SW846 5035A Soil (low level)

Initial weight: 6.48 g

|             |                         |       |     |           |      |     |   |             |               |               |     |         |   |
|-------------|-------------------------|-------|-----|-----------|------|-----|---|-------------|---------------|---------------|-----|---------|---|
| 71-43-2     | Benzene                 | < 1.0 | UJL | µg/kg dry | 5.6  | 1.0 | 1 | SW846 8260C | 12-May-1<br>5 | 12-May-1<br>5 | SJB | 1509227 | X |
| 104-51-8    | n-Butylbenzene          | < 1.6 | UJL | µg/kg dry | 5.6  | 1.6 | 1 | "           | "             | "             | "   | "       | X |
| 135-98-8    | sec-Butylbenzene        | < 4.4 | UJL | µg/kg dry | 5.6  | 4.4 | 1 | "           | "             | "             | "   | "       | X |
| 98-06-6     | tert-Butylbenzene       | < 3.7 | UJL | µg/kg dry | 5.6  | 3.7 | 1 | "           | "             | "             | "   | "       | X |
| 100-41-4    | Ethylbenzene            | < 1.0 | UJL | µg/kg dry | 5.6  | 1.0 | 1 | "           | "             | "             | "   | "       | X |
| 98-82-8     | Isopropylbenzene        | < 1.1 | UJL | µg/kg dry | 5.6  | 1.1 | 1 | "           | "             | "             | "   | "       | X |
| 99-87-6     | 4-Isopropyltoluene      | < 5.3 | UJL | µg/kg dry | 5.6  | 5.3 | 1 | "           | "             | "             | "   | "       | X |
| 1634-04-4   | Methyl tert-butyl ether | < 2.2 | UJL | µg/kg dry | 5.6  | 2.2 | 1 | "           | "             | "             | "   | "       | X |
| 91-20-3     | Naphthalene             | < 5.1 | UJL | µg/kg dry | 5.6  | 5.1 | 1 | "           | "             | "             | "   | "       | X |
| 103-65-1    | n-Propylbenzene         | < 5.4 | UJL | µg/kg dry | 5.6  | 5.4 | 1 | "           | "             | "             | "   | "       | X |
| 108-88-3    | Toluene                 | < 1.3 | UJL | µg/kg dry | 5.6  | 1.3 | 1 | "           | "             | "             | "   | "       | X |
| 95-63-6     | 1,2,4-Trimethylbenzene  | < 1.4 | UJL | µg/kg dry | 5.6  | 1.4 | 1 | "           | "             | "             | "   | "       | X |
| 108-67-8    | 1,3,5-Trimethylbenzene  | < 1.6 | UJL | µg/kg dry | 5.6  | 1.6 | 1 | "           | "             | "             | "   | "       | X |
| 179601-23-1 | m,p-Xylene              | < 1.1 | UJL | µg/kg dry | 11.2 | 1.1 | 1 | "           | "             | "             | "   | "       | X |
| 95-47-6     | o-Xylene                | < 1.2 | UJL | µg/kg dry | 5.6  | 1.2 | 1 | "           | "             | "             | "   | "       | X |

## Surrogate recoveries:

|            |                       |     |  |  |          |  |   |   |   |   |   |   |  |
|------------|-----------------------|-----|--|--|----------|--|---|---|---|---|---|---|--|
| 460-00-4   | 4-Bromofluorobenzene  | 93  |  |  | 70-130 % |  | " | " | " | " | " | " |  |
| 2037-26-5  | Toluene-d8            | 105 |  |  | 70-130 % |  | " | " | " | " | " | " |  |
| 17060-07-0 | 1,2-Dichloroethane-d4 | 118 |  |  | 70-130 % |  | " | " | " | " | " | " |  |
| 1868-53-7  | Dibromofluoromethane  | 127 |  |  | 70-130 % |  | " | " | " | " | " | " |  |

## Semivolatile Organic Compounds by GCMS

PAHs by SW846 8270

R01

Prepared by method SW846 3545A

|          |                          |       |      |           |     |      |   |             |           |               |     |         |   |
|----------|--------------------------|-------|------|-----------|-----|------|---|-------------|-----------|---------------|-----|---------|---|
| 83-32-9  | Acenaphthene             | 390   | D, J | µg/kg dry | 398 | 92.7 | 5 | SW846 8270D | 11-May-15 | 15-May-1<br>5 | MSL | 1509090 | X |
| 208-96-8 | Acenaphthylene           | 185   | J, D | µg/kg dry | 398 | 84.4 | 5 | "           | "         | "             | "   | "       | X |
| 120-12-7 | Anthracene               | 851   | D    | µg/kg dry | 398 | 91.0 | 5 | "           | "         | "             | "   | "       | X |
| 56-55-3  | Benzo (a) anthracene     | 3,280 | D    | µg/kg dry | 398 | 82.3 | 5 | "           | "         | "             | "   | "       | X |
| 50-32-8  | Benzo (a) pyrene         | 2,850 | D    | µg/kg dry | 398 | 82.9 | 5 | "           | "         | "             | "   | "       | X |
| 205-99-2 | Benzo (b) fluoranthene   | 4,220 | D    | µg/kg dry | 398 | 90.6 | 5 | "           | "         | "             | "   | "       | X |
| 191-24-2 | Benzo (g,h,i) perylene   | 1,640 | D    | µg/kg dry | 398 | 86.2 | 5 | "           | "         | "             | "   | "       | X |
| 207-08-9 | Benzo (k) fluoranthene   | 1,200 | D    | µg/kg dry | 398 | 90.6 | 5 | "           | "         | "             | "   | "       | X |
| 218-01-9 | Chrysene                 | 2,980 | D    | µg/kg dry | 398 | 97.2 | 5 | "           | "         | "             | "   | "       | X |
| 53-70-3  | Dibenzo (a,h) anthracene | 411   | D    | µg/kg dry | 398 | 73.0 | 5 | "           | "         | "             | "   | "       | X |
| 206-44-0 | Fluoranthene             | 7,150 | D    | µg/kg dry | 398 | 99.9 | 5 | "           | "         | "             | "   | "       | X |
| 86-73-7  | Fluorene                 | 322   | J, D | µg/kg dry | 398 | 95.3 | 5 | "           | "         | "             | "   | "       | X |
| 193-39-5 | Indeno (1,2,3-cd) pyrene | 1,890 | D    | µg/kg dry | 398 | 81.3 | 5 | "           | "         | "             | "   | "       | X |
| 90-12-0  | 1-Methylnaphthalene      | < 101 | U, D | µg/kg dry | 398 | 101  | 5 | "           | "         | "             | "   | "       |   |
| 91-57-6  | 2-Methylnaphthalene      | 103   | D, J | µg/kg dry | 398 | 82.0 | 5 | "           | "         | "             | "   | "       | X |
| 91-20-3  | Naphthalene              | 179   | J, D | µg/kg dry | 398 | 81.0 | 5 | "           | "         | "             | "   | "       | X |
| 85-01-8  | Phenanthrene             | 4,140 | D    | µg/kg dry | 398 | 97.1 | 5 | "           | "         | "             | "   | "       | X |
| 129-00-0 | Pyrene                   | 6,190 | D    | µg/kg dry | 398 | 84.7 | 5 | "           | "         | "             | "   | "       | X |

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Sample Identification

West Berm - Dupe

SC07188-04

Client Project #

1537.005.001

Matrix

Soil

Collection Date/Time

06-May-15 09:45

Received

06-May-15

| <i>CAS No.</i> | <i>Analyte(s)</i> | <i>Result</i> | <i>Flag</i> | <i>Units</i> | <i>*RDL</i> | <i>MDL</i> | <i>Dilution</i> | <i>Method Ref.</i> | <i>Prepared</i> | <i>Analyzed</i> | <i>Analyst</i> | <i>Batch</i> | <i>Cert.</i> |
|----------------|-------------------|---------------|-------------|--------------|-------------|------------|-----------------|--------------------|-----------------|-----------------|----------------|--------------|--------------|
|----------------|-------------------|---------------|-------------|--------------|-------------|------------|-----------------|--------------------|-----------------|-----------------|----------------|--------------|--------------|

**Semivolatile Organic Compounds by GCMS**

PAHs by SW846 8270

R01

Prepared by method SW846 3545A*Surrogate recoveries:*

|           |                  |    |  |  |          |  |  |             |           |           |     |         |
|-----------|------------------|----|--|--|----------|--|--|-------------|-----------|-----------|-----|---------|
| 321-60-8  | 2-Fluorobiphenyl | 72 |  |  | 30-130 % |  |  | SW846 8270D | 11-May-15 | 15-May-15 | MSL | 1509090 |
| 1718-51-0 | Terphenyl-dl4    | 73 |  |  | 30-130 % |  |  | "           | "         | "         | "   | "       |
| 4165-60-0 | Nitrobenzene-d5  | 76 |  |  | 30-130 % |  |  | "           | "         | "         | "   | "       |

**General Chemistry Parameters**

|          |      |  |  |   |  |  |   |               |           |           |    |         |
|----------|------|--|--|---|--|--|---|---------------|-----------|-----------|----|---------|
| % Solids | 83.4 |  |  | % |  |  | 1 | SM2540 G Mod. | 11-May-15 | 11-May-15 | DT | 1509145 |
|----------|------|--|--|---|--|--|---|---------------|-----------|-----------|----|---------|

# Volatile Organic Compounds - Quality Control

| Analyte(s)                                          | Result | Flag | Units     | *RDL | Spike Level                                      | Source Result | %REC | %REC Limits | RPD  | RPD Limit |
|-----------------------------------------------------|--------|------|-----------|------|--------------------------------------------------|---------------|------|-------------|------|-----------|
| <b>Batch 1509227 - SW846 5035A Soil (low level)</b> |        |      |           |      |                                                  |               |      |             |      |           |
| <b><u>Blank (1509227-BLK1)</u></b>                  |        |      |           |      | <b><u>Prepared &amp; Analyzed: 12-May-15</u></b> |               |      |             |      |           |
| Benzene                                             | < 0.9  |      | µg/kg wet | 0.9  |                                                  |               |      |             |      |           |
| n-Butylbenzene                                      | < 1.4  |      | µg/kg wet | 1.4  |                                                  |               |      |             |      |           |
| sec-Butylbenzene                                    | < 3.9  |      | µg/kg wet | 3.9  |                                                  |               |      |             |      |           |
| tert-Butylbenzene                                   | < 3.3  |      | µg/kg wet | 3.3  |                                                  |               |      |             |      |           |
| Ethylbenzene                                        | < 0.9  |      | µg/kg wet | 0.9  |                                                  |               |      |             |      |           |
| Isopropylbenzene                                    | < 1.0  |      | µg/kg wet | 1.0  |                                                  |               |      |             |      |           |
| 4-Isopropyltoluene                                  | < 4.7  |      | µg/kg wet | 4.7  |                                                  |               |      |             |      |           |
| Methyl tert-butyl ether                             | < 1.9  |      | µg/kg wet | 1.9  |                                                  |               |      |             |      |           |
| Naphthalene                                         | < 4.6  |      | µg/kg wet | 4.6  |                                                  |               |      |             |      |           |
| n-Propylbenzene                                     | < 4.8  |      | µg/kg wet | 4.8  |                                                  |               |      |             |      |           |
| Toluene                                             | < 1.2  |      | µg/kg wet | 1.2  |                                                  |               |      |             |      |           |
| 1,2,4-Trimethylbenzene                              | < 1.3  |      | µg/kg wet | 1.3  |                                                  |               |      |             |      |           |
| 1,3,5-Trimethylbenzene                              | < 1.4  |      | µg/kg wet | 1.4  |                                                  |               |      |             |      |           |
| m,p-Xylene                                          | < 1.0  |      | µg/kg wet | 1.0  |                                                  |               |      |             |      |           |
| o-Xylene                                            | < 1.1  |      | µg/kg wet | 1.1  |                                                  |               |      |             |      |           |
| <i>Surrogate: 4-Bromofluorobenzene</i>              | 47.8   |      | µg/kg wet |      | 50.0                                             |               | 96   | 70-130      |      |           |
| <i>Surrogate: Toluene-d8</i>                        | 54.2   |      | µg/kg wet |      | 50.0                                             |               | 108  | 70-130      |      |           |
| <i>Surrogate: 1,2-Dichloroethane-d4</i>             | 54.5   |      | µg/kg wet |      | 50.0                                             |               | 109  | 70-130      |      |           |
| <i>Surrogate: Dibromofluoromethane</i>              | 58.0   |      | µg/kg wet |      | 50.0                                             |               | 116  | 70-130      |      |           |
| <b><u>LCS (1509227-BS1)</u></b>                     |        |      |           |      | <b><u>Prepared &amp; Analyzed: 12-May-15</u></b> |               |      |             |      |           |
| Benzene                                             | 21.3   |      | µg/kg wet |      | 20.0                                             |               | 107  | 70-130      |      |           |
| n-Butylbenzene                                      | 16.2   |      | µg/kg wet |      | 20.0                                             |               | 81   | 70-130      |      |           |
| sec-Butylbenzene                                    | 20.2   |      | µg/kg wet |      | 20.0                                             |               | 101  | 70-130      |      |           |
| tert-Butylbenzene                                   | 20.2   |      | µg/kg wet |      | 20.0                                             |               | 101  | 70-130      |      |           |
| Ethylbenzene                                        | 19.6   |      | µg/kg wet |      | 20.0                                             |               | 98   | 70-130      |      |           |
| Isopropylbenzene                                    | 19.9   |      | µg/kg wet |      | 20.0                                             |               | 99   | 70-130      |      |           |
| 4-Isopropyltoluene                                  | 18.4   |      | µg/kg wet |      | 20.0                                             |               | 92   | 70-130      |      |           |
| Methyl tert-butyl ether                             | 23.3   |      | µg/kg wet |      | 20.0                                             |               | 116  | 70-130      |      |           |
| Naphthalene                                         | 17.5   |      | µg/kg wet |      | 20.0                                             |               | 87   | 70-130      |      |           |
| n-Propylbenzene                                     | 20.2   |      | µg/kg wet |      | 20.0                                             |               | 101  | 70-130      |      |           |
| Toluene                                             | 21.6   |      | µg/kg wet |      | 20.0                                             |               | 108  | 70-130      |      |           |
| 1,2,4-Trimethylbenzene                              | 23.5   |      | µg/kg wet |      | 20.0                                             |               | 118  | 70-130      |      |           |
| 1,3,5-Trimethylbenzene                              | 21.6   |      | µg/kg wet |      | 20.0                                             |               | 108  | 70-130      |      |           |
| m,p-Xylene                                          | 19.8   |      | µg/kg wet |      | 20.0                                             |               | 99   | 70-130      |      |           |
| o-Xylene                                            | 20.7   |      | µg/kg wet |      | 20.0                                             |               | 104  | 70-130      |      |           |
| <i>Surrogate: 4-Bromofluorobenzene</i>              | 53.5   |      | µg/kg wet |      | 50.0                                             |               | 107  | 70-130      |      |           |
| <i>Surrogate: Toluene-d8</i>                        | 52.7   |      | µg/kg wet |      | 50.0                                             |               | 105  | 70-130      |      |           |
| <i>Surrogate: 1,2-Dichloroethane-d4</i>             | 45.4   |      | µg/kg wet |      | 50.0                                             |               | 91   | 70-130      |      |           |
| <i>Surrogate: Dibromofluoromethane</i>              | 53.6   |      | µg/kg wet |      | 50.0                                             |               | 107  | 70-130      |      |           |
| <b><u>LCS Dup (1509227-BSD1)</u></b>                |        |      |           |      | <b><u>Prepared &amp; Analyzed: 12-May-15</u></b> |               |      |             |      |           |
| Benzene                                             | 21.8   |      | µg/kg wet |      | 20.0                                             |               | 109  | 70-130      | 2    | 30        |
| n-Butylbenzene                                      | 15.9   |      | µg/kg wet |      | 20.0                                             |               | 79   | 70-130      | 2    | 30        |
| sec-Butylbenzene                                    | 20.5   |      | µg/kg wet |      | 20.0                                             |               | 102  | 70-130      | 1    | 30        |
| tert-Butylbenzene                                   | 20.2   |      | µg/kg wet |      | 20.0                                             |               | 101  | 70-130      | 0.3  | 30        |
| Ethylbenzene                                        | 19.9   |      | µg/kg wet |      | 20.0                                             |               | 100  | 70-130      | 2    | 30        |
| Isopropylbenzene                                    | 20.2   |      | µg/kg wet |      | 20.0                                             |               | 101  | 70-130      | 2    | 30        |
| 4-Isopropyltoluene                                  | 17.7   |      | µg/kg wet |      | 20.0                                             |               | 89   | 70-130      | 4    | 30        |
| Methyl tert-butyl ether                             | 24.1   |      | µg/kg wet |      | 20.0                                             |               | 121  | 70-130      | 4    | 30        |
| Naphthalene                                         | 18.0   |      | µg/kg wet |      | 20.0                                             |               | 90   | 70-130      | 3    | 30        |
| n-Propylbenzene                                     | 20.2   |      | µg/kg wet |      | 20.0                                             |               | 101  | 70-130      | 0.05 | 30        |
| Toluene                                             | 22.1   |      | µg/kg wet |      | 20.0                                             |               | 110  | 70-130      | 2    | 30        |

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# Volatile Organic Compounds - Quality Control

| Analyte(s)                                           | Result | Flag | Units     | *RDL | Spike Level                                      | Source Result | %REC | %REC Limits | RPD | RPD Limit |
|------------------------------------------------------|--------|------|-----------|------|--------------------------------------------------|---------------|------|-------------|-----|-----------|
| <b>Batch 1509227 - SW846 5035A Soil (low level)</b>  |        |      |           |      |                                                  |               |      |             |     |           |
| <b><u>LCS Dup (1509227-BSD1)</u></b>                 |        |      |           |      | <b><u>Prepared &amp; Analyzed: 12-May-15</u></b> |               |      |             |     |           |
| 1,2,4-Trimethylbenzene                               | 22.2   |      | µg/kg wet |      | 20.0                                             |               | 111  | 70-130      | 6   | 30        |
| 1,3,5-Trimethylbenzene                               | 20.8   |      | µg/kg wet |      | 20.0                                             |               | 104  | 70-130      | 4   | 30        |
| m,p-Xylene                                           | 20.3   |      | µg/kg wet |      | 20.0                                             |               | 101  | 70-130      | 2   | 30        |
| o-Xylene                                             | 20.9   |      | µg/kg wet |      | 20.0                                             |               | 104  | 70-130      | 0.7 | 30        |
| Surrogate: 4-Bromofluorobenzene                      | 54.5   |      | µg/kg wet |      | 50.0                                             |               | 109  | 70-130      |     |           |
| Surrogate: Toluene-d8                                | 53.3   |      | µg/kg wet |      | 50.0                                             |               | 107  | 70-130      |     |           |
| Surrogate: 1,2-Dichloroethane-d4                     | 45.8   |      | µg/kg wet |      | 50.0                                             |               | 92   | 70-130      |     |           |
| Surrogate: Dibromofluoromethane                      | 54.2   |      | µg/kg wet |      | 50.0                                             |               | 108  | 70-130      |     |           |
| <b>Batch 1509327 - SW846 5035A Soil (high level)</b> |        |      |           |      |                                                  |               |      |             |     |           |
| <b><u>Blank (1509327-BLK1)</u></b>                   |        |      |           |      | <b><u>Prepared &amp; Analyzed: 13-May-15</u></b> |               |      |             |     |           |
| Benzene                                              | < 9.1  | D    | µg/kg wet | 9.1  |                                                  |               |      |             |     |           |
| n-Butylbenzene                                       | < 14.3 | D    | µg/kg wet | 14.3 |                                                  |               |      |             |     |           |
| sec-Butylbenzene                                     | < 39.1 | D    | µg/kg wet | 39.1 |                                                  |               |      |             |     |           |
| tert-Butylbenzene                                    | < 32.8 | D    | µg/kg wet | 32.8 |                                                  |               |      |             |     |           |
| Ethylbenzene                                         | < 8.8  | D    | µg/kg wet | 8.8  |                                                  |               |      |             |     |           |
| Isopropylbenzene                                     | < 9.5  | D    | µg/kg wet | 9.5  |                                                  |               |      |             |     |           |
| 4-Isopropyltoluene                                   | < 46.9 | D    | µg/kg wet | 46.9 |                                                  |               |      |             |     |           |
| Methyl tert-butyl ether                              | < 19.3 | D    | µg/kg wet | 19.3 |                                                  |               |      |             |     |           |
| Naphthalene                                          | < 45.8 | D    | µg/kg wet | 45.8 |                                                  |               |      |             |     |           |
| n-Propylbenzene                                      | < 48.4 | D    | µg/kg wet | 48.4 |                                                  |               |      |             |     |           |
| Toluene                                              | < 11.5 | D    | µg/kg wet | 11.5 |                                                  |               |      |             |     |           |
| 1,2,4-Trimethylbenzene                               | < 12.6 | D    | µg/kg wet | 12.6 |                                                  |               |      |             |     |           |
| 1,3,5-Trimethylbenzene                               | < 14.4 | D    | µg/kg wet | 14.4 |                                                  |               |      |             |     |           |
| m,p-Xylene                                           | < 9.8  | D    | µg/kg wet | 9.8  |                                                  |               |      |             |     |           |
| o-Xylene                                             | < 10.6 | D    | µg/kg wet | 10.6 |                                                  |               |      |             |     |           |
| Surrogate: 4-Bromofluorobenzene                      | 30.4   |      | µg/kg wet |      | 30.0                                             |               | 101  | 70-130      |     |           |
| Surrogate: Toluene-d8                                | 30.1   |      | µg/kg wet |      | 30.0                                             |               | 100  | 70-130      |     |           |
| Surrogate: 1,2-Dichloroethane-d4                     | 27.3   |      | µg/kg wet |      | 30.0                                             |               | 91   | 70-130      |     |           |
| Surrogate: Dibromofluoromethane                      | 29.1   |      | µg/kg wet |      | 30.0                                             |               | 97   | 70-130      |     |           |
| <b><u>LCS (1509327-BS1)</u></b>                      |        |      |           |      | <b><u>Prepared &amp; Analyzed: 13-May-15</u></b> |               |      |             |     |           |
| Benzene                                              | 18.7   | D    | µg/kg wet |      | 20.0                                             |               | 93   | 70-130      |     |           |
| n-Butylbenzene                                       | 18.4   | D    | µg/kg wet |      | 20.0                                             |               | 92   | 70-130      |     |           |
| sec-Butylbenzene                                     | 21.8   | D    | µg/kg wet |      | 20.0                                             |               | 109  | 70-130      |     |           |
| tert-Butylbenzene                                    | 22.1   | D    | µg/kg wet |      | 20.0                                             |               | 110  | 70-130      |     |           |
| Ethylbenzene                                         | 20.1   | D    | µg/kg wet |      | 20.0                                             |               | 100  | 70-130      |     |           |
| Isopropylbenzene                                     | 21.0   | D    | µg/kg wet |      | 20.0                                             |               | 105  | 70-130      |     |           |
| 4-Isopropyltoluene                                   | 19.3   | D    | µg/kg wet |      | 20.0                                             |               | 96   | 70-130      |     |           |
| Methyl tert-butyl ether                              | 17.0   | D    | µg/kg wet |      | 20.0                                             |               | 85   | 70-130      |     |           |
| Naphthalene                                          | 20.2   | D    | µg/kg wet |      | 20.0                                             |               | 101  | 70-130      |     |           |
| n-Propylbenzene                                      | 20.5   | D    | µg/kg wet |      | 20.0                                             |               | 102  | 70-130      |     |           |
| Toluene                                              | 19.4   | D    | µg/kg wet |      | 20.0                                             |               | 97   | 70-130      |     |           |
| 1,2,4-Trimethylbenzene                               | 20.7   | D    | µg/kg wet |      | 20.0                                             |               | 103  | 70-130      |     |           |
| 1,3,5-Trimethylbenzene                               | 20.8   | D    | µg/kg wet |      | 20.0                                             |               | 104  | 70-130      |     |           |
| m,p-Xylene                                           | 20.9   | D    | µg/kg wet |      | 20.0                                             |               | 105  | 70-130      |     |           |
| o-Xylene                                             | 20.8   | D    | µg/kg wet |      | 20.0                                             |               | 104  | 70-130      |     |           |
| Surrogate: 4-Bromofluorobenzene                      | 30.9   |      | µg/kg wet |      | 30.0                                             |               | 103  | 70-130      |     |           |
| Surrogate: Toluene-d8                                | 30.0   |      | µg/kg wet |      | 30.0                                             |               | 100  | 70-130      |     |           |
| Surrogate: 1,2-Dichloroethane-d4                     | 27.2   |      | µg/kg wet |      | 30.0                                             |               | 91   | 70-130      |     |           |
| Surrogate: Dibromofluoromethane                      | 30.1   |      | µg/kg wet |      | 30.0                                             |               | 100  | 70-130      |     |           |
| <b><u>LCS Dup (1509327-BSD1)</u></b>                 |        |      |           |      | <b><u>Prepared &amp; Analyzed: 13-May-15</u></b> |               |      |             |     |           |

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# Volatile Organic Compounds - Quality Control

| Analyte(s)                                           | Result | Flag | Units     | *RDL | Spike Level                                      | Source Result | %REC | %REC Limits | RPD | RPD Limit |
|------------------------------------------------------|--------|------|-----------|------|--------------------------------------------------|---------------|------|-------------|-----|-----------|
| <b>Batch 1509327 - SW846 5035A Soil (high level)</b> |        |      |           |      |                                                  |               |      |             |     |           |
| <b><u>LCS Dup (1509327-BSD1)</u></b>                 |        |      |           |      | <b><u>Prepared &amp; Analyzed: 13-May-15</u></b> |               |      |             |     |           |
| Benzene                                              | 18.6   | D    | µg/kg wet |      | 20.0                                             |               | 93   | 70-130      | 0.6 | 30        |
| n-Butylbenzene                                       | 18.7   | D    | µg/kg wet |      | 20.0                                             |               | 94   | 70-130      | 2   | 30        |
| sec-Butylbenzene                                     | 22.4   | D    | µg/kg wet |      | 20.0                                             |               | 112  | 70-130      | 3   | 30        |
| tert-Butylbenzene                                    | 22.6   | D    | µg/kg wet |      | 20.0                                             |               | 113  | 70-130      | 2   | 30        |
| Ethylbenzene                                         | 20.4   | D    | µg/kg wet |      | 20.0                                             |               | 102  | 70-130      | 2   | 30        |
| Isopropylbenzene                                     | 21.6   | D    | µg/kg wet |      | 20.0                                             |               | 108  | 70-130      | 3   | 30        |
| 4-Isopropyltoluene                                   | 19.2   | D    | µg/kg wet |      | 20.0                                             |               | 96   | 70-130      | 0.2 | 30        |
| Methyl tert-butyl ether                              | 16.7   | D    | µg/kg wet |      | 20.0                                             |               | 84   | 70-130      | 2   | 30        |
| Naphthalene                                          | 19.2   | D    | µg/kg wet |      | 20.0                                             |               | 96   | 70-130      | 5   | 30        |
| n-Propylbenzene                                      | 20.9   | D    | µg/kg wet |      | 20.0                                             |               | 105  | 70-130      | 2   | 30        |
| Toluene                                              | 19.5   | D    | µg/kg wet |      | 20.0                                             |               | 98   | 70-130      | 0.6 | 30        |
| 1,2,4-Trimethylbenzene                               | 21.1   | D    | µg/kg wet |      | 20.0                                             |               | 106  | 70-130      | 2   | 30        |
| 1,3,5-Trimethylbenzene                               | 21.2   | D    | µg/kg wet |      | 20.0                                             |               | 106  | 70-130      | 2   | 30        |
| m,p-Xylene                                           | 20.8   | D    | µg/kg wet |      | 20.0                                             |               | 104  | 70-130      | 0.3 | 30        |
| o-Xylene                                             | 21.4   | D    | µg/kg wet |      | 20.0                                             |               | 107  | 70-130      | 3   | 30        |
| Surrogate: 4-Bromofluorobenzene                      | 31.1   |      | µg/kg wet |      | 30.0                                             |               | 104  | 70-130      |     |           |
| Surrogate: Toluene-d8                                | 30.2   |      | µg/kg wet |      | 30.0                                             |               | 101  | 70-130      |     |           |
| Surrogate: 1,2-Dichloroethane-d4                     | 27.0   |      | µg/kg wet |      | 30.0                                             |               | 90   | 70-130      |     |           |
| Surrogate: Dibromofluoromethane                      | 30.1   |      | µg/kg wet |      | 30.0                                             |               | 100  | 70-130      |     |           |

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## Semivolatile Organic Compounds by GCMS - Quality Control

| Analyte(s)                         | Result | Flag | Units     | *RDL | Spike Level                                    | Source Result | %REC | %REC Limits | RPD | RPD Limit |
|------------------------------------|--------|------|-----------|------|------------------------------------------------|---------------|------|-------------|-----|-----------|
| <b>Batch 1509090 - SW846 3545A</b> |        |      |           |      |                                                |               |      |             |     |           |
| <b><u>Blank (1509090-BLK1)</u></b> |        |      |           |      | <u>Prepared &amp; Analyzed: 11-May-15</u>      |               |      |             |     |           |
| Acenaphthene                       | < 15.5 | U    | µg/kg wet | 15.5 |                                                |               |      |             |     |           |
| Acenaphthylene                     | < 14.1 | U    | µg/kg wet | 14.1 |                                                |               |      |             |     |           |
| Anthracene                         | < 15.2 | U    | µg/kg wet | 15.2 |                                                |               |      |             |     |           |
| Benzo (a) anthracene               | < 13.7 | U    | µg/kg wet | 13.7 |                                                |               |      |             |     |           |
| Benzo (a) pyrene                   | < 13.8 | U    | µg/kg wet | 13.8 |                                                |               |      |             |     |           |
| Benzo (b) fluoranthene             | < 15.1 | U    | µg/kg wet | 15.1 |                                                |               |      |             |     |           |
| Benzo (g,h,i) perylene             | < 14.4 | U    | µg/kg wet | 14.4 |                                                |               |      |             |     |           |
| Benzo (k) fluoranthene             | < 15.1 | U    | µg/kg wet | 15.1 |                                                |               |      |             |     |           |
| Chrysene                           | < 16.2 | U    | µg/kg wet | 16.2 |                                                |               |      |             |     |           |
| Dibenzo (a,h) anthracene           | < 12.2 | U    | µg/kg wet | 12.2 |                                                |               |      |             |     |           |
| Fluoranthene                       | < 16.7 | U    | µg/kg wet | 16.7 |                                                |               |      |             |     |           |
| Fluorene                           | < 15.9 | U    | µg/kg wet | 15.9 |                                                |               |      |             |     |           |
| Indeno (1,2,3-cd) pyrene           | < 13.6 | U    | µg/kg wet | 13.6 |                                                |               |      |             |     |           |
| 1-Methylnaphthalene                | < 16.8 | U    | µg/kg wet | 16.8 |                                                |               |      |             |     |           |
| 2-Methylnaphthalene                | < 13.7 | U    | µg/kg wet | 13.7 |                                                |               |      |             |     |           |
| Naphthalene                        | < 13.5 | U    | µg/kg wet | 13.5 |                                                |               |      |             |     |           |
| Phenanthrene                       | < 16.2 | U    | µg/kg wet | 16.2 |                                                |               |      |             |     |           |
| Pyrene                             | < 14.1 | U    | µg/kg wet | 14.1 |                                                |               |      |             |     |           |
| <i>Surrogate: 2-Fluorobiphenyl</i> | 1230   |      | µg/kg wet |      | 1660                                           |               | 74   | 30-130      |     |           |
| <i>Surrogate: Terphenyl-dl4</i>    | 1290   |      | µg/kg wet |      | 1660                                           |               | 78   | 30-130      |     |           |
| <i>Surrogate: Nitrobenzene-d5</i>  | 1280   |      | µg/kg wet |      | 1660                                           |               | 77   | 30-130      |     |           |
| <b><u>LCS (1509090-BS1)</u></b>    |        |      |           |      | <u>Prepared: 11-May-15 Analyzed: 12-May-15</u> |               |      |             |     |           |
| Acenaphthene                       | 1120   |      | µg/kg wet | 15.4 | 1650                                           |               | 68   | 40-140      |     |           |
| Acenaphthylene                     | 1180   |      | µg/kg wet | 14.0 | 1650                                           |               | 71   | 40-140      |     |           |
| Anthracene                         | 1290   |      | µg/kg wet | 15.1 | 1650                                           |               | 78   | 40-140      |     |           |
| Benzo (a) anthracene               | 1230   |      | µg/kg wet | 13.7 | 1650                                           |               | 75   | 40-140      |     |           |
| Benzo (a) pyrene                   | 1350   |      | µg/kg wet | 13.8 | 1650                                           |               | 82   | 40-140      |     |           |
| Benzo (b) fluoranthene             | 1420   |      | µg/kg wet | 15.1 | 1650                                           |               | 86   | 40-140      |     |           |
| Benzo (g,h,i) perylene             | 1230   |      | µg/kg wet | 14.3 | 1650                                           |               | 75   | 40-140      |     |           |
| Benzo (k) fluoranthene             | 1260   |      | µg/kg wet | 15.1 | 1650                                           |               | 76   | 40-140      |     |           |
| Chrysene                           | 1270   |      | µg/kg wet | 16.2 | 1650                                           |               | 77   | 40-140      |     |           |
| Dibenzo (a,h) anthracene           | 1260   |      | µg/kg wet | 12.1 | 1650                                           |               | 76   | 40-140      |     |           |
| Fluoranthene                       | 1280   |      | µg/kg wet | 16.6 | 1650                                           |               | 78   | 40-140      |     |           |
| Fluorene                           | 1210   |      | µg/kg wet | 15.8 | 1650                                           |               | 73   | 40-140      |     |           |
| Indeno (1,2,3-cd) pyrene           | 1390   |      | µg/kg wet | 13.5 | 1650                                           |               | 84   | 40-140      |     |           |
| 1-Methylnaphthalene                | 1070   |      | µg/kg wet | 16.7 | 1650                                           |               | 65   | 40-140      |     |           |
| 2-Methylnaphthalene                | 1110   |      | µg/kg wet | 13.6 | 1650                                           |               | 67   | 40-140      |     |           |
| Naphthalene                        | 952    |      | µg/kg wet | 13.5 | 1650                                           |               | 58   | 40-140      |     |           |
| Phenanthrene                       | 1230   |      | µg/kg wet | 16.1 | 1650                                           |               | 75   | 40-140      |     |           |
| Pyrene                             | 1310   |      | µg/kg wet | 14.1 | 1650                                           |               | 79   | 40-140      |     |           |
| <i>Surrogate: 2-Fluorobiphenyl</i> | 1140   |      | µg/kg wet |      | 1650                                           |               | 69   | 30-130      |     |           |
| <i>Surrogate: Terphenyl-dl4</i>    | 1340   |      | µg/kg wet |      | 1650                                           |               | 81   | 30-130      |     |           |
| <i>Surrogate: Nitrobenzene-d5</i>  | 1100   |      | µg/kg wet |      | 1650                                           |               | 66   | 30-130      |     |           |

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## General Chemistry Parameters - Quality Control

| Analyte(s)                                 | Result | Flag | Units | *RDL                      | Spike Level | Source Result                             | %REC | %REC Limits | RPD | RPD Limit |
|--------------------------------------------|--------|------|-------|---------------------------|-------------|-------------------------------------------|------|-------------|-----|-----------|
| <b>Batch 1509145 - General Preparation</b> |        |      |       |                           |             |                                           |      |             |     |           |
| <u>Duplicate (1509145-DUP2)</u>            |        |      |       | <u>Source: SC07188-01</u> |             | <u>Prepared &amp; Analyzed: 11-May-15</u> |      |             |     |           |
| % Solids                                   | 80.3   |      | %     |                           |             | 77.9                                      |      |             | 3   | 5         |

**The following list indicates the date and time low-level VOC soil/sediment samples were placed in the freezer at the lab:**

|            |                         |                  |
|------------|-------------------------|------------------|
| SC07188-01 | <i>East Berm</i>        | 5/8/2015 5:57 PM |
| SC07188-02 | <i>East Berm - Dupe</i> | 5/8/2015 5:57 PM |
| SC07188-03 | <i>West Berm</i>        | 5/8/2015 5:57 PM |
| SC07188-04 | <i>West Berm - Dupe</i> | 5/8/2015 5:57 PM |

## Notes and Definitions

|     |                                                                                                                                                            |
|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| D   | Data reported from a dilution                                                                                                                              |
| J   | Detected above the Method Detection Limit but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).                     |
| JL  | Estimated Concentration is potentially biased low (per NYSDEC).                                                                                            |
| R01 | The Reporting Limit has been raised to account for matrix interference.                                                                                    |
| R05 | Elevated Reporting Limits due to the presence of high levels of non-target analytes; sample may not meet client requested reporting limit for this reason. |
| U   | Analyte included in the analysis, but not detected at or above the MDL.                                                                                    |
| UJL | Non-detect is potentially biased low (per NYSDEC).                                                                                                         |
| dry | Sample results reported on a dry weight basis                                                                                                              |
| NR  | Not Reported                                                                                                                                               |
| RPD | Relative Percent Difference                                                                                                                                |

Laboratory Control Sample (LCS): A known matrix spiked with compound(s) representative of the target analytes, which is used to document laboratory performance.

Matrix Duplicate: An intra-laboratory split sample which is used to document the precision of a method in a given sample matrix.

Matrix Spike: An aliquot of a sample spiked with a known concentration of target analyte(s). The spiking occurs prior to sample preparation and analysis. A matrix spike is used to document the bias of a method in a given sample matrix.

Method Blank: An analyte-free matrix to which all reagents are added in the same volumes or proportions as used in sample processing. The method blank should be carried through the complete sample preparation and analytical procedure. The method blank is used to document contamination resulting from the analytical process.

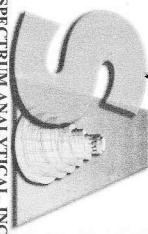
Method Detection Limit (MDL): The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix type containing the analyte.

Reportable Detection Limit (RDL): The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. For many analytes the RDL analyte concentration is selected as the lowest non-zero standard in the calibration curve. While the RDL is approximately 5 to 10 times the MDL, the RDL for each sample takes into account the sample volume/weight, extract/digestate volume, cleanup procedures and, if applicable, dry weight correction. Sample RDLs are highly matrix-dependent.

Surrogate: An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. These compounds are spiked into all blanks, standards, and samples prior to analysis. Percent recoveries are calculated for each surrogate.

Continuing Calibration Verification: The calibration relationship established during the initial calibration must be verified at periodic intervals. Concentrations, intervals, and criteria are method specific.

Validated by:  
June O'Connor  
Rebecca Merz



SPECTRUM ANALYTICAL, INC.  
Featuring  
HANBAL TECHNOLOGY

# CHAIN OF CUSTODY RECORD

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## Special Handling:

- ☒ Standard TAT - 7 to 10 business days
- ☐ Rush TAT - Date Needed: \_\_\_\_\_
- All TATs subject to laboratory approval
- Min. 24-hr notification needed for rushes
- Samples disposed after 60 days unless otherwise instructed.

Report To: Attn: Greg Lesiak

Invoice To: BTL

Project No: 1537.005.CO1

Barton and Loggins  
11 Centre Ave Suite 203  
Peabody, NY 14614

Site Name: Pierper Miller Ave.

Telephone #: 585-325-7110

Location: Syracuse, NY

State: NY

Project Mgr: Greg Lesiak

P.O. No.: \_\_\_\_\_  
Quote/RO#: \_\_\_\_\_

F=Field Filtered 1=Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub> 2=HCl 3=H<sub>2</sub>SO<sub>4</sub> 4=HNO<sub>3</sub> 5=NaOH 6=Ascorbic Acid  
7=CH<sub>3</sub>OH 8=NaHSO<sub>4</sub> 9=Deionized Water 10=H<sub>3</sub>PO<sub>4</sub> 11= Nut 12= \_\_\_\_\_

List Preservative Code below:

QA/QC Reporting Notes:  
\* additional charges may apply

DW=Drinking Water GW=Groundwater SW=Surface Water WW=Waste Water  
O=Oil SO=Soil SL=Sludge A=Indoor/Ambient Air SG=Soil Gas  
X1= \_\_\_\_\_ X2= \_\_\_\_\_ X3= \_\_\_\_\_

G=Grab C=Composite

Containers: # of VOA Vials, # of Amber Glass, # of Clear Glass, # of Plastic

MA DEF MCP CAM Report? ☐ Yes ☐ No  
CT DPH RCP Report? ☐ Yes ☐ No  
Standard ☐ No QC ☐  
QA/QC: ☐ DQA\* ☐ ASP A\* ☐ ASP B\* ☐ NJ Reduced\* ☐ NJ Full\* ☐ Tier II\* ☐ Tier IV\*  
Other: \_\_\_\_\_  
State-specific reporting standards: \_\_\_\_\_

Lab ID: \_\_\_\_\_ Sample ID: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Type \_\_\_\_\_ Matrix \_\_\_\_\_

Check if chlorinated ☐

8507188-21 East Burn 5/6/15 8:51 C SO 2 8270 500LS STARS 8200 500LS STARS

02 East Burn - Dye 8:51 C SO 2 8270 500LS STARS 8200 500LS STARS

03 West Burn 9:45 C SO 2 8270 500LS STARS 8200 500LS STARS

04 West Burn - Dye 9:45 C SO 2 8270 500LS STARS 8200 500LS STARS

Relinquished by: \_\_\_\_\_ Received by: \_\_\_\_\_

Date: \_\_\_\_\_ Time: \_\_\_\_\_

Temp °C \_\_\_\_\_

☐ EDD format: \_\_\_\_\_

☒ E-mail to: glsiak@bartonandloggins.com

5/6/15 11:30 2.3 0 Corrected

5/6/15 7:05 2.3 0 Corrected

5/7/15 16:25 2.3 0 Corrected

☐ Condition upon receipt: \_\_\_\_\_

☐ Custody Seals: ☐ Present ☐ Intact ☐ Broken





Report Date:  
18-May-15 13:16



SPECTRUM ANALYTICAL, INC.

## Laboratory Report

- ☒ Final Report  
☐ Re-Issued Report  
☐ Revised Report

Barton & Loguidice, D.P.C.  
11 Centre Park Suite 203  
Rochester, NY 14614  
Attn: Greg Lesniak

Project: Pioneer Midler Ave - Syracuse, NY  
Project #: 1537.005.001

| <u>Laboratory ID</u> | <u>Client Sample ID</u> | <u>Matrix</u> | <u>Date Sampled</u> | <u>Date Received</u> |
|----------------------|-------------------------|---------------|---------------------|----------------------|
| SC07186-01           | East Berm               | Soil          | 06-May-15 10:30     | 06-May-15 11:30      |
| SC07186-02           | East Berm - Dupe        | Soil          | 06-May-15 10:30     | 06-May-15 11:30      |
| SC07186-03           | West Berm - Dupe        | Soil          | 06-May-15 10:45     | 06-May-15 11:30      |
| SC07186-04           | West Berm               | Soil          | 06-May-15 10:45     | 06-May-15 11:30      |

I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. These results relate only to the sample(s) as received.  
All applicable NELAC requirements have been met.

Massachusetts # M-MA138/MA1110  
Connecticut # PH-0777  
Florida # E87936  
Maine # MA138  
New Hampshire # 2538  
New Jersey # MA011  
New York # 11393  
Pennsylvania # 68-04426/68-02924  
Rhode Island # LAO00098  
USDA # S-51435



Authorized by:

Nicole Leja  
Laboratory Director

Spectrum Analytical holds certification in the State of New York for the analytes as indicated with an X in the "Cert." column within this report. Please note that the State of New York does not offer certification for all analytes. Please refer to our website for specific certification holdings in each state.

Please note that this report contains 32 pages of analytical data plus Chain of Custody document(s). When the Laboratory Report is indicated as revised, this report supersedes any previously dated reports for the laboratory ID(s) referenced above. Where this report identifies subcontracted analyses, copies of the subcontractor's test report are available upon request. This report may not be reproduced, except in full, without written approval from Spectrum Analytical, Inc.

*Spectrum Analytical, Inc. is a NELAC accredited laboratory organization and meets NELAC testing standards. Use of the NELAC logo however does not insure that Spectrum is currently accredited for the specific method or analyte indicated. Please refer to our Quality web page at [www.spectrum-analytical.com](http://www.spectrum-analytical.com) for a full listing of our current certifications and fields of accreditation. States in which Spectrum Analytical, Inc. holds NELAC certification are New York, New Hampshire, New Jersey, Pennsylvania and Florida. All analytical work for Volatile Organic and Air analysis are transferred to and conducted at our 830 Silver Street location (PA-68-04426).*

*Please contact the Laboratory or Technical Director at 800-789-9115 with any questions regarding the data contained in this laboratory report.*

## CASE NARRATIVE:

Data has been reported to the MDL. This report includes estimated concentrations detected below the RDL and above the MDL (J-Flag).

All non-detects and all results below the detection limit are reported as "<" (less than) the detection limit in this report.

The samples were received 12.5 degrees Celsius, please refer to the Chain of Custody for details specific to temperature upon receipt. An infrared thermometer with a tolerance of +/- 1.0 degrees Celsius was used immediately upon receipt of the samples.

If a Matrix Spike (MS), Matrix Spike Duplicate (MSD) or Duplicate (DUP) was not requested on the Chain of Custody, method criteria may have been fulfilled with a source sample not of this Sample Delivery Group.

All VOC soils samples submitted and analyzed in methanol will have a minimum dilution factor of 50. This is the minimum amount of solvent allowed on the instrumentation without causing interference. Soils are run on a manual load instrument. 100ug of sample (MEOH) is spiked into 5ml DI water along with the surrogate and added directly onto the instrument. Additional dilution factors may be required to keep analyte concentration within instrument calibration range.

Analyses for Total Hardness, pH, and Total Residual Chlorine fall under the state of Pennsylvania code Chapter 252.6 accreditation by rule.

### **Reactivity (40 CFR 261.23) Case Narrative:**

These samples do not exhibit the characteristics of reactivity as defined in 40 CFR 261.23, sections (1), (2) and (4); however, Spectrum Analytical, Inc. does not test for detonation, explosive reaction or potential, or forbidden explosives as defined in 40 CFR 261.23, sections (3), (6), (7) and (8).

Reactive sulfide and cyanide are tested at a pH of 2 and not tested at all conditions between pH 2 and 12.5 as stated in 40 CFR 261.23, section (5); thus reactive cyanide and sulfide results as reported in this document can not be used to support the nonreactive properties of these samples.

The responsibility falls on the generator to use knowledge of the waste to determine if the waste meets or does not meet the descriptive, prose definition of reactivity.

**See below for any non-conformances and issues relating to quality control samples and/or sample analysis/matrix.**

## **SW846 1030**

### **Samples:**

---

|            |                  |
|------------|------------------|
| SC07186-01 | <i>East Berm</i> |
|------------|------------------|

---

A hold time of 24 hours has been set to expedite the analyses through the laboratory. However, the hold time for Ignitability is not specified within the method other than to state that the samples should be analyzed as soon as possible.

Ignitability by Definition

---

|            |                         |
|------------|-------------------------|
| SC07186-02 | <i>East Berm - Dupe</i> |
|------------|-------------------------|

---

A hold time of 24 hours has been set to expedite the analyses through the laboratory. However, the hold time for Ignitability is not specified within the method other than to state that the samples should be analyzed as soon as possible.

Ignitability by Definition

---

|            |                         |
|------------|-------------------------|
| SC07186-03 | <i>West Berm - Dupe</i> |
|------------|-------------------------|

---

A hold time of 24 hours has been set to expedite the analyses through the laboratory. However, the hold time for Ignitability is not specified within the method other than to state that the samples should be analyzed as soon as possible.

Ignitability by Definition

---

|            |                  |
|------------|------------------|
| SC07186-04 | <i>West Berm</i> |
|------------|------------------|

---

## **SW846 1030**

### **Samples:**

SC07186-04      *West Berm*

---

A hold time of 24 hours has been set to expedite the analyses through the laboratory. However, the hold time for Ignitability is not specified within the method other than to state that the samples should be analyzed as soon as possible.

Ignitability by Definition

## **SW846 1311/7470A**

S504734-CRL2

---

Standard was rerun and passed within the method criteria

Mercury

## **SW846 1311/8270D**

### **Calibration:**

1505031

---

Analyte quantified by quadratic equation type calibration.

2,4-Dinitrophenol  
4,6-Dinitro-2-methylphenol  
4-Nitrophenol  
Benzoic acid

This affected the following samples:

1509444-BLK1  
1509444-BS1  
1509444-BSD1  
East Berm  
East Berm - Dupe  
S504308-ICV1  
S504640-CCV1  
West Berm  
West Berm - Dupe

### **Laboratory Control Samples:**

1509444 BS/BSD

---

4-Chloroaniline percent recoveries (34/30) are outside individual acceptance criteria (40-140), but within overall method allowances. All reported results of the following samples are considered to have a potentially low bias:

East Berm  
East Berm - Dupe  
West Berm  
West Berm - Dupe

Aniline percent recoveries (29/32) are outside individual acceptance criteria (40-140), but within overall method allowances. All reported results of the following samples are considered to have a potentially low bias:

East Berm  
East Berm - Dupe  
West Berm  
West Berm - Dupe

## **SW846 1311/8270D**

### **Laboratory Control Samples:**

1509444 BS/BSD

---

Benzidine percent recoveries (12/17) are outside individual acceptance criteria (40-140), but within overall method allowances.  
All reported results of the following samples are considered to have a potentially low bias:

East Berm  
East Berm - Dupe  
West Berm  
West Berm - Dupe

1509444 BSD

---

3-Nitroaniline RPD 22% (20%) is outside individual acceptance criteria.

Benzidine RPD 30% (20%) is outside individual acceptance criteria.

Benzyl alcohol RPD 25% (20%) is outside individual acceptance criteria.

### **Samples:**

S504640-CCV1

---

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

Benzidine (-51.2%)

Analyte percent drift is outside individual acceptance criteria (20), but within overall method allowances.

4-Nitrophenol (39.0%)

This affected the following samples:

1509444-BLK1  
1509444-BS1  
1509444-BSD1  
East Berm  
East Berm - Dupe  
West Berm  
West Berm - Dupe

## Sample Acceptance Check Form

Client: Barton & Loguidice, D.P.C. - Rochester, NY  
Project: Pioneer Midler Ave - Syracuse, NY / 1537.005.001  
Work Order: SC07186  
Sample(s) received on: 5/6/2015

*The following outlines the condition of samples for the attached Chain of Custody upon receipt.*

|                                                                                                                                                                                                                                                                                      | <u>Yes</u>                          | <u>No</u>                           | <u>N/A</u>                          |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| Were custody seals present?                                                                                                                                                                                                                                                          | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Were custody seals intact?                                                                                                                                                                                                                                                           | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Were samples received at a temperature of $\leq 6^{\circ}\text{C}$ ?                                                                                                                                                                                                                 | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Were samples cooled on ice upon transfer to laboratory representative?                                                                                                                                                                                                               | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| Were sample containers received intact?                                                                                                                                                                                                                                              | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| Were samples properly labeled (labels affixed to sample containers and include sample ID, site location, and/or project number and the collection date)?                                                                                                                             | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| Were samples accompanied by a Chain of Custody document?                                                                                                                                                                                                                             | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| Does Chain of Custody document include proper, full, and complete documentation, which shall include sample ID, site location, and/or project number, date and time of collection, collector's name, preservation type, sample matrix and any special remarks concerning the sample? | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| Did sample container labels agree with Chain of Custody document?                                                                                                                                                                                                                    | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| Were samples received within method-specific holding times?                                                                                                                                                                                                                          | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |

Sample Identification

East Berm

SC07186-01

Client Project #

1537.005.001

Matrix

Soil

Collection Date/Time

06-May-15 10:30

Received

06-May-15

| <u>CAS No.</u> | <u>Analyte(s)</u> | <u>Result</u> | <u>Flag</u> | <u>Units</u> | <u>*RDL</u> | <u>MDL</u> | <u>Dilution</u> | <u>Method Ref.</u> | <u>Prepared</u> | <u>Analyzed</u> | <u>Analyst</u> | <u>Batch</u> | <u>Cert.</u> |
|----------------|-------------------|---------------|-------------|--------------|-------------|------------|-----------------|--------------------|-----------------|-----------------|----------------|--------------|--------------|
|----------------|-------------------|---------------|-------------|--------------|-------------|------------|-----------------|--------------------|-----------------|-----------------|----------------|--------------|--------------|

**Volatile Organic Compounds**

TCLP Extraction

Completed

N/A

1

SW846 1311

13-May-1  
514-May-1  
5

BD

1509403

X

TCLP Volatile Organic CompoundsPrepared by method SW846 5030 Water MSInitial weight: 5 ml

|          |                      |       |      |      |      |     |   |                     |               |               |     |         |   |
|----------|----------------------|-------|------|------|------|-----|---|---------------------|---------------|---------------|-----|---------|---|
| 71-43-2  | Benzene              | < 0.9 | U, D | µg/l | 5.0  | 0.9 | 5 | SW846<br>1311/8260C | 15-May-1<br>5 | 15-May-1<br>5 | GMA | 1509535 | X |
| 78-93-3  | 2-Butanone (MEK)     | < 6.2 | U, D | µg/l | 50.0 | 6.2 | 5 | "                   | "             | "             | "   | "       | X |
| 56-23-5  | Carbon tetrachloride | < 1.1 | U, D | µg/l | 5.0  | 1.1 | 5 | "                   | "             | "             | "   | "       | X |
| 108-90-7 | Chlorobenzene        | < 1.0 | U, D | µg/l | 5.0  | 1.0 | 5 | "                   | "             | "             | "   | "       | X |
| 67-66-3  | Chloroform           | < 2.0 | U, D | µg/l | 5.0  | 2.0 | 5 | "                   | "             | "             | "   | "       | X |
| 106-46-7 | 1,4-Dichlorobenzene  | < 1.2 | U, D | µg/l | 5.0  | 1.2 | 5 | "                   | "             | "             | "   | "       | X |
| 107-06-2 | 1,2-Dichloroethane   | < 0.8 | U, D | µg/l | 5.0  | 0.8 | 5 | "                   | "             | "             | "   | "       | X |
| 75-35-4  | 1,1-Dichloroethene   | < 1.4 | U, D | µg/l | 5.0  | 1.4 | 5 | "                   | "             | "             | "   | "       | X |
| 87-68-3  | Hexachlorobutadiene  | < 2.0 | U, D | µg/l | 2.5  | 2.0 | 5 | "                   | "             | "             | "   | "       | X |
| 127-18-4 | Tetrachloroethene    | 9.9   | D    | µg/l | 5.0  | 2.9 | 5 | "                   | "             | "             | "   | "       | X |
| 79-01-6  | Trichloroethene      | < 1.9 | U, D | µg/l | 5.0  | 1.9 | 5 | "                   | "             | "             | "   | "       | X |
| 75-01-4  | Vinyl chloride       | < 1.7 | U, D | µg/l | 5.0  | 1.7 | 5 | "                   | "             | "             | "   | "       | X |

Surrogate recoveries:

|            |                       |     |  |  |          |  |  |   |   |   |   |   |  |
|------------|-----------------------|-----|--|--|----------|--|--|---|---|---|---|---|--|
| 460-00-4   | 4-Bromofluorobenzene  | 94  |  |  | 70-130 % |  |  | " | " | " | " | " |  |
| 2037-26-5  | Toluene-d8            | 95  |  |  | 70-130 % |  |  | " | " | " | " | " |  |
| 17060-07-0 | 1,2-Dichloroethane-d4 | 111 |  |  | 70-130 % |  |  | " | " | " | " | " |  |
| 1868-53-7  | Dibromofluoromethane  | 97  |  |  | 70-130 % |  |  | " | " | " | " | " |  |

**Semivolatile Organic Compounds by GCMS**TCLP Extraction for SemivolatilesPrepared by method SW846 1311

TCLP Extraction

Completed

N/A

1

SW846 1311

11-May-15

12-May-1  
5

BD

1509197

X

Final pH of leachate

6.57

N/A

1

"

"

"

"

"

TCLP SemivolatilesPrepared by method SW846 3535A

|          |                                |        |   |      |      |      |   |                     |               |               |     |         |   |
|----------|--------------------------------|--------|---|------|------|------|---|---------------------|---------------|---------------|-----|---------|---|
| 83-32-9  | Acenaphthene                   | < 2.13 | U | µg/l | 5.00 | 2.13 | 1 | SW846<br>1311/8270D | 14-May-1<br>5 | 14-May-1<br>5 | MSL | 1509444 | X |
| 208-96-8 | Acenaphthylene                 | < 2.16 | U | µg/l | 5.00 | 2.16 | 1 | "                   | "             | "             | "   | "       | X |
| 62-53-3  | Aniline                        | < 2.34 | U | µg/l | 5.00 | 2.34 | 1 | "                   | "             | "             | "   | "       | X |
| 120-12-7 | Anthracene                     | < 2.33 | U | µg/l | 5.00 | 2.33 | 1 | "                   | "             | "             | "   | "       | X |
| 103-33-3 | Azobenzene/Diphenyldiaz<br>ene | < 2.46 | U | µg/l | 5.00 | 2.46 | 1 | "                   | "             | "             | "   | "       |   |
| 92-87-5  | Benzidine                      | < 2.68 | U | µg/l | 5.00 | 2.68 | 1 | "                   | "             | "             | "   | "       | X |
| 56-55-3  | Benzo (a) anthracene           | < 2.26 | U | µg/l | 5.00 | 2.26 | 1 | "                   | "             | "             | "   | "       | X |
| 50-32-8  | Benzo (a) pyrene               | < 2.40 | U | µg/l | 5.00 | 2.40 | 1 | "                   | "             | "             | "   | "       | X |
| 205-99-2 | Benzo (b) fluoranthene         | < 2.08 | U | µg/l | 5.00 | 2.08 | 1 | "                   | "             | "             | "   | "       | X |
| 191-24-2 | Benzo (g,h,i) perylene         | < 2.40 | U | µg/l | 5.00 | 2.40 | 1 | "                   | "             | "             | "   | "       | X |
| 207-08-9 | Benzo (k) fluoranthene         | < 2.73 | U | µg/l | 5.00 | 2.73 | 1 | "                   | "             | "             | "   | "       | X |
| 65-85-0  | Benzoic acid                   | < 1.98 | U | µg/l | 5.00 | 1.98 | 1 | "                   | "             | "             | "   | "       | X |
| 100-51-6 | Benzyl alcohol                 | < 2.14 | U | µg/l | 5.00 | 2.14 | 1 | "                   | "             | "             | "   | "       | X |
| 111-91-1 | Bis(2-chloroethoxy)metha<br>ne | < 2.23 | U | µg/l | 5.00 | 2.23 | 1 | "                   | "             | "             | "   | "       | X |
| 111-44-4 | Bis(2-chloroethyl)ether        | < 2.14 | U | µg/l | 5.00 | 2.14 | 1 | "                   | "             | "             | "   | "       | X |

*This laboratory report is not valid without an authorized signature on the cover page.*

Sample Identification

East Berm

SC07186-01

Client Project #

1537.005.001

Matrix

Soil

Collection Date/Time

06-May-15 10:30

Received

06-May-15

| <u>CAS No.</u>                                | <u>Analyte(s)</u>           | <u>Result</u> | <u>Flag</u> | <u>Units</u> | <u>*RDL</u> | <u>MDL</u> | <u>Dilution</u> | <u>Method Ref.</u>  | <u>Prepared</u> | <u>Analyzed</u> | <u>Analyst</u> | <u>Batch</u> | <u>Cert.</u> |
|-----------------------------------------------|-----------------------------|---------------|-------------|--------------|-------------|------------|-----------------|---------------------|-----------------|-----------------|----------------|--------------|--------------|
| <b>Semivolatile Organic Compounds by GCMS</b> |                             |               |             |              |             |            |                 |                     |                 |                 |                |              |              |
| <b>TCLP Semivolatiles</b>                     |                             |               |             |              |             |            |                 |                     |                 |                 |                |              |              |
| <u>Prepared by method SW846 3535A</u>         |                             |               |             |              |             |            |                 |                     |                 |                 |                |              |              |
| 108-60-1                                      | Bis(2-chloroisopropyl)ether | < 2.22        | U           | µg/l         | 5.00        | 2.22       | 1               | SW846<br>1311/8270D | 14-May-1<br>5   | 14-May-1<br>5   | MSL            | 1509444      | X            |
| 117-81-7                                      | Bis(2-ethylhexyl)phthalate  | < 2.34        | U           | µg/l         | 5.00        | 2.34       | 1               | "                   | "               | "               | "              | "            | X            |
| 101-55-3                                      | 4-Bromophenyl phenyl ether  | < 2.26        | U           | µg/l         | 5.00        | 2.26       | 1               | "                   | "               | "               | "              | "            | X            |
| 85-68-7                                       | Butyl benzyl phthalate      | < 2.63        | U           | µg/l         | 5.00        | 2.63       | 1               | "                   | "               | "               | "              | "            | X            |
| 86-74-8                                       | Carbazole                   | < 2.63        | U           | µg/l         | 5.00        | 2.63       | 1               | "                   | "               | "               | "              | "            | X            |
| 59-50-7                                       | 4-Chloro-3-methylphenol     | < 2.43        | U           | µg/l         | 5.00        | 2.43       | 1               | "                   | "               | "               | "              | "            | X            |
| 106-47-8                                      | 4-Chloroaniline             | < 2.63        | U           | µg/l         | 5.00        | 2.63       | 1               | "                   | "               | "               | "              | "            | X            |
| 91-58-7                                       | 2-Chloronaphthalene         | < 2.00        | U           | µg/l         | 5.00        | 2.00       | 1               | "                   | "               | "               | "              | "            | X            |
| 95-57-8                                       | 2-Chlorophenol              | < 2.03        | U           | µg/l         | 5.00        | 2.03       | 1               | "                   | "               | "               | "              | "            | X            |
| 7005-72-3                                     | 4-Chlorophenyl phenyl ether | < 2.34        | U           | µg/l         | 5.00        | 2.34       | 1               | "                   | "               | "               | "              | "            | X            |
| 218-01-9                                      | Chrysene                    | < 2.33        | U           | µg/l         | 5.00        | 2.33       | 1               | "                   | "               | "               | "              | "            | X            |
| 53-70-3                                       | Dibenzo (a,h) anthracene    | < 2.52        | U           | µg/l         | 5.00        | 2.52       | 1               | "                   | "               | "               | "              | "            | X            |
| 132-64-9                                      | Dibenzofuran                | < 2.15        | U           | µg/l         | 5.00        | 2.15       | 1               | "                   | "               | "               | "              | "            | X            |
| 95-50-1                                       | 1,2-Dichlorobenzene         | < 2.05        | U           | µg/l         | 5.00        | 2.05       | 1               | "                   | "               | "               | "              | "            | X            |
| 541-73-1                                      | 1,3-Dichlorobenzene         | < 2.02        | U           | µg/l         | 5.00        | 2.02       | 1               | "                   | "               | "               | "              | "            | X            |
| 106-46-7                                      | 1,4-Dichlorobenzene         | < 2.02        | U           | µg/l         | 5.00        | 2.02       | 1               | "                   | "               | "               | "              | "            | X            |
| 91-94-1                                       | 3,3'-Dichlorobenzidine      | < 2.22        | U           | µg/l         | 5.00        | 2.22       | 1               | "                   | "               | "               | "              | "            | X            |
| 120-83-2                                      | 2,4-Dichlorophenol          | < 1.84        | U           | µg/l         | 5.00        | 1.84       | 1               | "                   | "               | "               | "              | "            | X            |
| 84-66-2                                       | Diethyl phthalate           | < 2.38        | U           | µg/l         | 5.00        | 2.38       | 1               | "                   | "               | "               | "              | "            | X            |
| 131-11-3                                      | Dimethyl phthalate          | < 2.28        | U           | µg/l         | 5.00        | 2.28       | 1               | "                   | "               | "               | "              | "            | X            |
| 105-67-9                                      | 2,4-Dimethylphenol          | < 2.12        | U           | µg/l         | 5.00        | 2.12       | 1               | "                   | "               | "               | "              | "            | X            |
| 84-74-2                                       | Di-n-butyl phthalate        | < 2.62        | U           | µg/l         | 5.00        | 2.62       | 1               | "                   | "               | "               | "              | "            | X            |
| 534-52-1                                      | 4,6-Dinitro-2-methylphenol  | < 2.50        | U           | µg/l         | 5.00        | 2.50       | 1               | "                   | "               | "               | "              | "            | X            |
| 51-28-5                                       | 2,4-Dinitrophenol           | < 1.87        | U           | µg/l         | 5.00        | 1.87       | 1               | "                   | "               | "               | "              | "            | X            |
| 121-14-2                                      | 2,4-Dinitrotoluene          | < 2.38        | U           | µg/l         | 5.00        | 2.38       | 1               | "                   | "               | "               | "              | "            | X            |
| 606-20-2                                      | 2,6-Dinitrotoluene          | < 2.30        | U           | µg/l         | 5.00        | 2.30       | 1               | "                   | "               | "               | "              | "            | X            |
| 117-84-0                                      | Di-n-octyl phthalate        | < 2.79        | U           | µg/l         | 5.00        | 2.79       | 1               | "                   | "               | "               | "              | "            | X            |
| 206-44-0                                      | Fluoranthene                | < 2.32        | U           | µg/l         | 5.00        | 2.32       | 1               | "                   | "               | "               | "              | "            | X            |
| 86-73-7                                       | Fluorene                    | < 2.31        | U           | µg/l         | 5.00        | 2.31       | 1               | "                   | "               | "               | "              | "            | X            |
| 118-74-1                                      | Hexachlorobenzene           | < 2.15        | U           | µg/l         | 5.00        | 2.15       | 1               | "                   | "               | "               | "              | "            | X            |
| 87-68-3                                       | Hexachlorobutadiene         | < 2.03        | U           | µg/l         | 5.00        | 2.03       | 1               | "                   | "               | "               | "              | "            | X            |
| 77-47-4                                       | Hexachlorocyclopentadiene   | < 1.55        | U           | µg/l         | 5.00        | 1.55       | 1               | "                   | "               | "               | "              | "            | X            |
| 67-72-1                                       | Hexachloroethane            | < 2.15        | U           | µg/l         | 5.00        | 2.15       | 1               | "                   | "               | "               | "              | "            | X            |
| 193-39-5                                      | Indeno (1,2,3-cd) pyrene    | < 2.30        | U           | µg/l         | 5.00        | 2.30       | 1               | "                   | "               | "               | "              | "            | X            |
| 78-59-1                                       | Isophorone                  | < 2.62        | U           | µg/l         | 5.00        | 2.62       | 1               | "                   | "               | "               | "              | "            | X            |
| 91-57-6                                       | 2-Methylnaphthalene         | < 2.19        | U           | µg/l         | 5.00        | 2.19       | 1               | "                   | "               | "               | "              | "            | X            |
| 95-48-7                                       | 2-Methylphenol              | < 2.14        | U           | µg/l         | 5.00        | 2.14       | 1               | "                   | "               | "               | "              | "            | X            |
| 108-39-4,<br>106-44-5                         | 3 & 4-Methylphenol          | < 2.22        | U           | µg/l         | 10.0        | 2.22       | 1               | "                   | "               | "               | "              | "            | X            |
| 91-20-3                                       | Naphthalene                 | < 2.04        | U           | µg/l         | 5.00        | 2.04       | 1               | "                   | "               | "               | "              | "            | X            |
| 88-74-4                                       | 2-Nitroaniline              | < 2.34        | U           | µg/l         | 5.00        | 2.34       | 1               | "                   | "               | "               | "              | "            | X            |
| 99-09-2                                       | 3-Nitroaniline              | < 2.72        | U           | µg/l         | 5.00        | 2.72       | 1               | "                   | "               | "               | "              | "            | X            |
| 100-01-6                                      | 4-Nitroaniline              | < 2.62        | U           | µg/l         | 5.00        | 2.62       | 1               | "                   | "               | "               | "              | "            | X            |

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Sample Identification

East Berm

SC07186-01

Client Project #

1537.005.001

Matrix

Soil

Collection Date/Time

06-May-15 10:30

Received

06-May-15

| <i>CAS No.</i> | <i>Analyte(s)</i> | <i>Result</i> | <i>Flag</i> | <i>Units</i> | <i>*RDL</i> | <i>MDL</i> | <i>Dilution</i> | <i>Method Ref.</i> | <i>Prepared</i> | <i>Analyzed</i> | <i>Analyst</i> | <i>Batch</i> | <i>Cert.</i> |
|----------------|-------------------|---------------|-------------|--------------|-------------|------------|-----------------|--------------------|-----------------|-----------------|----------------|--------------|--------------|
|----------------|-------------------|---------------|-------------|--------------|-------------|------------|-----------------|--------------------|-----------------|-----------------|----------------|--------------|--------------|

**Semivolatile Organic Compounds by GCMS**TCLP SemivolatilesPrepared by method SW846 3535A

|          |                                |        |   |      |      |      |   |                     |               |               |     |         |   |
|----------|--------------------------------|--------|---|------|------|------|---|---------------------|---------------|---------------|-----|---------|---|
| 98-95-3  | Nitrobenzene                   | < 2.12 | U | µg/l | 5.00 | 2.12 | 1 | SW846<br>1311/8270D | 14-May-1<br>5 | 14-May-1<br>5 | MSL | 1509444 | X |
| 88-75-5  | 2-Nitrophenol                  | < 2.20 | U | µg/l | 5.00 | 2.20 | 1 | "                   | "             | "             | "   | "       | X |
| 100-02-7 | 4-Nitrophenol                  | < 1.91 | U | µg/l | 5.00 | 1.91 | 1 | "                   | "             | "             | "   | "       | X |
| 62-75-9  | N-Nitrosodimethylamine         | < 1.84 | U | µg/l | 5.00 | 1.84 | 1 | "                   | "             | "             | "   | "       | X |
| 621-64-7 | N-Nitrosodi-n-propylamine      | < 2.32 | U | µg/l | 5.00 | 2.32 | 1 | "                   | "             | "             | "   | "       | X |
| 86-30-6  | N-Nitrosodiphenylamine         | < 2.58 | U | µg/l | 5.00 | 2.58 | 1 | "                   | "             | "             | "   | "       | X |
| 87-86-5  | Pentachlorophenol              | < 2.15 | U | µg/l | 5.00 | 2.15 | 1 | "                   | "             | "             | "   | "       | X |
| 85-01-8  | Phenanthrene                   | < 2.26 | U | µg/l | 5.00 | 2.26 | 1 | "                   | "             | "             | "   | "       | X |
| 108-95-2 | Phenol                         | < 2.04 | U | µg/l | 5.00 | 2.04 | 1 | "                   | "             | "             | "   | "       | X |
| 129-00-0 | Pyrene                         | < 2.42 | U | µg/l | 5.00 | 2.42 | 1 | "                   | "             | "             | "   | "       | X |
| 110-86-1 | Pyridine                       | < 1.62 | U | µg/l | 5.00 | 1.62 | 1 | "                   | "             | "             | "   | "       | X |
| 120-82-1 | 1,2,4-Trichlorobenzene         | < 1.99 | U | µg/l | 5.00 | 1.99 | 1 | "                   | "             | "             | "   | "       | X |
| 90-12-0  | 1-Methylnaphthalene            | < 1.96 | U | µg/l | 5.00 | 1.96 | 1 | "                   | "             | "             | "   | "       | X |
| 95-95-4  | 2,4,5-Trichlorophenol          | < 2.09 | U | µg/l | 5.00 | 2.09 | 1 | "                   | "             | "             | "   | "       | X |
| 88-06-2  | 2,4,6-Trichlorophenol          | < 1.96 | U | µg/l | 5.00 | 1.96 | 1 | "                   | "             | "             | "   | "       | X |
| 82-68-8  | Pentachloronitrobenzene        | < 2.22 | U | µg/l | 5.00 | 2.22 | 1 | "                   | "             | "             | "   | "       | X |
| 95-94-3  | 1,2,4,5-Tetrachlorobenzen<br>e | < 1.97 | U | µg/l | 5.00 | 1.97 | 1 | "                   | "             | "             | "   | "       | X |

Surrogate recoveries:

|           |                      |    |  |  |          |  |   |   |   |   |   |   |  |
|-----------|----------------------|----|--|--|----------|--|---|---|---|---|---|---|--|
| 321-60-8  | 2-Fluorobiphenyl     | 73 |  |  | 30-130 % |  | " | " | " | " | " | " |  |
| 367-12-4  | 2-Fluorophenol       | 78 |  |  | 15-110 % |  | " | " | " | " | " | " |  |
| 4165-60-0 | Nitrobenzene-d5      | 79 |  |  | 30-130 % |  | " | " | " | " | " | " |  |
| 4165-62-2 | Phenol-d5            | 79 |  |  | 15-110 % |  | " | " | " | " | " | " |  |
| 1718-51-0 | Terphenyl-d14        | 81 |  |  | 30-130 % |  | " | " | " | " | " | " |  |
| 118-79-6  | 2,4,6-Tribromophenol | 76 |  |  | 15-110 % |  | " | " | " | " | " | " |  |

**Semivolatile Organic Compounds by GC**Polychlorinated BiphenylsPrepared by method SW846 3545A

|            |              |        |   |           |      |      |   |             |           |           |     |         |   |
|------------|--------------|--------|---|-----------|------|------|---|-------------|-----------|-----------|-----|---------|---|
| 12674-11-2 | Aroclor-1016 | < 20.9 | U | µg/kg dry | 23.2 | 20.9 | 1 | SW846 8082A | 11-May-15 | 11-May-15 | IMR | 1509089 | X |
| 11104-28-2 | Aroclor-1221 | < 17.8 | U | µg/kg dry | 23.2 | 17.8 | 1 | "           | "         | "         | "   | "       | X |
| 11141-16-5 | Aroclor-1232 | < 20.8 | U | µg/kg dry | 23.2 | 20.8 | 1 | "           | "         | "         | "   | "       | X |
| 53469-21-9 | Aroclor-1242 | < 14.4 | U | µg/kg dry | 23.2 | 14.4 | 1 | "           | "         | "         | "   | "       | X |
| 12672-29-6 | Aroclor-1248 | < 14.5 | U | µg/kg dry | 23.2 | 14.5 | 1 | "           | "         | "         | "   | "       | X |
| 11097-69-1 | Aroclor-1254 | < 16.0 | U | µg/kg dry | 23.2 | 16.0 | 1 | "           | "         | "         | "   | "       | X |
| 11096-82-5 | Aroclor-1260 | 208    |   | µg/kg dry | 23.2 | 16.2 | 1 | "           | "         | "         | "   | "       | X |
| 37324-23-5 | Aroclor-1262 | < 20.8 | U | µg/kg dry | 23.2 | 20.8 | 1 | "           | "         | "         | "   | "       | X |
| 11100-14-4 | Aroclor-1268 | < 22.8 | U | µg/kg dry | 23.2 | 22.8 | 1 | "           | "         | "         | "   | "       | X |

Surrogate recoveries:

|            |                                        |     |  |  |          |  |   |   |   |   |   |   |  |
|------------|----------------------------------------|-----|--|--|----------|--|---|---|---|---|---|---|--|
| 10386-84-2 | 4,4-DB-Octafluorobiphenyl<br>(Sr)      | 80  |  |  | 30-150 % |  | " | " | " | " | " | " |  |
| 10386-84-2 | 4,4-DB-Octafluorobiphenyl<br>(Sr) [2C] | 90  |  |  | 30-150 % |  | " | " | " | " | " | " |  |
| 2051-24-3  | Decachlorobiphenyl (Sr)                | 95  |  |  | 30-150 % |  | " | " | " | " | " | " |  |
| 2051-24-3  | Decachlorobiphenyl (Sr)<br>[2C]        | 105 |  |  | 30-150 % |  | " | " | " | " | " | " |  |

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Sample Identification

East Berm

SC07186-01

Client Project #

1537.005.001

Matrix

Soil

Collection Date/Time

06-May-15 10:30

Received

06-May-15

| <i>CAS No.</i> | <i>Analyte(s)</i> | <i>Result</i> | <i>Flag</i> | <i>Units</i> | <i>*RDL</i> | <i>MDL</i> | <i>Dilution</i> | <i>Method Ref.</i> | <i>Prepared</i> | <i>Analyzed</i> | <i>Analyst</i> | <i>Batch</i> | <i>Cert.</i> |
|----------------|-------------------|---------------|-------------|--------------|-------------|------------|-----------------|--------------------|-----------------|-----------------|----------------|--------------|--------------|
|----------------|-------------------|---------------|-------------|--------------|-------------|------------|-----------------|--------------------|-----------------|-----------------|----------------|--------------|--------------|

**TCLP Metals by EPA 1311 & 6000/7000 Series Methods**TCLP Extraction for HgPrepared by method SW846 1311

|  |                      |           |  |     |  |  |   |            |           |           |    |         |   |
|--|----------------------|-----------|--|-----|--|--|---|------------|-----------|-----------|----|---------|---|
|  | TCLP Extraction      | Completed |  | N/A |  |  | 1 | SW846 1311 | 11-May-15 | 12-May-15 | BD | 1509195 | X |
|  | Final pH of leachate | 6.65      |  | N/A |  |  | 1 | "          | "         | "         | "  | "       |   |

TCLP Extraction for MetalsPrepared by method SW846 1311

|           |                      |           |   |      |         |         |   |                  |           |           |     |         |   |
|-----------|----------------------|-----------|---|------|---------|---------|---|------------------|-----------|-----------|-----|---------|---|
|           | TCLP Extraction      | Completed |   | N/A  |         |         | 1 | "                | "         | "         | "   | "       | X |
|           | Final pH of leachate | 6.65      |   | N/A  |         |         | 1 | "                | "         | "         | "   | "       |   |
| 7440-22-4 | Silver               | < 0.0014  | U | mg/l | 0.0050  | 0.0014  | 1 | SW846 1311/6010C | 14-May-15 | 15-May-15 | EDT | 1509320 | X |
| 7440-38-2 | Arsenic              | < 0.0026  | U | mg/l | 0.0040  | 0.0026  | 1 | "                | "         | 15-May-15 | "   | 1509548 | X |
| 7440-39-3 | Barium               | 0.374     |   | mg/l | 0.0500  | 0.0004  | 1 | "                | "         | 15-May-15 | "   | 1509320 | X |
| 7440-43-9 | Cadmium              | 0.0005    | J | mg/l | 0.0025  | 0.0002  | 1 | "                | "         | "         | "   | "       | X |
| 7440-47-3 | Chromium             | 0.0028    | J | mg/l | 0.0050  | 0.0010  | 1 | "                | "         | "         | "   | "       | X |
| 7439-97-6 | Mercury              | < 0.00009 | U | mg/l | 0.00020 | 0.00009 | 1 | SW846 1311/7470A | "         | 15-May-15 | YR  | 1509321 | X |
| 7439-92-1 | Lead                 | < 0.0018  | U | mg/l | 0.0075  | 0.0018  | 1 | SW846 1311/6010C | "         | 15-May-15 | bjw | 1509548 | X |
| 7782-49-2 | Selenium             | < 0.0043  | U | mg/l | 0.0150  | 0.0043  | 1 | "                | "         | 15-May-15 | "   | 1509320 | X |

**General Chemistry Parameters**

|  |          |      |  |   |  |  |   |               |           |           |    |         |  |
|--|----------|------|--|---|--|--|---|---------------|-----------|-----------|----|---------|--|
|  | % Solids | 86.0 |  | % |  |  | 1 | SM2540 G Mod. | 11-May-15 | 11-May-15 | DT | 1509144 |  |
|--|----------|------|--|---|--|--|---|---------------|-----------|-----------|----|---------|--|

**Toxicity Characteristics**

|  |                            |          |      |          |  |  |   |             |                 |                 |    |         |   |
|--|----------------------------|----------|------|----------|--|--|---|-------------|-----------------|-----------------|----|---------|---|
|  | Flashpoint                 | >200     |      | °F       |  |  | 1 | SW846 1010A | 12-May-15       | 12-May-15       | BD | 1509275 | X |
|  | Free Liquid                | Absent   |      | N/A      |  |  | 1 | SW846 9095B | 08-May-15       | 08-May-15       | BD | 1508979 | X |
|  | Ignitability by Definition | Negative | IgHT | N/A      |  |  | 1 | SW846 1030  | 08-May-15 17:00 | 08-May-15 17:30 | BD | 1508980 | X |
|  | pH                         | 8.24     | pH   | pH Units |  |  | 1 | SW846 9045D | 11-May-15 10:59 | 11-May-15 16:27 | BD | 1509150 | X |

Reactivity Cyanide/SulfidePrepared by method General Preparation

|            |                  |               |   |           |      |      |   |               |           |           |    |         |  |
|------------|------------------|---------------|---|-----------|------|------|---|---------------|-----------|-----------|----|---------|--|
|            | Reactivity       | See Narrative |   | mg/kg dry |      |      | 1 | SW846 Ch. 7.3 | 11-May-15 | 11-May-15 | TN | 1509189 |  |
| 57-12-5    | Reactive Cyanide | < 24.7        | U | mg/kg dry | 24.7 | 24.7 | 1 | "             | "         | "         | "  | "       |  |
| 18496-25-8 | Reactive Sulfide | < 49.4        | U | mg/kg dry | 49.4 | 49.4 | 1 | "             | "         | "         | "  | "       |  |

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Sample Identification

East Berm - Dupe

SC07186-02

Client Project #

1537.005.001

Matrix

Soil

Collection Date/Time

06-May-15 10:30

Received

06-May-15

| <i>CAS No.</i> | <i>Analyte(s)</i> | <i>Result</i> | <i>Flag</i> | <i>Units</i> | <i>*RDL</i> | <i>MDL</i> | <i>Dilution</i> | <i>Method Ref.</i> | <i>Prepared</i> | <i>Analyzed</i> | <i>Analyst</i> | <i>Batch</i> | <i>Cert.</i> |
|----------------|-------------------|---------------|-------------|--------------|-------------|------------|-----------------|--------------------|-----------------|-----------------|----------------|--------------|--------------|
|----------------|-------------------|---------------|-------------|--------------|-------------|------------|-----------------|--------------------|-----------------|-----------------|----------------|--------------|--------------|

**Volatile Organic Compounds**

TCLP Extraction

Completed

N/A

1

SW846 1311

13-May-1  
514-May-1  
5

BD

1509403

X

TCLP Volatile Organic CompoundsPrepared by method SW846 5030 Water MSInitial weight: 5 ml

|          |                      |       |      |      |      |     |   |                     |               |               |     |         |   |
|----------|----------------------|-------|------|------|------|-----|---|---------------------|---------------|---------------|-----|---------|---|
| 71-43-2  | Benzene              | < 0.9 | U, D | µg/l | 5.0  | 0.9 | 5 | SW846<br>1311/8260C | 15-May-1<br>5 | 15-May-1<br>5 | GMA | 1509535 | X |
| 78-93-3  | 2-Butanone (MEK)     | < 6.2 | U, D | µg/l | 50.0 | 6.2 | 5 | "                   | "             | "             | "   | "       | X |
| 56-23-5  | Carbon tetrachloride | < 1.1 | U, D | µg/l | 5.0  | 1.1 | 5 | "                   | "             | "             | "   | "       | X |
| 108-90-7 | Chlorobenzene        | < 1.0 | U, D | µg/l | 5.0  | 1.0 | 5 | "                   | "             | "             | "   | "       | X |
| 67-66-3  | Chloroform           | 2.4   | D, J | µg/l | 5.0  | 2.0 | 5 | "                   | "             | "             | "   | "       | X |
| 106-46-7 | 1,4-Dichlorobenzene  | < 1.2 | U, D | µg/l | 5.0  | 1.2 | 5 | "                   | "             | "             | "   | "       | X |
| 107-06-2 | 1,2-Dichloroethane   | < 0.8 | U, D | µg/l | 5.0  | 0.8 | 5 | "                   | "             | "             | "   | "       | X |
| 75-35-4  | 1,1-Dichloroethene   | < 1.4 | U, D | µg/l | 5.0  | 1.4 | 5 | "                   | "             | "             | "   | "       | X |
| 87-68-3  | Hexachlorobutadiene  | < 2.0 | U, D | µg/l | 2.5  | 2.0 | 5 | "                   | "             | "             | "   | "       | X |
| 127-18-4 | Tetrachloroethene    | 10.8  | D    | µg/l | 5.0  | 2.9 | 5 | "                   | "             | "             | "   | "       | X |
| 79-01-6  | Trichloroethene      | < 1.9 | U, D | µg/l | 5.0  | 1.9 | 5 | "                   | "             | "             | "   | "       | X |
| 75-01-4  | Vinyl chloride       | < 1.7 | U, D | µg/l | 5.0  | 1.7 | 5 | "                   | "             | "             | "   | "       | X |

Surrogate recoveries:

|            |                       |     |  |  |          |  |  |   |   |   |   |   |  |
|------------|-----------------------|-----|--|--|----------|--|--|---|---|---|---|---|--|
| 460-00-4   | 4-Bromofluorobenzene  | 94  |  |  | 70-130 % |  |  | " | " | " | " | " |  |
| 2037-26-5  | Toluene-d8            | 95  |  |  | 70-130 % |  |  | " | " | " | " | " |  |
| 17060-07-0 | 1,2-Dichloroethane-d4 | 110 |  |  | 70-130 % |  |  | " | " | " | " | " |  |
| 1868-53-7  | Dibromofluoromethane  | 98  |  |  | 70-130 % |  |  | " | " | " | " | " |  |

**Semivolatile Organic Compounds by GCMS**TCLP Extraction for SemivolatilesPrepared by method SW846 1311

TCLP Extraction

Completed

N/A

1

SW846 1311

11-May-15

12-May-1  
5

BD

1509197

X

Final pH of leachate

6.48

N/A

1

"

"

"

"

"

TCLP SemivolatilesPrepared by method SW846 3535A

|          |                                |        |   |      |      |      |   |                     |               |               |     |         |   |
|----------|--------------------------------|--------|---|------|------|------|---|---------------------|---------------|---------------|-----|---------|---|
| 83-32-9  | Acenaphthene                   | < 2.13 | U | µg/l | 5.00 | 2.13 | 1 | SW846<br>1311/8270D | 14-May-1<br>5 | 14-May-1<br>5 | MSL | 1509444 | X |
| 208-96-8 | Acenaphthylene                 | < 2.16 | U | µg/l | 5.00 | 2.16 | 1 | "                   | "             | "             | "   | "       | X |
| 62-53-3  | Aniline                        | < 2.34 | U | µg/l | 5.00 | 2.34 | 1 | "                   | "             | "             | "   | "       | X |
| 120-12-7 | Anthracene                     | < 2.33 | U | µg/l | 5.00 | 2.33 | 1 | "                   | "             | "             | "   | "       | X |
| 103-33-3 | Azobenzene/Diphenyldiaz<br>ene | < 2.46 | U | µg/l | 5.00 | 2.46 | 1 | "                   | "             | "             | "   | "       |   |
| 92-87-5  | Benzidine                      | < 2.68 | U | µg/l | 5.00 | 2.68 | 1 | "                   | "             | "             | "   | "       | X |
| 56-55-3  | Benzo (a) anthracene           | < 2.26 | U | µg/l | 5.00 | 2.26 | 1 | "                   | "             | "             | "   | "       | X |
| 50-32-8  | Benzo (a) pyrene               | < 2.40 | U | µg/l | 5.00 | 2.40 | 1 | "                   | "             | "             | "   | "       | X |
| 205-99-2 | Benzo (b) fluoranthene         | < 2.08 | U | µg/l | 5.00 | 2.08 | 1 | "                   | "             | "             | "   | "       | X |
| 191-24-2 | Benzo (g,h,i) perylene         | < 2.40 | U | µg/l | 5.00 | 2.40 | 1 | "                   | "             | "             | "   | "       | X |
| 207-08-9 | Benzo (k) fluoranthene         | < 2.73 | U | µg/l | 5.00 | 2.73 | 1 | "                   | "             | "             | "   | "       | X |
| 65-85-0  | Benzoic acid                   | < 1.98 | U | µg/l | 5.00 | 1.98 | 1 | "                   | "             | "             | "   | "       | X |
| 100-51-6 | Benzyl alcohol                 | < 2.14 | U | µg/l | 5.00 | 2.14 | 1 | "                   | "             | "             | "   | "       | X |
| 111-91-1 | Bis(2-chloroethoxy)metha<br>ne | < 2.23 | U | µg/l | 5.00 | 2.23 | 1 | "                   | "             | "             | "   | "       | X |
| 111-44-4 | Bis(2-chloroethyl)ether        | < 2.14 | U | µg/l | 5.00 | 2.14 | 1 | "                   | "             | "             | "   | "       | X |

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## Sample Identification

East Berm - Dupe

SC07186-02

Client Project #

1537.005.001

Matrix

Soil

Collection Date/Time

06-May-15 10:30

Received

06-May-15

| CAS No.                                       | Analyte(s)                  | Result | Flag | Units | *RDL | MDL  | Dilution | Method Ref.         | Prepared      | Analyzed      | Analyst | Batch   | Cert. |
|-----------------------------------------------|-----------------------------|--------|------|-------|------|------|----------|---------------------|---------------|---------------|---------|---------|-------|
| <b>Semivolatile Organic Compounds by GCMS</b> |                             |        |      |       |      |      |          |                     |               |               |         |         |       |
| TCLP Semivolatiles                            |                             |        |      |       |      |      |          |                     |               |               |         |         |       |
| Prepared by method SW846 3535A                |                             |        |      |       |      |      |          |                     |               |               |         |         |       |
| 108-60-1                                      | Bis(2-chloroisopropyl)ether | < 2.22 | U    | µg/l  | 5.00 | 2.22 | 1        | SW846<br>1311/8270D | 14-May-1<br>5 | 14-May-1<br>5 | MSL     | 1509444 | X     |
| 117-81-7                                      | Bis(2-ethylhexyl)phthalate  | < 2.34 | U    | µg/l  | 5.00 | 2.34 | 1        | "                   | "             | "             | "       | "       | X     |
| 101-55-3                                      | 4-Bromophenyl phenyl ether  | < 2.26 | U    | µg/l  | 5.00 | 2.26 | 1        | "                   | "             | "             | "       | "       | X     |
| 85-68-7                                       | Butyl benzyl phthalate      | < 2.63 | U    | µg/l  | 5.00 | 2.63 | 1        | "                   | "             | "             | "       | "       | X     |
| 86-74-8                                       | Carbazole                   | < 2.63 | U    | µg/l  | 5.00 | 2.63 | 1        | "                   | "             | "             | "       | "       | X     |
| 59-50-7                                       | 4-Chloro-3-methylphenol     | < 2.43 | U    | µg/l  | 5.00 | 2.43 | 1        | "                   | "             | "             | "       | "       | X     |
| 106-47-8                                      | 4-Chloroaniline             | < 2.63 | U    | µg/l  | 5.00 | 2.63 | 1        | "                   | "             | "             | "       | "       | X     |
| 91-58-7                                       | 2-Chloronaphthalene         | < 2.00 | U    | µg/l  | 5.00 | 2.00 | 1        | "                   | "             | "             | "       | "       | X     |
| 95-57-8                                       | 2-Chlorophenol              | < 2.03 | U    | µg/l  | 5.00 | 2.03 | 1        | "                   | "             | "             | "       | "       | X     |
| 7005-72-3                                     | 4-Chlorophenyl phenyl ether | < 2.34 | U    | µg/l  | 5.00 | 2.34 | 1        | "                   | "             | "             | "       | "       | X     |
| 218-01-9                                      | Chrysene                    | < 2.33 | U    | µg/l  | 5.00 | 2.33 | 1        | "                   | "             | "             | "       | "       | X     |
| 53-70-3                                       | Dibenzo (a,h) anthracene    | < 2.52 | U    | µg/l  | 5.00 | 2.52 | 1        | "                   | "             | "             | "       | "       | X     |
| 132-64-9                                      | Dibenzofuran                | < 2.15 | U    | µg/l  | 5.00 | 2.15 | 1        | "                   | "             | "             | "       | "       | X     |
| 95-50-1                                       | 1,2-Dichlorobenzene         | < 2.05 | U    | µg/l  | 5.00 | 2.05 | 1        | "                   | "             | "             | "       | "       | X     |
| 541-73-1                                      | 1,3-Dichlorobenzene         | < 2.02 | U    | µg/l  | 5.00 | 2.02 | 1        | "                   | "             | "             | "       | "       | X     |
| 106-46-7                                      | 1,4-Dichlorobenzene         | < 2.02 | U    | µg/l  | 5.00 | 2.02 | 1        | "                   | "             | "             | "       | "       | X     |
| 91-94-1                                       | 3,3'-Dichlorobenzidine      | < 2.22 | U    | µg/l  | 5.00 | 2.22 | 1        | "                   | "             | "             | "       | "       | X     |
| 120-83-2                                      | 2,4-Dichlorophenol          | < 1.84 | U    | µg/l  | 5.00 | 1.84 | 1        | "                   | "             | "             | "       | "       | X     |
| 84-66-2                                       | Diethyl phthalate           | < 2.38 | U    | µg/l  | 5.00 | 2.38 | 1        | "                   | "             | "             | "       | "       | X     |
| 131-11-3                                      | Dimethyl phthalate          | < 2.28 | U    | µg/l  | 5.00 | 2.28 | 1        | "                   | "             | "             | "       | "       | X     |
| 105-67-9                                      | 2,4-Dimethylphenol          | < 2.12 | U    | µg/l  | 5.00 | 2.12 | 1        | "                   | "             | "             | "       | "       | X     |
| 84-74-2                                       | Di-n-butyl phthalate        | < 2.62 | U    | µg/l  | 5.00 | 2.62 | 1        | "                   | "             | "             | "       | "       | X     |
| 534-52-1                                      | 4,6-Dinitro-2-methylphenol  | < 2.50 | U    | µg/l  | 5.00 | 2.50 | 1        | "                   | "             | "             | "       | "       | X     |
| 51-28-5                                       | 2,4-Dinitrophenol           | < 1.87 | U    | µg/l  | 5.00 | 1.87 | 1        | "                   | "             | "             | "       | "       | X     |
| 121-14-2                                      | 2,4-Dinitrotoluene          | < 2.38 | U    | µg/l  | 5.00 | 2.38 | 1        | "                   | "             | "             | "       | "       | X     |
| 606-20-2                                      | 2,6-Dinitrotoluene          | < 2.30 | U    | µg/l  | 5.00 | 2.30 | 1        | "                   | "             | "             | "       | "       | X     |
| 117-84-0                                      | Di-n-octyl phthalate        | < 2.79 | U    | µg/l  | 5.00 | 2.79 | 1        | "                   | "             | "             | "       | "       | X     |
| 206-44-0                                      | Fluoranthene                | < 2.32 | U    | µg/l  | 5.00 | 2.32 | 1        | "                   | "             | "             | "       | "       | X     |
| 86-73-7                                       | Fluorene                    | < 2.31 | U    | µg/l  | 5.00 | 2.31 | 1        | "                   | "             | "             | "       | "       | X     |
| 118-74-1                                      | Hexachlorobenzene           | < 2.15 | U    | µg/l  | 5.00 | 2.15 | 1        | "                   | "             | "             | "       | "       | X     |
| 87-68-3                                       | Hexachlorobutadiene         | < 2.03 | U    | µg/l  | 5.00 | 2.03 | 1        | "                   | "             | "             | "       | "       | X     |
| 77-47-4                                       | Hexachlorocyclopentadiene   | < 1.55 | U    | µg/l  | 5.00 | 1.55 | 1        | "                   | "             | "             | "       | "       | X     |
| 67-72-1                                       | Hexachloroethane            | < 2.15 | U    | µg/l  | 5.00 | 2.15 | 1        | "                   | "             | "             | "       | "       | X     |
| 193-39-5                                      | Indeno (1,2,3-cd) pyrene    | < 2.30 | U    | µg/l  | 5.00 | 2.30 | 1        | "                   | "             | "             | "       | "       | X     |
| 78-59-1                                       | Isophorone                  | < 2.62 | U    | µg/l  | 5.00 | 2.62 | 1        | "                   | "             | "             | "       | "       | X     |
| 91-57-6                                       | 2-Methylnaphthalene         | < 2.19 | U    | µg/l  | 5.00 | 2.19 | 1        | "                   | "             | "             | "       | "       | X     |
| 95-48-7                                       | 2-Methylphenol              | < 2.14 | U    | µg/l  | 5.00 | 2.14 | 1        | "                   | "             | "             | "       | "       | X     |
| 108-39-4,<br>106-44-5                         | 3 & 4-Methylphenol          | < 2.22 | U    | µg/l  | 10.0 | 2.22 | 1        | "                   | "             | "             | "       | "       | X     |
| 91-20-3                                       | Naphthalene                 | < 2.04 | U    | µg/l  | 5.00 | 2.04 | 1        | "                   | "             | "             | "       | "       | X     |
| 88-74-4                                       | 2-Nitroaniline              | < 2.34 | U    | µg/l  | 5.00 | 2.34 | 1        | "                   | "             | "             | "       | "       | X     |
| 99-09-2                                       | 3-Nitroaniline              | < 2.72 | U    | µg/l  | 5.00 | 2.72 | 1        | "                   | "             | "             | "       | "       | X     |
| 100-01-6                                      | 4-Nitroaniline              | < 2.62 | U    | µg/l  | 5.00 | 2.62 | 1        | "                   | "             | "             | "       | "       | X     |

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Sample Identification

East Berm - Dupe

SC07186-02

Client Project #

1537.005.001

Matrix

Soil

Collection Date/Time

06-May-15 10:30

Received

06-May-15

| <i>CAS No.</i> | <i>Analyte(s)</i> | <i>Result</i> | <i>Flag</i> | <i>Units</i> | <i>*RDL</i> | <i>MDL</i> | <i>Dilution</i> | <i>Method Ref.</i> | <i>Prepared</i> | <i>Analyzed</i> | <i>Analyst</i> | <i>Batch</i> | <i>Cert.</i> |
|----------------|-------------------|---------------|-------------|--------------|-------------|------------|-----------------|--------------------|-----------------|-----------------|----------------|--------------|--------------|
|----------------|-------------------|---------------|-------------|--------------|-------------|------------|-----------------|--------------------|-----------------|-----------------|----------------|--------------|--------------|

**Semivolatile Organic Compounds by GCMS**TCLP SemivolatilesPrepared by method SW846 3535A

|          |                                |        |   |      |      |      |   |                     |               |               |     |         |   |
|----------|--------------------------------|--------|---|------|------|------|---|---------------------|---------------|---------------|-----|---------|---|
| 98-95-3  | Nitrobenzene                   | < 2.12 | U | µg/l | 5.00 | 2.12 | 1 | SW846<br>1311/8270D | 14-May-1<br>5 | 14-May-1<br>5 | MSL | 1509444 | X |
| 88-75-5  | 2-Nitrophenol                  | < 2.20 | U | µg/l | 5.00 | 2.20 | 1 | "                   | "             | "             | "   | "       | X |
| 100-02-7 | 4-Nitrophenol                  | < 1.91 | U | µg/l | 5.00 | 1.91 | 1 | "                   | "             | "             | "   | "       | X |
| 62-75-9  | N-Nitrosodimethylamine         | < 1.84 | U | µg/l | 5.00 | 1.84 | 1 | "                   | "             | "             | "   | "       | X |
| 621-64-7 | N-Nitrosodi-n-propylamine      | < 2.32 | U | µg/l | 5.00 | 2.32 | 1 | "                   | "             | "             | "   | "       | X |
| 86-30-6  | N-Nitrosodiphenylamine         | < 2.58 | U | µg/l | 5.00 | 2.58 | 1 | "                   | "             | "             | "   | "       | X |
| 87-86-5  | Pentachlorophenol              | < 2.15 | U | µg/l | 5.00 | 2.15 | 1 | "                   | "             | "             | "   | "       | X |
| 85-01-8  | Phenanthrene                   | < 2.26 | U | µg/l | 5.00 | 2.26 | 1 | "                   | "             | "             | "   | "       | X |
| 108-95-2 | Phenol                         | < 2.04 | U | µg/l | 5.00 | 2.04 | 1 | "                   | "             | "             | "   | "       | X |
| 129-00-0 | Pyrene                         | < 2.42 | U | µg/l | 5.00 | 2.42 | 1 | "                   | "             | "             | "   | "       | X |
| 110-86-1 | Pyridine                       | < 1.62 | U | µg/l | 5.00 | 1.62 | 1 | "                   | "             | "             | "   | "       | X |
| 120-82-1 | 1,2,4-Trichlorobenzene         | < 1.99 | U | µg/l | 5.00 | 1.99 | 1 | "                   | "             | "             | "   | "       | X |
| 90-12-0  | 1-Methylnaphthalene            | < 1.96 | U | µg/l | 5.00 | 1.96 | 1 | "                   | "             | "             | "   | "       | X |
| 95-95-4  | 2,4,5-Trichlorophenol          | < 2.09 | U | µg/l | 5.00 | 2.09 | 1 | "                   | "             | "             | "   | "       | X |
| 88-06-2  | 2,4,6-Trichlorophenol          | < 1.96 | U | µg/l | 5.00 | 1.96 | 1 | "                   | "             | "             | "   | "       | X |
| 82-68-8  | Pentachloronitrobenzene        | < 2.22 | U | µg/l | 5.00 | 2.22 | 1 | "                   | "             | "             | "   | "       | X |
| 95-94-3  | 1,2,4,5-Tetrachlorobenzen<br>e | < 1.97 | U | µg/l | 5.00 | 1.97 | 1 | "                   | "             | "             | "   | "       | X |

Surrogate recoveries:

|           |                      |    |  |  |          |  |   |   |   |   |   |   |  |
|-----------|----------------------|----|--|--|----------|--|---|---|---|---|---|---|--|
| 321-60-8  | 2-Fluorobiphenyl     | 70 |  |  | 30-130 % |  | " | " | " | " | " | " |  |
| 367-12-4  | 2-Fluorophenol       | 76 |  |  | 15-110 % |  | " | " | " | " | " | " |  |
| 4165-60-0 | Nitrobenzene-d5      | 76 |  |  | 30-130 % |  | " | " | " | " | " | " |  |
| 4165-62-2 | Phenol-d5            | 79 |  |  | 15-110 % |  | " | " | " | " | " | " |  |
| 1718-51-0 | Terphenyl-d14        | 77 |  |  | 30-130 % |  | " | " | " | " | " | " |  |
| 118-79-6  | 2,4,6-Tribromophenol | 73 |  |  | 15-110 % |  | " | " | " | " | " | " |  |

**Semivolatile Organic Compounds by GC**Polychlorinated BiphenylsPrepared by method SW846 3545A

|            |              |        |   |           |      |      |   |             |           |           |     |         |   |
|------------|--------------|--------|---|-----------|------|------|---|-------------|-----------|-----------|-----|---------|---|
| 12674-11-2 | Aroclor-1016 | < 20.9 | U | µg/kg dry | 23.2 | 20.9 | 1 | SW846 8082A | 11-May-15 | 11-May-15 | IMR | 1509089 | X |
| 11104-28-2 | Aroclor-1221 | < 17.8 | U | µg/kg dry | 23.2 | 17.8 | 1 | "           | "         | "         | "   | "       | X |
| 11141-16-5 | Aroclor-1232 | < 20.8 | U | µg/kg dry | 23.2 | 20.8 | 1 | "           | "         | "         | "   | "       | X |
| 53469-21-9 | Aroclor-1242 | < 14.4 | U | µg/kg dry | 23.2 | 14.4 | 1 | "           | "         | "         | "   | "       | X |
| 12672-29-6 | Aroclor-1248 | < 14.5 | U | µg/kg dry | 23.2 | 14.5 | 1 | "           | "         | "         | "   | "       | X |
| 11097-69-1 | Aroclor-1254 | < 16.0 | U | µg/kg dry | 23.2 | 16.0 | 1 | "           | "         | "         | "   | "       | X |
| 11096-82-5 | Aroclor-1260 | 262    |   | µg/kg dry | 23.2 | 16.3 | 1 | "           | "         | "         | "   | "       | X |
| 37324-23-5 | Aroclor-1262 | < 20.8 | U | µg/kg dry | 23.2 | 20.8 | 1 | "           | "         | "         | "   | "       | X |
| 11100-14-4 | Aroclor-1268 | < 22.8 | U | µg/kg dry | 23.2 | 22.8 | 1 | "           | "         | "         | "   | "       | X |

Surrogate recoveries:

|            |                                        |     |  |  |          |  |   |   |   |   |   |   |  |
|------------|----------------------------------------|-----|--|--|----------|--|---|---|---|---|---|---|--|
| 10386-84-2 | 4,4-DB-Octafluorobiphenyl<br>(Sr)      | 70  |  |  | 30-150 % |  | " | " | " | " | " | " |  |
| 10386-84-2 | 4,4-DB-Octafluorobiphenyl<br>(Sr) [2C] | 85  |  |  | 30-150 % |  | " | " | " | " | " | " |  |
| 2051-24-3  | Decachlorobiphenyl (Sr)                | 95  |  |  | 30-150 % |  | " | " | " | " | " | " |  |
| 2051-24-3  | Decachlorobiphenyl (Sr)<br>[2C]        | 105 |  |  | 30-150 % |  | " | " | " | " | " | " |  |

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Sample Identification

East Berm - Dupe

SC07186-02

Client Project #

1537.005.001

Matrix

Soil

Collection Date/Time

06-May-15 10:30

Received

06-May-15

| <i>CAS No.</i> | <i>Analyte(s)</i> | <i>Result</i> | <i>Flag</i> | <i>Units</i> | <i>*RDL</i> | <i>MDL</i> | <i>Dilution</i> | <i>Method Ref.</i> | <i>Prepared</i> | <i>Analyzed</i> | <i>Analyst</i> | <i>Batch</i> | <i>Cert.</i> |
|----------------|-------------------|---------------|-------------|--------------|-------------|------------|-----------------|--------------------|-----------------|-----------------|----------------|--------------|--------------|
|----------------|-------------------|---------------|-------------|--------------|-------------|------------|-----------------|--------------------|-----------------|-----------------|----------------|--------------|--------------|

**TCLP Metals by EPA 1311 & 6000/7000 Series Methods**TCLP Extraction for HgPrepared by method SW846 1311

|  |                      |           |  |     |  |  |   |            |           |           |    |         |   |
|--|----------------------|-----------|--|-----|--|--|---|------------|-----------|-----------|----|---------|---|
|  | TCLP Extraction      | Completed |  | N/A |  |  | 1 | SW846 1311 | 11-May-15 | 12-May-15 | BD | 1509195 | X |
|  | Final pH of leachate | 6.57      |  | N/A |  |  | 1 | "          | "         | "         | "  | "       |   |

TCLP Extraction for MetalsPrepared by method SW846 1311

|           |                      |           |   |      |         |         |   |                     |           |           |     |         |   |
|-----------|----------------------|-----------|---|------|---------|---------|---|---------------------|-----------|-----------|-----|---------|---|
|           | TCLP Extraction      | Completed |   | N/A  |         |         | 1 | "                   | "         | "         | "   | "       | X |
|           | Final pH of leachate | 6.57      |   | N/A  |         |         | 1 | "                   | "         | "         | "   | "       |   |
| 7440-22-4 | Silver               | < 0.0014  | U | mg/l | 0.0050  | 0.0014  | 1 | SW846<br>1311/6010C | 14-May-15 | 15-May-15 | EDT | 1509320 | X |
| 7440-38-2 | Arsenic              | 0.0028    | J | mg/l | 0.0040  | 0.0026  | 1 | "                   | "         | 15-May-15 | "   | 1509548 | X |
| 7440-39-3 | Barium               | 0.418     |   | mg/l | 0.0500  | 0.0004  | 1 | "                   | "         | 15-May-15 | "   | 1509320 | X |
| 7440-43-9 | Cadmium              | 0.0007    | J | mg/l | 0.0025  | 0.0002  | 1 | "                   | "         | "         | "   | "       | X |
| 7440-47-3 | Chromium             | 0.0040    | J | mg/l | 0.0050  | 0.0010  | 1 | "                   | "         | "         | "   | "       | X |
| 7439-97-6 | Mercury              | < 0.00009 | U | mg/l | 0.00020 | 0.00009 | 1 | SW846<br>1311/7470A | "         | 15-May-15 | YR  | 1509321 | X |
| 7439-92-1 | Lead                 | 0.0057    | J | mg/l | 0.0075  | 0.0018  | 1 | SW846<br>1311/6010C | "         | 15-May-15 | bjw | 1509548 | X |
| 7782-49-2 | Selenium             | 0.0057    | J | mg/l | 0.0150  | 0.0043  | 1 | "                   | "         | 15-May-15 | "   | 1509320 | X |

**General Chemistry Parameters**

|  |          |      |  |   |  |  |   |               |           |           |    |         |  |
|--|----------|------|--|---|--|--|---|---------------|-----------|-----------|----|---------|--|
|  | % Solids | 83.6 |  | % |  |  | 1 | SM2540 G Mod. | 11-May-15 | 11-May-15 | DT | 1509144 |  |
|--|----------|------|--|---|--|--|---|---------------|-----------|-----------|----|---------|--|

**Toxicity Characteristics**

|  |                            |          |      |          |  |  |   |             |                 |                 |    |         |   |
|--|----------------------------|----------|------|----------|--|--|---|-------------|-----------------|-----------------|----|---------|---|
|  | Flashpoint                 | >200     |      | °F       |  |  | 1 | SW846 1010A | 12-May-15       | 12-May-15       | BD | 1509275 | X |
|  | Free Liquid                | Absent   |      | N/A      |  |  | 1 | SW846 9095B | 08-May-15       | 08-May-15       | BD | 1508979 | X |
|  | Ignitability by Definition | Negative | IgHT | N/A      |  |  | 1 | SW846 1030  | 08-May-15 17:00 | 08-May-15 17:30 | BD | 1508980 | X |
|  | pH                         | 8.21     | pH   | pH Units |  |  | 1 | SW846 9045D | 11-May-15 10:59 | 11-May-15 16:28 | BD | 1509150 | X |

Reactivity Cyanide/SulfidePrepared by method General Preparation

|            |                  |                  |   |           |      |      |   |               |           |           |    |         |  |
|------------|------------------|------------------|---|-----------|------|------|---|---------------|-----------|-----------|----|---------|--|
|            | Reactivity       | See<br>Narrative |   | mg/kg dry |      |      | 1 | SW846 Ch. 7.3 | 11-May-15 | 11-May-15 | TN | 1509189 |  |
| 57-12-5    | Reactive Cyanide | < 24.7           | U | mg/kg dry | 24.7 | 24.7 | 1 | "             | "         | "         | "  | "       |  |
| 18496-25-8 | Reactive Sulfide | < 49.4           | U | mg/kg dry | 49.4 | 49.4 | 1 | "             | "         | "         | "  | "       |  |

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Sample Identification

West Berm - Dupe

SC07186-03

Client Project #

1537.005.001

Matrix

Soil

Collection Date/Time

06-May-15 10:45

Received

06-May-15

| <u>CAS No.</u> | <u>Analyte(s)</u> | <u>Result</u> | <u>Flag</u> | <u>Units</u> | <u>*RDL</u> | <u>MDL</u> | <u>Dilution</u> | <u>Method Ref.</u> | <u>Prepared</u> | <u>Analyzed</u> | <u>Analyst</u> | <u>Batch</u> | <u>Cert.</u> |
|----------------|-------------------|---------------|-------------|--------------|-------------|------------|-----------------|--------------------|-----------------|-----------------|----------------|--------------|--------------|
|----------------|-------------------|---------------|-------------|--------------|-------------|------------|-----------------|--------------------|-----------------|-----------------|----------------|--------------|--------------|

**Volatile Organic Compounds**

TCLP Extraction

Completed

N/A

1

SW846 1311

13-May-1  
514-May-1  
5

BD

1509403

X

TCLP Volatile Organic CompoundsPrepared by method SW846 5030 Water MSInitial weight: 5 ml

|          |                      |       |      |      |      |     |   |                     |               |               |     |         |   |
|----------|----------------------|-------|------|------|------|-----|---|---------------------|---------------|---------------|-----|---------|---|
| 71-43-2  | Benzene              | < 0.9 | U, D | µg/l | 5.0  | 0.9 | 5 | SW846<br>1311/8260C | 15-May-1<br>5 | 15-May-1<br>5 | GMA | 1509535 | X |
| 78-93-3  | 2-Butanone (MEK)     | < 6.2 | U, D | µg/l | 50.0 | 6.2 | 5 | "                   | "             | "             | "   | "       | X |
| 56-23-5  | Carbon tetrachloride | < 1.1 | U, D | µg/l | 5.0  | 1.1 | 5 | "                   | "             | "             | "   | "       | X |
| 108-90-7 | Chlorobenzene        | < 1.0 | U, D | µg/l | 5.0  | 1.0 | 5 | "                   | "             | "             | "   | "       | X |
| 67-66-3  | Chloroform           | 2.6   | D, J | µg/l | 5.0  | 2.0 | 5 | "                   | "             | "             | "   | "       | X |
| 106-46-7 | 1,4-Dichlorobenzene  | < 1.2 | U, D | µg/l | 5.0  | 1.2 | 5 | "                   | "             | "             | "   | "       | X |
| 107-06-2 | 1,2-Dichloroethane   | < 0.8 | U, D | µg/l | 5.0  | 0.8 | 5 | "                   | "             | "             | "   | "       | X |
| 75-35-4  | 1,1-Dichloroethene   | < 1.4 | U, D | µg/l | 5.0  | 1.4 | 5 | "                   | "             | "             | "   | "       | X |
| 87-68-3  | Hexachlorobutadiene  | < 2.0 | U, D | µg/l | 2.5  | 2.0 | 5 | "                   | "             | "             | "   | "       | X |
| 127-18-4 | Tetrachloroethene    | < 2.9 | U, D | µg/l | 5.0  | 2.9 | 5 | "                   | "             | "             | "   | "       | X |
| 79-01-6  | Trichloroethene      | < 1.9 | U, D | µg/l | 5.0  | 1.9 | 5 | "                   | "             | "             | "   | "       | X |
| 75-01-4  | Vinyl chloride       | < 1.7 | U, D | µg/l | 5.0  | 1.7 | 5 | "                   | "             | "             | "   | "       | X |

Surrogate recoveries:

|            |                       |     |  |  |          |  |  |   |   |   |   |   |  |
|------------|-----------------------|-----|--|--|----------|--|--|---|---|---|---|---|--|
| 460-00-4   | 4-Bromofluorobenzene  | 93  |  |  | 70-130 % |  |  | " | " | " | " | " |  |
| 2037-26-5  | Toluene-d8            | 96  |  |  | 70-130 % |  |  | " | " | " | " | " |  |
| 17060-07-0 | 1,2-Dichloroethane-d4 | 110 |  |  | 70-130 % |  |  | " | " | " | " | " |  |
| 1868-53-7  | Dibromofluoromethane  | 97  |  |  | 70-130 % |  |  | " | " | " | " | " |  |

**Semivolatile Organic Compounds by GCMS**TCLP Extraction for SemivolatilesPrepared by method SW846 1311

TCLP Extraction

Completed

N/A

1

SW846 1311

11-May-15

12-May-1  
5

BD

1509197

X

Final pH of leachate

6.42

N/A

1

"

"

"

"

"

TCLP SemivolatilesPrepared by method SW846 3535A

|          |                                |        |   |      |      |      |   |                     |               |               |     |         |   |
|----------|--------------------------------|--------|---|------|------|------|---|---------------------|---------------|---------------|-----|---------|---|
| 83-32-9  | Acenaphthene                   | < 2.13 | U | µg/l | 5.00 | 2.13 | 1 | SW846<br>1311/8270D | 14-May-1<br>5 | 14-May-1<br>5 | MSL | 1509444 | X |
| 208-96-8 | Acenaphthylene                 | < 2.16 | U | µg/l | 5.00 | 2.16 | 1 | "                   | "             | "             | "   | "       | X |
| 62-53-3  | Aniline                        | < 2.34 | U | µg/l | 5.00 | 2.34 | 1 | "                   | "             | "             | "   | "       | X |
| 120-12-7 | Anthracene                     | < 2.33 | U | µg/l | 5.00 | 2.33 | 1 | "                   | "             | "             | "   | "       | X |
| 103-33-3 | Azobenzene/Diphenyldiaz<br>ene | < 2.46 | U | µg/l | 5.00 | 2.46 | 1 | "                   | "             | "             | "   | "       |   |
| 92-87-5  | Benzidine                      | < 2.68 | U | µg/l | 5.00 | 2.68 | 1 | "                   | "             | "             | "   | "       | X |
| 56-55-3  | Benzo (a) anthracene           | < 2.26 | U | µg/l | 5.00 | 2.26 | 1 | "                   | "             | "             | "   | "       | X |
| 50-32-8  | Benzo (a) pyrene               | < 2.40 | U | µg/l | 5.00 | 2.40 | 1 | "                   | "             | "             | "   | "       | X |
| 205-99-2 | Benzo (b) fluoranthene         | < 2.08 | U | µg/l | 5.00 | 2.08 | 1 | "                   | "             | "             | "   | "       | X |
| 191-24-2 | Benzo (g,h,i) perylene         | < 2.40 | U | µg/l | 5.00 | 2.40 | 1 | "                   | "             | "             | "   | "       | X |
| 207-08-9 | Benzo (k) fluoranthene         | < 2.73 | U | µg/l | 5.00 | 2.73 | 1 | "                   | "             | "             | "   | "       | X |
| 65-85-0  | Benzoic acid                   | < 1.98 | U | µg/l | 5.00 | 1.98 | 1 | "                   | "             | "             | "   | "       | X |
| 100-51-6 | Benzyl alcohol                 | < 2.14 | U | µg/l | 5.00 | 2.14 | 1 | "                   | "             | "             | "   | "       | X |
| 111-91-1 | Bis(2-chloroethoxy)metha<br>ne | < 2.23 | U | µg/l | 5.00 | 2.23 | 1 | "                   | "             | "             | "   | "       | X |
| 111-44-4 | Bis(2-chloroethyl)ether        | < 2.14 | U | µg/l | 5.00 | 2.14 | 1 | "                   | "             | "             | "   | "       | X |

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## Sample Identification

West Berm - Dupe

SC07186-03

## Client Project #

1537.005.001

## Matrix

Soil

## Collection Date/Time

06-May-15 10:45

## Received

06-May-15

| CAS No.                                       | Analyte(s)                  | Result | Flag | Units | *RDL | MDL  | Dilution | Method Ref.         | Prepared      | Analyzed      | Analyst | Batch   | Cert. |
|-----------------------------------------------|-----------------------------|--------|------|-------|------|------|----------|---------------------|---------------|---------------|---------|---------|-------|
| <b>Semivolatile Organic Compounds by GCMS</b> |                             |        |      |       |      |      |          |                     |               |               |         |         |       |
| TCLP Semivolatiles                            |                             |        |      |       |      |      |          |                     |               |               |         |         |       |
| Prepared by method SW846 3535A                |                             |        |      |       |      |      |          |                     |               |               |         |         |       |
| 108-60-1                                      | Bis(2-chloroisopropyl)ether | < 2.22 | U    | µg/l  | 5.00 | 2.22 | 1        | SW846<br>1311/8270D | 14-May-1<br>5 | 14-May-1<br>5 | MSL     | 1509444 | X     |
| 117-81-7                                      | Bis(2-ethylhexyl)phthalate  | < 2.34 | U    | µg/l  | 5.00 | 2.34 | 1        | "                   | "             | "             | "       | "       | X     |
| 101-55-3                                      | 4-Bromophenyl phenyl ether  | < 2.26 | U    | µg/l  | 5.00 | 2.26 | 1        | "                   | "             | "             | "       | "       | X     |
| 85-68-7                                       | Butyl benzyl phthalate      | < 2.63 | U    | µg/l  | 5.00 | 2.63 | 1        | "                   | "             | "             | "       | "       | X     |
| 86-74-8                                       | Carbazole                   | < 2.63 | U    | µg/l  | 5.00 | 2.63 | 1        | "                   | "             | "             | "       | "       | X     |
| 59-50-7                                       | 4-Chloro-3-methylphenol     | < 2.43 | U    | µg/l  | 5.00 | 2.43 | 1        | "                   | "             | "             | "       | "       | X     |
| 106-47-8                                      | 4-Chloroaniline             | < 2.63 | U    | µg/l  | 5.00 | 2.63 | 1        | "                   | "             | "             | "       | "       | X     |
| 91-58-7                                       | 2-Chloronaphthalene         | < 2.00 | U    | µg/l  | 5.00 | 2.00 | 1        | "                   | "             | "             | "       | "       | X     |
| 95-57-8                                       | 2-Chlorophenol              | < 2.03 | U    | µg/l  | 5.00 | 2.03 | 1        | "                   | "             | "             | "       | "       | X     |
| 7005-72-3                                     | 4-Chlorophenyl phenyl ether | < 2.34 | U    | µg/l  | 5.00 | 2.34 | 1        | "                   | "             | "             | "       | "       | X     |
| 218-01-9                                      | Chrysene                    | < 2.33 | U    | µg/l  | 5.00 | 2.33 | 1        | "                   | "             | "             | "       | "       | X     |
| 53-70-3                                       | Dibenzo (a,h) anthracene    | < 2.52 | U    | µg/l  | 5.00 | 2.52 | 1        | "                   | "             | "             | "       | "       | X     |
| 132-64-9                                      | Dibenzofuran                | < 2.15 | U    | µg/l  | 5.00 | 2.15 | 1        | "                   | "             | "             | "       | "       | X     |
| 95-50-1                                       | 1,2-Dichlorobenzene         | < 2.05 | U    | µg/l  | 5.00 | 2.05 | 1        | "                   | "             | "             | "       | "       | X     |
| 541-73-1                                      | 1,3-Dichlorobenzene         | < 2.02 | U    | µg/l  | 5.00 | 2.02 | 1        | "                   | "             | "             | "       | "       | X     |
| 106-46-7                                      | 1,4-Dichlorobenzene         | < 2.02 | U    | µg/l  | 5.00 | 2.02 | 1        | "                   | "             | "             | "       | "       | X     |
| 91-94-1                                       | 3,3'-Dichlorobenzidine      | < 2.22 | U    | µg/l  | 5.00 | 2.22 | 1        | "                   | "             | "             | "       | "       | X     |
| 120-83-2                                      | 2,4-Dichlorophenol          | < 1.84 | U    | µg/l  | 5.00 | 1.84 | 1        | "                   | "             | "             | "       | "       | X     |
| 84-66-2                                       | Diethyl phthalate           | < 2.38 | U    | µg/l  | 5.00 | 2.38 | 1        | "                   | "             | "             | "       | "       | X     |
| 131-11-3                                      | Dimethyl phthalate          | < 2.28 | U    | µg/l  | 5.00 | 2.28 | 1        | "                   | "             | "             | "       | "       | X     |
| 105-67-9                                      | 2,4-Dimethylphenol          | < 2.12 | U    | µg/l  | 5.00 | 2.12 | 1        | "                   | "             | "             | "       | "       | X     |
| 84-74-2                                       | Di-n-butyl phthalate        | < 2.62 | U    | µg/l  | 5.00 | 2.62 | 1        | "                   | "             | "             | "       | "       | X     |
| 534-52-1                                      | 4,6-Dinitro-2-methylphenol  | < 2.50 | U    | µg/l  | 5.00 | 2.50 | 1        | "                   | "             | "             | "       | "       | X     |
| 51-28-5                                       | 2,4-Dinitrophenol           | < 1.87 | U    | µg/l  | 5.00 | 1.87 | 1        | "                   | "             | "             | "       | "       | X     |
| 121-14-2                                      | 2,4-Dinitrotoluene          | < 2.38 | U    | µg/l  | 5.00 | 2.38 | 1        | "                   | "             | "             | "       | "       | X     |
| 606-20-2                                      | 2,6-Dinitrotoluene          | < 2.30 | U    | µg/l  | 5.00 | 2.30 | 1        | "                   | "             | "             | "       | "       | X     |
| 117-84-0                                      | Di-n-octyl phthalate        | < 2.79 | U    | µg/l  | 5.00 | 2.79 | 1        | "                   | "             | "             | "       | "       | X     |
| 206-44-0                                      | Fluoranthene                | < 2.32 | U    | µg/l  | 5.00 | 2.32 | 1        | "                   | "             | "             | "       | "       | X     |
| 86-73-7                                       | Fluorene                    | < 2.31 | U    | µg/l  | 5.00 | 2.31 | 1        | "                   | "             | "             | "       | "       | X     |
| 118-74-1                                      | Hexachlorobenzene           | < 2.15 | U    | µg/l  | 5.00 | 2.15 | 1        | "                   | "             | "             | "       | "       | X     |
| 87-68-3                                       | Hexachlorobutadiene         | < 2.03 | U    | µg/l  | 5.00 | 2.03 | 1        | "                   | "             | "             | "       | "       | X     |
| 77-47-4                                       | Hexachlorocyclopentadiene   | < 1.55 | U    | µg/l  | 5.00 | 1.55 | 1        | "                   | "             | "             | "       | "       | X     |
| 67-72-1                                       | Hexachloroethane            | < 2.15 | U    | µg/l  | 5.00 | 2.15 | 1        | "                   | "             | "             | "       | "       | X     |
| 193-39-5                                      | Indeno (1,2,3-cd) pyrene    | < 2.30 | U    | µg/l  | 5.00 | 2.30 | 1        | "                   | "             | "             | "       | "       | X     |
| 78-59-1                                       | Isophorone                  | < 2.62 | U    | µg/l  | 5.00 | 2.62 | 1        | "                   | "             | "             | "       | "       | X     |
| 91-57-6                                       | 2-Methylnaphthalene         | < 2.19 | U    | µg/l  | 5.00 | 2.19 | 1        | "                   | "             | "             | "       | "       | X     |
| 95-48-7                                       | 2-Methylphenol              | < 2.14 | U    | µg/l  | 5.00 | 2.14 | 1        | "                   | "             | "             | "       | "       | X     |
| 108-39-4,<br>106-44-5                         | 3 & 4-Methylphenol          | < 2.22 | U    | µg/l  | 10.0 | 2.22 | 1        | "                   | "             | "             | "       | "       | X     |
| 91-20-3                                       | Naphthalene                 | < 2.04 | U    | µg/l  | 5.00 | 2.04 | 1        | "                   | "             | "             | "       | "       | X     |
| 88-74-4                                       | 2-Nitroaniline              | < 2.34 | U    | µg/l  | 5.00 | 2.34 | 1        | "                   | "             | "             | "       | "       | X     |
| 99-09-2                                       | 3-Nitroaniline              | < 2.72 | U    | µg/l  | 5.00 | 2.72 | 1        | "                   | "             | "             | "       | "       | X     |
| 100-01-6                                      | 4-Nitroaniline              | < 2.62 | U    | µg/l  | 5.00 | 2.62 | 1        | "                   | "             | "             | "       | "       | X     |

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Sample Identification

West Berm - Dupe

SC07186-03

Client Project #

1537.005.001

Matrix

Soil

Collection Date/Time

06-May-15 10:45

Received

06-May-15

| <i>CAS No.</i> | <i>Analyte(s)</i> | <i>Result</i> | <i>Flag</i> | <i>Units</i> | <i>*RDL</i> | <i>MDL</i> | <i>Dilution</i> | <i>Method Ref.</i> | <i>Prepared</i> | <i>Analyzed</i> | <i>Analyst</i> | <i>Batch</i> | <i>Cert.</i> |
|----------------|-------------------|---------------|-------------|--------------|-------------|------------|-----------------|--------------------|-----------------|-----------------|----------------|--------------|--------------|
|----------------|-------------------|---------------|-------------|--------------|-------------|------------|-----------------|--------------------|-----------------|-----------------|----------------|--------------|--------------|

**Semivolatile Organic Compounds by GCMS**TCLP SemivolatilesPrepared by method SW846 3535A

|          |                                |        |   |      |      |      |   |                     |               |               |     |         |   |
|----------|--------------------------------|--------|---|------|------|------|---|---------------------|---------------|---------------|-----|---------|---|
| 98-95-3  | Nitrobenzene                   | < 2.12 | U | µg/l | 5.00 | 2.12 | 1 | SW846<br>1311/8270D | 14-May-1<br>5 | 14-May-1<br>5 | MSL | 1509444 | X |
| 88-75-5  | 2-Nitrophenol                  | < 2.20 | U | µg/l | 5.00 | 2.20 | 1 | "                   | "             | "             | "   | "       | X |
| 100-02-7 | 4-Nitrophenol                  | < 1.91 | U | µg/l | 5.00 | 1.91 | 1 | "                   | "             | "             | "   | "       | X |
| 62-75-9  | N-Nitrosodimethylamine         | < 1.84 | U | µg/l | 5.00 | 1.84 | 1 | "                   | "             | "             | "   | "       | X |
| 621-64-7 | N-Nitrosodi-n-propylamine      | < 2.32 | U | µg/l | 5.00 | 2.32 | 1 | "                   | "             | "             | "   | "       | X |
| 86-30-6  | N-Nitrosodiphenylamine         | < 2.58 | U | µg/l | 5.00 | 2.58 | 1 | "                   | "             | "             | "   | "       | X |
| 87-86-5  | Pentachlorophenol              | < 2.15 | U | µg/l | 5.00 | 2.15 | 1 | "                   | "             | "             | "   | "       | X |
| 85-01-8  | Phenanthrene                   | < 2.26 | U | µg/l | 5.00 | 2.26 | 1 | "                   | "             | "             | "   | "       | X |
| 108-95-2 | Phenol                         | < 2.04 | U | µg/l | 5.00 | 2.04 | 1 | "                   | "             | "             | "   | "       | X |
| 129-00-0 | Pyrene                         | < 2.42 | U | µg/l | 5.00 | 2.42 | 1 | "                   | "             | "             | "   | "       | X |
| 110-86-1 | Pyridine                       | < 1.62 | U | µg/l | 5.00 | 1.62 | 1 | "                   | "             | "             | "   | "       | X |
| 120-82-1 | 1,2,4-Trichlorobenzene         | < 1.99 | U | µg/l | 5.00 | 1.99 | 1 | "                   | "             | "             | "   | "       | X |
| 90-12-0  | 1-Methylnaphthalene            | < 1.96 | U | µg/l | 5.00 | 1.96 | 1 | "                   | "             | "             | "   | "       | X |
| 95-95-4  | 2,4,5-Trichlorophenol          | < 2.09 | U | µg/l | 5.00 | 2.09 | 1 | "                   | "             | "             | "   | "       | X |
| 88-06-2  | 2,4,6-Trichlorophenol          | < 1.96 | U | µg/l | 5.00 | 1.96 | 1 | "                   | "             | "             | "   | "       | X |
| 82-68-8  | Pentachloronitrobenzene        | < 2.22 | U | µg/l | 5.00 | 2.22 | 1 | "                   | "             | "             | "   | "       | X |
| 95-94-3  | 1,2,4,5-Tetrachlorobenzen<br>e | < 1.97 | U | µg/l | 5.00 | 1.97 | 1 | "                   | "             | "             | "   | "       | X |

Surrogate recoveries:

|           |                      |    |  |  |          |  |  |   |   |   |   |   |  |
|-----------|----------------------|----|--|--|----------|--|--|---|---|---|---|---|--|
| 321-60-8  | 2-Fluorobiphenyl     | 70 |  |  | 30-130 % |  |  | " | " | " | " | " |  |
| 367-12-4  | 2-Fluorophenol       | 75 |  |  | 15-110 % |  |  | " | " | " | " | " |  |
| 4165-60-0 | Nitrobenzene-d5      | 73 |  |  | 30-130 % |  |  | " | " | " | " | " |  |
| 4165-62-2 | Phenol-d5            | 75 |  |  | 15-110 % |  |  | " | " | " | " | " |  |
| 1718-51-0 | Terphenyl-d14        | 75 |  |  | 30-130 % |  |  | " | " | " | " | " |  |
| 118-79-6  | 2,4,6-Tribromophenol | 70 |  |  | 15-110 % |  |  | " | " | " | " | " |  |

**Semivolatile Organic Compounds by GC**Polychlorinated BiphenylsPrepared by method SW846 3545A

|            |                   |        |   |           |      |      |   |             |           |               |     |         |   |
|------------|-------------------|--------|---|-----------|------|------|---|-------------|-----------|---------------|-----|---------|---|
| 12674-11-2 | Aroclor-1016      | < 20.1 | U | µg/kg dry | 22.3 | 20.1 | 1 | SW846 8082A | 11-May-15 | 12-May-1<br>5 | IMR | 1509089 | X |
| 11104-28-2 | Aroclor-1221      | < 17.1 | U | µg/kg dry | 22.3 | 17.1 | 1 | "           | "         | "             | "   | "       | X |
| 11141-16-5 | Aroclor-1232      | < 20.0 | U | µg/kg dry | 22.3 | 20.0 | 1 | "           | "         | "             | "   | "       | X |
| 53469-21-9 | Aroclor-1242      | < 13.8 | U | µg/kg dry | 22.3 | 13.8 | 1 | "           | "         | "             | "   | "       | X |
| 12672-29-6 | Aroclor-1248      | < 14.0 | U | µg/kg dry | 22.3 | 14.0 | 1 | "           | "         | "             | "   | "       | X |
| 11097-69-1 | Aroclor-1254      | < 15.4 | U | µg/kg dry | 22.3 | 15.4 | 1 | "           | "         | "             | "   | "       | X |
| 11096-82-5 | Aroclor-1260 [2C] | 36.4   |   | µg/kg dry | 22.3 | 13.9 | 1 | "           | "         | "             | "   | "       | X |
| 37324-23-5 | Aroclor-1262      | < 20.0 | U | µg/kg dry | 22.3 | 20.0 | 1 | "           | "         | "             | "   | "       | X |
| 11100-14-4 | Aroclor-1268      | < 21.9 | U | µg/kg dry | 22.3 | 21.9 | 1 | "           | "         | "             | "   | "       | X |

Surrogate recoveries:

|            |                                        |     |  |  |          |  |  |   |   |   |   |   |  |
|------------|----------------------------------------|-----|--|--|----------|--|--|---|---|---|---|---|--|
| 10386-84-2 | 4,4-DB-Octafluorobiphenyl<br>(Sr)      | 65  |  |  | 30-150 % |  |  | " | " | " | " | " |  |
| 10386-84-2 | 4,4-DB-Octafluorobiphenyl<br>(Sr) [2C] | 70  |  |  | 30-150 % |  |  | " | " | " | " | " |  |
| 2051-24-3  | Decachlorobiphenyl (Sr)                | 95  |  |  | 30-150 % |  |  | " | " | " | " | " |  |
| 2051-24-3  | Decachlorobiphenyl (Sr)<br>[2C]        | 110 |  |  | 30-150 % |  |  | " | " | " | " | " |  |

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Sample Identification

West Berm - Dupe

SC07186-03

Client Project #

1537.005.001

Matrix

Soil

Collection Date/Time

06-May-15 10:45

Received

06-May-15

| <i>CAS No.</i> | <i>Analyte(s)</i> | <i>Result</i> | <i>Flag</i> | <i>Units</i> | <i>*RDL</i> | <i>MDL</i> | <i>Dilution</i> | <i>Method Ref.</i> | <i>Prepared</i> | <i>Analyzed</i> | <i>Analyst</i> | <i>Batch</i> | <i>Cert.</i> |
|----------------|-------------------|---------------|-------------|--------------|-------------|------------|-----------------|--------------------|-----------------|-----------------|----------------|--------------|--------------|
|----------------|-------------------|---------------|-------------|--------------|-------------|------------|-----------------|--------------------|-----------------|-----------------|----------------|--------------|--------------|

**TCLP Metals by EPA 1311 & 6000/7000 Series Methods**TCLP Extraction for HgPrepared by method SW846 1311

|  |                      |           |  |     |  |  |   |            |           |           |    |         |   |
|--|----------------------|-----------|--|-----|--|--|---|------------|-----------|-----------|----|---------|---|
|  | TCLP Extraction      | Completed |  | N/A |  |  | 1 | SW846 1311 | 11-May-15 | 12-May-15 | BD | 1509195 | X |
|  | Final pH of leachate | 6.52      |  | N/A |  |  | 1 | "          | "         | "         | "  | "       |   |

TCLP Extraction for MetalsPrepared by method SW846 1311

|           |                      |           |   |      |         |         |   |                  |           |           |     |         |   |
|-----------|----------------------|-----------|---|------|---------|---------|---|------------------|-----------|-----------|-----|---------|---|
|           | TCLP Extraction      | Completed |   | N/A  |         |         | 1 | "                | "         | "         | "   | "       | X |
|           | Final pH of leachate | 6.52      |   | N/A  |         |         | 1 | "                | "         | "         | "   | "       |   |
| 7440-22-4 | Silver               | < 0.0014  | U | mg/l | 0.0050  | 0.0014  | 1 | SW846 1311/6010C | 14-May-15 | 15-May-15 | EDT | 1509320 | X |
| 7440-38-2 | Arsenic              | 0.0054    |   | mg/l | 0.0040  | 0.0026  | 1 | "                | "         | 15-May-15 | "   | 1509548 | X |
| 7440-39-3 | Barium               | 0.410     |   | mg/l | 0.0500  | 0.0004  | 1 | "                | "         | 15-May-15 | "   | 1509320 | X |
| 7440-43-9 | Cadmium              | 0.0012    | J | mg/l | 0.0025  | 0.0002  | 1 | "                | "         | "         | "   | "       | X |
| 7440-47-3 | Chromium             | 0.0044    | J | mg/l | 0.0050  | 0.0010  | 1 | "                | "         | "         | "   | "       | X |
| 7439-97-6 | Mercury              | < 0.00009 | U | mg/l | 0.00020 | 0.00009 | 1 | SW846 1311/7470A | "         | 15-May-15 | YR  | 1509321 | X |
| 7439-92-1 | Lead                 | 0.0136    |   | mg/l | 0.0075  | 0.0018  | 1 | SW846 1311/6010C | "         | 15-May-15 | bjw | 1509548 | X |
| 7782-49-2 | Selenium             | 0.0072    | J | mg/l | 0.0150  | 0.0043  | 1 | "                | "         | 15-May-15 | "   | 1509320 | X |

**General Chemistry Parameters**

|  |          |      |  |   |  |  |   |               |           |           |    |         |  |
|--|----------|------|--|---|--|--|---|---------------|-----------|-----------|----|---------|--|
|  | % Solids | 84.5 |  | % |  |  | 1 | SM2540 G Mod. | 11-May-15 | 11-May-15 | DT | 1509144 |  |
|--|----------|------|--|---|--|--|---|---------------|-----------|-----------|----|---------|--|

**Toxicity Characteristics**

|  |                            |          |      |          |  |  |   |             |                 |                 |    |         |   |
|--|----------------------------|----------|------|----------|--|--|---|-------------|-----------------|-----------------|----|---------|---|
|  | Flashpoint                 | >200     |      | °F       |  |  | 1 | SW846 1010A | 12-May-15       | 12-May-15       | BD | 1509275 | X |
|  | Free Liquid                | Absent   |      | N/A      |  |  | 1 | SW846 9095B | 08-May-15       | 08-May-15       | BD | 1508979 | X |
|  | Ignitability by Definition | Negative | IgHT | N/A      |  |  | 1 | SW846 1030  | 08-May-15 17:00 | 08-May-15 17:30 | BD | 1508980 | X |
|  | pH                         | 7.80     | pH   | pH Units |  |  | 1 | SW846 9045D | 11-May-15 10:59 | 11-May-15 16:29 | BD | 1509150 | X |

Reactivity Cyanide/SulfidePrepared by method General Preparation

|            |                  |               |   |           |      |      |   |               |           |           |    |         |  |
|------------|------------------|---------------|---|-----------|------|------|---|---------------|-----------|-----------|----|---------|--|
|            | Reactivity       | See Narrative |   | mg/kg dry |      |      | 1 | SW846 Ch. 7.3 | 11-May-15 | 11-May-15 | TN | 1509189 |  |
| 57-12-5    | Reactive Cyanide | < 25.0        | U | mg/kg dry | 25.0 | 25.0 | 1 | "             | "         | "         | "  | "       |  |
| 18496-25-8 | Reactive Sulfide | < 50.0        | U | mg/kg dry | 50.0 | 50.0 | 1 | "             | "         | "         | "  | "       |  |

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Sample Identification

**West Berm**  
SC07186-04

Client Project #  
1537.005.001

Matrix  
Soil

Collection Date/Time  
06-May-15 10:45

Received  
06-May-15

| <i>CAS No.</i> | <i>Analyte(s)</i> | <i>Result</i> | <i>Flag</i> | <i>Units</i> | <i>*RDL</i> | <i>MDL</i> | <i>Dilution</i> | <i>Method Ref.</i> | <i>Prepared</i> | <i>Analyzed</i> | <i>Analyst</i> | <i>Batch</i> | <i>Cert.</i> |
|----------------|-------------------|---------------|-------------|--------------|-------------|------------|-----------------|--------------------|-----------------|-----------------|----------------|--------------|--------------|
|----------------|-------------------|---------------|-------------|--------------|-------------|------------|-----------------|--------------------|-----------------|-----------------|----------------|--------------|--------------|

**Volatile Organic Compounds**

|                 |           |  |  |     |  |  |   |            |           |           |    |         |   |
|-----------------|-----------|--|--|-----|--|--|---|------------|-----------|-----------|----|---------|---|
| TCLP Extraction | Completed |  |  | N/A |  |  | 1 | SW846 1311 | 13-May-15 | 14-May-15 | BD | 1509403 | X |
|-----------------|-----------|--|--|-----|--|--|---|------------|-----------|-----------|----|---------|---|

TCLP Volatile Organic Compounds

Prepared by method SW846 5030 Water MS

Initial weight: 5 ml

|          |                      |       |      |      |      |     |   |                  |           |           |     |         |   |
|----------|----------------------|-------|------|------|------|-----|---|------------------|-----------|-----------|-----|---------|---|
| 71-43-2  | Benzene              | < 0.9 | U, D | µg/l | 5.0  | 0.9 | 5 | SW846 1311/8260C | 15-May-15 | 15-May-15 | GMA | 1509535 | X |
| 78-93-3  | 2-Butanone (MEK)     | < 6.2 | U, D | µg/l | 50.0 | 6.2 | 5 | "                | "         | "         | "   | "       | X |
| 56-23-5  | Carbon tetrachloride | < 1.1 | U, D | µg/l | 5.0  | 1.1 | 5 | "                | "         | "         | "   | "       | X |
| 108-90-7 | Chlorobenzene        | < 1.0 | U, D | µg/l | 5.0  | 1.0 | 5 | "                | "         | "         | "   | "       | X |
| 67-66-3  | Chloroform           | < 2.0 | U, D | µg/l | 5.0  | 2.0 | 5 | "                | "         | "         | "   | "       | X |
| 106-46-7 | 1,4-Dichlorobenzene  | < 1.2 | U, D | µg/l | 5.0  | 1.2 | 5 | "                | "         | "         | "   | "       | X |
| 107-06-2 | 1,2-Dichloroethane   | < 0.8 | U, D | µg/l | 5.0  | 0.8 | 5 | "                | "         | "         | "   | "       | X |
| 75-35-4  | 1,1-Dichloroethene   | < 1.4 | U, D | µg/l | 5.0  | 1.4 | 5 | "                | "         | "         | "   | "       | X |
| 87-68-3  | Hexachlorobutadiene  | < 2.0 | U, D | µg/l | 2.5  | 2.0 | 5 | "                | "         | "         | "   | "       | X |
| 127-18-4 | Tetrachloroethene    | < 2.9 | U, D | µg/l | 5.0  | 2.9 | 5 | "                | "         | "         | "   | "       | X |
| 79-01-6  | Trichloroethene      | < 1.9 | U, D | µg/l | 5.0  | 1.9 | 5 | "                | "         | "         | "   | "       | X |
| 75-01-4  | Vinyl chloride       | < 1.7 | U, D | µg/l | 5.0  | 1.7 | 5 | "                | "         | "         | "   | "       | X |

Surrogate recoveries:

|            |                       |     |  |  |          |  |  |   |   |   |   |   |  |
|------------|-----------------------|-----|--|--|----------|--|--|---|---|---|---|---|--|
| 460-00-4   | 4-Bromofluorobenzene  | 91  |  |  | 70-130 % |  |  | " | " | " | " | " |  |
| 2037-26-5  | Toluene-d8            | 95  |  |  | 70-130 % |  |  | " | " | " | " | " |  |
| 17060-07-0 | 1,2-Dichloroethane-d4 | 113 |  |  | 70-130 % |  |  | " | " | " | " | " |  |
| 1868-53-7  | Dibromofluoromethane  | 94  |  |  | 70-130 % |  |  | " | " | " | " | " |  |

**Semivolatile Organic Compounds by GCMS**TCLP Extraction for Semivolatiles

Prepared by method SW846 1311

|                      |           |  |  |     |  |  |   |            |           |           |    |         |   |
|----------------------|-----------|--|--|-----|--|--|---|------------|-----------|-----------|----|---------|---|
| TCLP Extraction      | Completed |  |  | N/A |  |  | 1 | SW846 1311 | 11-May-15 | 12-May-15 | BD | 1509197 | X |
| Final pH of leachate | 6.54      |  |  | N/A |  |  | 1 | "          | "         | "         | "  | "       |   |

TCLP Semivolatiles

Prepared by method SW846 3535A

|          |                            |        |   |      |      |      |   |                  |           |           |     |         |   |
|----------|----------------------------|--------|---|------|------|------|---|------------------|-----------|-----------|-----|---------|---|
| 83-32-9  | Acenaphthene               | < 2.13 | U | µg/l | 5.00 | 2.13 | 1 | SW846 1311/8270D | 14-May-15 | 14-May-15 | MSL | 1509444 | X |
| 208-96-8 | Acenaphthylene             | < 2.16 | U | µg/l | 5.00 | 2.16 | 1 | "                | "         | "         | "   | "       | X |
| 62-53-3  | Aniline                    | < 2.34 | U | µg/l | 5.00 | 2.34 | 1 | "                | "         | "         | "   | "       | X |
| 120-12-7 | Anthracene                 | < 2.33 | U | µg/l | 5.00 | 2.33 | 1 | "                | "         | "         | "   | "       | X |
| 103-33-3 | Azobenzene/Diphenyldiazene | < 2.46 | U | µg/l | 5.00 | 2.46 | 1 | "                | "         | "         | "   | "       |   |
| 92-87-5  | Benzidine                  | < 2.68 | U | µg/l | 5.00 | 2.68 | 1 | "                | "         | "         | "   | "       | X |
| 56-55-3  | Benzo (a) anthracene       | < 2.26 | U | µg/l | 5.00 | 2.26 | 1 | "                | "         | "         | "   | "       | X |
| 50-32-8  | Benzo (a) pyrene           | < 2.40 | U | µg/l | 5.00 | 2.40 | 1 | "                | "         | "         | "   | "       | X |
| 205-99-2 | Benzo (b) fluoranthene     | < 2.08 | U | µg/l | 5.00 | 2.08 | 1 | "                | "         | "         | "   | "       | X |
| 191-24-2 | Benzo (g,h,i) perylene     | < 2.40 | U | µg/l | 5.00 | 2.40 | 1 | "                | "         | "         | "   | "       | X |
| 207-08-9 | Benzo (k) fluoranthene     | < 2.73 | U | µg/l | 5.00 | 2.73 | 1 | "                | "         | "         | "   | "       | X |
| 65-85-0  | Benzoic acid               | < 1.98 | U | µg/l | 5.00 | 1.98 | 1 | "                | "         | "         | "   | "       | X |
| 100-51-6 | Benzyl alcohol             | < 2.14 | U | µg/l | 5.00 | 2.14 | 1 | "                | "         | "         | "   | "       | X |
| 111-91-1 | Bis(2-chloroethoxy)methane | < 2.23 | U | µg/l | 5.00 | 2.23 | 1 | "                | "         | "         | "   | "       | X |
| 111-44-4 | Bis(2-chloroethyl)ether    | < 2.14 | U | µg/l | 5.00 | 2.14 | 1 | "                | "         | "         | "   | "       | X |

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Sample Identification

**West Berm**  
SC07186-04

Client Project #  
1537.005.001

Matrix  
Soil

Collection Date/Time  
06-May-15 10:45

Received  
06-May-15

| <i>CAS No.</i>                                | <i>Analyte(s)</i>           | <i>Result</i> | <i>Flag</i> | <i>Units</i> | <i>*RDL</i> | <i>MDL</i> | <i>Dilution</i> | <i>Method Ref.</i>  | <i>Prepared</i> | <i>Analyzed</i> | <i>Analyst</i> | <i>Batch</i> | <i>Cert.</i> |
|-----------------------------------------------|-----------------------------|---------------|-------------|--------------|-------------|------------|-----------------|---------------------|-----------------|-----------------|----------------|--------------|--------------|
| <b>Semivolatile Organic Compounds by GCMS</b> |                             |               |             |              |             |            |                 |                     |                 |                 |                |              |              |
| TCLP Semivolatiles                            |                             |               |             |              |             |            |                 |                     |                 |                 |                |              |              |
| Prepared by method SW846 3535A                |                             |               |             |              |             |            |                 |                     |                 |                 |                |              |              |
| 108-60-1                                      | Bis(2-chloroisopropyl)ether | < 2.22        | U           | µg/l         | 5.00        | 2.22       | 1               | SW846<br>1311/8270D | 14-May-1<br>5   | 14-May-1<br>5   | MSL            | 1509444      | X            |
| 117-81-7                                      | Bis(2-ethylhexyl)phthalate  | < 2.34        | U           | µg/l         | 5.00        | 2.34       | 1               | "                   | "               | "               | "              | "            | X            |
| 101-55-3                                      | 4-Bromophenyl phenyl ether  | < 2.26        | U           | µg/l         | 5.00        | 2.26       | 1               | "                   | "               | "               | "              | "            | X            |
| 85-68-7                                       | Butyl benzyl phthalate      | < 2.63        | U           | µg/l         | 5.00        | 2.63       | 1               | "                   | "               | "               | "              | "            | X            |
| 86-74-8                                       | Carbazole                   | < 2.63        | U           | µg/l         | 5.00        | 2.63       | 1               | "                   | "               | "               | "              | "            | X            |
| 59-50-7                                       | 4-Chloro-3-methylphenol     | < 2.43        | U           | µg/l         | 5.00        | 2.43       | 1               | "                   | "               | "               | "              | "            | X            |
| 106-47-8                                      | 4-Chloroaniline             | < 2.63        | U           | µg/l         | 5.00        | 2.63       | 1               | "                   | "               | "               | "              | "            | X            |
| 91-58-7                                       | 2-Chloronaphthalene         | < 2.00        | U           | µg/l         | 5.00        | 2.00       | 1               | "                   | "               | "               | "              | "            | X            |
| 95-57-8                                       | 2-Chlorophenol              | < 2.03        | U           | µg/l         | 5.00        | 2.03       | 1               | "                   | "               | "               | "              | "            | X            |
| 7005-72-3                                     | 4-Chlorophenyl phenyl ether | < 2.34        | U           | µg/l         | 5.00        | 2.34       | 1               | "                   | "               | "               | "              | "            | X            |
| 218-01-9                                      | Chrysene                    | < 2.33        | U           | µg/l         | 5.00        | 2.33       | 1               | "                   | "               | "               | "              | "            | X            |
| 53-70-3                                       | Dibenzo (a,h) anthracene    | < 2.52        | U           | µg/l         | 5.00        | 2.52       | 1               | "                   | "               | "               | "              | "            | X            |
| 132-64-9                                      | Dibenzofuran                | < 2.15        | U           | µg/l         | 5.00        | 2.15       | 1               | "                   | "               | "               | "              | "            | X            |
| 95-50-1                                       | 1,2-Dichlorobenzene         | < 2.05        | U           | µg/l         | 5.00        | 2.05       | 1               | "                   | "               | "               | "              | "            | X            |
| 541-73-1                                      | 1,3-Dichlorobenzene         | < 2.02        | U           | µg/l         | 5.00        | 2.02       | 1               | "                   | "               | "               | "              | "            | X            |
| 106-46-7                                      | 1,4-Dichlorobenzene         | < 2.02        | U           | µg/l         | 5.00        | 2.02       | 1               | "                   | "               | "               | "              | "            | X            |
| 91-94-1                                       | 3,3'-Dichlorobenzidine      | < 2.22        | U           | µg/l         | 5.00        | 2.22       | 1               | "                   | "               | "               | "              | "            | X            |
| 120-83-2                                      | 2,4-Dichlorophenol          | < 1.84        | U           | µg/l         | 5.00        | 1.84       | 1               | "                   | "               | "               | "              | "            | X            |
| 84-66-2                                       | Diethyl phthalate           | < 2.38        | U           | µg/l         | 5.00        | 2.38       | 1               | "                   | "               | "               | "              | "            | X            |
| 131-11-3                                      | Dimethyl phthalate          | < 2.28        | U           | µg/l         | 5.00        | 2.28       | 1               | "                   | "               | "               | "              | "            | X            |
| 105-67-9                                      | 2,4-Dimethylphenol          | < 2.12        | U           | µg/l         | 5.00        | 2.12       | 1               | "                   | "               | "               | "              | "            | X            |
| 84-74-2                                       | Di-n-butyl phthalate        | < 2.62        | U           | µg/l         | 5.00        | 2.62       | 1               | "                   | "               | "               | "              | "            | X            |
| 534-52-1                                      | 4,6-Dinitro-2-methylphenol  | < 2.50        | U           | µg/l         | 5.00        | 2.50       | 1               | "                   | "               | "               | "              | "            | X            |
| 51-28-5                                       | 2,4-Dinitrophenol           | < 1.87        | U           | µg/l         | 5.00        | 1.87       | 1               | "                   | "               | "               | "              | "            | X            |
| 121-14-2                                      | 2,4-Dinitrotoluene          | < 2.38        | U           | µg/l         | 5.00        | 2.38       | 1               | "                   | "               | "               | "              | "            | X            |
| 606-20-2                                      | 2,6-Dinitrotoluene          | < 2.30        | U           | µg/l         | 5.00        | 2.30       | 1               | "                   | "               | "               | "              | "            | X            |
| 117-84-0                                      | Di-n-octyl phthalate        | < 2.79        | U           | µg/l         | 5.00        | 2.79       | 1               | "                   | "               | "               | "              | "            | X            |
| 206-44-0                                      | Fluoranthene                | < 2.32        | U           | µg/l         | 5.00        | 2.32       | 1               | "                   | "               | "               | "              | "            | X            |
| 86-73-7                                       | Fluorene                    | < 2.31        | U           | µg/l         | 5.00        | 2.31       | 1               | "                   | "               | "               | "              | "            | X            |
| 118-74-1                                      | Hexachlorobenzene           | < 2.15        | U           | µg/l         | 5.00        | 2.15       | 1               | "                   | "               | "               | "              | "            | X            |
| 87-68-3                                       | Hexachlorobutadiene         | < 2.03        | U           | µg/l         | 5.00        | 2.03       | 1               | "                   | "               | "               | "              | "            | X            |
| 77-47-4                                       | Hexachlorocyclopentadiene   | < 1.55        | U           | µg/l         | 5.00        | 1.55       | 1               | "                   | "               | "               | "              | "            | X            |
| 67-72-1                                       | Hexachloroethane            | < 2.15        | U           | µg/l         | 5.00        | 2.15       | 1               | "                   | "               | "               | "              | "            | X            |
| 193-39-5                                      | Indeno (1,2,3-cd) pyrene    | < 2.30        | U           | µg/l         | 5.00        | 2.30       | 1               | "                   | "               | "               | "              | "            | X            |
| 78-59-1                                       | Isophorone                  | < 2.62        | U           | µg/l         | 5.00        | 2.62       | 1               | "                   | "               | "               | "              | "            | X            |
| 91-57-6                                       | 2-Methylnaphthalene         | < 2.19        | U           | µg/l         | 5.00        | 2.19       | 1               | "                   | "               | "               | "              | "            | X            |
| 95-48-7                                       | 2-Methylphenol              | < 2.14        | U           | µg/l         | 5.00        | 2.14       | 1               | "                   | "               | "               | "              | "            | X            |
| 108-39-4,<br>106-44-5                         | 3 & 4-Methylphenol          | < 2.22        | U           | µg/l         | 10.0        | 2.22       | 1               | "                   | "               | "               | "              | "            | X            |
| 91-20-3                                       | Naphthalene                 | < 2.04        | U           | µg/l         | 5.00        | 2.04       | 1               | "                   | "               | "               | "              | "            | X            |
| 88-74-4                                       | 2-Nitroaniline              | < 2.34        | U           | µg/l         | 5.00        | 2.34       | 1               | "                   | "               | "               | "              | "            | X            |
| 99-09-2                                       | 3-Nitroaniline              | < 2.72        | U           | µg/l         | 5.00        | 2.72       | 1               | "                   | "               | "               | "              | "            | X            |
| 100-01-6                                      | 4-Nitroaniline              | < 2.62        | U           | µg/l         | 5.00        | 2.62       | 1               | "                   | "               | "               | "              | "            | X            |

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Sample Identification

**West Berm**  
SC07186-04

Client Project #  
1537.005.001

Matrix  
Soil

Collection Date/Time  
06-May-15 10:45

Received  
06-May-15

| <i>CAS No.</i> | <i>Analyte(s)</i> | <i>Result</i> | <i>Flag</i> | <i>Units</i> | <i>*RDL</i> | <i>MDL</i> | <i>Dilution</i> | <i>Method Ref.</i> | <i>Prepared</i> | <i>Analyzed</i> | <i>Analyst</i> | <i>Batch</i> | <i>Cert.</i> |
|----------------|-------------------|---------------|-------------|--------------|-------------|------------|-----------------|--------------------|-----------------|-----------------|----------------|--------------|--------------|
|----------------|-------------------|---------------|-------------|--------------|-------------|------------|-----------------|--------------------|-----------------|-----------------|----------------|--------------|--------------|

**Semivolatile Organic Compounds by GCMS**TCLP SemivolatilesPrepared by method SW846 3535A

|          |                                |        |   |      |      |      |   |                     |               |               |     |         |   |
|----------|--------------------------------|--------|---|------|------|------|---|---------------------|---------------|---------------|-----|---------|---|
| 98-95-3  | Nitrobenzene                   | < 2.12 | U | µg/l | 5.00 | 2.12 | 1 | SW846<br>1311/8270D | 14-May-1<br>5 | 14-May-1<br>5 | MSL | 1509444 | X |
| 88-75-5  | 2-Nitrophenol                  | < 2.20 | U | µg/l | 5.00 | 2.20 | 1 | "                   | "             | "             | "   | "       | X |
| 100-02-7 | 4-Nitrophenol                  | < 1.91 | U | µg/l | 5.00 | 1.91 | 1 | "                   | "             | "             | "   | "       | X |
| 62-75-9  | N-Nitrosodimethylamine         | < 1.84 | U | µg/l | 5.00 | 1.84 | 1 | "                   | "             | "             | "   | "       | X |
| 621-64-7 | N-Nitrosodi-n-propylamine      | < 2.32 | U | µg/l | 5.00 | 2.32 | 1 | "                   | "             | "             | "   | "       | X |
| 86-30-6  | N-Nitrosodiphenylamine         | < 2.58 | U | µg/l | 5.00 | 2.58 | 1 | "                   | "             | "             | "   | "       | X |
| 87-86-5  | Pentachlorophenol              | < 2.15 | U | µg/l | 5.00 | 2.15 | 1 | "                   | "             | "             | "   | "       | X |
| 85-01-8  | Phenanthrene                   | < 2.26 | U | µg/l | 5.00 | 2.26 | 1 | "                   | "             | "             | "   | "       | X |
| 108-95-2 | Phenol                         | < 2.04 | U | µg/l | 5.00 | 2.04 | 1 | "                   | "             | "             | "   | "       | X |
| 129-00-0 | Pyrene                         | < 2.42 | U | µg/l | 5.00 | 2.42 | 1 | "                   | "             | "             | "   | "       | X |
| 110-86-1 | Pyridine                       | < 1.62 | U | µg/l | 5.00 | 1.62 | 1 | "                   | "             | "             | "   | "       | X |
| 120-82-1 | 1,2,4-Trichlorobenzene         | < 1.99 | U | µg/l | 5.00 | 1.99 | 1 | "                   | "             | "             | "   | "       | X |
| 90-12-0  | 1-Methylnaphthalene            | < 1.96 | U | µg/l | 5.00 | 1.96 | 1 | "                   | "             | "             | "   | "       | X |
| 95-95-4  | 2,4,5-Trichlorophenol          | < 2.09 | U | µg/l | 5.00 | 2.09 | 1 | "                   | "             | "             | "   | "       | X |
| 88-06-2  | 2,4,6-Trichlorophenol          | < 1.96 | U | µg/l | 5.00 | 1.96 | 1 | "                   | "             | "             | "   | "       | X |
| 82-68-8  | Pentachloronitrobenzene        | < 2.22 | U | µg/l | 5.00 | 2.22 | 1 | "                   | "             | "             | "   | "       | X |
| 95-94-3  | 1,2,4,5-Tetrachlorobenzen<br>e | < 1.97 | U | µg/l | 5.00 | 1.97 | 1 | "                   | "             | "             | "   | "       | X |

Surrogate recoveries:

|           |                      |    |  |  |          |  |  |   |   |   |   |   |  |
|-----------|----------------------|----|--|--|----------|--|--|---|---|---|---|---|--|
| 321-60-8  | 2-Fluorobiphenyl     | 75 |  |  | 30-130 % |  |  | " | " | " | " | " |  |
| 367-12-4  | 2-Fluorophenol       | 78 |  |  | 15-110 % |  |  | " | " | " | " | " |  |
| 4165-60-0 | Nitrobenzene-d5      | 77 |  |  | 30-130 % |  |  | " | " | " | " | " |  |
| 4165-62-2 | Phenol-d5            | 77 |  |  | 15-110 % |  |  | " | " | " | " | " |  |
| 1718-51-0 | Terphenyl-d14        | 80 |  |  | 30-130 % |  |  | " | " | " | " | " |  |
| 118-79-6  | 2,4,6-Tribromophenol | 80 |  |  | 15-110 % |  |  | " | " | " | " | " |  |

**Semivolatile Organic Compounds by GC**Polychlorinated BiphenylsPrepared by method SW846 3545A

|            |              |        |   |           |      |      |   |             |           |               |     |         |   |
|------------|--------------|--------|---|-----------|------|------|---|-------------|-----------|---------------|-----|---------|---|
| 12674-11-2 | Aroclor-1016 | < 20.6 | U | µg/kg dry | 22.8 | 20.6 | 1 | SW846 8082A | 11-May-15 | 12-May-1<br>5 | IMR | 1509089 | X |
| 11104-28-2 | Aroclor-1221 | < 17.5 | U | µg/kg dry | 22.8 | 17.5 | 1 | "           | "         | "             | "   | "       | X |
| 11141-16-5 | Aroclor-1232 | < 20.5 | U | µg/kg dry | 22.8 | 20.5 | 1 | "           | "         | "             | "   | "       | X |
| 53469-21-9 | Aroclor-1242 | < 14.2 | U | µg/kg dry | 22.8 | 14.2 | 1 | "           | "         | "             | "   | "       | X |
| 12672-29-6 | Aroclor-1248 | < 14.3 | U | µg/kg dry | 22.8 | 14.3 | 1 | "           | "         | "             | "   | "       | X |
| 11097-69-1 | Aroclor-1254 | < 15.7 | U | µg/kg dry | 22.8 | 15.7 | 1 | "           | "         | "             | "   | "       | X |
| 11096-82-5 | Aroclor-1260 | 50.0   |   | µg/kg dry | 22.8 | 16.0 | 1 | "           | "         | "             | "   | "       | X |
| 37324-23-5 | Aroclor-1262 | < 20.4 | U | µg/kg dry | 22.8 | 20.4 | 1 | "           | "         | "             | "   | "       | X |
| 11100-14-4 | Aroclor-1268 | < 22.4 | U | µg/kg dry | 22.8 | 22.4 | 1 | "           | "         | "             | "   | "       | X |

Surrogate recoveries:

|            |                                        |     |  |  |          |  |  |   |   |   |   |   |  |
|------------|----------------------------------------|-----|--|--|----------|--|--|---|---|---|---|---|--|
| 10386-84-2 | 4,4-DB-Octafluorobiphenyl<br>(Sr)      | 75  |  |  | 30-150 % |  |  | " | " | " | " | " |  |
| 10386-84-2 | 4,4-DB-Octafluorobiphenyl<br>(Sr) [2C] | 90  |  |  | 30-150 % |  |  | " | " | " | " | " |  |
| 2051-24-3  | Decachlorobiphenyl (Sr)                | 100 |  |  | 30-150 % |  |  | " | " | " | " | " |  |
| 2051-24-3  | Decachlorobiphenyl (Sr)<br>[2C]        | 110 |  |  | 30-150 % |  |  | " | " | " | " | " |  |

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Sample Identification

West Berm  
SC07186-04

Client Project #  
1537.005.001

Matrix  
Soil

Collection Date/Time  
06-May-15 10:45

Received  
06-May-15

| CAS No. | Analyte(s) | Result | Flag | Units | *RDL | MDL | Dilution | Method Ref. | Prepared | Analyzed | Analyst | Batch | Cert. |
|---------|------------|--------|------|-------|------|-----|----------|-------------|----------|----------|---------|-------|-------|
|---------|------------|--------|------|-------|------|-----|----------|-------------|----------|----------|---------|-------|-------|

**TCLP Metals by EPA 1311 & 6000/7000 Series Methods**TCLP Extraction for HgPrepared by method SW846 1311

|                      |           |  |  |     |  |  |   |            |           |           |    |         |   |
|----------------------|-----------|--|--|-----|--|--|---|------------|-----------|-----------|----|---------|---|
| TCLP Extraction      | Completed |  |  | N/A |  |  | 1 | SW846 1311 | 11-May-15 | 12-May-15 | BD | 1509195 | X |
| Final pH of leachate | 6.55      |  |  | N/A |  |  | 1 | "          | "         | "         | "  | "       |   |

TCLP Extraction for MetalsPrepared by method SW846 1311

|                      |           |   |  |      |         |         |   |                  |           |           |     |         |   |
|----------------------|-----------|---|--|------|---------|---------|---|------------------|-----------|-----------|-----|---------|---|
| TCLP Extraction      | Completed |   |  | N/A  |         |         | 1 | "                | "         | "         | "   | "       | X |
| Final pH of leachate | 6.55      |   |  | N/A  |         |         | 1 | "                | "         | "         | "   | "       |   |
| 7440-22-4 Silver     | < 0.0014  | U |  | mg/l | 0.0050  | 0.0014  | 1 | SW846 1311/6010C | 14-May-15 | 15-May-15 | EDT | 1509320 | X |
| 7440-38-2 Arsenic    | 0.0049    |   |  | mg/l | 0.0040  | 0.0026  | 1 | "                | "         | 15-May-15 | "   | 1509548 | X |
| 7440-39-3 Barium     | 0.416     |   |  | mg/l | 0.0500  | 0.0004  | 1 | "                | "         | 15-May-15 | "   | 1509320 | X |
| 7440-43-9 Cadmium    | 0.0012    | J |  | mg/l | 0.0025  | 0.0002  | 1 | "                | "         | "         | "   | "       | X |
| 7440-47-3 Chromium   | 0.0036    | J |  | mg/l | 0.0050  | 0.0010  | 1 | "                | "         | "         | "   | "       | X |
| 7439-97-6 Mercury    | < 0.00009 | U |  | mg/l | 0.00020 | 0.00009 | 1 | SW846 1311/7470A | "         | 15-May-15 | YR  | 1509321 | X |
| 7439-92-1 Lead       | 0.0214    |   |  | mg/l | 0.0075  | 0.0018  | 1 | SW846 1311/6010C | "         | 15-May-15 | bjw | 1509548 | X |
| 7782-49-2 Selenium   | 0.0044    | J |  | mg/l | 0.0150  | 0.0043  | 1 | "                | "         | 15-May-15 | "   | 1509320 | X |

**General Chemistry Parameters**

|          |      |  |  |   |  |  |   |               |           |           |    |         |  |
|----------|------|--|--|---|--|--|---|---------------|-----------|-----------|----|---------|--|
| % Solids | 84.5 |  |  | % |  |  | 1 | SM2540 G Mod. | 11-May-15 | 11-May-15 | DT | 1509144 |  |
|----------|------|--|--|---|--|--|---|---------------|-----------|-----------|----|---------|--|

**Toxicity Characteristics**

|                            |          |      |  |          |  |  |   |             |                 |                 |    |         |   |
|----------------------------|----------|------|--|----------|--|--|---|-------------|-----------------|-----------------|----|---------|---|
| Flashpoint                 | >200     |      |  | °F       |  |  | 1 | SW846 1010A | 12-May-15       | 12-May-15       | BD | 1509275 | X |
| Free Liquid                | Absent   |      |  | N/A      |  |  | 1 | SW846 9095B | 08-May-15       | 08-May-15       | BD | 1508979 | X |
| Ignitability by Definition | Negative | IgHT |  | N/A      |  |  | 1 | SW846 1030  | 08-May-15 17:00 | 08-May-15 17:30 | BD | 1508980 | X |
| pH                         | 7.76     | pH   |  | pH Units |  |  | 1 | SW846 9045D | 11-May-15 10:59 | 11-May-15 16:32 | BD | 1509150 | X |

Reactivity Cyanide/SulfidePrepared by method General Preparation

|                             |               |   |  |           |      |      |   |               |           |           |    |         |  |
|-----------------------------|---------------|---|--|-----------|------|------|---|---------------|-----------|-----------|----|---------|--|
| Reactivity                  | See Narrative |   |  | mg/kg dry |      |      | 1 | SW846 Ch. 7.3 | 11-May-15 | 11-May-15 | TN | 1509189 |  |
| 57-12-5 Reactive Cyanide    | < 24.8        | U |  | mg/kg dry | 24.8 | 24.8 | 1 | "             | "         | "         | "  | "       |  |
| 18496-25-8 Reactive Sulfide | < 49.6        | U |  | mg/kg dry | 49.6 | 49.6 | 1 | "             | "         | "         | "  | "       |  |

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# Volatile Organic Compounds - Quality Control

| Analyte(s)                                 | Result | Flag | Units | *RDL | Spike Level                               | Source Result | %REC | %REC Limits | RPD | RPD Limit |
|--------------------------------------------|--------|------|-------|------|-------------------------------------------|---------------|------|-------------|-----|-----------|
| <b>Batch 1509535 - SW846 5030 Water MS</b> |        |      |       |      |                                           |               |      |             |     |           |
| <b><u>Blank (1509535-BLK1)</u></b>         |        |      |       |      | <u>Prepared &amp; Analyzed: 15-May-15</u> |               |      |             |     |           |
| Benzene                                    | < 0.2  | U    | µg/l  | 0.2  |                                           |               |      |             |     |           |
| Carbon tetrachloride                       | < 0.2  | U    | µg/l  | 0.2  |                                           |               |      |             |     |           |
| Chlorobenzene                              | < 0.2  | U    | µg/l  | 0.2  |                                           |               |      |             |     |           |
| Chloroform                                 | < 0.4  | U    | µg/l  | 0.4  |                                           |               |      |             |     |           |
| 1,4-Dichlorobenzene                        | < 0.2  | U    | µg/l  | 0.2  |                                           |               |      |             |     |           |
| 1,2-Dichloroethane                         | < 0.2  | U    | µg/l  | 0.2  |                                           |               |      |             |     |           |
| 1,1-Dichloroethene                         | < 0.3  | U    | µg/l  | 0.3  |                                           |               |      |             |     |           |
| Hexachlorobutadiene                        | < 0.4  | U    | µg/l  | 0.4  |                                           |               |      |             |     |           |
| Tetrachloroethene                          | < 0.6  | U    | µg/l  | 0.6  |                                           |               |      |             |     |           |
| Trichloroethene                            | < 0.4  | U    | µg/l  | 0.4  |                                           |               |      |             |     |           |
| Vinyl chloride                             | < 0.3  | U    | µg/l  | 0.3  |                                           |               |      |             |     |           |
| Surrogate: 4-Bromofluorobenzene            | 48.2   |      | µg/l  |      | 50.0                                      |               | 96   | 70-130      |     |           |
| Surrogate: Toluene-d8                      | 47.9   |      | µg/l  |      | 50.0                                      |               | 96   | 70-130      |     |           |
| Surrogate: 1,2-Dichloroethane-d4           | 54.8   |      | µg/l  |      | 50.0                                      |               | 110  | 70-130      |     |           |
| Surrogate: Dibromofluoromethane            | 48.8   |      | µg/l  |      | 50.0                                      |               | 98   | 70-130      |     |           |
| <b><u>Blank (1509535-BLK2)</u></b>         |        |      |       |      | <u>Prepared &amp; Analyzed: 15-May-15</u> |               |      |             |     |           |
| Benzene                                    | < 0.9  | U, D | µg/l  | 0.9  |                                           |               |      |             |     |           |
| 2-Butanone (MEK)                           | < 6.2  | U, D | µg/l  | 6.2  |                                           |               |      |             |     |           |
| Carbon tetrachloride                       | < 1.1  | U, D | µg/l  | 1.1  |                                           |               |      |             |     |           |
| Chlorobenzene                              | < 1.0  | U, D | µg/l  | 1.0  |                                           |               |      |             |     |           |
| Chloroform                                 | 2.4    | J, D | µg/l  | 2.0  |                                           |               |      |             |     |           |
| 1,4-Dichlorobenzene                        | < 1.2  | U, D | µg/l  | 1.2  |                                           |               |      |             |     |           |
| 1,2-Dichloroethane                         | < 0.8  | U, D | µg/l  | 0.8  |                                           |               |      |             |     |           |
| 1,1-Dichloroethene                         | < 1.4  | U, D | µg/l  | 1.4  |                                           |               |      |             |     |           |
| Hexachlorobutadiene                        | < 2.0  | U, D | µg/l  | 2.0  |                                           |               |      |             |     |           |
| Tetrachloroethene                          | < 2.9  | U, D | µg/l  | 2.9  |                                           |               |      |             |     |           |
| Trichloroethene                            | < 1.9  | U, D | µg/l  | 1.9  |                                           |               |      |             |     |           |
| Vinyl chloride                             | < 1.7  | U, D | µg/l  | 1.7  |                                           |               |      |             |     |           |
| Surrogate: 4-Bromofluorobenzene            | 46.8   |      | µg/l  |      | 50.0                                      |               | 94   | 70-130      |     |           |
| Surrogate: Toluene-d8                      | 47.3   |      | µg/l  |      | 50.0                                      |               | 95   | 70-130      |     |           |
| Surrogate: 1,2-Dichloroethane-d4           | 54.6   |      | µg/l  |      | 50.0                                      |               | 109  | 70-130      |     |           |
| Surrogate: Dibromofluoromethane            | 48.9   |      | µg/l  |      | 50.0                                      |               | 98   | 70-130      |     |           |
| <b><u>LCS (1509535-BS2)</u></b>            |        |      |       |      | <u>Prepared &amp; Analyzed: 15-May-15</u> |               |      |             |     |           |
| Benzene                                    | 19.4   | D    | µg/l  |      | 20.0                                      |               | 97   | 70-130      |     |           |
| 2-Butanone (MEK)                           | 21.6   | D    | µg/l  |      | 20.0                                      |               | 108  | 70-130      |     |           |
| Carbon tetrachloride                       | 23.2   | D    | µg/l  |      | 20.0                                      |               | 116  | 70-130      |     |           |
| Chlorobenzene                              | 18.8   | D    | µg/l  |      | 20.0                                      |               | 94   | 70-130      |     |           |
| Chloroform                                 | 20.7   | D    | µg/l  |      | 20.0                                      |               | 103  | 70-130      |     |           |
| 1,4-Dichlorobenzene                        | 20.7   | D    | µg/l  |      | 20.0                                      |               | 103  | 70-130      |     |           |
| 1,2-Dichloroethane                         | 21.4   | D    | µg/l  |      | 20.0                                      |               | 107  | 70-130      |     |           |
| 1,1-Dichloroethene                         | 18.6   | D    | µg/l  |      | 20.0                                      |               | 93   | 70-130      |     |           |
| Hexachlorobutadiene                        | 24.3   | D    | µg/l  |      | 20.0                                      |               | 121  | 70-130      |     |           |
| Tetrachloroethene                          | 20.7   | D    | µg/l  |      | 20.0                                      |               | 104  | 70-130      |     |           |
| Trichloroethene                            | 17.9   | D    | µg/l  |      | 20.0                                      |               | 90   | 70-130      |     |           |
| Vinyl chloride                             | 17.5   | D    | µg/l  |      | 20.0                                      |               | 87   | 70-130      |     |           |
| Surrogate: 4-Bromofluorobenzene            | 49.3   |      | µg/l  |      | 50.0                                      |               | 99   | 70-130      |     |           |
| Surrogate: Toluene-d8                      | 48.3   |      | µg/l  |      | 50.0                                      |               | 97   | 70-130      |     |           |
| Surrogate: 1,2-Dichloroethane-d4           | 55.4   |      | µg/l  |      | 50.0                                      |               | 111  | 70-130      |     |           |
| Surrogate: Dibromofluoromethane            | 50.3   |      | µg/l  |      | 50.0                                      |               | 101  | 70-130      |     |           |
| <b><u>LCS Dup (1509535-BS2)</u></b>        |        |      |       |      | <u>Prepared &amp; Analyzed: 15-May-15</u> |               |      |             |     |           |

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# Volatile Organic Compounds - Quality Control

| Analyte(s)                                 | Result | Flag | Units | *RDL | Spike Level                                      | Source Result | %REC | %REC Limits | RPD | RPD Limit |
|--------------------------------------------|--------|------|-------|------|--------------------------------------------------|---------------|------|-------------|-----|-----------|
| <b>Batch 1509535 - SW846 5030 Water MS</b> |        |      |       |      |                                                  |               |      |             |     |           |
| <b><u>LCS Dup (1509535-BSD2)</u></b>       |        |      |       |      | <b><u>Prepared &amp; Analyzed: 15-May-15</u></b> |               |      |             |     |           |
| Benzene                                    | 18.3   | D    | µg/l  |      | 20.0                                             |               | 91   | 70-130      | 6   | 20        |
| 2-Butanone (MEK)                           | 21.5   | D    | µg/l  |      | 20.0                                             |               | 108  | 70-130      | 0.7 | 20        |
| Carbon tetrachloride                       | 21.9   | D    | µg/l  |      | 20.0                                             |               | 109  | 70-130      | 6   | 20        |
| Chlorobenzene                              | 18.3   | D    | µg/l  |      | 20.0                                             |               | 92   | 70-130      | 2   | 20        |
| Chloroform                                 | 19.9   | D    | µg/l  |      | 20.0                                             |               | 99   | 70-130      | 4   | 20        |
| 1,4-Dichlorobenzene                        | 20.1   | D    | µg/l  |      | 20.0                                             |               | 100  | 70-130      | 3   | 20        |
| 1,2-Dichloroethane                         | 20.8   | D    | µg/l  |      | 20.0                                             |               | 104  | 70-130      | 3   | 20        |
| 1,1-Dichloroethene                         | 17.7   | D    | µg/l  |      | 20.0                                             |               | 88   | 70-130      | 5   | 20        |
| Hexachlorobutadiene                        | 23.8   | D    | µg/l  |      | 20.0                                             |               | 119  | 70-130      | 2   | 20        |
| Tetrachloroethene                          | 19.4   | D    | µg/l  |      | 20.0                                             |               | 97   | 70-130      | 6   | 20        |
| Trichloroethene                            | 16.8   | D    | µg/l  |      | 20.0                                             |               | 84   | 70-130      | 6   | 20        |
| Vinyl chloride                             | 17.0   | D    | µg/l  |      | 20.0                                             |               | 85   | 70-130      | 3   | 20        |
| Surrogate: 4-Bromofluorobenzene            | 48.9   |      | µg/l  |      | 50.0                                             |               | 98   | 70-130      |     |           |
| Surrogate: Toluene-d8                      | 48.0   |      | µg/l  |      | 50.0                                             |               | 96   | 70-130      |     |           |
| Surrogate: 1,2-Dichloroethane-d4           | 54.3   |      | µg/l  |      | 50.0                                             |               | 109  | 70-130      |     |           |
| Surrogate: Dibromofluoromethane            | 49.4   |      | µg/l  |      | 50.0                                             |               | 99   | 70-130      |     |           |

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## Semivolatile Organic Compounds by GCMS - Quality Control

| Analyte(s)                  | Result                         | Flag | Units | *RDL | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit |
|-----------------------------|--------------------------------|------|-------|------|-------------|---------------|------|-------------|-----|-----------|
| Batch 1509444 - SW846 3535A |                                |      |       |      |             |               |      |             |     |           |
| Blank (1509444-BLK1)        | Prepared & Analyzed: 14-May-15 |      |       |      |             |               |      |             |     |           |
| Acenaphthene                | < 2.13                         | U    | µg/l  | 2.13 |             |               |      |             |     |           |
| Acenaphthylene              | < 2.16                         | U    | µg/l  | 2.16 |             |               |      |             |     |           |
| Aniline                     | < 2.34                         | U    | µg/l  | 2.34 |             |               |      |             |     |           |
| Anthracene                  | < 2.33                         | U    | µg/l  | 2.33 |             |               |      |             |     |           |
| Azobenzene/Diphenyldiazene  | < 2.46                         | U    | µg/l  | 2.46 |             |               |      |             |     |           |
| Benzidine                   | < 2.68                         | U    | µg/l  | 2.68 |             |               |      |             |     |           |
| Benzo (a) anthracene        | < 2.26                         | U    | µg/l  | 2.26 |             |               |      |             |     |           |
| Benzo (a) pyrene            | < 2.40                         | U    | µg/l  | 2.40 |             |               |      |             |     |           |
| Benzo (b) fluoranthene      | < 2.08                         | U    | µg/l  | 2.08 |             |               |      |             |     |           |
| Benzo (g,h,i) perylene      | < 2.40                         | U    | µg/l  | 2.40 |             |               |      |             |     |           |
| Benzo (k) fluoranthene      | < 2.73                         | U    | µg/l  | 2.73 |             |               |      |             |     |           |
| Benzoic acid                | < 1.98                         | U    | µg/l  | 1.98 |             |               |      |             |     |           |
| Benzyl alcohol              | < 2.14                         | U    | µg/l  | 2.14 |             |               |      |             |     |           |
| Bis(2-chloroethoxy)methane  | < 2.23                         | U    | µg/l  | 2.23 |             |               |      |             |     |           |
| Bis(2-chloroethyl)ether     | < 2.14                         | U    | µg/l  | 2.14 |             |               |      |             |     |           |
| Bis(2-chloroisopropyl)ether | < 2.22                         | U    | µg/l  | 2.22 |             |               |      |             |     |           |
| Bis(2-ethylhexyl)phthalate  | < 2.34                         | U    | µg/l  | 2.34 |             |               |      |             |     |           |
| 4-Bromophenyl phenyl ether  | < 2.26                         | U    | µg/l  | 2.26 |             |               |      |             |     |           |
| Butyl benzyl phthalate      | < 2.63                         | U    | µg/l  | 2.63 |             |               |      |             |     |           |
| Carbazole                   | < 2.63                         | U    | µg/l  | 2.63 |             |               |      |             |     |           |
| 4-Chloro-3-methylphenol     | < 2.43                         | U    | µg/l  | 2.43 |             |               |      |             |     |           |
| 4-Chloroaniline             | < 2.63                         | U    | µg/l  | 2.63 |             |               |      |             |     |           |
| 2-Chloronaphthalene         | < 2.00                         | U    | µg/l  | 2.00 |             |               |      |             |     |           |
| 2-Chlorophenol              | < 2.03                         | U    | µg/l  | 2.03 |             |               |      |             |     |           |
| 4-Chlorophenyl phenyl ether | < 2.34                         | U    | µg/l  | 2.34 |             |               |      |             |     |           |
| Chrysene                    | < 2.33                         | U    | µg/l  | 2.33 |             |               |      |             |     |           |
| Dibenzo (a,h) anthracene    | < 2.52                         | U    | µg/l  | 2.52 |             |               |      |             |     |           |
| Dibenzofuran                | < 2.15                         | U    | µg/l  | 2.15 |             |               |      |             |     |           |
| 1,2-Dichlorobenzene         | < 2.05                         | U    | µg/l  | 2.05 |             |               |      |             |     |           |
| 1,3-Dichlorobenzene         | < 2.02                         | U    | µg/l  | 2.02 |             |               |      |             |     |           |
| 1,4-Dichlorobenzene         | < 2.02                         | U    | µg/l  | 2.02 |             |               |      |             |     |           |
| 3,3'-Dichlorobenzidine      | < 2.22                         | U    | µg/l  | 2.22 |             |               |      |             |     |           |
| 2,4-Dichlorophenol          | < 1.84                         | U    | µg/l  | 1.84 |             |               |      |             |     |           |
| Diethyl phthalate           | < 2.38                         | U    | µg/l  | 2.38 |             |               |      |             |     |           |
| Dimethyl phthalate          | < 2.28                         | U    | µg/l  | 2.28 |             |               |      |             |     |           |
| 2,4-Dimethylphenol          | < 2.12                         | U    | µg/l  | 2.12 |             |               |      |             |     |           |
| Di-n-butyl phthalate        | < 2.62                         | U    | µg/l  | 2.62 |             |               |      |             |     |           |
| 4,6-Dinitro-2-methylphenol  | < 2.50                         | U    | µg/l  | 2.50 |             |               |      |             |     |           |
| 2,4-Dinitrophenol           | < 1.87                         | U    | µg/l  | 1.87 |             |               |      |             |     |           |
| 2,4-Dinitrotoluene          | < 2.38                         | U    | µg/l  | 2.38 |             |               |      |             |     |           |
| 2,6-Dinitrotoluene          | < 2.30                         | U    | µg/l  | 2.30 |             |               |      |             |     |           |
| Di-n-octyl phthalate        | < 2.79                         | U    | µg/l  | 2.79 |             |               |      |             |     |           |
| Fluoranthene                | < 2.32                         | U    | µg/l  | 2.32 |             |               |      |             |     |           |
| Fluorene                    | < 2.31                         | U    | µg/l  | 2.31 |             |               |      |             |     |           |
| Hexachlorobenzene           | < 2.15                         | U    | µg/l  | 2.15 |             |               |      |             |     |           |
| Hexachlorobutadiene         | < 2.03                         | U    | µg/l  | 2.03 |             |               |      |             |     |           |
| Hexachlorocyclopentadiene   | < 1.55                         | U    | µg/l  | 1.55 |             |               |      |             |     |           |
| Hexachloroethane            | < 2.15                         | U    | µg/l  | 2.15 |             |               |      |             |     |           |
| Indeno (1,2,3-cd) pyrene    | < 2.30                         | U    | µg/l  | 2.30 |             |               |      |             |     |           |
| Isophorone                  | < 2.62                         | U    | µg/l  | 2.62 |             |               |      |             |     |           |
| 2-Methylnaphthalene         | < 2.19                         | U    | µg/l  | 2.19 |             |               |      |             |     |           |
| 2-Methylphenol              | < 2.14                         | U    | µg/l  | 2.14 |             |               |      |             |     |           |

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## Semivolatile Organic Compounds by GCMS - Quality Control

| Analyte(s)                             | Result                                    | Flag | Units | *RDL | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit |
|----------------------------------------|-------------------------------------------|------|-------|------|-------------|---------------|------|-------------|-----|-----------|
| <b>Batch 1509444 - SW846 3535A</b>     |                                           |      |       |      |             |               |      |             |     |           |
| <b>Blank (1509444-BLK1)</b>            | <b>Prepared &amp; Analyzed: 14-May-15</b> |      |       |      |             |               |      |             |     |           |
| 3 & 4-Methylphenol                     | < 2.22                                    | U    | µg/l  | 2.22 |             |               |      |             |     |           |
| Naphthalene                            | < 2.04                                    | U    | µg/l  | 2.04 |             |               |      |             |     |           |
| 2-Nitroaniline                         | < 2.34                                    | U    | µg/l  | 2.34 |             |               |      |             |     |           |
| 3-Nitroaniline                         | < 2.72                                    | U    | µg/l  | 2.72 |             |               |      |             |     |           |
| 4-Nitroaniline                         | < 2.62                                    | U    | µg/l  | 2.62 |             |               |      |             |     |           |
| Nitrobenzene                           | < 2.12                                    | U    | µg/l  | 2.12 |             |               |      |             |     |           |
| 2-Nitrophenol                          | < 2.20                                    | U    | µg/l  | 2.20 |             |               |      |             |     |           |
| 4-Nitrophenol                          | < 1.91                                    | U    | µg/l  | 1.91 |             |               |      |             |     |           |
| N-Nitrosodimethylamine                 | < 1.84                                    | U    | µg/l  | 1.84 |             |               |      |             |     |           |
| N-Nitrosodi-n-propylamine              | < 2.32                                    | U    | µg/l  | 2.32 |             |               |      |             |     |           |
| N-Nitrosodiphenylamine                 | < 2.58                                    | U    | µg/l  | 2.58 |             |               |      |             |     |           |
| Pentachlorophenol                      | < 2.15                                    | U    | µg/l  | 2.15 |             |               |      |             |     |           |
| Phenanthrene                           | < 2.26                                    | U    | µg/l  | 2.26 |             |               |      |             |     |           |
| Phenol                                 | < 2.04                                    | U    | µg/l  | 2.04 |             |               |      |             |     |           |
| Pyrene                                 | < 2.42                                    | U    | µg/l  | 2.42 |             |               |      |             |     |           |
| Pyridine                               | < 1.62                                    | U    | µg/l  | 1.62 |             |               |      |             |     |           |
| 1,2,4-Trichlorobenzene                 | < 1.99                                    | U    | µg/l  | 1.99 |             |               |      |             |     |           |
| 1-Methylnaphthalene                    | < 1.96                                    | U    | µg/l  | 1.96 |             |               |      |             |     |           |
| 2,4,5-Trichlorophenol                  | < 2.09                                    | U    | µg/l  | 2.09 |             |               |      |             |     |           |
| 2,4,6-Trichlorophenol                  | < 1.96                                    | U    | µg/l  | 1.96 |             |               |      |             |     |           |
| Pentachloronitrobenzene                | < 2.22                                    | U    | µg/l  | 2.22 |             |               |      |             |     |           |
| 1,2,4,5-Tetrachlorobenzene             | < 1.97                                    | U    | µg/l  | 1.97 |             |               |      |             |     |           |
| <i>Surrogate: 2-Fluorobiphenyl</i>     | 37.0                                      |      | µg/l  |      | 52.6        |               | 70   | 30-130      |     |           |
| <i>Surrogate: 2-Fluorophenol</i>       | 39.1                                      |      | µg/l  |      | 52.6        |               | 74   | 15-110      |     |           |
| <i>Surrogate: Nitrobenzene-d5</i>      | 38.5                                      |      | µg/l  |      | 52.6        |               | 73   | 30-130      |     |           |
| <i>Surrogate: Phenol-d5</i>            | 38.4                                      |      | µg/l  |      | 52.6        |               | 73   | 15-110      |     |           |
| <i>Surrogate: Terphenyl-d14</i>        | 40.6                                      |      | µg/l  |      | 52.6        |               | 77   | 30-130      |     |           |
| <i>Surrogate: 2,4,6-Tribromophenol</i> | 36.1                                      |      | µg/l  |      | 52.6        |               | 69   | 15-110      |     |           |
| <b>LCS (1509444-BS1)</b>               | <b>Prepared &amp; Analyzed: 14-May-15</b> |      |       |      |             |               |      |             |     |           |
| Acenaphthene                           | 39.3                                      |      | µg/l  | 2.13 | 50.0        |               | 79   | 40-140      |     |           |
| Acenaphthylene                         | 40.3                                      |      | µg/l  | 2.16 | 50.0        |               | 81   | 40-140      |     |           |
| Aniline                                | 14.6                                      | QC2  | µg/l  | 2.34 | 50.0        |               | 29   | 40-140      |     |           |
| Anthracene                             | 43.0                                      |      | µg/l  | 2.33 | 50.0        |               | 86   | 40-140      |     |           |
| Azobenzene/Diphenyldiazene             | 42.7                                      |      | µg/l  | 2.46 | 50.0        |               | 85   | 40-140      |     |           |
| Benzidine                              | 6.24                                      | QC2  | µg/l  | 2.68 | 50.0        |               | 12   | 40-140      |     |           |
| Benzo (a) anthracene                   | 42.6                                      |      | µg/l  | 2.26 | 50.0        |               | 85   | 40-140      |     |           |
| Benzo (a) pyrene                       | 45.9                                      |      | µg/l  | 2.40 | 50.0        |               | 92   | 40-140      |     |           |
| Benzo (b) fluoranthene                 | 47.4                                      |      | µg/l  | 2.08 | 50.0        |               | 95   | 40-140      |     |           |
| Benzo (g,h,i) perylene                 | 42.1                                      |      | µg/l  | 2.40 | 50.0        |               | 84   | 40-140      |     |           |
| Benzo (k) fluoranthene                 | 40.0                                      |      | µg/l  | 2.73 | 50.0        |               | 80   | 40-140      |     |           |
| Benzoic acid                           | 49.3                                      |      | µg/l  | 1.98 | 50.0        |               | 99   | 30-130      |     |           |
| Benzyl alcohol                         | 27.6                                      |      | µg/l  | 2.14 | 50.0        |               | 55   | 40-140      |     |           |
| Bis(2-chloroethoxy)methane             | 38.8                                      |      | µg/l  | 2.23 | 50.0        |               | 78   | 40-140      |     |           |
| Bis(2-chloroethyl)ether                | 37.5                                      |      | µg/l  | 2.14 | 50.0        |               | 75   | 40-140      |     |           |
| Bis(2-chloroisopropyl)ether            | 39.0                                      |      | µg/l  | 2.22 | 50.0        |               | 78   | 40-140      |     |           |
| Bis(2-ethylhexyl)phthalate             | 42.5                                      |      | µg/l  | 2.34 | 50.0        |               | 85   | 40-140      |     |           |
| 4-Bromophenyl phenyl ether             | 44.7                                      |      | µg/l  | 2.26 | 50.0        |               | 89   | 40-140      |     |           |
| Butyl benzyl phthalate                 | 42.0                                      |      | µg/l  | 2.63 | 50.0        |               | 84   | 40-140      |     |           |
| Carbazole                              | 45.9                                      |      | µg/l  | 2.63 | 50.0        |               | 92   | 40-140      |     |           |
| 4-Chloro-3-methylphenol                | 45.9                                      |      | µg/l  | 2.43 | 50.0        |               | 92   | 30-130      |     |           |
| 4-Chloroaniline                        | 17.2                                      | QC2  | µg/l  | 2.63 | 50.0        |               | 34   | 40-140      |     |           |

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## Semivolatile Organic Compounds by GCMS - Quality Control

| Analyte(s)                         | Result                                           | Flag | Units | *RDL | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit |
|------------------------------------|--------------------------------------------------|------|-------|------|-------------|---------------|------|-------------|-----|-----------|
| <b>Batch 1509444 - SW846 3535A</b> |                                                  |      |       |      |             |               |      |             |     |           |
| <b><u>LCS (1509444-BS1)</u></b>    | <b><u>Prepared &amp; Analyzed: 14-May-15</u></b> |      |       |      |             |               |      |             |     |           |
| 2-Chloronaphthalene                | 39.6                                             |      | µg/l  | 2.00 | 50.0        |               | 79   | 40-140      |     |           |
| 2-Chlorophenol                     | 40.0                                             |      | µg/l  | 2.03 | 50.0        |               | 80   | 30-130      |     |           |
| 4-Chlorophenyl phenyl ether        | 42.5                                             |      | µg/l  | 2.34 | 50.0        |               | 85   | 40-140      |     |           |
| Chrysene                           | 41.2                                             |      | µg/l  | 2.33 | 50.0        |               | 82   | 40-140      |     |           |
| Dibenzo (a,h) anthracene           | 44.5                                             |      | µg/l  | 2.52 | 50.0        |               | 89   | 40-140      |     |           |
| Dibenzofuran                       | 40.7                                             |      | µg/l  | 2.15 | 50.0        |               | 81   | 40-140      |     |           |
| 1,2-Dichlorobenzene                | 39.2                                             |      | µg/l  | 2.05 | 50.0        |               | 78   | 40-140      |     |           |
| 1,3-Dichlorobenzene                | 38.5                                             |      | µg/l  | 2.02 | 50.0        |               | 77   | 40-140      |     |           |
| 1,4-Dichlorobenzene                | 38.2                                             |      | µg/l  | 2.02 | 50.0        |               | 76   | 40-140      |     |           |
| 3,3'-Dichlorobenzidine             | 33.4                                             |      | µg/l  | 2.22 | 50.0        |               | 67   | 40-140      |     |           |
| 2,4-Dichlorophenol                 | 43.8                                             |      | µg/l  | 1.84 | 50.0        |               | 88   | 30-130      |     |           |
| Diethyl phthalate                  | 41.0                                             |      | µg/l  | 2.38 | 50.0        |               | 82   | 40-140      |     |           |
| Dimethyl phthalate                 | 40.4                                             |      | µg/l  | 2.28 | 50.0        |               | 81   | 40-140      |     |           |
| 2,4-Dimethylphenol                 | 43.2                                             |      | µg/l  | 2.12 | 50.0        |               | 86   | 30-130      |     |           |
| Di-n-butyl phthalate               | 43.4                                             |      | µg/l  | 2.62 | 50.0        |               | 87   | 40-140      |     |           |
| 4,6-Dinitro-2-methylphenol         | 48.3                                             |      | µg/l  | 2.50 | 50.0        |               | 97   | 30-130      |     |           |
| 2,4-Dinitrophenol                  | 46.8                                             |      | µg/l  | 1.87 | 50.0        |               | 94   | 30-130      |     |           |
| 2,4-Dinitrotoluene                 | 47.1                                             |      | µg/l  | 2.38 | 50.0        |               | 94   | 40-140      |     |           |
| 2,6-Dinitrotoluene                 | 45.7                                             |      | µg/l  | 2.30 | 50.0        |               | 91   | 40-140      |     |           |
| Di-n-octyl phthalate               | 44.0                                             |      | µg/l  | 2.79 | 50.0        |               | 88   | 40-140      |     |           |
| Fluoranthene                       | 43.7                                             |      | µg/l  | 2.32 | 50.0        |               | 87   | 40-140      |     |           |
| Fluorene                           | 40.7                                             |      | µg/l  | 2.31 | 50.0        |               | 81   | 40-140      |     |           |
| Hexachlorobenzene                  | 46.8                                             |      | µg/l  | 2.15 | 50.0        |               | 94   | 40-140      |     |           |
| Hexachlorobutadiene                | 37.6                                             |      | µg/l  | 2.03 | 50.0        |               | 75   | 40-140      |     |           |
| Hexachlorocyclopentadiene          | 41.8                                             |      | µg/l  | 1.55 | 50.0        |               | 84   | 40-140      |     |           |
| Hexachloroethane                   | 35.8                                             |      | µg/l  | 2.15 | 50.0        |               | 72   | 40-140      |     |           |
| Indeno (1,2,3-cd) pyrene           | 47.2                                             |      | µg/l  | 2.30 | 50.0        |               | 94   | 40-140      |     |           |
| Isophorone                         | 40.4                                             |      | µg/l  | 2.62 | 50.0        |               | 81   | 40-140      |     |           |
| 2-Methylnaphthalene                | 44.6                                             |      | µg/l  | 2.19 | 50.0        |               | 89   | 40-140      |     |           |
| 2-Methylphenol                     | 41.4                                             |      | µg/l  | 2.14 | 50.0        |               | 83   | 30-130      |     |           |
| 3 & 4-Methylphenol                 | 39.5                                             |      | µg/l  | 2.22 | 50.0        |               | 79   | 30-130      |     |           |
| Naphthalene                        | 39.6                                             |      | µg/l  | 2.04 | 50.0        |               | 79   | 40-140      |     |           |
| 2-Nitroaniline                     | 47.0                                             |      | µg/l  | 2.34 | 50.0        |               | 94   | 40-140      |     |           |
| 3-Nitroaniline                     | 25.7                                             |      | µg/l  | 2.72 | 50.0        |               | 51   | 40-140      |     |           |
| 4-Nitroaniline                     | 44.2                                             |      | µg/l  | 2.62 | 50.0        |               | 88   | 40-140      |     |           |
| Nitrobenzene                       | 42.0                                             |      | µg/l  | 2.12 | 50.0        |               | 84   | 40-140      |     |           |
| 2-Nitrophenol                      | 46.0                                             |      | µg/l  | 2.20 | 50.0        |               | 92   | 30-130      |     |           |
| 4-Nitrophenol                      | 55.6                                             |      | µg/l  | 1.91 | 50.0        |               | 111  | 30-130      |     |           |
| N-Nitrosodimethylamine             | 40.0                                             |      | µg/l  | 1.84 | 50.0        |               | 80   | 40-140      |     |           |
| N-Nitrosodi-n-propylamine          | 41.3                                             |      | µg/l  | 2.32 | 50.0        |               | 83   | 40-140      |     |           |
| N-Nitrosodiphenylamine             | 47.3                                             |      | µg/l  | 2.58 | 50.0        |               | 95   | 40-140      |     |           |
| Pentachlorophenol                  | 39.3                                             |      | µg/l  | 2.15 | 50.0        |               | 79   | 30-130      |     |           |
| Phenanthrene                       | 43.1                                             |      | µg/l  | 2.26 | 50.0        |               | 86   | 40-140      |     |           |
| Phenol                             | 37.7                                             |      | µg/l  | 2.04 | 50.0        |               | 75   | 30-130      |     |           |
| Pyrene                             | 41.5                                             |      | µg/l  | 2.42 | 50.0        |               | 83   | 40-140      |     |           |
| Pyridine                           | 32.7                                             |      | µg/l  | 1.62 | 50.0        |               | 65   | 40-140      |     |           |
| 1,2,4-Trichlorobenzene             | 40.2                                             |      | µg/l  | 1.99 | 50.0        |               | 80   | 40-140      |     |           |
| 1-Methylnaphthalene                | 39.8                                             |      | µg/l  | 1.96 | 50.0        |               | 80   | 40-140      |     |           |
| 2,4,5-Trichlorophenol              | 44.4                                             |      | µg/l  | 2.09 | 50.0        |               | 89   | 30-130      |     |           |
| 2,4,6-Trichlorophenol              | 39.4                                             |      | µg/l  | 1.96 | 50.0        |               | 79   | 30-130      |     |           |
| Pentachloronitrobenzene            | 45.1                                             |      | µg/l  | 2.22 | 50.0        |               | 90   | 40-140      |     |           |
| 1,2,4,5-Tetrachlorobenzene         | 42.1                                             |      | µg/l  | 1.97 | 50.0        |               | 84   | 40-140      |     |           |

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# Semivolatile Organic Compounds by GCMS - Quality Control

| Analyte(s)                           | Result | Flag     | Units | *RDL | Spike Level                                      | Source Result | %REC | %REC Limits | RPD | RPD Limit |
|--------------------------------------|--------|----------|-------|------|--------------------------------------------------|---------------|------|-------------|-----|-----------|
| <b>Batch 1509444 - SW846 3535A</b>   |        |          |       |      |                                                  |               |      |             |     |           |
| <b><u>LCS (1509444-BS1)</u></b>      |        |          |       |      | <b><u>Prepared &amp; Analyzed: 14-May-15</u></b> |               |      |             |     |           |
| Surrogate: 2-Fluorobiphenyl          | 42.0   |          | µg/l  |      | 50.0                                             |               | 84   | 30-130      |     |           |
| Surrogate: 2-Fluorophenol            | 40.5   |          | µg/l  |      | 50.0                                             |               | 81   | 15-110      |     |           |
| Surrogate: Nitrobenzene-d5           | 46.3   |          | µg/l  |      | 50.0                                             |               | 93   | 30-130      |     |           |
| Surrogate: Phenol-d5                 | 42.2   |          | µg/l  |      | 50.0                                             |               | 84   | 15-110      |     |           |
| Surrogate: Terphenyl-dl4             | 45.0   |          | µg/l  |      | 50.0                                             |               | 90   | 30-130      |     |           |
| Surrogate: 2,4,6-Tribromophenol      | 50.6   |          | µg/l  |      | 50.0                                             |               | 101  | 15-110      |     |           |
| <b><u>LCS Dup (1509444-BSD1)</u></b> |        |          |       |      | <b><u>Prepared &amp; Analyzed: 14-May-15</u></b> |               |      |             |     |           |
| Acenaphthene                         | 41.4   |          | µg/l  | 2.13 | 50.0                                             |               | 83   | 40-140      | 5   | 20        |
| Acenaphthylene                       | 42.4   |          | µg/l  | 2.16 | 50.0                                             |               | 85   | 40-140      | 5   | 20        |
| Aniline                              | 15.8   | QC2      | µg/l  | 2.34 | 50.0                                             |               | 32   | 40-140      | 8   | 20        |
| Anthracene                           | 44.6   |          | µg/l  | 2.33 | 50.0                                             |               | 89   | 40-140      | 4   | 20        |
| Azobenzene/Diphenyldiazene           | 45.1   |          | µg/l  | 2.46 | 50.0                                             |               | 90   | 40-140      | 6   | 20        |
| Benzidine                            | 8.42   | QC2, QR5 | µg/l  | 2.68 | 50.0                                             |               | 17   | 40-140      | 30  | 20        |
| Benzo (a) anthracene                 | 46.2   |          | µg/l  | 2.26 | 50.0                                             |               | 92   | 40-140      | 8   | 20        |
| Benzo (a) pyrene                     | 48.4   |          | µg/l  | 2.40 | 50.0                                             |               | 97   | 40-140      | 5   | 20        |
| Benzo (b) fluoranthene               | 49.5   |          | µg/l  | 2.08 | 50.0                                             |               | 99   | 40-140      | 4   | 20        |
| Benzo (g,h,i) perylene               | 46.1   |          | µg/l  | 2.40 | 50.0                                             |               | 92   | 40-140      | 9   | 20        |
| Benzo (k) fluoranthene               | 43.0   |          | µg/l  | 2.73 | 50.0                                             |               | 86   | 40-140      | 7   | 20        |
| Benzoic acid                         | 55.2   |          | µg/l  | 1.98 | 50.0                                             |               | 110  | 30-130      | 11  | 20        |
| Benzyl alcohol                       | 35.5   | QR2      | µg/l  | 2.14 | 50.0                                             |               | 71   | 40-140      | 25  | 20        |
| Bis(2-chloroethoxy)methane           | 41.1   |          | µg/l  | 2.23 | 50.0                                             |               | 82   | 40-140      | 6   | 20        |
| Bis(2-chloroethyl)ether              | 40.3   |          | µg/l  | 2.14 | 50.0                                             |               | 81   | 40-140      | 7   | 20        |
| Bis(2-chloroisopropyl)ether          | 41.1   |          | µg/l  | 2.22 | 50.0                                             |               | 82   | 40-140      | 5   | 20        |
| Bis(2-ethylhexyl)phthalate           | 45.2   |          | µg/l  | 2.34 | 50.0                                             |               | 90   | 40-140      | 6   | 20        |
| 4-Bromophenyl phenyl ether           | 47.1   |          | µg/l  | 2.26 | 50.0                                             |               | 94   | 40-140      | 5   | 20        |
| Butyl benzyl phthalate               | 44.3   |          | µg/l  | 2.63 | 50.0                                             |               | 89   | 40-140      | 5   | 20        |
| Carbazole                            | 49.7   |          | µg/l  | 2.63 | 50.0                                             |               | 99   | 40-140      | 8   | 20        |
| 4-Chloro-3-methylphenol              | 46.4   |          | µg/l  | 2.43 | 50.0                                             |               | 93   | 30-130      | 1   | 20        |
| 4-Chloroaniline                      | 15.2   | QC2      | µg/l  | 2.63 | 50.0                                             |               | 30   | 40-140      | 12  | 20        |
| 2-Chloronaphthalene                  | 41.4   |          | µg/l  | 2.00 | 50.0                                             |               | 83   | 40-140      | 4   | 20        |
| 2-Chlorophenol                       | 43.0   |          | µg/l  | 2.03 | 50.0                                             |               | 86   | 30-130      | 7   | 20        |
| 4-Chlorophenyl phenyl ether          | 44.9   |          | µg/l  | 2.34 | 50.0                                             |               | 90   | 40-140      | 6   | 20        |
| Chrysene                             | 43.8   |          | µg/l  | 2.33 | 50.0                                             |               | 88   | 40-140      | 6   | 20        |
| Dibenzo (a,h) anthracene             | 47.2   |          | µg/l  | 2.52 | 50.0                                             |               | 94   | 40-140      | 6   | 20        |
| Dibenzofuran                         | 43.7   |          | µg/l  | 2.15 | 50.0                                             |               | 87   | 40-140      | 7   | 20        |
| 1,2-Dichlorobenzene                  | 40.9   |          | µg/l  | 2.05 | 50.0                                             |               | 82   | 40-140      | 4   | 20        |
| 1,3-Dichlorobenzene                  | 40.8   |          | µg/l  | 2.02 | 50.0                                             |               | 82   | 40-140      | 6   | 20        |
| 1,4-Dichlorobenzene                  | 40.0   |          | µg/l  | 2.02 | 50.0                                             |               | 80   | 40-140      | 5   | 20        |
| 3,3'-Dichlorobenzidine               | 37.9   |          | µg/l  | 2.22 | 50.0                                             |               | 76   | 40-140      | 13  | 20        |
| 2,4-Dichlorophenol                   | 46.2   |          | µg/l  | 1.84 | 50.0                                             |               | 92   | 30-130      | 5   | 20        |
| Diethyl phthalate                    | 43.2   |          | µg/l  | 2.38 | 50.0                                             |               | 86   | 40-140      | 5   | 20        |
| Dimethyl phthalate                   | 42.6   |          | µg/l  | 2.28 | 50.0                                             |               | 85   | 40-140      | 5   | 20        |
| 2,4-Dimethylphenol                   | 44.9   |          | µg/l  | 2.12 | 50.0                                             |               | 90   | 30-130      | 4   | 20        |
| Di-n-butyl phthalate                 | 45.3   |          | µg/l  | 2.62 | 50.0                                             |               | 91   | 40-140      | 4   | 20        |
| 4,6-Dinitro-2-methylphenol           | 52.9   |          | µg/l  | 2.50 | 50.0                                             |               | 106  | 30-130      | 9   | 20        |
| 2,4-Dinitrophenol                    | 53.1   |          | µg/l  | 1.87 | 50.0                                             |               | 106  | 30-130      | 13  | 20        |
| 2,4-Dinitrotoluene                   | 51.3   |          | µg/l  | 2.38 | 50.0                                             |               | 103  | 40-140      | 9   | 20        |
| 2,6-Dinitrotoluene                   | 50.2   |          | µg/l  | 2.30 | 50.0                                             |               | 100  | 40-140      | 9   | 20        |
| Di-n-octyl phthalate                 | 45.7   |          | µg/l  | 2.79 | 50.0                                             |               | 91   | 40-140      | 4   | 20        |
| Fluoranthene                         | 45.9   |          | µg/l  | 2.32 | 50.0                                             |               | 92   | 40-140      | 5   | 20        |
| Fluorene                             | 43.2   |          | µg/l  | 2.31 | 50.0                                             |               | 86   | 40-140      | 6   | 20        |

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## Semivolatile Organic Compounds by GCMS - Quality Control

| Analyte(s)                           | Result                                           | Flag | Units | *RDL | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit |
|--------------------------------------|--------------------------------------------------|------|-------|------|-------------|---------------|------|-------------|-----|-----------|
| <b>Batch 1509444 - SW846 3535A</b>   |                                                  |      |       |      |             |               |      |             |     |           |
| <b><u>LCS Dup (1509444-BSD1)</u></b> | <b><u>Prepared &amp; Analyzed: 14-May-15</u></b> |      |       |      |             |               |      |             |     |           |
| Hexachlorobenzene                    | 49.1                                             |      | µg/l  | 2.15 | 50.0        |               | 98   | 40-140      | 5   | 20        |
| Hexachlorobutadiene                  | 39.6                                             |      | µg/l  | 2.03 | 50.0        |               | 79   | 40-140      | 5   | 20        |
| Hexachlorocyclopentadiene            | 46.4                                             |      | µg/l  | 1.55 | 50.0        |               | 93   | 40-140      | 10  | 20        |
| Hexachloroethane                     | 37.5                                             |      | µg/l  | 2.15 | 50.0        |               | 75   | 40-140      | 5   | 20        |
| Indeno (1,2,3-cd) pyrene             | 51.0                                             |      | µg/l  | 2.30 | 50.0        |               | 102  | 40-140      | 8   | 20        |
| Isophorone                           | 42.9                                             |      | µg/l  | 2.62 | 50.0        |               | 86   | 40-140      | 6   | 20        |
| 2-Methylnaphthalene                  | 45.8                                             |      | µg/l  | 2.19 | 50.0        |               | 92   | 40-140      | 2   | 20        |
| 2-Methylphenol                       | 43.5                                             |      | µg/l  | 2.14 | 50.0        |               | 87   | 30-130      | 5   | 20        |
| 3 & 4-Methylphenol                   | 41.8                                             |      | µg/l  | 2.22 | 50.0        |               | 84   | 30-130      | 6   | 20        |
| Naphthalene                          | 41.0                                             |      | µg/l  | 2.04 | 50.0        |               | 82   | 40-140      | 3   | 20        |
| 2-Nitroaniline                       | 49.6                                             |      | µg/l  | 2.34 | 50.0        |               | 99   | 40-140      | 5   | 20        |
| 3-Nitroaniline                       | 20.6                                             | QR2  | µg/l  | 2.72 | 50.0        |               | 41   | 40-140      | 22  | 20        |
| 4-Nitroaniline                       | 48.6                                             |      | µg/l  | 2.62 | 50.0        |               | 97   | 40-140      | 10  | 20        |
| Nitrobenzene                         | 43.9                                             |      | µg/l  | 2.12 | 50.0        |               | 88   | 40-140      | 4   | 20        |
| 2-Nitrophenol                        | 49.0                                             |      | µg/l  | 2.20 | 50.0        |               | 98   | 30-130      | 6   | 20        |
| 4-Nitrophenol                        | 62.7                                             |      | µg/l  | 1.91 | 50.0        |               | 125  | 30-130      | 12  | 20        |
| N-Nitrosodimethylamine               | 43.0                                             |      | µg/l  | 1.84 | 50.0        |               | 86   | 40-140      | 7   | 20        |
| N-Nitrosodi-n-propylamine            | 45.3                                             |      | µg/l  | 2.32 | 50.0        |               | 91   | 40-140      | 9   | 20        |
| N-Nitrosodiphenylamine               | 49.9                                             |      | µg/l  | 2.58 | 50.0        |               | 100  | 40-140      | 5   | 20        |
| Pentachlorophenol                    | 46.6                                             |      | µg/l  | 2.15 | 50.0        |               | 93   | 30-130      | 17  | 20        |
| Phenanthrene                         | 45.9                                             |      | µg/l  | 2.26 | 50.0        |               | 92   | 40-140      | 6   | 20        |
| Phenol                               | 40.1                                             |      | µg/l  | 2.04 | 50.0        |               | 80   | 30-130      | 6   | 20        |
| Pyrene                               | 45.1                                             |      | µg/l  | 2.42 | 50.0        |               | 90   | 40-140      | 8   | 20        |
| Pyridine                             | 34.3                                             |      | µg/l  | 1.62 | 50.0        |               | 69   | 40-140      | 5   | 20        |
| 1,2,4-Trichlorobenzene               | 41.7                                             |      | µg/l  | 1.99 | 50.0        |               | 83   | 40-140      | 4   | 20        |
| 1-Methylnaphthalene                  | 41.9                                             |      | µg/l  | 1.96 | 50.0        |               | 84   | 40-140      | 5   | 20        |
| 2,4,5-Trichlorophenol                | 41.2                                             |      | µg/l  | 2.09 | 50.0        |               | 82   | 30-130      | 8   | 20        |
| 2,4,6-Trichlorophenol                | 43.2                                             |      | µg/l  | 1.96 | 50.0        |               | 86   | 30-130      | 9   | 20        |
| Pentachloronitrobenzene              | 47.8                                             |      | µg/l  | 2.22 | 50.0        |               | 96   | 40-140      | 6   | 20        |
| 1,2,4,5-Tetrachlorobenzene           | 44.1                                             |      | µg/l  | 1.97 | 50.0        |               | 88   | 40-140      | 5   | 20        |
| Surrogate: 2-Fluorobiphenyl          | 42.7                                             |      | µg/l  |      | 50.0        |               | 85   | 30-130      |     |           |
| Surrogate: 2-Fluorophenol            | 41.7                                             |      | µg/l  |      | 50.0        |               | 83   | 15-110      |     |           |
| Surrogate: Nitrobenzene-d5           | 46.9                                             |      | µg/l  |      | 50.0        |               | 94   | 30-130      |     |           |
| Surrogate: Phenol-d5                 | 43.6                                             |      | µg/l  |      | 50.0        |               | 87   | 15-110      |     |           |
| Surrogate: Terphenyl-dl4             | 47.0                                             |      | µg/l  |      | 50.0        |               | 94   | 30-130      |     |           |
| Surrogate: 2,4,6-Tribromophenol      | 51.6                                             |      | µg/l  |      | 50.0        |               | 103  | 15-110      |     |           |

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## Semivolatile Organic Compounds by GC - Quality Control

| Analyte(s)                                     | Result | Flag | Units     | *RDL | Spike Level                               | Source Result | %REC | %REC Limits | RPD | RPD Limit |
|------------------------------------------------|--------|------|-----------|------|-------------------------------------------|---------------|------|-------------|-----|-----------|
| <b>Batch 1509089 - SW846 3545A</b>             |        |      |           |      |                                           |               |      |             |     |           |
| <b><u>Blank (1509089-BLK1)</u></b>             |        |      |           |      | <u>Prepared &amp; Analyzed: 11-May-15</u> |               |      |             |     |           |
| Aroclor-1016                                   | < 17.8 | U    | µg/kg wet | 17.8 |                                           |               |      |             |     |           |
| Aroclor-1016 [2C]                              | < 10.1 | U    | µg/kg wet | 10.1 |                                           |               |      |             |     |           |
| Aroclor-1221                                   | < 15.1 | U    | µg/kg wet | 15.1 |                                           |               |      |             |     |           |
| Aroclor-1221 [2C]                              | < 16.9 | U    | µg/kg wet | 16.9 |                                           |               |      |             |     |           |
| Aroclor-1232                                   | < 17.8 | U    | µg/kg wet | 17.8 |                                           |               |      |             |     |           |
| Aroclor-1232 [2C]                              | < 12.9 | U    | µg/kg wet | 12.9 |                                           |               |      |             |     |           |
| Aroclor-1242                                   | < 12.3 | U    | µg/kg wet | 12.3 |                                           |               |      |             |     |           |
| Aroclor-1242 [2C]                              | < 11.9 | U    | µg/kg wet | 11.9 |                                           |               |      |             |     |           |
| Aroclor-1248                                   | < 12.4 | U    | µg/kg wet | 12.4 |                                           |               |      |             |     |           |
| Aroclor-1248 [2C]                              | < 11.1 | U    | µg/kg wet | 11.1 |                                           |               |      |             |     |           |
| Aroclor-1254                                   | < 13.6 | U    | µg/kg wet | 13.6 |                                           |               |      |             |     |           |
| Aroclor-1254 [2C]                              | < 11.1 | U    | µg/kg wet | 11.1 |                                           |               |      |             |     |           |
| Aroclor-1260                                   | < 13.9 | U    | µg/kg wet | 13.9 |                                           |               |      |             |     |           |
| Aroclor-1260 [2C]                              | < 12.4 | U    | µg/kg wet | 12.4 |                                           |               |      |             |     |           |
| Aroclor-1262                                   | < 17.7 | U    | µg/kg wet | 17.7 |                                           |               |      |             |     |           |
| Aroclor-1262 [2C]                              | < 10.7 | U    | µg/kg wet | 10.7 |                                           |               |      |             |     |           |
| Aroclor-1268                                   | < 19.4 | U    | µg/kg wet | 19.4 |                                           |               |      |             |     |           |
| Aroclor-1268 [2C]                              | < 19.0 | U    | µg/kg wet | 19.0 |                                           |               |      |             |     |           |
| Surrogate: 4,4-DB-Octafluorobiphenyl (Sr)      | 16.8   |      | µg/kg wet |      | 19.8                                      |               | 85   | 30-150      |     |           |
| Surrogate: 4,4-DB-Octafluorobiphenyl (Sr) [2C] | 18.8   |      | µg/kg wet |      | 19.8                                      |               | 95   | 30-150      |     |           |
| Surrogate: Decachlorobiphenyl (Sr)             | 15.8   |      | µg/kg wet |      | 19.8                                      |               | 80   | 30-150      |     |           |
| Surrogate: Decachlorobiphenyl (Sr) [2C]        | 20.8   |      | µg/kg wet |      | 19.8                                      |               | 105  | 30-150      |     |           |
| <b><u>LCS (1509089-BS1)</u></b>                |        |      |           |      | <u>Prepared &amp; Analyzed: 11-May-15</u> |               |      |             |     |           |
| Aroclor-1016                                   | 219    |      | µg/kg wet | 17.7 | 245                                       |               | 89   | 40-140      |     |           |
| Aroclor-1016 [2C]                              | 219    |      | µg/kg wet | 9.97 | 245                                       |               | 89   | 40-140      |     |           |
| Aroclor-1260                                   | 187    |      | µg/kg wet | 13.7 | 245                                       |               | 76   | 40-140      |     |           |
| Aroclor-1260 [2C]                              | 194    |      | µg/kg wet | 12.3 | 245                                       |               | 79   | 40-140      |     |           |
| Surrogate: 4,4-DB-Octafluorobiphenyl (Sr)      | 16.7   |      | µg/kg wet |      | 19.6                                      |               | 85   | 30-150      |     |           |
| Surrogate: 4,4-DB-Octafluorobiphenyl (Sr) [2C] | 17.7   |      | µg/kg wet |      | 19.6                                      |               | 90   | 30-150      |     |           |
| Surrogate: Decachlorobiphenyl (Sr)             | 15.7   |      | µg/kg wet |      | 19.6                                      |               | 80   | 30-150      |     |           |
| Surrogate: Decachlorobiphenyl (Sr) [2C]        | 19.6   |      | µg/kg wet |      | 19.6                                      |               | 100  | 30-150      |     |           |
| <b><u>LCS Dup (1509089-BSD1)</u></b>           |        |      |           |      | <u>Prepared &amp; Analyzed: 11-May-15</u> |               |      |             |     |           |
| Aroclor-1016                                   | 220    |      | µg/kg wet | 17.7 | 245                                       |               | 90   | 40-140      | 0.9 | 30        |
| Aroclor-1016 [2C]                              | 226    |      | µg/kg wet | 9.96 | 245                                       |               | 92   | 40-140      | 4   | 30        |
| Aroclor-1260                                   | 186    |      | µg/kg wet | 13.7 | 245                                       |               | 76   | 40-140      | 0.5 | 30        |
| Aroclor-1260 [2C]                              | 201    |      | µg/kg wet | 12.2 | 245                                       |               | 82   | 40-140      | 3   | 30        |
| Surrogate: 4,4-DB-Octafluorobiphenyl (Sr)      | 16.7   |      | µg/kg wet |      | 19.6                                      |               | 85   | 30-150      |     |           |
| Surrogate: 4,4-DB-Octafluorobiphenyl (Sr) [2C] | 17.6   |      | µg/kg wet |      | 19.6                                      |               | 90   | 30-150      |     |           |
| Surrogate: Decachlorobiphenyl (Sr)             | 16.7   |      | µg/kg wet |      | 19.6                                      |               | 85   | 30-150      |     |           |
| Surrogate: Decachlorobiphenyl (Sr) [2C]        | 19.6   |      | µg/kg wet |      | 19.6                                      |               | 100  | 30-150      |     |           |

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**TCLP Metals by EPA 1311 & 6000/7000 Series Methods - Quality Control**

| Analyte(s)                                  | Result    | Flag | Units | *RDL    | Spike Level                                    | Source Result | %REC | %REC Limits | RPD | RPD Limit |
|---------------------------------------------|-----------|------|-------|---------|------------------------------------------------|---------------|------|-------------|-----|-----------|
| <b>Batch 1509320 - SW846 3010A</b>          |           |      |       |         |                                                |               |      |             |     |           |
| <b><u>Blank (1509320-BLK1)</u></b>          |           |      |       |         | <u>Prepared: 14-May-15 Analyzed: 15-May-15</u> |               |      |             |     |           |
| Chromium                                    | 0.0032    | J    | mg/l  | 0.0010  |                                                |               |      |             |     |           |
| Silver                                      | < 0.0014  | U    | mg/l  | 0.0014  |                                                |               |      |             |     |           |
| Cadmium                                     | < 0.0002  | U    | mg/l  | 0.0002  |                                                |               |      |             |     |           |
| Selenium                                    | 0.0076    | J    | mg/l  | 0.0043  |                                                |               |      |             |     |           |
| Barium                                      | 0.0008    | J    | mg/l  | 0.0004  |                                                |               |      |             |     |           |
| <b><u>LCS (1509320-BS1)</u></b>             |           |      |       |         | <u>Prepared: 14-May-15 Analyzed: 15-May-15</u> |               |      |             |     |           |
| Silver                                      | 1.22      |      | mg/l  | 0.0014  | 1.25                                           |               | 98   | 85-115      |     |           |
| Cadmium                                     | 1.09      |      | mg/l  | 0.0002  | 1.25                                           |               | 87   | 85-115      |     |           |
| Chromium                                    | 1.15      |      | mg/l  | 0.0010  | 1.25                                           |               | 92   | 85-115      |     |           |
| Selenium                                    | 1.33      |      | mg/l  | 0.0043  | 1.25                                           |               | 107  | 85-115      |     |           |
| Barium                                      | 1.19      |      | mg/l  | 0.0004  | 1.25                                           |               | 95   | 85-115      |     |           |
| <b><u>LCS Dup (1509320-BSD1)</u></b>        |           |      |       |         | <u>Prepared: 14-May-15 Analyzed: 15-May-15</u> |               |      |             |     |           |
| Chromium                                    | 1.16      |      | mg/l  | 0.0010  | 1.25                                           |               | 93   | 85-115      | 1   | 20        |
| Cadmium                                     | 1.11      |      | mg/l  | 0.0002  | 1.25                                           |               | 89   | 85-115      | 2   | 20        |
| Silver                                      | 1.28      |      | mg/l  | 0.0014  | 1.25                                           |               | 102  | 85-115      | 4   | 104       |
| Selenium                                    | 1.41      |      | mg/l  | 0.0043  | 1.25                                           |               | 113  | 85-115      | 5   | 20        |
| Barium                                      | 1.22      |      | mg/l  | 0.0004  | 1.25                                           |               | 97   | 85-115      | 3   | 20        |
| <b>Batch 1509321 - EPA200/SW7000 Series</b> |           |      |       |         |                                                |               |      |             |     |           |
| <b><u>Blank (1509321-BLK1)</u></b>          |           |      |       |         | <u>Prepared: 14-May-15 Analyzed: 15-May-15</u> |               |      |             |     |           |
| Mercury                                     | < 0.00009 | U    | mg/l  | 0.00009 |                                                |               |      |             |     |           |
| <b><u>LCS (1509321-BS1)</u></b>             |           |      |       |         | <u>Prepared: 14-May-15 Analyzed: 15-May-15</u> |               |      |             |     |           |
| Mercury                                     | 0.00493   |      | mg/l  | 0.00009 | 0.00500                                        |               | 99   | 85-115      |     |           |
| <b>Batch 1509548 - SW846 3010A</b>          |           |      |       |         |                                                |               |      |             |     |           |
| <b><u>Blank (1509548-BLK1)</u></b>          |           |      |       |         | <u>Prepared: 14-May-15 Analyzed: 15-May-15</u> |               |      |             |     |           |
| Lead                                        | < 0.0018  | U    | mg/l  | 0.0018  |                                                |               |      |             |     |           |
| Arsenic                                     | 0.0036    | J    | mg/l  | 0.0026  |                                                |               |      |             |     |           |
| <b><u>LCS (1509548-BS1)</u></b>             |           |      |       |         | <u>Prepared: 14-May-15 Analyzed: 15-May-15</u> |               |      |             |     |           |
| Lead                                        | 1.16      |      | mg/l  | 0.0018  | 1.25                                           |               | 92   | 85-115      |     |           |
| Arsenic                                     | 1.20      |      | mg/l  | 0.0026  | 1.25                                           |               | 96   | 85-115      |     |           |
| <b><u>LCS Dup (1509548-BSD1)</u></b>        |           |      |       |         | <u>Prepared: 14-May-15 Analyzed: 15-May-15</u> |               |      |             |     |           |
| Arsenic                                     | 1.14      |      | mg/l  | 0.0026  | 1.25                                           |               | 91   | 85-115      | 5   | 20        |
| Lead                                        | 1.11      |      | mg/l  | 0.0018  | 1.25                                           |               | 89   | 85-115      | 4   | 20        |

## Toxicity Characteristics - Quality Control

| Analyte(s)                                 | Result        | Flag | Units     | *RDL                      | Spike Level | Source Result                             | %REC | %REC Limits | RPD | RPD Limit |
|--------------------------------------------|---------------|------|-----------|---------------------------|-------------|-------------------------------------------|------|-------------|-----|-----------|
| <b>Batch 1508980 - General Preparation</b> |               |      |           |                           |             |                                           |      |             |     |           |
| <u>Duplicate (1508980-DUP1)</u>            |               |      |           | <u>Source: SC07186-04</u> |             | <u>Prepared &amp; Analyzed: 08-May-15</u> |      |             |     |           |
| Ignitability by Definition                 | Negative      |      | N/A       |                           |             | Negative                                  |      |             |     | 35        |
| <b>Batch 1509150 - General Preparation</b> |               |      |           |                           |             |                                           |      |             |     |           |
| <u>Duplicate (1509150-DUP1)</u>            |               |      |           | <u>Source: SC07186-01</u> |             | <u>Prepared &amp; Analyzed: 11-May-15</u> |      |             |     |           |
| pH                                         | 8.27          |      | pH Units  |                           |             | 8.24                                      |      |             | 0.4 | 5         |
| <u>Reference (1509150-SRM1)</u>            |               |      |           |                           |             | <u>Prepared &amp; Analyzed: 11-May-15</u> |      |             |     |           |
| pH                                         | 6.04          |      | pH Units  |                           | 6.00        |                                           | 101  | 97.5-102.5  |     |           |
| <u>Reference (1509150-SRM2)</u>            |               |      |           |                           |             | <u>Prepared &amp; Analyzed: 11-May-15</u> |      |             |     |           |
| pH                                         | 6.07          |      | pH Units  |                           | 6.00        |                                           | 101  | 97.5-102.5  |     |           |
| <b>Batch 1509189 - General Preparation</b> |               |      |           |                           |             |                                           |      |             |     |           |
| <u>Blank (1509189-BLK1)</u>                |               |      |           |                           |             | <u>Prepared &amp; Analyzed: 11-May-15</u> |      |             |     |           |
| Reactivity                                 | See Narrative |      | mg/kg wet |                           |             |                                           |      |             |     |           |
| Reactive Cyanide                           | < 25.0        | U    | mg/kg wet | 25.0                      |             |                                           |      |             |     |           |
| Reactive Sulfide                           | < 50.0        | U    | mg/kg wet | 50.0                      |             |                                           |      |             |     |           |
| <u>Duplicate (1509189-DUP1)</u>            |               |      |           | <u>Source: SC07186-01</u> |             | <u>Prepared &amp; Analyzed: 11-May-15</u> |      |             |     |           |
| Reactivity                                 | See Narrative |      | mg/kg dry |                           |             | ee Narrativ                               |      |             |     | 200       |
| Reactive Cyanide                           | < 25.0        | U    | mg/kg dry | 25.0                      |             | BRL                                       |      |             |     | 35        |
| Reactive Sulfide                           | < 50.0        | U    | mg/kg dry | 50.0                      |             | BRL                                       |      |             |     | 35        |
| <u>Reference (1509189-SRM1)</u>            |               |      |           |                           |             | <u>Prepared &amp; Analyzed: 11-May-15</u> |      |             |     |           |
| Reactive Cyanide                           | < 25.0        | U    | mg/kg wet | 25.0                      | 600         |                                           | 0    | 0-200       |     |           |
| <u>Reference (1509189-SRM2)</u>            |               |      |           |                           |             | <u>Prepared &amp; Analyzed: 11-May-15</u> |      |             |     |           |
| Reactive Sulfide                           | 56.1          |      | mg/kg wet | 50.0                      | 40200       |                                           | 0.1  | 0-200       |     |           |
| <b>Batch 1509275 - General Preparation</b> |               |      |           |                           |             |                                           |      |             |     |           |
| <u>Reference (1509275-SRM1)</u>            |               |      |           |                           |             | <u>Prepared &amp; Analyzed: 12-May-15</u> |      |             |     |           |
| Flashpoint                                 | 80            |      | °F        |                           | 81.0        |                                           | 99   | 95-105      |     |           |

## Notes and Definitions

|      |                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| D    | Data reported from a dilution                                                                                                                                                                                                                                                                                                                                                                                                                    |
| IgHT | A hold time of 24 hours has been set to expedite the analyses through the laboratory. However, the hold time for Ignitability is not specified within the method other than to state that the samples should be analyzed as soon as possible.                                                                                                                                                                                                    |
| J    | Detected above the Method Detection Limit but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).                                                                                                                                                                                                                                                                                                           |
| QC2  | Analyte out of acceptance range in QC spike but no reportable concentration present in sample.                                                                                                                                                                                                                                                                                                                                                   |
| QR2  | The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.                                                                                                                                                                                                                                          |
| QR5  | RPD out of acceptance range.                                                                                                                                                                                                                                                                                                                                                                                                                     |
| U    | Analyte included in the analysis, but not detected at or above the MDL.                                                                                                                                                                                                                                                                                                                                                                          |
| Z-2  | Standard was rerun and passed within the method criteria                                                                                                                                                                                                                                                                                                                                                                                         |
| dry  | Sample results reported on a dry weight basis                                                                                                                                                                                                                                                                                                                                                                                                    |
| NR   | Not Reported                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| RPD  | Relative Percent Difference                                                                                                                                                                                                                                                                                                                                                                                                                      |
| pH   | The method for pH does not stipulate a specific holding time other than to state that the samples should be analyzed as soon as possible. For aqueous samples the 40 CFR 136 specifies a holding time of 15 minutes from sampling to analysis. Therefore all aqueous pH samples not analyzed in the field are considered out of hold time at the time of sample receipt. All soil samples are analyzed as soon as possible after sample receipt. |

Laboratory Control Sample (LCS): A known matrix spiked with compound(s) representative of the target analytes, which is used to document laboratory performance.

Matrix Duplicate: An intra-laboratory split sample which is used to document the precision of a method in a given sample matrix.

Matrix Spike: An aliquot of a sample spiked with a known concentration of target analyte(s). The spiking occurs prior to sample preparation and analysis. A matrix spike is used to document the bias of a method in a given sample matrix.

Method Blank: An analyte-free matrix to which all reagents are added in the same volumes or proportions as used in sample processing. The method blank should be carried through the complete sample preparation and analytical procedure. The method blank is used to document contamination resulting from the analytical process.

Method Detection Limit (MDL): The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix type containing the analyte.

Reportable Detection Limit (RDL): The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. For many analytes the RDL analyte concentration is selected as the lowest non-zero standard in the calibration curve. While the RDL is approximately 5 to 10 times the MDL, the RDL for each sample takes into account the sample volume/weight, extract/digestate volume, cleanup procedures and, if applicable, dry weight correction. Sample RDLs are highly matrix-dependent.

Surrogate: An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. These compounds are spiked into all blanks, standards, and samples prior to analysis. Percent recoveries are calculated for each surrogate.

Continuing Calibration Verification: The calibration relationship established during the initial calibration must be verified at periodic intervals. Concentrations, intervals, and criteria are method specific.

Validated by:  
Rebecca Merz



SPECTRUM ANALYTICAL, INC.

HANIBAL TECHNOLOGY

# CHAIN OF CUSTODY RECORD

Page 1 of 1

## Special Handling:

- ☒ Standard TAT - 7 to 10 business days  
☐ Rush TAT - Date Needed: \_\_\_\_\_

All TATs subject to laboratory approval  
Min. 24-hr notification needed for rushes  
Samples disposed after 60 days unless otherwise instructed

Report To: Allegany Lab

Invoice To: B&L

Project No: 1537.005.001

Site Name: Pioneer Middle Ave.

Location: Spencer, NY

State: NY

Sample(s): Water Sample

Telephone #: 585-325-7140

Project Mgr: Greg Lesnik

P.O. No.: \_\_\_\_\_

Quote/RON: \_\_\_\_\_

F=Field Filtered 1=Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub> 2=HCl 3=H<sub>2</sub>SO<sub>4</sub> 4=HNO<sub>3</sub> 5=NaOH 6=Ascorbic Acid  
7=CH<sub>3</sub>OH 8=NaHSO<sub>4</sub> 9=Deionized Water 10=H<sub>3</sub>PO<sub>4</sub> 11= Lab 12= \_\_\_\_\_

## List Preservative Code below:

DW=Drinking Water GW=Groundwater SW=Surface Water WW=Waste Water

O=Oil SO=Soil SL=Sludge A=Indoor/Ambient Air SG=Soil Gas

X1= \_\_\_\_\_ X2= \_\_\_\_\_ X3= \_\_\_\_\_

G=Grab C=Composite

Lab ID: \_\_\_\_\_ Sample ID: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Type \_\_\_\_\_ Matrix \_\_\_\_\_

# of VOA Vials \_\_\_\_\_  
# of Amber Glass \_\_\_\_\_  
# of Clear Glass \_\_\_\_\_  
# of Plastic \_\_\_\_\_

Containers \_\_\_\_\_  
Analysis \_\_\_\_\_  
TCLP Metals Spills  
PCBs  
Ignitability  
Corrosivity  
Flashpoint  
Reactivity  
Paint Filter

Check if chlorinated

MA DEP MCP CAM Report? ☐ Yes ☐ No  
CT DPH RCP Report? ☐ Yes ☐ No  
Standard ☐ No QC  
ASP A\* ☐ DOA\*  
ASP B\* ☐ NJ Reduced\*  
NJ Full\* ☐ Tier II\* ☐ Tier IV\*  
Other: \_\_\_\_\_  
State-specific reporting standards: \_\_\_\_\_

## QA/QC Reporting Notes:

\* additional charges may apply

Relinquished by: \_\_\_\_\_

Received by: \_\_\_\_\_

Date: \_\_\_\_\_

Time: \_\_\_\_\_

Temp °C \_\_\_\_\_

☐ EDD format: \_\_\_\_\_

☒ E-mail to: \_\_\_\_\_

glenn@hannibaltech.com  
mkalik@hannibaltech.com

Condition upon receipt: ☐ Present ☐ Intact ☐ Broken

☐ Ambient ☒ Iced ☐ Refrigerated ☐ DI VOA Frozen ☐ Soil Jar Frozen



SPECTRUM ANALYTICAL, INC.  
Featuring  
HANBAL TECHNOLOGY

# CHAIN OF CUSTODY RECORD

Page 1 of 1

## Special Handling:

- ☒ Standard TAT - 7 to 10 business days  
☐ Rush TAT - Date Needed: \_\_\_\_\_  
All TATs subject to laboratory approval  
Min. 24-hr notification needed for rushes  
Samples disposed after 60 days unless otherwise instructed

Report To: AKC Greg Lesnik

Invoice To: B+C

Project No: 15337.005.001

Site Name: Pioneer Milk Co. Ave.

Location: Spring Ave

State: NY

Sample(s): Milk 5 km lake

Telephone #: 588-325-7190

P.O. No.: \_\_\_\_\_

Quote/RON: \_\_\_\_\_

F=Field Filtered 1=Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub> 2=HCl 3=H<sub>2</sub>SO<sub>4</sub> 4=HNO<sub>3</sub> 5=NaOH 6=Ascorbic Acid  
7=CH<sub>3</sub>OH 8=NaHSO<sub>4</sub> 9=Deionized Water 10=H<sub>2</sub>PO<sub>4</sub> 11= Nut 12= \_\_\_\_\_

## List Preservative Code below:

## Analysis

DW=Drinking Water GW=Groundwater SW=Surface Water WW=Waste Water  
O=Oil SO=Soil SL=Sludge A=Indoor/Ambient Air SG=Soil Gas  
X1= \_\_\_\_\_ X2= \_\_\_\_\_ X3= \_\_\_\_\_

G=Grab C=Composite

Lab ID: \_\_\_\_\_ Sample ID: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Type \_\_\_\_\_ Matrix \_\_\_\_\_

# of VOA Vials \_\_\_\_\_  
# of Amber Glass \_\_\_\_\_  
# of Clear Glass \_\_\_\_\_  
# of Plastic \_\_\_\_\_

TCMP Metals Yes  
PCBs \_\_\_\_\_  
Ignitability \_\_\_\_\_  
Corrosivity \_\_\_\_\_  
Flashpoint \_\_\_\_\_  
Reactivity \_\_\_\_\_  
Permit P/LR \_\_\_\_\_

Check if chlorinated

MA DEP MCP CAM Report? ☐ Yes ☐ No  
CT DPH RCP Report? ☐ Yes ☐ No  
Standard ☐ No QC  
☐ DQA\* ☐ ASP B\*  
☐ ASP A\* ☐ NJ Reduced\* ☐ NJ Full\*  
☐ Tier II\* ☐ Tier IV\*  
Other: \_\_\_\_\_  
State-specific reporting standards: \_\_\_\_\_

## QA/QC Reporting Notes:

\* additional charges may apply

Relinquished by: \_\_\_\_\_

Received by: \_\_\_\_\_

Date: \_\_\_\_\_

Time: \_\_\_\_\_

Temp °C \_\_\_\_\_

☐ EDD format: \_\_\_\_\_

E-mail to: \_\_\_\_\_

gleniak@harnadyside.com  
mkalik@harnadyside.com

Condition upon receipt: \_\_\_\_\_

Custody Seals: \_\_\_\_\_

Present ☐ Intact ☐ Broken

Ambient ☒ Iced ☐ Refrigerated ☐ DI VOA Frozen ☐ Soil Jar Frozen

# CITY OF AUBURN DEPARTMENT OF MUNICIPAL UTILITIES

## PETROLEUM CONTAMINATED SOIL TESTING PROTOCOL

- Physical Characteristics**

Corrosivity (pH) = Greater than 2 Std. Units and Less Than 12.5 Std. Units

Ignitability (Flashpoint) = 60°C or 140°F Maximum

% Solids = 20% Minimum

- TCLP Laboratory Analysis (40 CFR 261)**

Maximum Concentration of Contaminants for Toxicity Characteristic (mg/L)

|                                |       |
|--------------------------------|-------|
| Arsenic                        | 5.0   |
| Barium                         | 100.0 |
| Benzene                        | 0.5   |
| Cadmium                        | 1.0   |
| Carbon tetrachloride           | 0.5   |
| Chlordane                      | 0.03  |
| Chlorobenzene                  | 100.0 |
| Chloroform                     | 6.0   |
| Chromium                       | 5.0   |
| o-Cresol                       | 200.0 |
| m-Cresol                       | 200.0 |
| p-Cresol                       | 200.0 |
| Cresol                         | 200.0 |
| 2,4-D                          | 10.0  |
| 1,4-Dichlorobenzene            | 7.5   |
| 1,2-Dichloroethane             | 0.5   |
| 1,1-Dichloroethylene           | 0.7   |
| 2,4-Dinitrotoluene             | 0.13  |
| Endrin                         | 0.02  |
| Heptachlor (and its hydroxide) | 0.008 |

|                       |       |
|-----------------------|-------|
| Hexachlorobenzene     | 0.13  |
| Hexachlorobutadiene   | 0.5   |
| Hexachloroethane      | 3.0   |
| Lead                  | 5.0   |
| Lindane               | 0.4   |
| Mercury               | 0.2   |
| Methoxychlor          | 10.0  |
| Methyl ethyl ketone   | 200.0 |
| Nitrobenzene          | 2.0   |
| Pentachlorophenol     | 100.0 |
| Pyridine              | 5.0   |
| Selenium              | 1.0   |
| Silver                | 5.0   |
| Tetrachloroethylene   | 0.7   |
| Toxaphene             | 0.5   |
| Trichloroethylene     | 0.5   |
| 2,4,5-Trichlorophenol | 400.0 |
| 2,4,6-Trichlorophenol | 2.0   |
| 2,4,5-TP (Silvex)     | 1.0   |
| Vinyl Chloride        | 0.2   |

- Total PCB Analysis:**

- PCB's should be analyzed as "total" per EPA Method 8082 or equivalent.

- Additional Testing Protocols (If Necessary):**

- Sampling and testing protocols may be modified or increased at any time by the City of Auburn depending on the origin or nature of the material.