May 31, 2018

**Albert Giannino**
Director of Leasing
Pioneer Companies
333 West Washington Street, Suite 600
Syracuse, NY, 13202

RE: Midler Crossing – Lot 7 Sampling Results
FILE: 4293/68868

Dear Al:

This letter serves to describe the observations and analytical results associated with the Lot 7 stockpile material sampling conducted by O'Brien & Gere Engineers, Inc. (OBG) on April 20, 2018 at the Midler Crossing property located off Midler Avenue in the City of Syracuse. The sampling was performed in accordance with OBG's proposal dated January 12, 2018.

## SAMPLING METHODS

The Site Management Plan (SMP) for the site states that one composite and one duplicate sample will be collected for 2,000 cubic yards of stockpiled material (assuming the material does not exhibit visual evidence of contamination). Based on measurements of the stockpiled material on Lot 7, the estimated volume is 1,700 cubic yards. As discussed below, two samples, rather than one, were collected to more conservatively represent the material quality in the stockpile.

To characterize the stockpiled material for off-site disposal options, four borings were advanced through the full stockpile thickness (estimated at 6 feet thick), one in the northeast (NE), southeast (SE), southwest (SW), and northwest (NW) quadrants of the stockpile. The attached **Figure 1** presents the sample locations. OBG subcontracted Parratt-Wolff, Inc. to provide the boring services. The borings were advanced using direct-push drilling methods. The direct-push drill rig was positioned atop the stockpile. Samples were collected from the full thickness of the stockpile using 4-ft long Macro-Core® samplers. Upon retrieval, the samples were screened using a photoionization detector (PID) to evaluate the potential presence of volatile organic compounds (VOCs) and bulk VOC concentrations.

For waste characterization purposes, material was collected from the NW and SW quadrants and composited into one sample, identified as NW-SW-Berm-042018. Likewise, material was collected from the NE and SE quadrants and composited into one sample identified as NE-SE-Berm-042018. In addition, one grab sample from the east and west quadrants was also collected for the volatile organic compound (VOC) samples. One blind duplicate sample, identified as X-1-042018, was collected for quality assurance/quality control (QA/QC) purposes. The samples were analyzed by Test America for the following waste characteristics:

- Toxicity Characteristic Leaching Procedure (TCLP) VOCs

- TCLP semivolatile organic compounds (SVOCs)
- TCLP metals
- Reactivity
- Ignitability
- Corrosivity
- Paint filter

To evaluate potential on-site reuse options, two discrete samples were collected from the eastern and western halves of the stockpile and identified as E-Berm-042018 and W-Berm-042018. These samples were analyzed by Test America for the following:

- Target Compound List (TCL) VOCs
- TCL SVOCs
- Target Analyte List (TAL) metals, including mercury
- TCL polychlorinated biphenyls (PCBs)
- TCL pesticides

## RESULTS

*Field Observations*

Based on visual observations of the samples collected from the Lot #7 soil pile, the material consists of brownish gray, damp, silt with some fine-grained sand and little gravel, brick fragments, and cinders. No visual or olfactory impacted material was observed in the samples collected. PID readings were non-detect.

*Analytical Results*

Waste characterization analytical data is provided on the attached **Table 1**. These data are compared to 6 NYCRR Part 371 maximum concentration of contaminants for toxicity characteristics. 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.

As shown on the attached **Table 2**, to assess potential reuse, total organic and inorganic compound concentrations were compared to 6 NYCRR Part 375 Unrestricted Soil Cleanup Objectives (SCOs), Commercial SCOs, Protection of Groundwater SCOs, and NYSDEC Commissioner's Policy 51 (CP-51) Commercial SCOs. PCBs and pesticides were not detected in the samples. Comparison of the detected concentrations to the comparison criteria indicates the following:

*VOCs*

- Methylene chloride and tetrachloroethene were each detected in the E-Berm-042018 and W-Berm-042018 samples. Trichloroethene was detected in the duplicate sample X-2-042018. Concentrations of these detected constituents were well below the comparison criteria.

*Metals*

- The mercury concentration in sample E-Berm-042018 was 0.39 mg/Kg, which exceeded the Unrestricted SCO of 0.18 mg/Kg, but less than the Commercial and Protection of Groundwater SCOs of 2.8 mg/Kg and 0.73 mg/Kg, respectively.


 

*SVOCs*

- Benzo(a)pyrene was detected in the W-Berm-042018 and X-2-042018 samples at concentrations of 3,300 µg/Kg and 2,000 µg/Kg respectively, which exceeded the Part 375 Unrestricted and Commercial, and CP-51 Commercial SCOs of 1,000 µg/Kg.
- Concentrations of benzo(a)anthracene, benzo(b)fluoranthene, and chrysene were detected in the W-Berm-042018 sample and its duplicate sample X-2-042018 exceeding the Unrestricted SCO, Protection of Groundwater SCO and CP-51 Commercial SCO.
- Indeno(1,2,3-cd)pyrene was detected in the W-Berm-042018 and X-2-042018 samples at estimated concentrations of 1,900 µg/Kg and 1,200 µg/Kg respectively, which exceeded the Unrestricted SCOS and CP-51 Commercial SCO criteria of 500 µg/Kg.

## DISPOSAL OPTIONS

In accordance with the SMP, the Lot 7 stockpile material could be re-used as backfill on-site since observations made during the stockpile sampling did not indicate visual or olfactory evidence of contamination. However, this material must be placed beneath a cover system component as described in the SMP. If the Lot #7 stockpile is to be disposed of off-site, this material must be transported and disposed to a facility permitted to accept non-hazardous waste in accordance with local, state, and federal regulations.

Thank you for the opportunity to provide Pioneer Companies with assistance with the Midler Avenue Project. Please don't hesitate to contact me with any questions you may have.

Very truly yours,
**O'BRIEN & GERE ENGINEERS**

Steve Mooney
Project Manager

Attachments

cc: Dave Carnevale – OBG

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FIGURE 1

5/31/2018 9:32:32 AM


PIONEER COMPANIES
MIDLER CROSSING
SYRACUSE, NEW YORK

LOT 7 MATERIAL PILE
BORING LOCATIONS

N

4293/68868
MAY 2018

APPROXIMATELY 40 FEET

O'BRIEN & GERE ENGINEERS, INC.

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**Table 1: Hazardous Characteristics**

| | CAS # | Units | TCLP Limits 40 CFR Part 261 | NE-SE-BERM-042018 | NW-SW-BERM-042018 | X-1-042018* |
|---|---|---|---|---|---|---|
| **TCLP Volatile Organic Compounds** | | | | | | |
| Trichloroethene | 79-01-6 | mg/L | 0.5 | <0.010 | <0.010 | <0.010 |
| 1,2-Dichloroethane | 107-06-2 | mg/L | 0.5 | <0.010 | <0.010 | <0.010 |
| 1,1-Dichloroethene | 75-35-4 | mg/L | 0.7 | <0.010 | <0.010 | <0.010 |
| Vinyl chloride | 75-01-4 | mg/L | 0.2 | <0.010 | <0.010 | <0.010 |
| Benzene | 71-43-2 | mg/L | 0.5 | <0.010 | <0.010 | <0.010 |
| 2-Butanone (MEK) | 78-93-3 | mg/L | 200 | <0.050 | <0.050 | <0.050 |
| Chlorobenzene | 108-90-7 | mg/L | 100 | <0.010 | <0.010 | <0.010 |
| Carbon tetrachloride | 56-23-5 | mg/L | 0.5 | <0.010 | <0.010 | <0.010 |
| Chloroform | 67-66-3 | mg/L | 6 | <0.010 | <0.010 | <0.010 |
| Tetrachloroethene | 127-18-4 | mg/L | 0.7 | <0.010 | 0.0057 J | 0.0071 J |
| **TCLP Semivolatile Organic Compounds** | | | | | | |
| 2-Methylphenol | 95-48-7 | mg/L | 200 | <0.0050 | <0.0050 | <0.0050 |
| 4-Methylphenol | 106-44-5 | mg/L | 200 | <0.010 | <0.010 | <0.010 |
| Pyridine | 110-86-1 | mg/L | 5 | <0.025 | <0.025 | <0.025 |
| Hexachlorobenzene | 118-74-1 | mg/L | 0.13 | <0.0050 | <0.0050 | <0.0050 |
| 3-Methylphenol | 108-39-4 | mg/L | 200 | <0.010 | <0.010 | <0.010 |
| 2,4-Dinitrotoluene | 121-14-2 | mg/L | 0.13 | <0.0050 | <0.0050 | <0.0050 |
| 2,4,6-Trichlorophenol | 88-06-2 | mg/L | 2 | <0.0050 | <0.0050 | <0.0050 |
| Hexachlorobutadiene | 87-68-3 | mg/L | 0.5 | <0.0050 | <0.0050 | <0.0050 |
| 1,4-Dichlorobenzene | 106-46-7 | mg/L | 7.5 | <0.010 | <0.010 | <0.010 |
| Pentachlorophenol | 87-86-5 | mg/L | 100 | <0.010 | <0.010 | <0.010 |
| 2,4,5-Trichlorophenol | 95-95-4 | mg/L | 400 | <0.0050 | <0.0050 | <0.0050 |
| Nitrobenzene | 98-95-3 | mg/L | 2 | <0.0050 | <0.0050 | <0.0050 |
| Hexachloroethane | 67-72-1 | mg/L | 3 | <0.0050 | <0.0050 | <0.0050 |
| **TCLP Metals** | | | | | | |
| Lead | 7439-92-1 | mg/L | 5 | 0.037 | <0.020 | <0.020 |
| Arsenic | 7440-38-2 | mg/L | 5 | <0.015 | <0.015 | <0.015 |
| Chromium | 7440-47-3 | mg/L | 5 | <0.020 | <0.020 | <0.020 |
| Cadmium | 7440-43-9 | mg/L | 1 | 0.0035 | 0.0022 | 0.0022 |
| Barium | 7440-39-3 | mg/L | 100 | 0.46 J | 0.40 J | 0.35 J |
| Selenium | 7782-49-2 | mg/L | 1 | <0.025 | <0.025 | <0.025 |
| Silver | 7440-22-4 | mg/L | 5 | <0.0060 | <0.0060 | <0.0060 |
| Mercury | 7439-97-6 | mg/L | 0.2 | <0.00020 | <0.00020 | <0.00020 |
| **General Chemistry** | | | | | | |
| Free Liquid | NA | mL/100g | NA | Passed | Passed | Passed |
| Cyanide, Reactive | NA | mg/Kg | NA | <9.9 | <9.9 | <9.9 |
| Sulfide, Reactive | NA | mg/Kg | NA | <9.9 | <9.9 | <9.9 |
| Flashpoint | NA | Degrees F | <140 | >180 | >180 | >180 |
| pH | NA | SU | ≤2 or ≥12.5 | 10.5 HF | 8.7 HF | 9.1 HF |
| Temperature | NA | Degrees C | NA | 25.5 HF | 19.8 HF | 20.1 HF |

Notes:
J - Result is less than the RL but greater than or equal to the MDL and the concentration is approximate
HF - Analyzed outside of holding time.
* Parent sample is NW-SW-BERM-042018

**Table 2: Organic and Inorganic Compounds**

| | CAS # | Units | Part 375-6.8 Unrestricted Use SCO | Part 375-6.8 Commercial SCO | Part 375-6.8 Protection of GW | CP-51 Commercial SCO | E-BERM-042018 | W-BERM-042018 | X-2-042018* |
|---|---|---|---|---|---|---|---|---|---|
| **TCL Volatile Organic Compounds** | | | | | | | | | |
| 1,1,1-Trichloroethane | 71-55-6 | ug/Kg | 680 | 500,000 | 680 | NC | <5.4 | <5.7 | <5.6 |
| 1,1,2,2-Tetrachloroethane | 79-34-5 | ug/Kg | NC | NC | NC | NC | <5.4 | <5.7 | <5.6 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 76-13-1 | ug/Kg | NC | NC | NC | NC | <5.4 | <5.7 | <5.6 |
| 1,1,2-Trichloroethane | 79-00-5 | ug/Kg | NC | NC | NC | NC | <5.4 | <5.7 | <5.6 |
| 1,1-Dichloroethane | 75-34-3 | ug/Kg | 270 | 240,000 | 270 | NC | <5.4 | <5.7 | <5.6 |
| 1,1-Dichloroethene | 75-35-4 | ug/Kg | 330 | 500,000 | 330 | NC | <5.4 | <5.7 | <5.6 |
| 1,2,4-Trichlorobenzene | 120-82-1 | ug/Kg | NC | NC | NC | NC | <5.4 | <5.7 | <5.6 |
| 1,2-Dibromo-3-Chloropropane | 96-12-8 | ug/Kg | NC | NC | NC | NC | <5.4 | <5.7 | <5.6 |
| 1,2-Dibromoethane | 106-93-4 | ug/Kg | NC | NC | NC | NC | <5.4 | <5.7 | <5.6 |
| 1,2-Dichlorobenzene | 95-50-1 | ug/Kg | 1,100 | 500,000 | 1,100 | NC | <5.4 | <5.7 | <5.6 |
| 1,2-Dichloroethane | 107-06-2 | ug/Kg | 20 | 30,000 | 20 | NC | <5.4 | <5.7 | <5.6 |
| 1,2-Dichloropropane | 78-87-5 | ug/Kg | NC | NC | NC | NC | <5.4 | <5.7 | <5.6 |
| 1,3-Dichlorobenzene | 541-73-1 | ug/Kg | 2,400 | 280,000 | 2,400 | NC | <5.4 | <5.7 | <5.6 |
| 1,4-Dichlorobenzene | 106-46-7 | ug/Kg | 1,800 | 130,000 | 1,800 | NC | <5.4 | <5.7 | <5.6 |
| 2-Butanone (MEK) | 78-93-3 | ug/Kg | 120 | 500,000 | 120 | NC | <27 | <29 | <28 |
| 2-Hexanone | 591-78-6 | ug/Kg | NC | NC | NC | NC | <27 | <29 | <28 |
| 4-Methyl-2-pentanone (MIBK) | 108-10-1 | ug/Kg | NC | NC | NC | NC | <27 | <29 | <28 |
| Acetone | 67-64-1 | ug/Kg | 50 | 500,000 | 50 | NC | <27 | <29 | <28 |
| Benzene | 71-43-2 | ug/Kg | 60 | 44,000 | 60 | 60 | <5.4 | <5.7 | <5.6 |
| Bromodichloromethane | 75-27-4 | ug/Kg | NC | NC | NC | NC | <5.4 | <5.7 | <5.6 |
| Bromoform | 75-25-2 | ug/Kg | NC | NC | NC | NC | <5.4 | <5.7 | <5.6 |
| Bromomethane | 74-83-9 | ug/Kg | NC | NC | NC | NC | <5.4 | <5.7 | <5.6 |
| Carbon disulfide | 75-15-0 | ug/Kg | NC | NC | NC | NC | <5.4 | <5.7 | <5.6 |
| Carbon tetrachloride | 56-23-5 | ug/Kg | 760 | 22,000 | 760 | NC | <5.4 | <5.7 | <5.6 |
| Chlorobenzene | 108-90-7 | ug/Kg | 1,100 | 500,000 | 1,100 | NC | <5.4 | <5.7 | <5.6 |
| Chloroethane | 75-00-3 | ug/Kg | NC | NC | NC | NC | <5.4 | <5.7 | <5.6 |
| Chloroform | 67-66-3 | ug/Kg | 370 | 350,000 | 370 | NC | <5.4 | <5.7 | <5.6 |
| Chloromethane | 74-87-3 | ug/Kg | NC | NC | NC | NC | <5.4 | <5.7 | <5.6 |
| cis-1,2-Dichloroethene | 156-59-2 | ug/Kg | 250 | 500,000 | 250 | NC | <5.4 | <5.7 | <5.6 |
| cis-1,3-Dichloropropene | 10061-01-5 | ug/Kg | NC | NC | NC | NC | <5.4 | <5.7 | <5.6 |
| Cyclohexane | 110-82-7 | ug/Kg | NC | NC | NC | NC | <5.4 | <5.7 | <5.6 |
| Dibromochloromethane | 124-48-1 | ug/Kg | NC | NC | NC | NC | <5.4 | <5.7 | <5.6 |
| Dichlorodifluoromethane | 75-71-8 | ug/Kg | NC | NC | NC | NC | <5.4 | <5.7 | <5.6 |
| Ethylbenzene | 100-41-4 | ug/Kg | 1,000 | 390,000 | 1,000 | 1,000 | <5.4 | <5.7 | <5.6 |
| Isopropylbenzene | 98-82-8 | ug/Kg | NC | NC | NC | 2,300 | <5.4 | <5.7 | <5.6 |
| Methyl acetate | 79-20-9 | ug/Kg | NC | NC | NC | NC | <27 | <29 | <28 |
| Methyl tert-butyl ether | 1634-04-4 | ug/Kg | 930 | 500,000 | 930 | 930 | <5.4 | <5.7 | <5.6 |
| Methylcyclohexane | 108-87-2 | ug/Kg | NC | NC | NC | NC | <5.4 | <5.7 | <5.6 |
| Methylene Chloride | 75-09-2 | ug/Kg | 50 | 500,000 | 50 | NC | 5.2 J | **7.4** | **6.5** |
| Styrene | 100-42-5 | ug/Kg | NC | NC | NC | NC | <5.4 | <5.7 | <5.6 |
| Tetrachloroethene | 127-18-4 | ug/Kg | 1,300 | 150,000 | 1,300 | NC | <5.4 | **2.3 J** | **7.4** |
| Toluene | 108-88-3 | ug/Kg | 700 | 500,000 | 700 | 700 | <5.4 | <5.7 | <5.6 |
| trans-1,2-Dichloroethene | 156-60-5 | ug/Kg | 190 | 500,000 | 190 | NC | <5.4 | <5.7 | <5.6 |
| trans-1,3-Dichloropropene | 10061-02-6 | ug/Kg | NC | NC | NC | NC | <5.4 | <5.7 | <5.6 |
| Trichloroethene | 79-01-6 | ug/Kg | 470 | 200,000 | 470 | NC | <5.4 | <5.7 | **1.5** |
| Trichlorofluoromethane | 75-69-4 | ug/Kg | NC | NC | NC | NC | <5.4 | <5.7 | <5.6 |
| Vinyl chloride | 75-01-4 | ug/Kg | 20 | 13,000 | 20 | NC | <5.4 | <5.7 | <5.6 |
| Xylenes, Total | 1330-20-7 | ug/Kg | 260 | 500,000 | 1,600 | 260 | <11 | <11 | <11 |

**Table 2: Organic and Inorganic Compounds**

| | CAS # | Units | Part 375-6.8 Unrestricted Use SCO | Part 375-6.8 Commercial SCO | Part 375-6.8 Protection of GW | CP-51 Commercial SCO | E-BERM-042018 | W-BERM-042018 | X-2-042018* |
|---|---|---|---|---|---|---|---|---|---|
| **TCL Semivolatile Organic Compounds** | | | | | | | | | |
| 2,4,5-Trichlorophenol | 95-95-4 | ug/Kg | NC | NC | NC | NC | <3800 | <2000 | <2000 |
| 2,4,6-Trichlorophenol | 88-06-2 | ug/Kg | NC | NC | NC | NC | <3800 | <2000 | <2000 |
| 2,4-Dichlorophenol | 120-83-2 | ug/Kg | NC | NC | NC | NC | <3800 | <2000 | <2000 |
| 2,4-Dimethylphenol | 105-67-9 | ug/Kg | NC | NC | NC | NC | <3800 | <2000 | <2000 |
| 2,4-Dinitrophenol | 51-28-5 | ug/Kg | NC | NC | NC | NC | <38000 | <19000 | <19000 |
| 2,4-Dinitrotoluene | 121-14-2 | ug/Kg | NC | NC | NC | NC | <3800 | <2000 | <2000 |
| 2,6-Dinitrotoluene | 606-20-2 | ug/Kg | NC | NC | NC | NC | <3800 | <2000 | <2000 |
| 2-Chloronaphthalene | 91-58-7 | ug/Kg | NC | NC | NC | NC | <3800 | <2000 | <2000 |
| 2-Chlorophenol | 95-57-8 | ug/Kg | NC | NC | NC | NC | <3800 | <2000 | <2000 |
| 2-Methylnaphthalene | 91-57-6 | ug/Kg | NC | NC | NC | NC | <3800 | <2000 | <2000 |
| 2-Methylphenol | 95-48-7 | ug/Kg | 330 | 500,000 | 330 | NC | <3800 | <2000 | <2000 |
| 2-Nitroaniline | 88-74-4 | ug/Kg | NC | NC | NC | NC | <7500 | <3800 | <3900 |
| 2-Nitrophenol | 88-75-5 | ug/Kg | NC | NC | NC | NC | <3800 | <2000 | <2000 |
| 3,3'-Dichlorobenzidine | 91-94-1 | ug/Kg | NC | NC | NC | NC | <7500 | <3800 | <3900 |
| 3-Nitroaniline | 99-09-2 | ug/Kg | NC | NC | NC | NC | <7500 | <3800 | <3900 |
| 4,6-Dinitro-2-methylphenol | 534-52-1 | ug/Kg | NC | NC | NC | NC | <7500 | <3800 | <3900 |
| 4-Bromophenyl phenyl ether | 101-55-3 | ug/Kg | NC | NC | NC | NC | <3800 | <2000 | <2000 |
| 4-Chloro-3-methylphenol | 59-50-7 | ug/Kg | NC | NC | NC | NC | <3800 | <2000 | <2000 |
| 4-Chloroaniline | 106-47-8 | ug/Kg | NC | NC | NC | NC | <3800 | <2000 | <2000 |
| 4-Chlorophenyl phenyl ether | 7005-72-3 | ug/Kg | NC | NC | NC | NC | <3800 | <2000 | <2000 |
| 4-Methylphenol | 106-44-5 | ug/Kg | 330 | 500,000 | 330 | NC | <7500 | <3800 | <3900 |
| 4-Nitroaniline | 100-01-6 | ug/Kg | NC | NC | NC | NC | <7500 | <3800 | <3900 |
| 4-Nitrophenol | 100-02-7 | ug/Kg | NC | NC | NC | NC | <7500 | <3800 | <3900 |
| Acenaphthene | 83-32-9 | ug/Kg | 20,000 | 500,000 | 98,000 | 20,000 | <3800 | 540 J | <2000 |
| Acenaphthylene | 208-96-8 | ug/Kg | 100,000 | 500,000 | 107,000 | 100,000 | <3800 | 300 J | <2000 |
| Acetophenone | 98-86-2 | ug/Kg | NC | NC | NC | NC | <3800 | <2000 | <2000 |
| Anthracene | 120-12-7 | ug/Kg | 100,000 | 500,000 | 1,000,000 | 100,000 | <3800 | 1,300 J | 600 J |
| Atrazine | 1912-24-9 | ug/Kg | NC | NC | NC | NC | <3800 | <2000 | <2000 |
| Benzaldehyde | 100-52-7 | ug/Kg | NC | NC | NC | NC | <3800 | <2000 | <2000 |
| Benzo[a]anthracene | 56-55-3 | ug/Kg | 1,000 | 5,600 | 1,000 | 1,000 | **560 J** | **3800**[1,3,4] | **2000**[1,3,4] |
| Benzo[a]pyrene | 50-32-8 | ug/Kg | 1,000 | 1,000 | 22,000 | 1,000 | **800 J** | **3300**[1,3,4] | **2000**[1,3,4] |
| Benzo[b]fluoranthene | 205-99-2 | ug/Kg | 1,000 | 5,600 | 1,700 | 1,000 | **1,100 J** | **4300**[1,3,4] | **2400**[1,3,4] |
| Benzo[g,h,i]perylene | 191-24-2 | ug/Kg | 100,000 | 500,000 | 1,000,000 | 100,000 | **490 J** | **1,800 J** | **1,200 J** |
| Benzo[k]fluoranthene | 207-08-9 | ug/Kg | 800 | 56,000 | 1,700 | 800 | <3800 | **1,600 J** | **1,400 J** |
| Biphenyl | 92-52-4 | ug/Kg | NC | NC | NC | NC | <3800 | <2000 | <2000 |
| bis (2-chloroisopropyl) ether | 108-60-1 | ug/Kg | NC | NC | NC | NC | <3800 | <2000 | <2000 |
| Bis(2-chloroethoxy)methane | 111-91-1 | ug/Kg | NC | NC | NC | NC | <3800 | <2000 | <2000 |
| Bis(2-chloroethyl)ether | 111-44-4 | ug/Kg | NC | NC | NC | NC | <3800 | <2000 | <2000 |
| Bis(2-ethylhexyl) phthalate | 117-81-7 | ug/Kg | NC | NC | NC | NC | <3800 | <2000 | <2000 |
| Butyl benzyl phthalate | 85-68-7 | ug/Kg | NC | NC | NC | NC | <3800 | <2000 | <2000 |
| Caprolactam | 105-60-2 | ug/Kg | NC | NC | NC | NC | <3800 | <2000 | <2000 |
| Carbazole | 86-74-8 | ug/Kg | NC | NC | NC | NC | <3800 | **600 J** | **230 J** |
| Chrysene | 218-01-9 | ug/Kg | 1,000 | 56,000 | 1,000 | 1,000 | <3800 | **3500**[1,3,4] | **2200**[1,3,4] |
| Dibenz(a,h)anthracene | 53-70-3 | ug/Kg | 330 | 560 | 1,000,000 | 330 | <3800 | <2000 | <2000 |
| Dibenzofuran | 132-64-9 | ug/Kg | NC | NC | NC | NC | <3800 | **400 J** | <2000 |
| Diethyl phthalate | 84-66-2 | ug/Kg | NC | NC | NC | NC | <3800 | <2000 | <2000 |
| Dimethyl phthalate | 131-11-3 | ug/Kg | NC | NC | NC | NC | <3800 | <2000 | <2000 |
| Di-n-butyl phthalate | 84-74-2 | ug/Kg | NC | NC | NC | NC | <3800 | <2000 | <2000 |
| Di-n-octyl phthalate | 117-84-0 | ug/Kg | NC | NC | NC | NC | <3800 | <2000 | <2000 |
| Fluoranthene | 206-44-0 | ug/Kg | 100,000 | 500,000 | 1,000,000 | 100,000 | **1,400 J** | **7,700** | **4,200** |
| Fluorene | 86-73-7 | ug/Kg | 30,000 | 500,000 | 386,000 | 30,000 | <3800 | **700 J** | <2000 |
| Hexachlorobenzene | 118-74-1 | ug/Kg | NC | NC | NC | NC | <3800 | <2000 | <2000 |
| Hexachlorobutadiene | 87-68-3 | ug/Kg | NC | NC | NC | NC | <3800 | <2000 | <2000 |
| Hexachlorocyclopentadiene | 77-47-4 | ug/Kg | NC | NC | NC | NC | <3800 | <2000 | <2000 |
| Hexachloroethane | 67-72-1 | ug/Kg | NC | NC | NC | NC | <3800 | <2000 | <2000 |
| Indeno[1,2,3-cd]pyrene | 193-39-5 | ug/Kg | 500 | 5,600 | 8,200 | 500 | <3800 | **1,900 J**[1,4] | **1,200 J**[1,4] |
| Isophorone | 78-59-1 | ug/Kg | NC | NC | NC | NC | <3800 | <2000 | <2000 |
| Naphthalene | 91-20-3 | ug/Kg | 12,000 | 500,000 | 12,000 | 12,000 | <3800 | **740 J** | <2000 |
| Nitrobenzene | 98-95-3 | ug/Kg | NC | NC | NC | 69000 | <3800 | <2000 | <2000 |
| N-Nitrosodi-n-propylamine | 621-64-7 | ug/Kg | NC | NC | NC | NC | <3800 | <2000 | <2000 |
| N-Nitrosodiphenylamine | 86-30-6 | ug/Kg | NC | NC | NC | NC | <3800 | <2000 | <2000 |
| Pentachlorophenol | 87-86-5 | ug/Kg | 800 | 6,700 | 800 | NC | <7500 | <3800 | <3900 |
| Phenanthrene | 85-01-8 | ug/Kg | 100,000 | 500,000 | 1,000,000 | 100,000 | <3800 | **5,500** | **2,200** |
| Phenol | 108-95-2 | ug/Kg | 330 | 500,000 | 330 | NC | <3800 | <2000 | <2000 |
| Pyrene | 129-00-0 | ug/Kg | 100,000 | 500,000 | 1,000,000 | 100,000 | **990 J** | **6,300** | **3,600** |

**Table 2: Organic and Inorganic Compounds**

| | CAS # | Units | Part 375-6.8 Unrestricted Use SCO | Part 375-6.8 Commercial SCO | Part 375-6.8 Protection of GW | CP-51 Commercial SCO | E-BERM-042018 | W-BERM-042018 | X-2-042018* |
|---|---|---|---|---|---|---|---|---|---|
| **TAL Metals** | | | | | | | | | |
| Aluminum | 7429-90-5 | mg/Kg | NC | NC | NC | NC | **8,520** | **6720** | **6,760** |
| Antimony | 7440-36-0 | mg/Kg | NC | NC | NC | NC | <16.6 | <18.1 | <17.4 |
| Arsenic | 7440-38-2 | mg/Kg | 13 | 16 | 16 | NC | **4.9** | **5.1** | **5.0** |
| Barium | 7440-39-3 | mg/Kg | 350 | 400 | 820 | NC | **54.2** | **80.7** | **72.9** |
| Beryllium | 7440-41-7 | mg/Kg | 7.2 | 590 | 47 | NC | **0.39** | **0.33** | **0.34** |
| Cadmium | 7440-43-9 | mg/Kg | 2.5 | 9.3 | 7.5 | NC | **0.14 J** | **0.29** | **0.29** |
| Calcium | 7440-70-2 | mg/Kg | NC | NC | NC | NC | **128,000 B** | **98,100 B** | **128,000 B** |
| Chromium | 7440-47-3 | mg/Kg | 30 | 1,500 | NC | NC | **18 B** | **14.9 B** | **13.2 B** |
| Cobalt | 7440-48-4 | mg/Kg | NC | NC | NC | NC | **4.9** | **4.8** | **3.7** |
| Copper | 7440-50-8 | mg/Kg | 50 | 270 | 1,720 | NC | **60.7** | **37.4** | **42.6** |
| Iron | 7439-89-6 | mg/Kg | NC | NC | NC | NC | **15,700 B** | **17,300 B** | **16,200 B** |
| Lead | 7439-92-1 | mg/Kg | 63 | 1,000 | 450 | NC | **85.7** | **38.7** | **38.7** |
| Magnesium | 7439-95-4 | mg/Kg | NC | NC | NC | NC | **14,900** | **13,500** | **7,790** |
| Manganese | 7439-96-5 | mg/Kg | 1,600 | 10,000 | 2,000 | NC | **369** | **287** | **323** |
| Mercury | 7439-97-6 | mg/Kg | 0.18 | 2.8 | 0.73 | NC | **0.39** [1] | **0.056** | **0.062** |
| Nickel | 7440-02-0 | mg/Kg | 30 | 310 | 130 | NC | **14.6** | **13.5** | **14.1** |
| Potassium | 7440-09-7 | mg/Kg | NC | NC | NC | NC | **3,160** | **1,630** | **1,900** |
| Selenium | 7782-49-2 | mg/Kg | 3.9 | 1,500 | 4 | NC | <4.4 | <4.8 | <4.6 |
| Silver | 7440-22-4 | mg/Kg | 2 | 1,500 | 8.3 | NC | <0.66 | <0.73 | <0.70 |
| Sodium | 7440-23-5 | mg/Kg | NC | NC | NC | NC | **189** | **190** | **196** |
| Thallium | 7440-28-0 | mg/Kg | NC | NC | NC | NC | <6.6 | <7.3 | <7.0 |
| Vanadium | 7440-62-2 | mg/Kg | NC | NC | NC | NC | **34.1** | **22.0** | **21.8** |
| Zinc | 7440-66-6 | mg/Kg | 109 | 10,000 | 2,480 | NC | **56.5** | **102** | **99.9** |
| **TCL Organochlorine Pesticides** | | | | | | | | | |
| 4,4'-DDD | 72-54-8 | ug/Kg | 3.3 | 92,000 | 14,000 | NC | <93 | <98 | <96 |
| 4,4'-DDE | 72-55-9 | ug/Kg | 3.3 | 62,000 | 17,000 | NC | <93 | <98 | <96 |
| 4,4'-DDT | 50-29-3 | ug/Kg | 3.3 | 47,000 | 136,000 | NC | <93 | <98 | <96 |
| Aldrin | 309-00-2 | ug/Kg | 5 | 680 | 190 | NC | <93 | <98 | <96 |
| alpha-BHC | 319-84-6 | ug/Kg | 20 | 3,400 | 20 | NC | <93 | <98 | <96 |
| beta-BHC | 319-85-7 | ug/Kg | 36 | 3,000 | 90 | NC | <93 | <98 | <96 |
| cis-Chlordane | 5103-71-9 | ug/Kg | 94 | 24,000 | 2,900 | NC | <93 | <98 | <96 |
| delta-BHC | 319-86-8 | ug/Kg | 40 | 500,000 | 250 | NC | <93 | <98 | <96 |
| Dieldrin | 60-57-1 | ug/Kg | 5 | 1,400 | 100 | NC | <93 | <98 | <96 |
| Endosulfan I | 959-98-8 | ug/Kg | 2,400 | 200,000 | 102,000 | NC | <93 | <98 | <96 |
| Endosulfan II | 33213-65-9 | ug/Kg | 2,400 | 200,000 | 102,000 | NC | <93 | <98 | <96 |
| Endosulfan sulfate | 1031-07-8 | ug/Kg | 2,400 | 200,000 | 1,000,000 | NC | <93 | <98 | <96 |
| Endrin | 72-20-8 | ug/Kg | 14 | 89,000 | 60 | NC | <93 | <98 | <96 |
| Endrin aldehyde | 7421-93-4 | ug/Kg | NC | NC | NC | NC | <93 | <98 | <96 |
| Endrin ketone | 53494-70-5 | ug/Kg | NC | NC | NC | NC | <93 | <98 | <96 |
| gamma-BHC (Lindane) | 58-89-9 | ug/Kg | 100 | 9,200 | 100 | NC | <93 | <98 | <96 |
| Heptachlor | 76-44-8 | ug/Kg | 42 | 15,000 | 380 | NC | <93 | <98 | <96 |
| Heptachlor epoxide | 1024-57-3 | ug/Kg | NC | NC | NC | NC | <93 | <98 | <96 |
| Methoxychlor | 72-43-5 | ug/Kg | NC | NC | NC | NC | <93 | <98 | <96 |
| Toxaphene | 8001-35-2 | ug/Kg | NC | NC | NC | NC | <930 | <980 | <960 |
| trans-Chlordane | 5103-74-2 | ug/Kg | NC | NC | NC | NC | <93 | <98 | <96 |
| **PCBs** | | | | | | | | | |
| Aroclor-1016 | 12674-11-2 | mg/Kg | 0.1 | 1000 | 3,200 | NC | <0.28 | <0.25 | <0.21 |
| Aroclor-1221 | 11104-28-2 | mg/Kg | 0.1 | 1000 | 3,200 | NC | <0.28 | <0.25 | <0.21 |
| Aroclor-1232 | 11141-16-5 | mg/Kg | 0.1 | 1000 | 3,200 | NC | <0.28 | <0.25 | <0.21 |
| Aroclor-1242 | 53469-21-9 | mg/Kg | 0.1 | 1000 | 3,200 | NC | <0.28 | <0.25 | <0.21 |
| Aroclor-1248 | 12672-29-6 | mg/Kg | 0.1 | 1000 | 3,200 | NC | <0.28 | <0.25 | <0.21 |
| Aroclor-1254 | 11097-69-1 | mg/Kg | 0.1 | 1000 | 3,200 | NC | <0.28 | <0.25 | <0.21 |
| Aroclor-1260 | 11096-82-5 | mg/Kg | 0.1 | 1000 | 3,200 | NC | <0.28 | <0.25 | <0.21 |
| Aroclor-1262 | 37324-23-5 | mg/Kg | 0.1 | 1000 | 3,200 | NC | <0.28 | <0.25 | <0.21 |
| Aroclor-1268 | 11100-14-4 | mg/Kg | 0.1 | 1000 | 3,200 | NC | <0.28 | <0.25 | <0.21 |

Notes:
NC - No Criteria
J - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value
B - Compound was found in blank and sample
Bold value indicates detected concentration
Shaded cell indicates detected constituent concentration exceeds criteria
* Parent sample is W-Berm-042018
[1] Concentration exceeds Part 375 Unresticted SCO
[2] Concentration exceeds Part 375 Commercial SCO
[3] Concentration exceeds Part 375 Protection of Groundwater
[4] Concentration exceeds CP-51 Soil Cleanup Guidance

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

# ANALYTICAL REPORT

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

TestAmerica Job ID: 480-134628-1
Client Project/Site: Midler Crossing - Characteristic Soil

For:
O'Brien & Gere Inc of North America
333 West Washington St.
PO BOX 4873
East Syracuse, New York 13221

Attn: Mr. David J Carnevale

*Authorized for release by:*
*5/10/2018 10:59:28 AM*
Rebecca Jones, Project Management Assistant I
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Designee for

Melissa Deyo, Project Manager I
(716)504-9874
melissa.deyo@testamericainc.com

# Table of Contents

## Qualifiers

### GC/MS VOA

| Qualifier | Qualifier Description |
|---|---|
| vs | Reported analyte concentrations are below 200 ug/kg and may be biased low due to the sample not being collected according to 5035A-L low-level specifications. |
| J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |
| F1 | MS and/or MSD Recovery is outside acceptance limits. |

### GC/MS Semi VOA

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

### GC Semi VOA

| Qualifier | Qualifier Description |
|---|---|
| X | Surrogate is outside control limits |

### Metals

| Qualifier | Qualifier Description |
|---|---|
| J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |
| B | Compound was found in the blank and sample. |
| ^ | ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits. |

### General Chemistry

| Qualifier | Qualifier Description |
|---|---|
| HF | Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request. |

## Glossary

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

## Job ID: 480-134628-1

### Laboratory: TestAmerica Buffalo

**Narrative**

**Job Narrative**
**480-134628-1**

**Receipt**
The samples were received on 4/21/2018 1:45 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.4° C.

**GC/MS VOA**
Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 480-410294 recovered above the upper control limit for 2-Butanone (MEK). The samples associated with this CCV were non-detects for the affected analyte; therefore, the data have been reported. The following samples are impacted: E-BERM-042018 (480-134628-8), W-BERM-042018 (480-134628-10) and X-2-042018 (480-134628-12).

Method(s) 8260C: The following samples were diluted due to the nature of the TCLP matrix: NE-SE BERM-042018 (480-134628-7), NW-SW-BERM-042018 (480-134628-9), X-1-042018 (480-134628-11) and LB 480-411593/3-A. Elevated reporting limits (RLs) are provided.

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

**GC/MS Semi VOA**
Method(s) 8270D: The following samples were diluted due to the nature of the sample matrix: E-BERM-042018 (480-134628-2), W-BERM-042018 (480-134628-4) and X-2-042018 (480-134628-6). Elevated reporting limits (RLs) are provided.

Method(s) 8270D: The following sample required a dilution due to the nature of the sample matrix: E-BERM-042018 (480-134628-2). Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

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

**GC Semi VOA**
Method(s) 8081B: The following samples were diluted due to the nature of the sample matrix: E-BERM-042018 (480-134628-2), W-BERM-042018 (480-134628-4) and X-2-042018 (480-134628-6). As such, surrogate recoveries are below the calibration range, estimated and not representative. Elevated reporting limits (RLs) are provided.

Method(s) 8082A: The continuing calibration verification (CCV) associated with batch 480-411578 recovered above the upper control limit for PCB-1232, PCB-1242, PCB-1262 and PCB-1268. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: E-BERM-042018 (480-134628-2), W-BERM-042018 (480-134628-4) and X-2-042018 (480-134628-6).

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

**Metals**
Method(s) 6010C: The Low Level Continuing Calibration Verifications, (CCVL 480-410722/17 and CCV 480-410722/29) associated with batch 480-410722, contained Total Manganese above the upper quality control limit. The associated samples were either ND for the affected analyte or contained this analyte at a concentration greater than 10X the value found in the CCVL; therefore, re-analysis of samples E-BERM-042018 (480-134628-2), W-BERM-042018 (480-134628-4) and X-2-042018 (480-134628-6) was not performed.

Method(s) 6010C: The following sample was diluted due to the presence of Total Calcium which interferes with Copper: E-BERM-042018 (480-134628-2). Elevated reporting limits (RLs) are provided.

Method(s) 6010C: The following sample was diluted due to the presence of Total Calcium which interferes with Copper: X-2-042018 (480-134628-6). Elevated reporting limits (RLs) are provided.

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

## Job ID: 480-134628-1 (Continued)

### Laboratory: TestAmerica Buffalo (Continued)

**General Chemistry**

Method(s) 9045D: This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following samples has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: NW-SW-BERM-042018 (480-134628-3) and X-1-042018 (480-134628-5).

Method(s) 9045D: This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following sample has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: NE-SE BERM-042018 (480-134628-1).

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

**Organic Prep**

Method(s) 3550C: The following samples required a Florisil clean-up, via EPA Method 3620C, to reduce matrix interferences: E-BERM-042018 (480-134628-2), W-BERM-042018 (480-134628-4) and X-2-042018 (480-134628-6).

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

# Detection Summary

Client: O'Brien & Gere Inc of North America
Project/Site: Midler Crossing - Characteristic Soil

TestAmerica Job ID: 480-134628-1

## Client Sample ID: NE-SE BERM-042018 — Lab Sample ID: 480-134628-1

| Analyte | Result | Qualifier | NONE | NONE | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Free Liquid | passed | | | | mL/100g | 1 | | 9095B | Total/NA |

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Barium | 0.46 | J | 1.0 | 0.10 | mg/L | 1 | | 6010C | TCLP |
| Cadmium | 0.0035 | | 0.0020 | 0.00050 | mg/L | 1 | | 6010C | TCLP |
| Lead | 0.037 | | 0.020 | 0.0030 | mg/L | 1 | | 6010C | TCLP |

| Analyte | Result | Qualifier | RL | RL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Flashpoint | >180 | | 50.0 | 50.0 | Degrees F | 1 | | 1010A | Total/NA |
| pH | 10.5 | HF | 0.1 | 0.1 | SU | 1 | | 9045D | Total/NA |
| Temperature | 25.5 | HF | 0.001 | 0.001 | Degrees C | 1 | | 9045D | Total/NA |

## Client Sample ID: E-BERM-042018 — Lab Sample ID: 480-134628-2

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Benzo[a]anthracene | 560 | J | 3800 | 380 | ug/Kg | 20 | ☼ | 8270D | Total/NA |
| Benzo[a]pyrene | 800 | J | 3800 | 560 | ug/Kg | 20 | ☼ | 8270D | Total/NA |
| Benzo[b]fluoranthene | 1100 | J | 3800 | 610 | ug/Kg | 20 | ☼ | 8270D | Total/NA |
| Benzo[g,h,i]perylene | 490 | J | 3800 | 410 | ug/Kg | 20 | ☼ | 8270D | Total/NA |
| Fluoranthene | 1400 | J | 3800 | 410 | ug/Kg | 20 | ☼ | 8270D | Total/NA |
| Pyrene | 990 | J | 3800 | 450 | ug/Kg | 20 | ☼ | 8270D | Total/NA |
| Aluminum | 8520 | | 11.0 | 4.9 | mg/Kg | 1 | ☼ | 6010C | Total/NA |
| Arsenic | 4.9 | | 2.2 | 0.44 | mg/Kg | 1 | ☼ | 6010C | Total/NA |
| Barium | 54.2 | | 0.55 | 0.12 | mg/Kg | 1 | ☼ | 6010C | Total/NA |
| Beryllium | 0.39 | | 0.22 | 0.031 | mg/Kg | 1 | ☼ | 6010C | Total/NA |
| Cadmium | 0.14 | J | 0.22 | 0.033 | mg/Kg | 1 | ☼ | 6010C | Total/NA |
| Calcium | 128000 | B | 276 | 18.2 | mg/Kg | 5 | ☼ | 6010C | Total/NA |
| Chromium | 18.0 | B | 0.55 | 0.22 | mg/Kg | 1 | ☼ | 6010C | Total/NA |
| Cobalt | 4.9 | | 0.55 | 0.055 | mg/Kg | 1 | ☼ | 6010C | Total/NA |
| Copper | 60.7 | | 5.5 | 1.2 | mg/Kg | 5 | ☼ | 6010C | Total/NA |
| Iron | 15700 | B | 11.0 | 3.9 | mg/Kg | 1 | ☼ | 6010C | Total/NA |
| Lead | 85.7 | | 1.1 | 0.26 | mg/Kg | 1 | ☼ | 6010C | Total/NA |
| Magnesium | 14900 | | 22.1 | 1.0 | mg/Kg | 1 | ☼ | 6010C | Total/NA |
| Manganese | 369 | ^ | 1.1 | 0.18 | mg/Kg | 5 | ☼ | 6010C | Total/NA |
| Nickel | 14.6 | | 5.5 | 0.25 | mg/Kg | 1 | ☼ | 6010C | Total/NA |
| Potassium | 3160 | | 33.1 | 22.1 | mg/Kg | 1 | ☼ | 6010C | Total/NA |
| Sodium | 189 | | 154 | 14.3 | mg/Kg | 1 | ☼ | 6010C | Total/NA |
| Vanadium | 34.1 | | 0.55 | 0.12 | mg/Kg | 1 | ☼ | 6010C | Total/NA |
| Zinc | 56.5 | | 2.2 | 0.71 | mg/Kg | 1 | ☼ | 6010C | Total/NA |
| Mercury | 0.36 | | 0.021 | 0.0086 | mg/Kg | 1 | ☼ | 7471B | Total/NA |

## Client Sample ID: NW-SW-BERM-042018 — Lab Sample ID: 480-134628-3

| Analyte | Result | Qualifier | NONE | NONE | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Free Liquid | passed | | | | mL/100g | 1 | | 9095B | Total/NA |

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Barium | 0.40 | J | 1.0 | 0.10 | mg/L | 1 | | 6010C | TCLP |
| Cadmium | 0.0022 | | 0.0020 | 0.00050 | mg/L | 1 | | 6010C | TCLP |

| Analyte | Result | Qualifier | RL | RL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Flashpoint | >180 | | 50.0 | 50.0 | Degrees F | 1 | | 1010A | Total/NA |
| pH | 8.7 | HF | 0.1 | 0.1 | SU | 1 | | 9045D | Total/NA |

This Detection Summary does not include radiochemical test results.

TestAmerica Buffalo

# Detection Summary

Client: O'Brien & Gere Inc of North America
Project/Site: Midler Crossing - Characteristic Soil

TestAmerica Job ID: 480-134628-1

## Client Sample ID: NW-SW-BERM-042018 (Continued) — Lab Sample ID: 480-134628-3

| Analyte | Result | Qualifier | RL | RL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Temperature | 19.8 | HF | 0.001 | 0.001 | Degrees C | 1 | | 9045D | Total/NA |

## Client Sample ID: W-BERM-042018 — Lab Sample ID: 480-134628-4

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | 540 | J | 2000 | 290 | ug/Kg | 10 | ☼ | 8270D | Total/NA |
| Acenaphthylene | 300 | J | 2000 | 260 | ug/Kg | 10 | ☼ | 8270D | Total/NA |
| Anthracene | 1300 | J | 2000 | 490 | ug/Kg | 10 | ☼ | 8270D | Total/NA |
| Benzo[a]anthracene | 3800 | | 2000 | 200 | ug/Kg | 10 | ☼ | 8270D | Total/NA |
| Benzo[a]pyrene | 3300 | | 2000 | 290 | ug/Kg | 10 | ☼ | 8270D | Total/NA |
| Benzo[b]fluoranthene | 4300 | | 2000 | 310 | ug/Kg | 10 | ☼ | 8270D | Total/NA |
| Benzo[g,h,i]perylene | 1800 | J | 2000 | 210 | ug/Kg | 10 | ☼ | 8270D | Total/NA |
| Benzo[k]fluoranthene | 1600 | J | 2000 | 260 | ug/Kg | 10 | ☼ | 8270D | Total/NA |
| Carbazole | 600 | J | 2000 | 230 | ug/Kg | 10 | ☼ | 8270D | Total/NA |
| Chrysene | 3500 | | 2000 | 440 | ug/Kg | 10 | ☼ | 8270D | Total/NA |
| Dibenzofuran | 400 | J | 2000 | 230 | ug/Kg | 10 | ☼ | 8270D | Total/NA |
| Fluoranthene | 7700 | | 2000 | 210 | ug/Kg | 10 | ☼ | 8270D | Total/NA |
| Fluorene | 700 | J | 2000 | 230 | ug/Kg | 10 | ☼ | 8270D | Total/NA |
| Indeno[1,2,3-cd]pyrene | 1900 | J | 2000 | 240 | ug/Kg | 10 | ☼ | 8270D | Total/NA |
| Naphthalene | 740 | J | 2000 | 260 | ug/Kg | 10 | ☼ | 8270D | Total/NA |
| Phenanthrene | 5500 | | 2000 | 290 | ug/Kg | 10 | ☼ | 8270D | Total/NA |
| Pyrene | 6300 | | 2000 | 230 | ug/Kg | 10 | ☼ | 8270D | Total/NA |
| Aluminum | 6720 | | 12.1 | 5.3 | mg/Kg | 1 | ☼ | 6010C | Total/NA |
| Arsenic | 5.1 | | 2.4 | 0.48 | mg/Kg | 1 | ☼ | 6010C | Total/NA |
| Barium | 80.7 | | 0.60 | 0.13 | mg/Kg | 1 | ☼ | 6010C | Total/NA |
| Beryllium | 0.33 | | 0.24 | 0.034 | mg/Kg | 1 | ☼ | 6010C | Total/NA |
| Cadmium | 0.29 | | 0.24 | 0.036 | mg/Kg | 1 | ☼ | 6010C | Total/NA |
| Calcium | 98100 | B | 60.5 | 4.0 | mg/Kg | 1 | ☼ | 6010C | Total/NA |
| Chromium | 14.9 | B | 0.60 | 0.24 | mg/Kg | 1 | ☼ | 6010C | Total/NA |
| Cobalt | 4.8 | | 0.60 | 0.060 | mg/Kg | 1 | ☼ | 6010C | Total/NA |
| Copper | 37.4 | | 1.2 | 0.25 | mg/Kg | 1 | ☼ | 6010C | Total/NA |
| Iron | 17300 | B | 12.1 | 4.2 | mg/Kg | 1 | ☼ | 6010C | Total/NA |
| Lead | 38.7 | | 1.2 | 0.29 | mg/Kg | 1 | ☼ | 6010C | Total/NA |
| Magnesium | 13500 | | 24.2 | 1.1 | mg/Kg | 1 | ☼ | 6010C | Total/NA |
| Manganese | 287 | ^ | 0.24 | 0.039 | mg/Kg | 1 | ☼ | 6010C | Total/NA |
| Nickel | 13.5 | | 6.0 | 0.28 | mg/Kg | 1 | ☼ | 6010C | Total/NA |
| Potassium | 1630 | | 36.3 | 24.2 | mg/Kg | 1 | ☼ | 6010C | Total/NA |
| Sodium | 190 | | 169 | 15.7 | mg/Kg | 1 | ☼ | 6010C | Total/NA |
| Vanadium | 22.0 | | 0.60 | 0.13 | mg/Kg | 1 | ☼ | 6010C | Total/NA |
| Zinc | 102 | | 2.4 | 0.77 | mg/Kg | 1 | ☼ | 6010C | Total/NA |
| Mercury | 0.056 | | 0.024 | 0.0095 | mg/Kg | 1 | ☼ | 7471B | Total/NA |

## Client Sample ID: X-1-042018 — Lab Sample ID: 480-134628-5

| Analyte | Result | Qualifier | NONE | NONE | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Free Liquid | passed | | | | mL/100g | 1 | | 9095B | Total/NA |

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Barium | 0.35 | J | 1.0 | 0.10 | mg/L | 1 | | 6010C | TCLP |
| Cadmium | 0.0022 | | 0.0020 | 0.00050 | mg/L | 1 | | 6010C | TCLP |

This Detection Summary does not include radiochemical test results.

TestAmerica Buffalo

## Client Sample ID: X-1-042018 (Continued) — Lab Sample ID: 480-134628-5

| Analyte | Result | Qualifier | RL | RL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Flashpoint | >180 | | 50.0 | 50.0 | Degrees F | 1 | | 1010A | Total/NA |
| pH | 9.1 | HF | 0.1 | 0.1 | SU | 1 | | 9045D | Total/NA |
| Temperature | 20.1 | HF | 0.001 | 0.001 | Degrees C | 1 | | 9045D | Total/NA |

## Client Sample ID: X-2-042018 — Lab Sample ID: 480-134628-6

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Anthracene | 600 | J | 2000 | 490 | ug/Kg | 10 | ☼ | 8270D | Total/NA |
| Benzo[a]anthracene | 2000 | | 2000 | 200 | ug/Kg | 10 | ☼ | 8270D | Total/NA |
| Benzo[a]pyrene | 2000 | | 2000 | 290 | ug/Kg | 10 | ☼ | 8270D | Total/NA |
| Benzo[b]fluoranthene | 2400 | | 2000 | 320 | ug/Kg | 10 | ☼ | 8270D | Total/NA |
| Benzo[g,h,i]perylene | 1200 | J | 2000 | 210 | ug/Kg | 10 | ☼ | 8270D | Total/NA |
| Benzo[k]fluoranthene | 1400 | J | 2000 | 260 | ug/Kg | 10 | ☼ | 8270D | Total/NA |
| Carbazole | 230 | J | 2000 | 230 | ug/Kg | 10 | ☼ | 8270D | Total/NA |
| Chrysene | 2200 | | 2000 | 440 | ug/Kg | 10 | ☼ | 8270D | Total/NA |
| Fluoranthene | 4200 | | 2000 | 210 | ug/Kg | 10 | ☼ | 8270D | Total/NA |
| Indeno[1,2,3-cd]pyrene | 1200 | J | 2000 | 250 | ug/Kg | 10 | ☼ | 8270D | Total/NA |
| Phenanthrene | 2200 | | 2000 | 290 | ug/Kg | 10 | ☼ | 8270D | Total/NA |
| Pyrene | 3600 | | 2000 | 230 | ug/Kg | 10 | ☼ | 8270D | Total/NA |
| Aluminum | 6760 | | 11.6 | 5.1 | mg/Kg | 1 | ☼ | 6010C | Total/NA |
| Arsenic | 5.0 | | 2.3 | 0.46 | mg/Kg | 1 | ☼ | 6010C | Total/NA |
| Barium | 72.9 | | 0.58 | 0.13 | mg/Kg | 1 | ☼ | 6010C | Total/NA |
| Beryllium | 0.34 | | 0.23 | 0.032 | mg/Kg | 1 | ☼ | 6010C | Total/NA |
| Cadmium | 0.29 | | 0.23 | 0.035 | mg/Kg | 1 | ☼ | 6010C | Total/NA |
| Calcium | 128000 | B | 290 | 19.1 | mg/Kg | 5 | ☼ | 6010C | Total/NA |
| Chromium | 13.2 | B | 0.58 | 0.23 | mg/Kg | 1 | ☼ | 6010C | Total/NA |
| Cobalt | 3.7 | | 0.58 | 0.058 | mg/Kg | 1 | ☼ | 6010C | Total/NA |
| Copper | 42.6 | | 5.8 | 1.2 | mg/Kg | 5 | ☼ | 6010C | Total/NA |
| Iron | 16200 | B | 11.6 | 4.1 | mg/Kg | 1 | ☼ | 6010C | Total/NA |
| Lead | 38.7 | | 1.2 | 0.28 | mg/Kg | 1 | ☼ | 6010C | Total/NA |
| Magnesium | 7790 | | 23.2 | 1.1 | mg/Kg | 1 | ☼ | 6010C | Total/NA |
| Manganese | 323 | ^ | 0.23 | 0.037 | mg/Kg | 1 | ☼ | 6010C | Total/NA |
| Nickel | 14.1 | | 5.8 | 0.27 | mg/Kg | 1 | ☼ | 6010C | Total/NA |
| Potassium | 1900 | | 34.8 | 23.2 | mg/Kg | 1 | ☼ | 6010C | Total/NA |
| Sodium | 196 | | 162 | 15.1 | mg/Kg | 1 | ☼ | 6010C | Total/NA |
| Vanadium | 21.8 | | 0.58 | 0.13 | mg/Kg | 1 | ☼ | 6010C | Total/NA |
| Zinc | 99.9 | | 2.3 | 0.74 | mg/Kg | 1 | ☼ | 6010C | Total/NA |
| Mercury | 0.062 | | 0.023 | 0.0095 | mg/Kg | 1 | ☼ | 7471B | Total/NA |

## Client Sample ID: NE-SE BERM-042018 — Lab Sample ID: 480-134628-7

No Detections.

## Client Sample ID: E-BERM-042018 — Lab Sample ID: 480-134628-8

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Methylene Chloride | 5.2 | J vs | 5.4 | 2.5 | ug/Kg | 1 | ☼ | 8260C | Total/NA |

## Client Sample ID: NW-SW-BERM-042018 — Lab Sample ID: 480-134628-9

This Detection Summary does not include radiochemical test results.

## Client Sample ID: NW-SW-BERM-042018 (Continued) — Lab Sample ID: 480-134628-9

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Tetrachloroethene | 0.0057 | J | 0.010 | 0.0036 | mg/L | 10 | | 8260C | TCLP |

## Client Sample ID: W-BERM-042018 — Lab Sample ID: 480-134628-10

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Methylene Chloride | 7.4 | vs | 5.7 | 2.6 | ug/Kg | 1 | ☼ | 8260C | Total/NA |
| Tetrachloroethene | 2.3 | J vs | 5.7 | 0.77 | ug/Kg | 1 | ☼ | 8260C | Total/NA |

## Client Sample ID: X-1-042018 — Lab Sample ID: 480-134628-11

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Tetrachloroethene | 0.0071 | J | 0.010 | 0.0036 | mg/L | 10 | | 8260C | TCLP |

## Client Sample ID: X-2-042018 — Lab Sample ID: 480-134628-12

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Methylene Chloride | 6.5 | vs | 5.6 | 2.6 | ug/Kg | 1 | ☼ | 8260C | Total/NA |
| Tetrachloroethene | 7.4 | vs | 5.6 | 0.75 | ug/Kg | 1 | ☼ | 8260C | Total/NA |
| Trichloroethene | 1.5 | J vs F1 | 5.6 | 1.2 | ug/Kg | 1 | ☼ | 8260C | Total/NA |

This Detection Summary does not include radiochemical test results.

**Client Sample ID: NE-SE BERM-042018**
**Date Collected: 04/20/18 09:30**
**Date Received: 04/21/18 01:45**

**Lab Sample ID: 480-134628-1**
**Matrix: Solid**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,4-Dichlorobenzene | ND | | 0.010 | 0.00046 | mg/L | | 05/02/18 14:55 | 05/03/18 20:51 | 1 |
| 2,4-Dinitrotoluene | ND | | 0.0050 | 0.00045 | mg/L | | 05/02/18 14:55 | 05/03/18 20:51 | 1 |
| Hexachlorobenzene | ND | | 0.0050 | 0.00051 | mg/L | | 05/02/18 14:55 | 05/03/18 20:51 | 1 |
| Hexachlorobutadiene | ND | | 0.0050 | 0.00068 | mg/L | | 05/02/18 14:55 | 05/03/18 20:51 | 1 |
| Hexachloroethane | ND | | 0.0050 | 0.00059 | mg/L | | 05/02/18 14:55 | 05/03/18 20:51 | 1 |
| 3-Methylphenol | ND | | 0.010 | 0.00040 | mg/L | | 05/02/18 14:55 | 05/03/18 20:51 | 1 |
| 2-Methylphenol | ND | | 0.0050 | 0.00040 | mg/L | | 05/02/18 14:55 | 05/03/18 20:51 | 1 |
| 4-Methylphenol | ND | | 0.010 | 0.00036 | mg/L | | 05/02/18 14:55 | 05/03/18 20:51 | 1 |
| Nitrobenzene | ND | | 0.0050 | 0.00029 | mg/L | | 05/02/18 14:55 | 05/03/18 20:51 | 1 |
| Pentachlorophenol | ND | | 0.010 | 0.0022 | mg/L | | 05/02/18 14:55 | 05/03/18 20:51 | 1 |
| Pyridine | ND | | 0.025 | 0.00041 | mg/L | | 05/02/18 14:55 | 05/03/18 20:51 | 1 |
| 2,4,5-Trichlorophenol | ND | | 0.0050 | 0.00048 | mg/L | | 05/02/18 14:55 | 05/03/18 20:51 | 1 |
| 2,4,6-Trichlorophenol | ND | | 0.0050 | 0.00061 | mg/L | | 05/02/18 14:55 | 05/03/18 20:51 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *2,4,6-Tribromophenol* | *95* | | *41 - 120* | *05/02/18 14:55* | *05/03/18 20:51* | *1* |
| *2-Fluorobiphenyl* | *82* | | *48 - 120* | *05/02/18 14:55* | *05/03/18 20:51* | *1* |
| *2-Fluorophenol* | *45* | | *35 - 120* | *05/02/18 14:55* | *05/03/18 20:51* | *1* |
| *Nitrobenzene-d5* | *77* | | *46 - 120* | *05/02/18 14:55* | *05/03/18 20:51* | *1* |
| *p-Terphenyl-d14* | *104* | | *59 - 136* | *05/02/18 14:55* | *05/03/18 20:51* | *1* |
| *Phenol-d5* | *30* | | *22 - 120* | *05/02/18 14:55* | *05/03/18 20:51* | *1* |

### Method: 6010C - Metals (ICP) - TCLP

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | ND | | 0.015 | 0.0056 | mg/L | | 05/01/18 10:12 | 05/01/18 22:39 | 1 |
| **Barium** | **0.46** | **J** | 1.0 | 0.10 | mg/L | | 05/01/18 10:12 | 05/01/18 22:39 | 1 |
| **Cadmium** | **0.0035** | | 0.0020 | 0.00050 | mg/L | | 05/01/18 10:12 | 05/01/18 22:39 | 1 |
| Chromium | ND | | 0.020 | 0.010 | mg/L | | 05/01/18 10:12 | 05/01/18 22:39 | 1 |
| **Lead** | **0.037** | | 0.020 | 0.0030 | mg/L | | 05/01/18 10:12 | 05/01/18 22:39 | 1 |
| Selenium | ND | | 0.025 | 0.0087 | mg/L | | 05/01/18 10:12 | 05/01/18 22:39 | 1 |
| Silver | ND | | 0.0060 | 0.0017 | mg/L | | 05/01/18 10:12 | 05/01/18 22:39 | 1 |

### Method: 7470A - TCLP Mercury - TCLP

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | 0.00012 | mg/L | | 05/01/18 13:35 | 05/01/18 20:14 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | NONE | NONE | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Free Liquid** | **passed** | | | | mL/100g | | | 04/25/18 15:22 | 1 |

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Cyanide, Reactive | ND | | 9.9 | 9.9 | mg/Kg | | 04/30/18 05:03 | 04/30/18 16:38 | 1 |
| Sulfide, Reactive | ND | | 9.9 | 9.9 | mg/Kg | | 04/30/18 05:03 | 04/30/18 15:45 | 1 |

| Analyte | Result | Qualifier | RL | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Flashpoint** | **>180** | | 50.0 | 50.0 | Degrees F | | | 05/01/18 09:30 | 1 |
| **pH** | **10.5** | **HF** | 0.1 | 0.1 | SU | | | 04/25/18 17:57 | 1 |
| **Temperature** | **25.5** | **HF** | 0.001 | 0.001 | Degrees C | | | 04/25/18 17:57 | 1 |

Client: O'Brien & Gere Inc of North America
Project/Site: Midler Crossing - Characteristic Soil

TestAmerica Job ID: 480-134628-1

**Client Sample ID: E-BERM-042018**
**Date Collected: 04/20/18 10:15**
**Date Received: 04/21/18 01:45**

**Lab Sample ID: 480-134628-2**
**Matrix: Solid**
**Percent Solids: 88.3**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Biphenyl | ND | | 3800 | 560 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:21 | 20 |
| bis (2-chloroisopropyl) ether | ND | | 3800 | 770 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:21 | 20 |
| 2,4,5-Trichlorophenol | ND | | 3800 | 1000 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:21 | 20 |
| 2,4,6-Trichlorophenol | ND | | 3800 | 770 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:21 | 20 |
| 2,4-Dichlorophenol | ND | | 3800 | 410 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:21 | 20 |
| 2,4-Dimethylphenol | ND | | 3800 | 930 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:21 | 20 |
| 2,4-Dinitrophenol | ND | | 38000 | 18000 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:21 | 20 |
| 2,4-Dinitrotoluene | ND | | 3800 | 790 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:21 | 20 |
| 2,6-Dinitrotoluene | ND | | 3800 | 450 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:21 | 20 |
| 2-Chloronaphthalene | ND | | 3800 | 630 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:21 | 20 |
| 2-Chlorophenol | ND | | 3800 | 700 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:21 | 20 |
| 2-Methylnaphthalene | ND | | 3800 | 770 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:21 | 20 |
| 2-Methylphenol | ND | | 3800 | 450 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:21 | 20 |
| 2-Nitroaniline | ND | | 7500 | 560 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:21 | 20 |
| 2-Nitrophenol | ND | | 3800 | 1100 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:21 | 20 |
| 3,3'-Dichlorobenzidine | ND | | 7500 | 4500 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:21 | 20 |
| 3-Nitroaniline | ND | | 7500 | 1100 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:21 | 20 |
| 4,6-Dinitro-2-methylphenol | ND | | 7500 | 3800 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:21 | 20 |
| 4-Bromophenyl phenyl ether | ND | | 3800 | 540 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:21 | 20 |
| 4-Chloro-3-methylphenol | ND | | 3800 | 950 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:21 | 20 |
| 4-Chloroaniline | ND | | 3800 | 950 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:21 | 20 |
| 4-Chlorophenyl phenyl ether | ND | | 3800 | 470 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:21 | 20 |
| 4-Methylphenol | ND | | 7500 | 450 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:21 | 20 |
| 4-Nitroaniline | ND | | 7500 | 2000 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:21 | 20 |
| 4-Nitrophenol | ND | | 7500 | 2700 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:21 | 20 |
| Acenaphthene | ND | | 3800 | 560 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:21 | 20 |
| Acenaphthylene | ND | | 3800 | 500 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:21 | 20 |
| Acetophenone | ND | | 3800 | 520 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:21 | 20 |
| Anthracene | ND | | 3800 | 950 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:21 | 20 |
| Atrazine | ND | | 3800 | 1300 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:21 | 20 |
| Benzaldehyde | ND | | 3800 | 3100 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:21 | 20 |
| **Benzo[a]anthracene** | **560** | **J** | 3800 | 380 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:21 | 20 |
| **Benzo[a]pyrene** | **800** | **J** | 3800 | 560 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:21 | 20 |
| **Benzo[b]fluoranthene** | **1100** | **J** | 3800 | 610 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:21 | 20 |
| **Benzo[g,h,i]perylene** | **490** | **J** | 3800 | 410 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:21 | 20 |
| Benzo[k]fluoranthene | ND | | 3800 | 500 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:21 | 20 |
| Bis(2-chloroethoxy)methane | ND | | 3800 | 810 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:21 | 20 |
| Bis(2-chloroethyl)ether | ND | | 3800 | 500 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:21 | 20 |
| Bis(2-ethylhexyl) phthalate | ND | | 3800 | 1300 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:21 | 20 |
| Butyl benzyl phthalate | ND | | 3800 | 630 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:21 | 20 |
| Caprolactam | ND | | 3800 | 1200 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:21 | 20 |
| Carbazole | ND | | 3800 | 450 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:21 | 20 |
| Chrysene | ND | | 3800 | 860 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:21 | 20 |
| Di-n-butyl phthalate | ND | | 3800 | 660 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:21 | 20 |
| Di-n-octyl phthalate | ND | | 3800 | 450 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:21 | 20 |
| Dibenz(a,h)anthracene | ND | | 3800 | 680 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:21 | 20 |
| Dibenzofuran | ND | | 3800 | 450 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:21 | 20 |
| Diethyl phthalate | ND | | 3800 | 500 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:21 | 20 |
| Dimethyl phthalate | ND | | 3800 | 450 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:21 | 20 |

**Client Sample ID: E-BERM-042018**
**Date Collected: 04/20/18 10:15**
**Date Received: 04/21/18 01:45**

**Lab Sample ID: 480-134628-2**
**Matrix: Solid**
**Percent Solids: 88.3**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Fluoranthene** | **1400** | **J** | 3800 | 410 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:21 | 20 |
| Fluorene | ND | | 3800 | 450 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:21 | 20 |
| Hexachlorobenzene | ND | | 3800 | 520 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:21 | 20 |
| Hexachlorobutadiene | ND | | 3800 | 560 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:21 | 20 |
| Hexachlorocyclopentadiene | ND | | 3800 | 520 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:21 | 20 |
| Hexachloroethane | ND | | 3800 | 500 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:21 | 20 |
| Indeno[1,2,3-cd]pyrene | ND | | 3800 | 470 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:21 | 20 |
| Isophorone | ND | | 3800 | 810 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:21 | 20 |
| N-Nitrosodi-n-propylamine | ND | | 3800 | 660 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:21 | 20 |
| N-Nitrosodiphenylamine | ND | | 3800 | 3100 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:21 | 20 |
| Naphthalene | ND | | 3800 | 500 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:21 | 20 |
| Nitrobenzene | ND | | 3800 | 430 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:21 | 20 |
| Pentachlorophenol | ND | | 7500 | 3800 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:21 | 20 |
| Phenanthrene | ND | | 3800 | 560 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:21 | 20 |
| Phenol | ND | | 3800 | 590 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:21 | 20 |
| **Pyrene** | **990** | **J** | 3800 | 450 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:21 | 20 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *2,4,6-Tribromophenol* | *116* | | *54 - 120* | *05/02/18 07:03* | *05/04/18 01:21* | *20* |
| *2-Fluorobiphenyl* | *96* | | *60 - 120* | *05/02/18 07:03* | *05/04/18 01:21* | *20* |
| *2-Fluorophenol* | *94* | | *52 - 120* | *05/02/18 07:03* | *05/04/18 01:21* | *20* |
| *Nitrobenzene-d5* | *91* | | *53 - 120* | *05/02/18 07:03* | *05/04/18 01:21* | *20* |
| *p-Terphenyl-d14* | *111* | | *65 - 121* | *05/02/18 07:03* | *05/04/18 01:21* | *20* |
| *Phenol-d5* | *89* | | *54 - 120* | *05/02/18 07:03* | *05/04/18 01:21* | *20* |

### Method: 8081B - Organochlorine Pesticides (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 4,4'-DDD | ND | | 93 | 18 | ug/Kg | ☼ | 04/24/18 07:51 | 04/26/18 13:57 | 50 |
| 4,4'-DDE | ND | | 93 | 20 | ug/Kg | ☼ | 04/24/18 07:51 | 04/26/18 13:57 | 50 |
| 4,4'-DDT | ND | | 93 | 22 | ug/Kg | ☼ | 04/24/18 07:51 | 04/26/18 13:57 | 50 |
| Aldrin | ND | | 93 | 23 | ug/Kg | ☼ | 04/24/18 07:51 | 04/26/18 13:57 | 50 |
| alpha-BHC | ND | | 93 | 17 | ug/Kg | ☼ | 04/24/18 07:51 | 04/26/18 13:57 | 50 |
| cis-Chlordane | ND | | 93 | 46 | ug/Kg | ☼ | 04/24/18 07:51 | 04/26/18 13:57 | 50 |
| beta-BHC | ND | | 93 | 17 | ug/Kg | ☼ | 04/24/18 07:51 | 04/26/18 13:57 | 50 |
| delta-BHC | ND | | 93 | 17 | ug/Kg | ☼ | 04/24/18 07:51 | 04/26/18 13:57 | 50 |
| Dieldrin | ND | | 93 | 22 | ug/Kg | ☼ | 04/24/18 07:51 | 04/26/18 13:57 | 50 |
| Endosulfan I | ND | | 93 | 18 | ug/Kg | ☼ | 04/24/18 07:51 | 04/26/18 13:57 | 50 |
| Endosulfan II | ND | | 93 | 17 | ug/Kg | ☼ | 04/24/18 07:51 | 04/26/18 13:57 | 50 |
| Endosulfan sulfate | ND | | 93 | 17 | ug/Kg | ☼ | 04/24/18 07:51 | 04/26/18 13:57 | 50 |
| Endrin | ND | | 93 | 18 | ug/Kg | ☼ | 04/24/18 07:51 | 04/26/18 13:57 | 50 |
| Endrin aldehyde | ND | | 93 | 24 | ug/Kg | ☼ | 04/24/18 07:51 | 04/26/18 13:57 | 50 |
| Endrin ketone | ND | | 93 | 23 | ug/Kg | ☼ | 04/24/18 07:51 | 04/26/18 13:57 | 50 |
| gamma-BHC (Lindane) | ND | | 93 | 17 | ug/Kg | ☼ | 04/24/18 07:51 | 04/26/18 13:57 | 50 |
| trans-Chlordane | ND | | 93 | 30 | ug/Kg | ☼ | 04/24/18 07:51 | 04/26/18 13:57 | 50 |
| Heptachlor | ND | | 93 | 20 | ug/Kg | ☼ | 04/24/18 07:51 | 04/26/18 13:57 | 50 |
| Heptachlor epoxide | ND | | 93 | 24 | ug/Kg | ☼ | 04/24/18 07:51 | 04/26/18 13:57 | 50 |
| Methoxychlor | ND | | 93 | 19 | ug/Kg | ☼ | 04/24/18 07:51 | 04/26/18 13:57 | 50 |
| Toxaphene | ND | | 930 | 540 | ug/Kg | ☼ | 04/24/18 07:51 | 04/26/18 13:57 | 50 |

**Client Sample ID: E-BERM-042018**
**Date Collected: 04/20/18 10:15**
**Date Received: 04/21/18 01:45**

**Lab Sample ID: 480-134628-2**
**Matrix: Solid**
**Percent Solids: 88.3**

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| DCB Decachlorobiphenyl | 0 | X | 45 - 120 | 04/24/18 07:51 | 04/26/18 13:57 | 50 |
| Tetrachloro-m-xylene | 0 | X | 30 - 124 | 04/24/18 07:51 | 04/26/18 13:57 | 50 |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| PCB-1016 | ND | | 0.28 | 0.055 | mg/Kg | ☼ | 04/27/18 07:20 | 04/30/18 21:26 | 1 |
| PCB-1221 | ND | | 0.28 | 0.055 | mg/Kg | ☼ | 04/27/18 07:20 | 04/30/18 21:26 | 1 |
| PCB-1232 | ND | | 0.28 | 0.055 | mg/Kg | ☼ | 04/27/18 07:20 | 04/30/18 21:26 | 1 |
| PCB-1242 | ND | | 0.28 | 0.055 | mg/Kg | ☼ | 04/27/18 07:20 | 04/30/18 21:26 | 1 |
| PCB-1248 | ND | | 0.28 | 0.055 | mg/Kg | ☼ | 04/27/18 07:20 | 04/30/18 21:26 | 1 |
| PCB-1254 | ND | | 0.28 | 0.13 | mg/Kg | ☼ | 04/27/18 07:20 | 04/30/18 21:26 | 1 |
| PCB-1260 | ND | | 0.28 | 0.13 | mg/Kg | ☼ | 04/27/18 07:20 | 04/30/18 21:26 | 1 |
| PCB-1262 | ND | | 0.28 | 0.13 | mg/Kg | ☼ | 04/27/18 07:20 | 04/30/18 21:26 | 1 |
| PCB-1268 | ND | | 0.28 | 0.13 | mg/Kg | ☼ | 04/27/18 07:20 | 04/30/18 21:26 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| Tetrachloro-m-xylene | 100 | | 60 - 154 | 04/27/18 07:20 | 04/30/18 21:26 | 1 |
| DCB Decachlorobiphenyl | 91 | | 65 - 174 | 04/27/18 07:20 | 04/30/18 21:26 | 1 |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Aluminum** | **8520** | | 11.0 | 4.9 | mg/Kg | ☼ | 04/21/18 11:57 | 04/24/18 11:42 | 1 |
| Antimony | ND | | 16.6 | 0.44 | mg/Kg | ☼ | 04/21/18 11:57 | 04/24/18 11:42 | 1 |
| **Arsenic** | **4.9** | | 2.2 | 0.44 | mg/Kg | ☼ | 04/21/18 11:57 | 04/24/18 11:42 | 1 |
| **Barium** | **54.2** | | 0.55 | 0.12 | mg/Kg | ☼ | 04/21/18 11:57 | 04/24/18 11:42 | 1 |
| **Beryllium** | **0.39** | | 0.22 | 0.031 | mg/Kg | ☼ | 04/21/18 11:57 | 04/24/18 11:42 | 1 |
| **Cadmium** | **0.14** | **J** | 0.22 | 0.033 | mg/Kg | ☼ | 04/21/18 11:57 | 04/24/18 11:42 | 1 |
| **Calcium** | **128000** | **B** | 276 | 18.2 | mg/Kg | ☼ | 04/21/18 11:57 | 04/24/18 11:46 | 5 |
| **Chromium** | **18.0** | **B** | 0.55 | 0.22 | mg/Kg | ☼ | 04/21/18 11:57 | 04/24/18 11:42 | 1 |
| **Cobalt** | **4.9** | | 0.55 | 0.055 | mg/Kg | ☼ | 04/21/18 11:57 | 04/24/18 11:42 | 1 |
| **Copper** | **60.7** | | 5.5 | 1.2 | mg/Kg | ☼ | 04/21/18 11:57 | 04/24/18 11:46 | 5 |
| **Iron** | **15700** | **B** | 11.0 | 3.9 | mg/Kg | ☼ | 04/21/18 11:57 | 04/24/18 11:42 | 1 |
| **Lead** | **85.7** | | 1.1 | 0.26 | mg/Kg | ☼ | 04/21/18 11:57 | 04/24/18 11:42 | 1 |
| **Magnesium** | **14900** | | 22.1 | 1.0 | mg/Kg | ☼ | 04/21/18 11:57 | 04/24/18 11:42 | 1 |
| **Manganese** | **369** | **^** | 1.1 | 0.18 | mg/Kg | ☼ | 04/21/18 11:57 | 04/24/18 11:46 | 5 |
| **Nickel** | **14.6** | | 5.5 | 0.25 | mg/Kg | ☼ | 04/21/18 11:57 | 04/24/18 11:42 | 1 |
| **Potassium** | **3160** | | 33.1 | 22.1 | mg/Kg | ☼ | 04/21/18 11:57 | 04/24/18 11:42 | 1 |
| Selenium | ND | | 4.4 | 0.44 | mg/Kg | ☼ | 04/21/18 11:57 | 04/24/18 11:42 | 1 |
| Silver | ND | | 0.66 | 0.22 | mg/Kg | ☼ | 04/21/18 11:57 | 04/24/18 11:42 | 1 |
| **Sodium** | **189** | | 154 | 14.3 | mg/Kg | ☼ | 04/21/18 11:57 | 04/24/18 11:42 | 1 |
| Thallium | ND | | 6.6 | 0.33 | mg/Kg | ☼ | 04/21/18 11:57 | 04/24/18 11:42 | 1 |
| **Vanadium** | **34.1** | | 0.55 | 0.12 | mg/Kg | ☼ | 04/21/18 11:57 | 04/24/18 11:42 | 1 |
| **Zinc** | **56.5** | | 2.2 | 0.71 | mg/Kg | ☼ | 04/21/18 11:57 | 04/24/18 11:42 | 1 |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Mercury** | **0.36** | | 0.021 | 0.0086 | mg/Kg | ☼ | 05/02/18 15:10 | 05/02/18 16:43 | 1 |

**Client Sample ID: NW-SW-BERM-042018**
**Date Collected: 04/20/18 10:30**
**Date Received: 04/21/18 01:45**

**Lab Sample ID: 480-134628-3**
**Matrix: Solid**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,4-Dichlorobenzene | ND | | 0.010 | 0.00046 | mg/L | | 05/02/18 14:55 | 05/03/18 21:19 | 1 |
| 2,4-Dinitrotoluene | ND | | 0.0050 | 0.00045 | mg/L | | 05/02/18 14:55 | 05/03/18 21:19 | 1 |
| Hexachlorobenzene | ND | | 0.0050 | 0.00051 | mg/L | | 05/02/18 14:55 | 05/03/18 21:19 | 1 |
| Hexachlorobutadiene | ND | | 0.0050 | 0.00068 | mg/L | | 05/02/18 14:55 | 05/03/18 21:19 | 1 |
| Hexachloroethane | ND | | 0.0050 | 0.00059 | mg/L | | 05/02/18 14:55 | 05/03/18 21:19 | 1 |
| 3-Methylphenol | ND | | 0.010 | 0.00040 | mg/L | | 05/02/18 14:55 | 05/03/18 21:19 | 1 |
| 2-Methylphenol | ND | | 0.0050 | 0.00040 | mg/L | | 05/02/18 14:55 | 05/03/18 21:19 | 1 |
| 4-Methylphenol | ND | | 0.010 | 0.00036 | mg/L | | 05/02/18 14:55 | 05/03/18 21:19 | 1 |
| Nitrobenzene | ND | | 0.0050 | 0.00029 | mg/L | | 05/02/18 14:55 | 05/03/18 21:19 | 1 |
| Pentachlorophenol | ND | | 0.010 | 0.0022 | mg/L | | 05/02/18 14:55 | 05/03/18 21:19 | 1 |
| Pyridine | ND | | 0.025 | 0.00041 | mg/L | | 05/02/18 14:55 | 05/03/18 21:19 | 1 |
| 2,4,5-Trichlorophenol | ND | | 0.0050 | 0.00048 | mg/L | | 05/02/18 14:55 | 05/03/18 21:19 | 1 |
| 2,4,6-Trichlorophenol | ND | | 0.0050 | 0.00061 | mg/L | | 05/02/18 14:55 | 05/03/18 21:19 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *2,4,6-Tribromophenol* | *89* | | *41 - 120* | *05/02/18 14:55* | *05/03/18 21:19* | *1* |
| *2-Fluorobiphenyl* | *77* | | *48 - 120* | *05/02/18 14:55* | *05/03/18 21:19* | *1* |
| *2-Fluorophenol* | *42* | | *35 - 120* | *05/02/18 14:55* | *05/03/18 21:19* | *1* |
| *Nitrobenzene-d5* | *78* | | *46 - 120* | *05/02/18 14:55* | *05/03/18 21:19* | *1* |
| *p-Terphenyl-d14* | *106* | | *59 - 136* | *05/02/18 14:55* | *05/03/18 21:19* | *1* |
| *Phenol-d5* | *29* | | *22 - 120* | *05/02/18 14:55* | *05/03/18 21:19* | *1* |

### Method: 6010C - Metals (ICP) - TCLP

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | ND | | 0.015 | 0.0056 | mg/L | | 05/01/18 10:12 | 05/01/18 23:10 | 1 |
| **Barium** | **0.40** | **J** | 1.0 | 0.10 | mg/L | | 05/01/18 10:12 | 05/01/18 23:10 | 1 |
| **Cadmium** | **0.0022** | | 0.0020 | 0.00050 | mg/L | | 05/01/18 10:12 | 05/01/18 23:10 | 1 |
| Chromium | ND | | 0.020 | 0.010 | mg/L | | 05/01/18 10:12 | 05/01/18 23:10 | 1 |
| Lead | ND | | 0.020 | 0.0030 | mg/L | | 05/01/18 10:12 | 05/01/18 23:10 | 1 |
| Selenium | ND | | 0.025 | 0.0087 | mg/L | | 05/01/18 10:12 | 05/01/18 23:10 | 1 |
| Silver | ND | | 0.0060 | 0.0017 | mg/L | | 05/01/18 10:12 | 05/01/18 23:10 | 1 |

### Method: 7470A - TCLP Mercury - TCLP

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | 0.00012 | mg/L | | 05/01/18 13:35 | 05/01/18 20:22 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | NONE | NONE | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Free Liquid** | **passed** | | | | mL/100g | | | 04/25/18 15:22 | 1 |

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Cyanide, Reactive | ND | | 9.9 | 9.9 | mg/Kg | | 04/30/18 05:03 | 04/30/18 16:38 | 1 |
| Sulfide, Reactive | ND | | 9.9 | 9.9 | mg/Kg | | 04/30/18 05:03 | 04/30/18 15:45 | 1 |

| Analyte | Result | Qualifier | RL | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Flashpoint** | **>180** | | 50.0 | 50.0 | Degrees F | | | 05/01/18 09:30 | 1 |
| **pH** | **8.7** | **HF** | 0.1 | 0.1 | SU | | | 04/25/18 14:13 | 1 |
| **Temperature** | **19.8** | **HF** | 0.001 | 0.001 | Degrees C | | | 04/25/18 14:13 | 1 |

Client: O'Brien & Gere Inc of North America
Project/Site: Midler Crossing - Characteristic Soil

TestAmerica Job ID: 480-134628-1

**Client Sample ID: W-BERM-042018**
**Date Collected: 04/20/18 11:00**
**Date Received: 04/21/18 01:45**

**Lab Sample ID: 480-134628-4**
**Matrix: Solid**
**Percent Solids: 84.2**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Biphenyl | ND | | 2000 | 290 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:48 | 10 |
| bis (2-chloroisopropyl) ether | ND | | 2000 | 400 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:48 | 10 |
| 2,4,5-Trichlorophenol | ND | | 2000 | 540 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:48 | 10 |
| 2,4,6-Trichlorophenol | ND | | 2000 | 400 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:48 | 10 |
| 2,4-Dichlorophenol | ND | | 2000 | 210 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:48 | 10 |
| 2,4-Dimethylphenol | ND | | 2000 | 480 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:48 | 10 |
| 2,4-Dinitrophenol | ND | | 19000 | 9100 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:48 | 10 |
| 2,4-Dinitrotoluene | ND | | 2000 | 410 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:48 | 10 |
| 2,6-Dinitrotoluene | ND | | 2000 | 230 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:48 | 10 |
| 2-Chloronaphthalene | ND | | 2000 | 330 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:48 | 10 |
| 2-Chlorophenol | ND | | 2000 | 360 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:48 | 10 |
| 2-Methylnaphthalene | ND | | 2000 | 400 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:48 | 10 |
| 2-Methylphenol | ND | | 2000 | 230 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:48 | 10 |
| 2-Nitroaniline | ND | | 3800 | 290 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:48 | 10 |
| 2-Nitrophenol | ND | | 2000 | 560 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:48 | 10 |
| 3,3'-Dichlorobenzidine | ND | | 3800 | 2300 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:48 | 10 |
| 3-Nitroaniline | ND | | 3800 | 550 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:48 | 10 |
| 4,6-Dinitro-2-methylphenol | ND | | 3800 | 2000 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:48 | 10 |
| 4-Bromophenyl phenyl ether | ND | | 2000 | 280 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:48 | 10 |
| 4-Chloro-3-methylphenol | ND | | 2000 | 490 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:48 | 10 |
| 4-Chloroaniline | ND | | 2000 | 490 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:48 | 10 |
| 4-Chlorophenyl phenyl ether | ND | | 2000 | 240 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:48 | 10 |
| 4-Methylphenol | ND | | 3800 | 230 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:48 | 10 |
| 4-Nitroaniline | ND | | 3800 | 1000 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:48 | 10 |
| 4-Nitrophenol | ND | | 3800 | 1400 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:48 | 10 |
| **Acenaphthene** | **540** | **J** | 2000 | 290 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:48 | 10 |
| **Acenaphthylene** | **300** | **J** | 2000 | 260 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:48 | 10 |
| Acetophenone | ND | | 2000 | 270 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:48 | 10 |
| **Anthracene** | **1300** | **J** | 2000 | 490 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:48 | 10 |
| Atrazine | ND | | 2000 | 690 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:48 | 10 |
| Benzaldehyde | ND | | 2000 | 1600 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:48 | 10 |
| **Benzo[a]anthracene** | **3800** | | 2000 | 200 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:48 | 10 |
| **Benzo[a]pyrene** | **3300** | | 2000 | 290 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:48 | 10 |
| **Benzo[b]fluoranthene** | **4300** | | 2000 | 310 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:48 | 10 |
| **Benzo[g,h,i]perylene** | **1800** | **J** | 2000 | 210 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:48 | 10 |
| **Benzo[k]fluoranthene** | **1600** | **J** | 2000 | 260 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:48 | 10 |
| Bis(2-chloroethoxy)methane | ND | | 2000 | 420 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:48 | 10 |
| Bis(2-chloroethyl)ether | ND | | 2000 | 260 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:48 | 10 |
| Bis(2-ethylhexyl) phthalate | ND | | 2000 | 680 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:48 | 10 |
| Butyl benzyl phthalate | ND | | 2000 | 330 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:48 | 10 |
| Caprolactam | ND | | 2000 | 590 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:48 | 10 |
| **Carbazole** | **600** | **J** | 2000 | 230 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:48 | 10 |
| **Chrysene** | **3500** | | 2000 | 440 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:48 | 10 |
| Di-n-butyl phthalate | ND | | 2000 | 340 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:48 | 10 |
| Di-n-octyl phthalate | ND | | 2000 | 230 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:48 | 10 |
| Dibenz(a,h)anthracene | ND | | 2000 | 350 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:48 | 10 |
| **Dibenzofuran** | **400** | **J** | 2000 | 230 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:48 | 10 |
| Diethyl phthalate | ND | | 2000 | 260 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:48 | 10 |
| Dimethyl phthalate | ND | | 2000 | 230 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:48 | 10 |

**Client Sample ID: W-BERM-042018**
**Date Collected: 04/20/18 11:00**
**Date Received: 04/21/18 01:45**

**Lab Sample ID: 480-134628-4**
**Matrix: Solid**
**Percent Solids: 84.2**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Fluoranthene** | **7700** | | 2000 | 210 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:48 | 10 |
| **Fluorene** | **700** | **J** | 2000 | 230 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:48 | 10 |
| Hexachlorobenzene | ND | | 2000 | 270 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:48 | 10 |
| Hexachlorobutadiene | ND | | 2000 | 290 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:48 | 10 |
| Hexachlorocyclopentadiene | ND | | 2000 | 270 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:48 | 10 |
| Hexachloroethane | ND | | 2000 | 260 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:48 | 10 |
| **Indeno[1,2,3-cd]pyrene** | **1900** | **J** | 2000 | 240 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:48 | 10 |
| Isophorone | ND | | 2000 | 420 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:48 | 10 |
| N-Nitrosodi-n-propylamine | ND | | 2000 | 340 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:48 | 10 |
| N-Nitrosodiphenylamine | ND | | 2000 | 1600 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:48 | 10 |
| **Naphthalene** | **740** | **J** | 2000 | 260 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:48 | 10 |
| Nitrobenzene | ND | | 2000 | 220 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:48 | 10 |
| Pentachlorophenol | ND | | 3800 | 2000 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:48 | 10 |
| **Phenanthrene** | **5500** | | 2000 | 290 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:48 | 10 |
| Phenol | ND | | 2000 | 300 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:48 | 10 |
| **Pyrene** | **6300** | | 2000 | 230 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 01:48 | 10 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *2,4,6-Tribromophenol* | *81* | | *54 - 120* | *05/02/18 07:03* | *05/04/18 01:48* | *10* |
| *2-Fluorobiphenyl* | *85* | | *60 - 120* | *05/02/18 07:03* | *05/04/18 01:48* | *10* |
| *2-Fluorophenol* | *76* | | *52 - 120* | *05/02/18 07:03* | *05/04/18 01:48* | *10* |
| *Nitrobenzene-d5* | *80* | | *53 - 120* | *05/02/18 07:03* | *05/04/18 01:48* | *10* |
| *p-Terphenyl-d14* | *97* | | *65 - 121* | *05/02/18 07:03* | *05/04/18 01:48* | *10* |
| *Phenol-d5* | *82* | | *54 - 120* | *05/02/18 07:03* | *05/04/18 01:48* | *10* |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 4,4'-DDD | ND | | 98 | 19 | ug/Kg | ☼ | 04/24/18 07:51 | 04/26/18 14:16 | 50 |
| 4,4'-DDE | ND | | 98 | 20 | ug/Kg | ☼ | 04/24/18 07:51 | 04/26/18 14:16 | 50 |
| 4,4'-DDT | ND | | 98 | 23 | ug/Kg | ☼ | 04/24/18 07:51 | 04/26/18 14:16 | 50 |
| Aldrin | ND | | 98 | 24 | ug/Kg | ☼ | 04/24/18 07:51 | 04/26/18 14:16 | 50 |
| alpha-BHC | ND | | 98 | 18 | ug/Kg | ☼ | 04/24/18 07:51 | 04/26/18 14:16 | 50 |
| cis-Chlordane | ND | | 98 | 49 | ug/Kg | ☼ | 04/24/18 07:51 | 04/26/18 14:16 | 50 |
| beta-BHC | ND | | 98 | 18 | ug/Kg | ☼ | 04/24/18 07:51 | 04/26/18 14:16 | 50 |
| delta-BHC | ND | | 98 | 18 | ug/Kg | ☼ | 04/24/18 07:51 | 04/26/18 14:16 | 50 |
| Dieldrin | ND | | 98 | 23 | ug/Kg | ☼ | 04/24/18 07:51 | 04/26/18 14:16 | 50 |
| Endosulfan I | ND | | 98 | 19 | ug/Kg | ☼ | 04/24/18 07:51 | 04/26/18 14:16 | 50 |
| Endosulfan II | ND | | 98 | 18 | ug/Kg | ☼ | 04/24/18 07:51 | 04/26/18 14:16 | 50 |
| Endosulfan sulfate | ND | | 98 | 18 | ug/Kg | ☼ | 04/24/18 07:51 | 04/26/18 14:16 | 50 |
| Endrin | ND | | 98 | 19 | ug/Kg | ☼ | 04/24/18 07:51 | 04/26/18 14:16 | 50 |
| Endrin aldehyde | ND | | 98 | 25 | ug/Kg | ☼ | 04/24/18 07:51 | 04/26/18 14:16 | 50 |
| Endrin ketone | ND | | 98 | 24 | ug/Kg | ☼ | 04/24/18 07:51 | 04/26/18 14:16 | 50 |
| gamma-BHC (Lindane) | ND | | 98 | 18 | ug/Kg | ☼ | 04/24/18 07:51 | 04/26/18 14:16 | 50 |
| trans-Chlordane | ND | | 98 | 31 | ug/Kg | ☼ | 04/24/18 07:51 | 04/26/18 14:16 | 50 |
| Heptachlor | ND | | 98 | 21 | ug/Kg | ☼ | 04/24/18 07:51 | 04/26/18 14:16 | 50 |
| Heptachlor epoxide | ND | | 98 | 25 | ug/Kg | ☼ | 04/24/18 07:51 | 04/26/18 14:16 | 50 |
| Methoxychlor | ND | | 98 | 20 | ug/Kg | ☼ | 04/24/18 07:51 | 04/26/18 14:16 | 50 |
| Toxaphene | ND | | 980 | 570 | ug/Kg | ☼ | 04/24/18 07:51 | 04/26/18 14:16 | 50 |

**Client Sample ID: W-BERM-042018**
**Date Collected: 04/20/18 11:00**
**Date Received: 04/21/18 01:45**

**Lab Sample ID: 480-134628-4**
**Matrix: Solid**
**Percent Solids: 84.2**

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| DCB Decachlorobiphenyl | 0 | X | 45 - 120 | 04/24/18 07:51 | 04/26/18 14:16 | 50 |
| Tetrachloro-m-xylene | 0 | X | 30 - 124 | 04/24/18 07:51 | 04/26/18 14:16 | 50 |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| PCB-1016 | ND | | 0.25 | 0.049 | mg/Kg | ☼ | 04/27/18 07:20 | 04/30/18 21:41 | 1 |
| PCB-1221 | ND | | 0.25 | 0.049 | mg/Kg | ☼ | 04/27/18 07:20 | 04/30/18 21:41 | 1 |
| PCB-1232 | ND | | 0.25 | 0.049 | mg/Kg | ☼ | 04/27/18 07:20 | 04/30/18 21:41 | 1 |
| PCB-1242 | ND | | 0.25 | 0.049 | mg/Kg | ☼ | 04/27/18 07:20 | 04/30/18 21:41 | 1 |
| PCB-1248 | ND | | 0.25 | 0.049 | mg/Kg | ☼ | 04/27/18 07:20 | 04/30/18 21:41 | 1 |
| PCB-1254 | ND | | 0.25 | 0.12 | mg/Kg | ☼ | 04/27/18 07:20 | 04/30/18 21:41 | 1 |
| PCB-1260 | ND | | 0.25 | 0.12 | mg/Kg | ☼ | 04/27/18 07:20 | 04/30/18 21:41 | 1 |
| PCB-1262 | ND | | 0.25 | 0.12 | mg/Kg | ☼ | 04/27/18 07:20 | 04/30/18 21:41 | 1 |
| PCB-1268 | ND | | 0.25 | 0.12 | mg/Kg | ☼ | 04/27/18 07:20 | 04/30/18 21:41 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| Tetrachloro-m-xylene | 105 | | 60 - 154 | 04/27/18 07:20 | 04/30/18 21:41 | 1 |
| DCB Decachlorobiphenyl | 101 | | 65 - 174 | 04/27/18 07:20 | 04/30/18 21:41 | 1 |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Aluminum** | **6720** | | 12.1 | 5.3 | mg/Kg | ☼ | 04/21/18 11:57 | 04/24/18 11:50 | 1 |
| Antimony | ND | | 18.1 | 0.48 | mg/Kg | ☼ | 04/21/18 11:57 | 04/24/18 11:50 | 1 |
| **Arsenic** | **5.1** | | 2.4 | 0.48 | mg/Kg | ☼ | 04/21/18 11:57 | 04/24/18 11:50 | 1 |
| **Barium** | **80.7** | | 0.60 | 0.13 | mg/Kg | ☼ | 04/21/18 11:57 | 04/24/18 11:50 | 1 |
| **Beryllium** | **0.33** | | 0.24 | 0.034 | mg/Kg | ☼ | 04/21/18 11:57 | 04/24/18 11:50 | 1 |
| **Cadmium** | **0.29** | | 0.24 | 0.036 | mg/Kg | ☼ | 04/21/18 11:57 | 04/24/18 11:50 | 1 |
| **Calcium** | **98100** | **B** | 60.5 | 4.0 | mg/Kg | ☼ | 04/21/18 11:57 | 04/24/18 11:50 | 1 |
| **Chromium** | **14.9** | **B** | 0.60 | 0.24 | mg/Kg | ☼ | 04/21/18 11:57 | 04/24/18 11:50 | 1 |
| **Cobalt** | **4.8** | | 0.60 | 0.060 | mg/Kg | ☼ | 04/21/18 11:57 | 04/24/18 11:50 | 1 |
| **Copper** | **37.4** | | 1.2 | 0.25 | mg/Kg | ☼ | 04/21/18 11:57 | 04/24/18 11:50 | 1 |
| **Iron** | **17300** | **B** | 12.1 | 4.2 | mg/Kg | ☼ | 04/21/18 11:57 | 04/24/18 11:50 | 1 |
| **Lead** | **38.7** | | 1.2 | 0.29 | mg/Kg | ☼ | 04/21/18 11:57 | 04/24/18 11:50 | 1 |
| **Magnesium** | **13500** | | 24.2 | 1.1 | mg/Kg | ☼ | 04/21/18 11:57 | 04/24/18 11:50 | 1 |
| **Manganese** | **287** | **^** | 0.24 | 0.039 | mg/Kg | ☼ | 04/21/18 11:57 | 04/24/18 11:50 | 1 |
| **Nickel** | **13.5** | | 6.0 | 0.28 | mg/Kg | ☼ | 04/21/18 11:57 | 04/24/18 11:50 | 1 |
| **Potassium** | **1630** | | 36.3 | 24.2 | mg/Kg | ☼ | 04/21/18 11:57 | 04/24/18 11:50 | 1 |
| Selenium | ND | | 4.8 | 0.48 | mg/Kg | ☼ | 04/21/18 11:57 | 04/24/18 11:50 | 1 |
| Silver | ND | | 0.73 | 0.24 | mg/Kg | ☼ | 04/21/18 11:57 | 04/24/18 11:50 | 1 |
| **Sodium** | **190** | | 169 | 15.7 | mg/Kg | ☼ | 04/21/18 11:57 | 04/24/18 11:50 | 1 |
| Thallium | ND | | 7.3 | 0.36 | mg/Kg | ☼ | 04/21/18 11:57 | 04/24/18 11:50 | 1 |
| **Vanadium** | **22.0** | | 0.60 | 0.13 | mg/Kg | ☼ | 04/21/18 11:57 | 04/24/18 11:50 | 1 |
| **Zinc** | **102** | | 2.4 | 0.77 | mg/Kg | ☼ | 04/21/18 11:57 | 04/24/18 11:50 | 1 |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Mercury** | **0.056** | | 0.024 | 0.0095 | mg/Kg | ☼ | 05/02/18 15:10 | 05/02/18 16:45 | 1 |

**Client Sample ID: X-1-042018**
**Date Collected: 04/20/18 00:00**
**Date Received: 04/21/18 01:45**

**Lab Sample ID: 480-134628-5**
**Matrix: Solid**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,4-Dichlorobenzene | ND | | 0.010 | 0.00046 | mg/L | | 05/02/18 14:55 | 05/03/18 21:46 | 1 |
| 2,4-Dinitrotoluene | ND | | 0.0050 | 0.00045 | mg/L | | 05/02/18 14:55 | 05/03/18 21:46 | 1 |
| Hexachlorobenzene | ND | | 0.0050 | 0.00051 | mg/L | | 05/02/18 14:55 | 05/03/18 21:46 | 1 |
| Hexachlorobutadiene | ND | | 0.0050 | 0.00068 | mg/L | | 05/02/18 14:55 | 05/03/18 21:46 | 1 |
| Hexachloroethane | ND | | 0.0050 | 0.00059 | mg/L | | 05/02/18 14:55 | 05/03/18 21:46 | 1 |
| 3-Methylphenol | ND | | 0.010 | 0.00040 | mg/L | | 05/02/18 14:55 | 05/03/18 21:46 | 1 |
| 2-Methylphenol | ND | | 0.0050 | 0.00040 | mg/L | | 05/02/18 14:55 | 05/03/18 21:46 | 1 |
| 4-Methylphenol | ND | | 0.010 | 0.00036 | mg/L | | 05/02/18 14:55 | 05/03/18 21:46 | 1 |
| Nitrobenzene | ND | | 0.0050 | 0.00029 | mg/L | | 05/02/18 14:55 | 05/03/18 21:46 | 1 |
| Pentachlorophenol | ND | | 0.010 | 0.0022 | mg/L | | 05/02/18 14:55 | 05/03/18 21:46 | 1 |
| Pyridine | ND | | 0.025 | 0.00041 | mg/L | | 05/02/18 14:55 | 05/03/18 21:46 | 1 |
| 2,4,5-Trichlorophenol | ND | | 0.0050 | 0.00048 | mg/L | | 05/02/18 14:55 | 05/03/18 21:46 | 1 |
| 2,4,6-Trichlorophenol | ND | | 0.0050 | 0.00061 | mg/L | | 05/02/18 14:55 | 05/03/18 21:46 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *2,4,6-Tribromophenol* | *95* | | *41 - 120* | *05/02/18 14:55* | *05/03/18 21:46* | *1* |
| *2-Fluorobiphenyl* | *85* | | *48 - 120* | *05/02/18 14:55* | *05/03/18 21:46* | *1* |
| *2-Fluorophenol* | *42* | | *35 - 120* | *05/02/18 14:55* | *05/03/18 21:46* | *1* |
| *Nitrobenzene-d5* | *80* | | *46 - 120* | *05/02/18 14:55* | *05/03/18 21:46* | *1* |
| *p-Terphenyl-d14* | *102* | | *59 - 136* | *05/02/18 14:55* | *05/03/18 21:46* | *1* |
| *Phenol-d5* | *29* | | *22 - 120* | *05/02/18 14:55* | *05/03/18 21:46* | *1* |

## Method: 6010C - Metals (ICP) - TCLP

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | ND | | 0.015 | 0.0056 | mg/L | | 05/01/18 10:12 | 05/01/18 23:14 | 1 |
| **Barium** | **0.35** | **J** | 1.0 | 0.10 | mg/L | | 05/01/18 10:12 | 05/01/18 23:14 | 1 |
| **Cadmium** | **0.0022** | | 0.0020 | 0.00050 | mg/L | | 05/01/18 10:12 | 05/01/18 23:14 | 1 |
| Chromium | ND | | 0.020 | 0.010 | mg/L | | 05/01/18 10:12 | 05/01/18 23:14 | 1 |
| Lead | ND | | 0.020 | 0.0030 | mg/L | | 05/01/18 10:12 | 05/01/18 23:14 | 1 |
| Selenium | ND | | 0.025 | 0.0087 | mg/L | | 05/01/18 10:12 | 05/01/18 23:14 | 1 |
| Silver | ND | | 0.0060 | 0.0017 | mg/L | | 05/01/18 10:12 | 05/01/18 23:14 | 1 |

## Method: 7470A - TCLP Mercury - TCLP

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | 0.00012 | mg/L | | 05/01/18 13:35 | 05/01/18 20:24 | 1 |

## General Chemistry

| Analyte | Result | Qualifier | NONE | NONE | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Free Liquid** | **passed** | | | | mL/100g | | | 04/25/18 15:22 | 1 |

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Cyanide, Reactive | ND | | 9.9 | 9.9 | mg/Kg | | 04/30/18 05:03 | 04/30/18 16:38 | 1 |
| Sulfide, Reactive | ND | | 9.9 | 9.9 | mg/Kg | | 04/30/18 05:03 | 04/30/18 15:45 | 1 |

| Analyte | Result | Qualifier | RL | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Flashpoint** | **>180** | | 50.0 | 50.0 | Degrees F | | | 05/01/18 09:30 | 1 |
| **pH** | **9.1** | **HF** | 0.1 | 0.1 | SU | | | 04/25/18 14:13 | 1 |
| **Temperature** | **20.1** | **HF** | 0.001 | 0.001 | Degrees C | | | 04/25/18 14:13 | 1 |

Client: O'Brien & Gere Inc of North America
Project/Site: Midler Crossing - Characteristic Soil

TestAmerica Job ID: 480-134628-1

**Client Sample ID: X-2-042018**
**Date Collected: 04/20/18 00:00**
**Date Received: 04/21/18 01:45**

**Lab Sample ID: 480-134628-6**
**Matrix: Solid**
**Percent Solids: 85.1**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Biphenyl | ND | | 2000 | 290 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 02:14 | 10 |
| bis (2-chloroisopropyl) ether | ND | | 2000 | 400 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 02:14 | 10 |
| 2,4,5-Trichlorophenol | ND | | 2000 | 540 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 02:14 | 10 |
| 2,4,6-Trichlorophenol | ND | | 2000 | 400 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 02:14 | 10 |
| 2,4-Dichlorophenol | ND | | 2000 | 210 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 02:14 | 10 |
| 2,4-Dimethylphenol | ND | | 2000 | 480 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 02:14 | 10 |
| 2,4-Dinitrophenol | ND | | 19000 | 9200 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 02:14 | 10 |
| 2,4-Dinitrotoluene | ND | | 2000 | 410 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 02:14 | 10 |
| 2,6-Dinitrotoluene | ND | | 2000 | 230 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 02:14 | 10 |
| 2-Chloronaphthalene | ND | | 2000 | 330 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 02:14 | 10 |
| 2-Chlorophenol | ND | | 2000 | 360 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 02:14 | 10 |
| 2-Methylnaphthalene | ND | | 2000 | 400 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 02:14 | 10 |
| 2-Methylphenol | ND | | 2000 | 230 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 02:14 | 10 |
| 2-Nitroaniline | ND | | 3900 | 290 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 02:14 | 10 |
| 2-Nitrophenol | ND | | 2000 | 560 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 02:14 | 10 |
| 3,3'-Dichlorobenzidine | ND | | 3900 | 2300 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 02:14 | 10 |
| 3-Nitroaniline | ND | | 3900 | 550 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 02:14 | 10 |
| 4,6-Dinitro-2-methylphenol | ND | | 3900 | 2000 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 02:14 | 10 |
| 4-Bromophenyl phenyl ether | ND | | 2000 | 280 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 02:14 | 10 |
| 4-Chloro-3-methylphenol | ND | | 2000 | 490 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 02:14 | 10 |
| 4-Chloroaniline | ND | | 2000 | 490 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 02:14 | 10 |
| 4-Chlorophenyl phenyl ether | ND | | 2000 | 250 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 02:14 | 10 |
| 4-Methylphenol | ND | | 3900 | 230 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 02:14 | 10 |
| 4-Nitroaniline | ND | | 3900 | 1000 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 02:14 | 10 |
| 4-Nitrophenol | ND | | 3900 | 1400 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 02:14 | 10 |
| Acenaphthene | ND | | 2000 | 290 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 02:14 | 10 |
| Acenaphthylene | ND | | 2000 | 260 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 02:14 | 10 |
| Acetophenone | ND | | 2000 | 270 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 02:14 | 10 |
| **Anthracene** | **600** | **J** | 2000 | 490 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 02:14 | 10 |
| Atrazine | ND | | 2000 | 690 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 02:14 | 10 |
| Benzaldehyde | ND | | 2000 | 1600 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 02:14 | 10 |
| **Benzo[a]anthracene** | **2000** | | 2000 | 200 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 02:14 | 10 |
| **Benzo[a]pyrene** | **2000** | | 2000 | 290 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 02:14 | 10 |
| **Benzo[b]fluoranthene** | **2400** | | 2000 | 320 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 02:14 | 10 |
| **Benzo[g,h,i]perylene** | **1200** | **J** | 2000 | 210 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 02:14 | 10 |
| **Benzo[k]fluoranthene** | **1400** | **J** | 2000 | 260 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 02:14 | 10 |
| Bis(2-chloroethoxy)methane | ND | | 2000 | 420 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 02:14 | 10 |
| Bis(2-chloroethyl)ether | ND | | 2000 | 260 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 02:14 | 10 |
| Bis(2-ethylhexyl) phthalate | ND | | 2000 | 680 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 02:14 | 10 |
| Butyl benzyl phthalate | ND | | 2000 | 330 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 02:14 | 10 |
| Caprolactam | ND | | 2000 | 600 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 02:14 | 10 |
| **Carbazole** | **230** | **J** | 2000 | 230 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 02:14 | 10 |
| **Chrysene** | **2200** | | 2000 | 440 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 02:14 | 10 |
| Di-n-butyl phthalate | ND | | 2000 | 340 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 02:14 | 10 |
| Di-n-octyl phthalate | ND | | 2000 | 230 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 02:14 | 10 |
| Dibenz(a,h)anthracene | ND | | 2000 | 350 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 02:14 | 10 |
| Dibenzofuran | ND | | 2000 | 230 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 02:14 | 10 |
| Diethyl phthalate | ND | | 2000 | 260 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 02:14 | 10 |
| Dimethyl phthalate | ND | | 2000 | 230 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 02:14 | 10 |

**Client Sample ID: X-2-042018**
**Date Collected: 04/20/18 00:00**
**Date Received: 04/21/18 01:45**

**Lab Sample ID: 480-134628-6**
**Matrix: Solid**
**Percent Solids: 85.1**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Fluoranthene** | **4200** | | 2000 | 210 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 02:14 | 10 |
| Fluorene | ND | | 2000 | 230 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 02:14 | 10 |
| Hexachlorobenzene | ND | | 2000 | 270 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 02:14 | 10 |
| Hexachlorobutadiene | ND | | 2000 | 290 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 02:14 | 10 |
| Hexachlorocyclopentadiene | ND | | 2000 | 270 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 02:14 | 10 |
| Hexachloroethane | ND | | 2000 | 260 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 02:14 | 10 |
| **Indeno[1,2,3-cd]pyrene** | **1200** | **J** | 2000 | 250 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 02:14 | 10 |
| Isophorone | ND | | 2000 | 420 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 02:14 | 10 |
| N-Nitrosodi-n-propylamine | ND | | 2000 | 340 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 02:14 | 10 |
| N-Nitrosodiphenylamine | ND | | 2000 | 1600 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 02:14 | 10 |
| Naphthalene | ND | | 2000 | 260 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 02:14 | 10 |
| Nitrobenzene | ND | | 2000 | 220 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 02:14 | 10 |
| Pentachlorophenol | ND | | 3900 | 2000 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 02:14 | 10 |
| **Phenanthrene** | **2200** | | 2000 | 290 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 02:14 | 10 |
| Phenol | ND | | 2000 | 300 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 02:14 | 10 |
| **Pyrene** | **3600** | | 2000 | 230 | ug/Kg | ☼ | 05/02/18 07:03 | 05/04/18 02:14 | 10 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *2,4,6-Tribromophenol* | *75* | | *54 - 120* | *05/02/18 07:03* | *05/04/18 02:14* | *10* |
| *2-Fluorobiphenyl* | *84* | | *60 - 120* | *05/02/18 07:03* | *05/04/18 02:14* | *10* |
| *2-Fluorophenol* | *87* | | *52 - 120* | *05/02/18 07:03* | *05/04/18 02:14* | *10* |
| *Nitrobenzene-d5* | *75* | | *53 - 120* | *05/02/18 07:03* | *05/04/18 02:14* | *10* |
| *p-Terphenyl-d14* | *98* | | *65 - 121* | *05/02/18 07:03* | *05/04/18 02:14* | *10* |
| *Phenol-d5* | *78* | | *54 - 120* | *05/02/18 07:03* | *05/04/18 02:14* | *10* |

### Method: 8081B - Organochlorine Pesticides (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 4,4'-DDD | ND | | 96 | 19 | ug/Kg | ☼ | 04/24/18 07:51 | 04/26/18 14:36 | 50 |
| 4,4'-DDE | ND | | 96 | 20 | ug/Kg | ☼ | 04/24/18 07:51 | 04/26/18 14:36 | 50 |
| 4,4'-DDT | ND | | 96 | 22 | ug/Kg | ☼ | 04/24/18 07:51 | 04/26/18 14:36 | 50 |
| Aldrin | ND | | 96 | 24 | ug/Kg | ☼ | 04/24/18 07:51 | 04/26/18 14:36 | 50 |
| alpha-BHC | ND | | 96 | 17 | ug/Kg | ☼ | 04/24/18 07:51 | 04/26/18 14:36 | 50 |
| cis-Chlordane | ND | | 96 | 48 | ug/Kg | ☼ | 04/24/18 07:51 | 04/26/18 14:36 | 50 |
| beta-BHC | ND | | 96 | 17 | ug/Kg | ☼ | 04/24/18 07:51 | 04/26/18 14:36 | 50 |
| delta-BHC | ND | | 96 | 18 | ug/Kg | ☼ | 04/24/18 07:51 | 04/26/18 14:36 | 50 |
| Dieldrin | ND | | 96 | 23 | ug/Kg | ☼ | 04/24/18 07:51 | 04/26/18 14:36 | 50 |
| Endosulfan I | ND | | 96 | 18 | ug/Kg | ☼ | 04/24/18 07:51 | 04/26/18 14:36 | 50 |
| Endosulfan II | ND | | 96 | 17 | ug/Kg | ☼ | 04/24/18 07:51 | 04/26/18 14:36 | 50 |
| Endosulfan sulfate | ND | | 96 | 18 | ug/Kg | ☼ | 04/24/18 07:51 | 04/26/18 14:36 | 50 |
| Endrin | ND | | 96 | 19 | ug/Kg | ☼ | 04/24/18 07:51 | 04/26/18 14:36 | 50 |
| Endrin aldehyde | ND | | 96 | 25 | ug/Kg | ☼ | 04/24/18 07:51 | 04/26/18 14:36 | 50 |
| Endrin ketone | ND | | 96 | 24 | ug/Kg | ☼ | 04/24/18 07:51 | 04/26/18 14:36 | 50 |
| gamma-BHC (Lindane) | ND | | 96 | 18 | ug/Kg | ☼ | 04/24/18 07:51 | 04/26/18 14:36 | 50 |
| trans-Chlordane | ND | | 96 | 31 | ug/Kg | ☼ | 04/24/18 07:51 | 04/26/18 14:36 | 50 |
| Heptachlor | ND | | 96 | 21 | ug/Kg | ☼ | 04/24/18 07:51 | 04/26/18 14:36 | 50 |
| Heptachlor epoxide | ND | | 96 | 25 | ug/Kg | ☼ | 04/24/18 07:51 | 04/26/18 14:36 | 50 |
| Methoxychlor | ND | | 96 | 20 | ug/Kg | ☼ | 04/24/18 07:51 | 04/26/18 14:36 | 50 |
| Toxaphene | ND | | 960 | 560 | ug/Kg | ☼ | 04/24/18 07:51 | 04/26/18 14:36 | 50 |

**Client Sample ID: X-2-042018**
**Date Collected: 04/20/18 00:00**
**Date Received: 04/21/18 01:45**

**Lab Sample ID: 480-134628-6**
**Matrix: Solid**
**Percent Solids: 85.1**

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| DCB Decachlorobiphenyl | 0 | X | 45 - 120 | 04/24/18 07:51 | 04/26/18 14:36 | 50 |
| Tetrachloro-m-xylene | 0 | X | 30 - 124 | 04/24/18 07:51 | 04/26/18 14:36 | 50 |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| PCB-1016 | ND | | 0.21 | 0.041 | mg/Kg | ☼ | 04/27/18 07:20 | 04/30/18 21:56 | 1 |
| PCB-1221 | ND | | 0.21 | 0.041 | mg/Kg | ☼ | 04/27/18 07:20 | 04/30/18 21:56 | 1 |
| PCB-1232 | ND | | 0.21 | 0.041 | mg/Kg | ☼ | 04/27/18 07:20 | 04/30/18 21:56 | 1 |
| PCB-1242 | ND | | 0.21 | 0.041 | mg/Kg | ☼ | 04/27/18 07:20 | 04/30/18 21:56 | 1 |
| PCB-1248 | ND | | 0.21 | 0.041 | mg/Kg | ☼ | 04/27/18 07:20 | 04/30/18 21:56 | 1 |
| PCB-1254 | ND | | 0.21 | 0.098 | mg/Kg | ☼ | 04/27/18 07:20 | 04/30/18 21:56 | 1 |
| PCB-1260 | ND | | 0.21 | 0.098 | mg/Kg | ☼ | 04/27/18 07:20 | 04/30/18 21:56 | 1 |
| PCB-1262 | ND | | 0.21 | 0.098 | mg/Kg | ☼ | 04/27/18 07:20 | 04/30/18 21:56 | 1 |
| PCB-1268 | ND | | 0.21 | 0.098 | mg/Kg | ☼ | 04/27/18 07:20 | 04/30/18 21:56 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| Tetrachloro-m-xylene | 91 | | 60 - 154 | 04/27/18 07:20 | 04/30/18 21:56 | 1 |
| DCB Decachlorobiphenyl | 93 | | 65 - 174 | 04/27/18 07:20 | 04/30/18 21:56 | 1 |

## Method: 6010C - Metals (ICP)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Aluminum** | **6760** | | 11.6 | 5.1 | mg/Kg | ☼ | 04/21/18 11:57 | 04/24/18 11:57 | 1 |
| Antimony | ND | | 17.4 | 0.46 | mg/Kg | ☼ | 04/21/18 11:57 | 04/24/18 11:57 | 1 |
| **Arsenic** | **5.0** | | 2.3 | 0.46 | mg/Kg | ☼ | 04/21/18 11:57 | 04/24/18 11:57 | 1 |
| **Barium** | **72.9** | | 0.58 | 0.13 | mg/Kg | ☼ | 04/21/18 11:57 | 04/24/18 11:57 | 1 |
| **Beryllium** | **0.34** | | 0.23 | 0.032 | mg/Kg | ☼ | 04/21/18 11:57 | 04/24/18 11:57 | 1 |
| **Cadmium** | **0.29** | | 0.23 | 0.035 | mg/Kg | ☼ | 04/21/18 11:57 | 04/24/18 11:57 | 1 |
| **Calcium** | **128000** | **B** | 290 | 19.1 | mg/Kg | ☼ | 04/21/18 11:57 | 04/25/18 10:15 | 5 |
| **Chromium** | **13.2** | **B** | 0.58 | 0.23 | mg/Kg | ☼ | 04/21/18 11:57 | 04/24/18 11:57 | 1 |
| **Cobalt** | **3.7** | | 0.58 | 0.058 | mg/Kg | ☼ | 04/21/18 11:57 | 04/24/18 11:57 | 1 |
| **Copper** | **42.6** | | 5.8 | 1.2 | mg/Kg | ☼ | 04/21/18 11:57 | 04/25/18 10:15 | 5 |
| **Iron** | **16200** | **B** | 11.6 | 4.1 | mg/Kg | ☼ | 04/21/18 11:57 | 04/24/18 11:57 | 1 |
| **Lead** | **38.7** | | 1.2 | 0.28 | mg/Kg | ☼ | 04/21/18 11:57 | 04/24/18 11:57 | 1 |
| **Magnesium** | **7790** | | 23.2 | 1.1 | mg/Kg | ☼ | 04/21/18 11:57 | 04/24/18 11:57 | 1 |
| **Manganese** | **323** | **^** | 0.23 | 0.037 | mg/Kg | ☼ | 04/21/18 11:57 | 04/24/18 11:57 | 1 |
| **Nickel** | **14.1** | | 5.8 | 0.27 | mg/Kg | ☼ | 04/21/18 11:57 | 04/24/18 11:57 | 1 |
| **Potassium** | **1900** | | 34.8 | 23.2 | mg/Kg | ☼ | 04/21/18 11:57 | 04/24/18 11:57 | 1 |
| Selenium | ND | | 4.6 | 0.46 | mg/Kg | ☼ | 04/21/18 11:57 | 04/24/18 11:57 | 1 |
| Silver | ND | | 0.70 | 0.23 | mg/Kg | ☼ | 04/21/18 11:57 | 04/24/18 11:57 | 1 |
| **Sodium** | **196** | | 162 | 15.1 | mg/Kg | ☼ | 04/21/18 11:57 | 04/24/18 11:57 | 1 |
| Thallium | ND | | 7.0 | 0.35 | mg/Kg | ☼ | 04/21/18 11:57 | 04/24/18 11:57 | 1 |
| **Vanadium** | **21.8** | | 0.58 | 0.13 | mg/Kg | ☼ | 04/21/18 11:57 | 04/24/18 11:57 | 1 |
| **Zinc** | **99.9** | | 2.3 | 0.74 | mg/Kg | ☼ | 04/21/18 11:57 | 04/24/18 11:57 | 1 |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Mercury** | **0.062** | | 0.023 | 0.0095 | mg/Kg | ☼ | 05/02/18 15:10 | 05/02/18 16:46 | 1 |

Client: O'Brien & Gere Inc of North America
Project/Site: Midler Crossing - Characteristic Soil

TestAmerica Job ID: 480-134628-1

## Client Sample ID: NE-SE BERM-042018

**Lab Sample ID: 480-134628-7**

**Date Collected: 04/20/18 09:30**
**Matrix: Solid**
**Date Received: 04/21/18 01:45**

### Method: 8260C - TCLP Volatiles - TCLP

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | ND | | 0.010 | 0.0041 | mg/L | | | 05/08/18 23:33 | 10 |
| Carbon tetrachloride | ND | | 0.010 | 0.0027 | mg/L | | | 05/08/18 23:33 | 10 |
| Chlorobenzene | ND | | 0.010 | 0.0075 | mg/L | | | 05/08/18 23:33 | 10 |
| Chloroform | ND | | 0.010 | 0.0034 | mg/L | | | 05/08/18 23:33 | 10 |
| 1,2-Dichloroethane | ND | | 0.010 | 0.0021 | mg/L | | | 05/08/18 23:33 | 10 |
| 1,1-Dichloroethene | ND | | 0.010 | 0.0029 | mg/L | | | 05/08/18 23:33 | 10 |
| 2-Butanone (MEK) | ND | | 0.050 | 0.013 | mg/L | | | 05/08/18 23:33 | 10 |
| Tetrachloroethene | ND | | 0.010 | 0.0036 | mg/L | | | 05/08/18 23:33 | 10 |
| Trichloroethene | ND | | 0.010 | 0.0046 | mg/L | | | 05/08/18 23:33 | 10 |
| Vinyl chloride | ND | | 0.010 | 0.0090 | mg/L | | | 05/08/18 23:33 | 10 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *104* | | *77 - 120* | | *05/08/18 23:33* | *10* |
| *Toluene-d8 (Surr)* | *94* | | *80 - 120* | | *05/08/18 23:33* | *10* |
| *4-Bromofluorobenzene (Surr)* | *104* | | *73 - 120* | | *05/08/18 23:33* | *10* |
| *Dibromofluoromethane (Surr)* | *106* | | *75 - 123* | | *05/08/18 23:33* | *10* |

## Client Sample ID: E-BERM-042018

**Lab Sample ID: 480-134628-8**

**Date Collected: 04/20/18 10:15**
**Matrix: Solid**
**Date Received: 04/21/18 01:45**
**Percent Solids: 91.1**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ND | vs | 5.4 | 0.39 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:10 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | vs | 5.4 | 0.87 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:10 | 1 |
| 1,1,2-Trichloroethane | ND | vs | 5.4 | 0.70 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:10 | 1 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | ND | vs | 5.4 | 1.2 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:10 | 1 |
| 1,1-Dichloroethane | ND | vs | 5.4 | 0.66 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:10 | 1 |
| 1,1-Dichloroethene | ND | vs | 5.4 | 0.66 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:10 | 1 |
| 1,2,4-Trichlorobenzene | ND | vs | 5.4 | 0.33 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:10 | 1 |
| 1,2-Dibromo-3-Chloropropane | ND | vs | 5.4 | 2.7 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:10 | 1 |
| 1,2-Dichlorobenzene | ND | vs | 5.4 | 0.42 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:10 | 1 |
| 1,2-Dichloroethane | ND | vs | 5.4 | 0.27 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:10 | 1 |
| 1,2-Dichloropropane | ND | vs | 5.4 | 2.7 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:10 | 1 |
| 1,3-Dichlorobenzene | ND | vs | 5.4 | 0.28 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:10 | 1 |
| 1,4-Dichlorobenzene | ND | vs | 5.4 | 0.75 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:10 | 1 |
| 2-Butanone (MEK) | ND | vs | 27 | 2.0 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:10 | 1 |
| 2-Hexanone | ND | vs | 27 | 2.7 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:10 | 1 |
| 4-Methyl-2-pentanone (MIBK) | ND | vs | 27 | 1.8 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:10 | 1 |
| Acetone | ND | vs | 27 | 4.5 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:10 | 1 |
| Benzene | ND | vs | 5.4 | 0.26 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:10 | 1 |
| Bromodichloromethane | ND | vs | 5.4 | 0.72 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:10 | 1 |
| Bromoform | ND | vs | 5.4 | 2.7 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:10 | 1 |
| Bromomethane | ND | vs | 5.4 | 0.48 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:10 | 1 |
| Carbon disulfide | ND | vs | 5.4 | 2.7 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:10 | 1 |
| Carbon tetrachloride | ND | vs | 5.4 | 0.52 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:10 | 1 |
| Chlorobenzene | ND | vs | 5.4 | 0.71 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:10 | 1 |
| Dibromochloromethane | ND | vs | 5.4 | 0.69 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:10 | 1 |
| Chloroethane | ND | vs | 5.4 | 1.2 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:10 | 1 |
| Chloroform | ND | vs | 5.4 | 0.33 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:10 | 1 |

## Client Sample ID: E-BERM-042018

**Lab Sample ID: 480-134628-8**

**Date Collected: 04/20/18 10:15**

**Matrix: Solid**

**Date Received: 04/21/18 01:45**

**Percent Solids: 91.1**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloromethane | ND | vs | 5.4 | 0.32 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:10 | 1 |
| cis-1,2-Dichloroethene | ND | vs | 5.4 | 0.69 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:10 | 1 |
| cis-1,3-Dichloropropene | ND | vs | 5.4 | 0.77 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:10 | 1 |
| Cyclohexane | ND | vs | 5.4 | 0.75 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:10 | 1 |
| Dichlorodifluoromethane | ND | vs | 5.4 | 0.44 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:10 | 1 |
| Ethylbenzene | ND | vs | 5.4 | 0.37 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:10 | 1 |
| 1,2-Dibromoethane | ND | vs | 5.4 | 0.69 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:10 | 1 |
| Isopropylbenzene | ND | vs | 5.4 | 0.81 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:10 | 1 |
| Methyl acetate | ND | vs | 27 | 3.2 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:10 | 1 |
| Methyl tert-butyl ether | ND | vs | 5.4 | 0.53 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:10 | 1 |
| Methylcyclohexane | ND | vs | 5.4 | 0.82 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:10 | 1 |
| **Methylene Chloride** | **5.2** | **J vs** | 5.4 | 2.5 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:10 | 1 |
| Styrene | ND | vs | 5.4 | 0.27 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:10 | 1 |
| Tetrachloroethene | ND | vs | 5.4 | 0.72 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:10 | 1 |
| Toluene | ND | vs | 5.4 | 0.41 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:10 | 1 |
| trans-1,2-Dichloroethene | ND | vs | 5.4 | 0.55 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:10 | 1 |
| trans-1,3-Dichloropropene | ND | vs | 5.4 | 2.4 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:10 | 1 |
| Trichloroethene | ND | vs | 5.4 | 1.2 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:10 | 1 |
| Trichlorofluoromethane | ND | vs | 5.4 | 0.51 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:10 | 1 |
| Vinyl chloride | ND | vs | 5.4 | 0.66 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:10 | 1 |
| Xylenes, Total | ND | vs | 11 | 0.90 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:10 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Toluene-d8 (Surr)* | *105* | | *71 - 125* | *04/23/18 09:21* | *04/23/18 19:10* | *1* |
| *1,2-Dichloroethane-d4 (Surr)* | *105* | | *64 - 126* | *04/23/18 09:21* | *04/23/18 19:10* | *1* |
| *4-Bromofluorobenzene (Surr)* | *102* | | *72 - 126* | *04/23/18 09:21* | *04/23/18 19:10* | *1* |
| *Dibromofluoromethane (Surr)* | *106* | | *60 - 140* | *04/23/18 09:21* | *04/23/18 19:10* | *1* |

## Client Sample ID: NW-SW-BERM-042018

**Lab Sample ID: 480-134628-9**

**Date Collected: 04/20/18 10:30**

**Matrix: Solid**

**Date Received: 04/21/18 01:45**

### Method: 8260C - TCLP Volatiles - TCLP

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | ND | | 0.010 | 0.0041 | mg/L | | | 05/08/18 23:57 | 10 |
| Carbon tetrachloride | ND | | 0.010 | 0.0027 | mg/L | | | 05/08/18 23:57 | 10 |
| Chlorobenzene | ND | | 0.010 | 0.0075 | mg/L | | | 05/08/18 23:57 | 10 |
| Chloroform | ND | | 0.010 | 0.0034 | mg/L | | | 05/08/18 23:57 | 10 |
| 1,2-Dichloroethane | ND | | 0.010 | 0.0021 | mg/L | | | 05/08/18 23:57 | 10 |
| 1,1-Dichloroethene | ND | | 0.010 | 0.0029 | mg/L | | | 05/08/18 23:57 | 10 |
| 2-Butanone (MEK) | ND | | 0.050 | 0.013 | mg/L | | | 05/08/18 23:57 | 10 |
| **Tetrachloroethene** | **0.0057** | **J** | 0.010 | 0.0036 | mg/L | | | 05/08/18 23:57 | 10 |
| Trichloroethene | ND | | 0.010 | 0.0046 | mg/L | | | 05/08/18 23:57 | 10 |
| Vinyl chloride | ND | | 0.010 | 0.0090 | mg/L | | | 05/08/18 23:57 | 10 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *100* | | *77 - 120* | | *05/08/18 23:57* | *10* |
| *Toluene-d8 (Surr)* | *92* | | *80 - 120* | | *05/08/18 23:57* | *10* |
| *4-Bromofluorobenzene (Surr)* | *98* | | *73 - 120* | | *05/08/18 23:57* | *10* |
| *Dibromofluoromethane (Surr)* | *100* | | *75 - 123* | | *05/08/18 23:57* | *10* |

Client: O'Brien & Gere Inc of North America
Project/Site: Midler Crossing - Characteristic Soil

TestAmerica Job ID: 480-134628-1

**Client Sample ID: W-BERM-042018**
**Date Collected: 04/20/18 11:00**
**Date Received: 04/21/18 01:45**

**Lab Sample ID: 480-134628-10**
**Matrix: Solid**
**Percent Solids: 86.6**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ND | vs | 5.7 | 0.42 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:36 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | vs | 5.7 | 0.93 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:36 | 1 |
| 1,1,2-Trichloroethane | ND | vs | 5.7 | 0.75 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:36 | 1 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | ND | vs | 5.7 | 1.3 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:36 | 1 |
| 1,1-Dichloroethane | ND | vs | 5.7 | 0.70 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:36 | 1 |
| 1,1-Dichloroethene | ND | vs | 5.7 | 0.70 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:36 | 1 |
| 1,2,4-Trichlorobenzene | ND | vs | 5.7 | 0.35 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:36 | 1 |
| 1,2-Dibromo-3-Chloropropane | ND | vs | 5.7 | 2.9 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:36 | 1 |
| 1,2-Dichlorobenzene | ND | vs | 5.7 | 0.45 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:36 | 1 |
| 1,2-Dichloroethane | ND | vs | 5.7 | 0.29 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:36 | 1 |
| 1,2-Dichloropropane | ND | vs | 5.7 | 2.9 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:36 | 1 |
| 1,3-Dichlorobenzene | ND | vs | 5.7 | 0.29 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:36 | 1 |
| 1,4-Dichlorobenzene | ND | vs | 5.7 | 0.80 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:36 | 1 |
| 2-Butanone (MEK) | ND | vs | 29 | 2.1 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:36 | 1 |
| 2-Hexanone | ND | vs | 29 | 2.9 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:36 | 1 |
| 4-Methyl-2-pentanone (MIBK) | ND | vs | 29 | 1.9 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:36 | 1 |
| Acetone | ND | vs | 29 | 4.8 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:36 | 1 |
| Benzene | ND | vs | 5.7 | 0.28 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:36 | 1 |
| Bromodichloromethane | ND | vs | 5.7 | 0.77 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:36 | 1 |
| Bromoform | ND | vs | 5.7 | 2.9 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:36 | 1 |
| Bromomethane | ND | vs | 5.7 | 0.52 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:36 | 1 |
| Carbon disulfide | ND | vs | 5.7 | 2.9 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:36 | 1 |
| Carbon tetrachloride | ND | vs | 5.7 | 0.56 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:36 | 1 |
| Chlorobenzene | ND | vs | 5.7 | 0.76 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:36 | 1 |
| Dibromochloromethane | ND | vs | 5.7 | 0.73 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:36 | 1 |
| Chloroethane | ND | vs | 5.7 | 1.3 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:36 | 1 |
| Chloroform | ND | vs | 5.7 | 0.35 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:36 | 1 |
| Chloromethane | ND | vs | 5.7 | 0.35 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:36 | 1 |
| cis-1,2-Dichloroethene | ND | vs | 5.7 | 0.73 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:36 | 1 |
| cis-1,3-Dichloropropene | ND | vs | 5.7 | 0.83 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:36 | 1 |
| Cyclohexane | ND | vs | 5.7 | 0.80 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:36 | 1 |
| Dichlorodifluoromethane | ND | vs | 5.7 | 0.47 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:36 | 1 |
| Ethylbenzene | ND | vs | 5.7 | 0.40 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:36 | 1 |
| 1,2-Dibromoethane | ND | vs | 5.7 | 0.74 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:36 | 1 |
| Isopropylbenzene | ND | vs | 5.7 | 0.86 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:36 | 1 |
| Methyl acetate | ND | vs | 29 | 3.5 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:36 | 1 |
| Methyl tert-butyl ether | ND | vs | 5.7 | 0.56 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:36 | 1 |
| Methylcyclohexane | ND | vs | 5.7 | 0.87 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:36 | 1 |
| **Methylene Chloride** | **7.4** | **vs** | 5.7 | 2.6 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:36 | 1 |
| Styrene | ND | vs | 5.7 | 0.29 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:36 | 1 |
| **Tetrachloroethene** | **2.3** | **J vs** | 5.7 | 0.77 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:36 | 1 |
| Toluene | ND | vs | 5.7 | 0.43 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:36 | 1 |
| trans-1,2-Dichloroethene | ND | vs | 5.7 | 0.59 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:36 | 1 |
| trans-1,3-Dichloropropene | ND | vs | 5.7 | 2.5 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:36 | 1 |
| Trichloroethene | ND | vs | 5.7 | 1.3 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:36 | 1 |
| Trichlorofluoromethane | ND | vs | 5.7 | 0.54 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:36 | 1 |
| Vinyl chloride | ND | vs | 5.7 | 0.70 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:36 | 1 |
| Xylenes, Total | ND | vs | 11 | 0.96 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 19:36 | 1 |

## Client Sample ID: W-BERM-042018

**Lab Sample ID: 480-134628-10**

**Date Collected: 04/20/18 11:00**
**Matrix: Solid**
**Date Received: 04/21/18 01:45**
**Percent Solids: 86.6**

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Toluene-d8 (Surr)* | *105* | | *71 - 125* | *04/23/18 09:21* | *04/23/18 19:36* | *1* |
| *1,2-Dichloroethane-d4 (Surr)* | *105* | | *64 - 126* | *04/23/18 09:21* | *04/23/18 19:36* | *1* |
| *4-Bromofluorobenzene (Surr)* | *99* | | *72 - 126* | *04/23/18 09:21* | *04/23/18 19:36* | *1* |
| *Dibromofluoromethane (Surr)* | *108* | | *60 - 140* | *04/23/18 09:21* | *04/23/18 19:36* | *1* |

## Client Sample ID: X-1-042018

**Lab Sample ID: 480-134628-11**

**Date Collected: 04/20/18 00:00**
**Matrix: Solid**
**Date Received: 04/21/18 01:45**

### Method: 8260C - TCLP Volatiles - TCLP

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | ND | | 0.010 | 0.0041 | mg/L | | | 05/09/18 00:21 | 10 |
| Carbon tetrachloride | ND | | 0.010 | 0.0027 | mg/L | | | 05/09/18 00:21 | 10 |
| Chlorobenzene | ND | | 0.010 | 0.0075 | mg/L | | | 05/09/18 00:21 | 10 |
| Chloroform | ND | | 0.010 | 0.0034 | mg/L | | | 05/09/18 00:21 | 10 |
| 1,2-Dichloroethane | ND | | 0.010 | 0.0021 | mg/L | | | 05/09/18 00:21 | 10 |
| 1,1-Dichloroethene | ND | | 0.010 | 0.0029 | mg/L | | | 05/09/18 00:21 | 10 |
| 2-Butanone (MEK) | ND | | 0.050 | 0.013 | mg/L | | | 05/09/18 00:21 | 10 |
| **Tetrachloroethene** | **0.0071** | **J** | 0.010 | 0.0036 | mg/L | | | 05/09/18 00:21 | 10 |
| Trichloroethene | ND | | 0.010 | 0.0046 | mg/L | | | 05/09/18 00:21 | 10 |
| Vinyl chloride | ND | | 0.010 | 0.0090 | mg/L | | | 05/09/18 00:21 | 10 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *101* | | *77 - 120* | | *05/09/18 00:21* | *10* |
| *Toluene-d8 (Surr)* | *90* | | *80 - 120* | | *05/09/18 00:21* | *10* |
| *4-Bromofluorobenzene (Surr)* | *98* | | *73 - 120* | | *05/09/18 00:21* | *10* |
| *Dibromofluoromethane (Surr)* | *103* | | *75 - 123* | | *05/09/18 00:21* | *10* |

## Client Sample ID: X-2-042018

**Lab Sample ID: 480-134628-12**

**Date Collected: 04/20/18 00:00**
**Matrix: Solid**
**Date Received: 04/21/18 01:45**
**Percent Solids: 89.9**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ND | vs | 5.6 | 0.40 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 20:01 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | vs F1 | 5.6 | 0.90 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 20:01 | 1 |
| 1,1,2-Trichloroethane | ND | vs F1 | 5.6 | 0.72 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 20:01 | 1 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | ND | vs | 5.6 | 1.3 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 20:01 | 1 |
| 1,1-Dichloroethane | ND | vs | 5.6 | 0.68 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 20:01 | 1 |
| 1,1-Dichloroethene | ND | vs | 5.6 | 0.68 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 20:01 | 1 |
| 1,2,4-Trichlorobenzene | ND | vs F1 | 5.6 | 0.34 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 20:01 | 1 |
| 1,2-Dibromo-3-Chloropropane | ND | vs F1 | 5.6 | 2.8 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 20:01 | 1 |
| 1,2-Dichlorobenzene | ND | vs F1 | 5.6 | 0.43 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 20:01 | 1 |
| 1,2-Dichloroethane | ND | vs F1 | 5.6 | 0.28 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 20:01 | 1 |
| 1,2-Dichloropropane | ND | vs | 5.6 | 2.8 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 20:01 | 1 |
| 1,3-Dichlorobenzene | ND | vs F1 | 5.6 | 0.29 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 20:01 | 1 |
| 1,4-Dichlorobenzene | ND | vs F1 | 5.6 | 0.78 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 20:01 | 1 |
| 2-Butanone (MEK) | ND | vs F1 | 28 | 2.0 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 20:01 | 1 |
| 2-Hexanone | ND | vs F1 | 28 | 2.8 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 20:01 | 1 |
| 4-Methyl-2-pentanone (MIBK) | ND | vs F1 | 28 | 1.8 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 20:01 | 1 |
| Acetone | ND | vs F1 | 28 | 4.7 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 20:01 | 1 |

**Client Sample ID: X-2-042018**
**Date Collected: 04/20/18 00:00**
**Date Received: 04/21/18 01:45**

**Lab Sample ID: 480-134628-12**
**Matrix: Solid**
**Percent Solids: 89.9**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | ND | vs | 5.6 | 0.27 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 20:01 | 1 |
| Bromodichloromethane | ND | vs F1 | 5.6 | 0.74 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 20:01 | 1 |
| Bromoform | ND | vs F1 | 5.6 | 2.8 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 20:01 | 1 |
| Bromomethane | ND | vs | 5.6 | 0.50 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 20:01 | 1 |
| Carbon disulfide | ND | vs F1 | 5.6 | 2.8 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 20:01 | 1 |
| Carbon tetrachloride | ND | vs F1 | 5.6 | 0.54 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 20:01 | 1 |
| Chlorobenzene | ND | vs F1 | 5.6 | 0.73 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 20:01 | 1 |
| Dibromochloromethane | ND | vs F1 | 5.6 | 0.71 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 20:01 | 1 |
| Chloroethane | ND | vs | 5.6 | 1.3 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 20:01 | 1 |
| Chloroform | ND | vs | 5.6 | 0.34 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 20:01 | 1 |
| Chloromethane | ND | vs | 5.6 | 0.34 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 20:01 | 1 |
| cis-1,2-Dichloroethene | ND | vs F1 | 5.6 | 0.71 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 20:01 | 1 |
| cis-1,3-Dichloropropene | ND | vs F1 | 5.6 | 0.80 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 20:01 | 1 |
| Cyclohexane | ND | vs | 5.6 | 0.78 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 20:01 | 1 |
| Dichlorodifluoromethane | ND | vs | 5.6 | 0.46 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 20:01 | 1 |
| Ethylbenzene | ND | vs F1 | 5.6 | 0.38 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 20:01 | 1 |
| 1,2-Dibromoethane | ND | vs F1 | 5.6 | 0.71 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 20:01 | 1 |
| Isopropylbenzene | ND | vs | 5.6 | 0.84 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 20:01 | 1 |
| Methyl acetate | ND | vs | 28 | 3.4 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 20:01 | 1 |
| Methyl tert-butyl ether | ND | vs | 5.6 | 0.55 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 20:01 | 1 |
| Methylcyclohexane | ND | vs F1 | 5.6 | 0.84 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 20:01 | 1 |
| **Methylene Chloride** | **6.5** | **vs** | 5.6 | 2.6 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 20:01 | 1 |
| Styrene | ND | vs F1 | 5.6 | 0.28 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 20:01 | 1 |
| **Tetrachloroethene** | **7.4** | **vs** | 5.6 | 0.75 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 20:01 | 1 |
| Toluene | ND | vs | 5.6 | 0.42 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 20:01 | 1 |
| trans-1,2-Dichloroethene | ND | vs F1 | 5.6 | 0.57 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 20:01 | 1 |
| trans-1,3-Dichloropropene | ND | vs F1 | 5.6 | 2.4 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 20:01 | 1 |
| **Trichloroethene** | **1.5** | **J vs F1** | 5.6 | 1.2 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 20:01 | 1 |
| Trichlorofluoromethane | ND | vs | 5.6 | 0.53 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 20:01 | 1 |
| Vinyl chloride | ND | vs | 5.6 | 0.68 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 20:01 | 1 |
| Xylenes, Total | ND | vs F1 | 11 | 0.93 | ug/Kg | ☼ | 04/23/18 09:21 | 04/23/18 20:01 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Toluene-d8 (Surr)* | *112* | | *71 - 125* | *04/23/18 09:21* | *04/23/18 20:01* | *1* |
| *1,2-Dichloroethane-d4 (Surr)* | *104* | | *64 - 126* | *04/23/18 09:21* | *04/23/18 20:01* | *1* |
| *4-Bromofluorobenzene (Surr)* | *92* | | *72 - 126* | *04/23/18 09:21* | *04/23/18 20:01* | *1* |
| *Dibromofluoromethane (Surr)* | *107* | | *60 - 140* | *04/23/18 09:21* | *04/23/18 20:01* | *1* |

## Method: 8260C - TCLP Volatiles

**Matrix: Solid** **Prep Type: Total/NA**

| | | Percent Surrogate Recovery (Acceptance Limits) | | | |
|---|---|---|---|---|---|
| | | TOL | DCA | BFB | DBFM |
| Lab Sample ID | Client Sample ID | (80-120) | (77-120) | (73-120) | (75-123) |
| LCS 480-412741/5 | Lab Control Sample | 97 | 108 | 104 | 107 |
| LCS 480-413229/5 | Lab Control Sample | 94 | 102 | 101 | 106 |
| MB 480-412741/7 | Method Blank | 95 | 105 | 99 | 103 |
| MB 480-413229/7 | Method Blank | 105 | 107 | 104 | 111 |

**Surrogate Legend**

TOL = Toluene-d8 (Surr)
DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)

## Method: 8260C - TCLP Volatiles

**Matrix: Solid** **Prep Type: TCLP**

| | | Percent Surrogate Recovery (Acceptance Limits) | | | |
|---|---|---|---|---|---|
| | | DCA | TOL | BFB | DBFM |
| Lab Sample ID | Client Sample ID | (77-120) | (80-120) | (73-120) | (75-123) |
| 480-134628-7 | NE-SE BERM-042018 | 104 | 94 | 104 | 106 |
| 480-134628-9 | NW-SW-BERM-042018 | 100 | 92 | 98 | 100 |
| 480-134628-11 | X-1-042018 | 101 | 90 | 98 | 103 |
| LB 480-411593/1-A | Method Blank | 108 | 95 | 101 | 103 |

**Surrogate Legend**

DCA = 1,2-Dichloroethane-d4 (Surr)
TOL = Toluene-d8 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)

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

**Matrix: Solid** **Prep Type: Total/NA**

| | | Percent Surrogate Recovery (Acceptance Limits) | | | |
|---|---|---|---|---|---|
| | | TOL | DCA | BFB | DBFM |
| Lab Sample ID | Client Sample ID | (71-125) | (64-126) | (72-126) | (60-140) |
| 480-134628-8 | E-BERM-042018 | 105 | 105 | 102 | 106 |
| 480-134628-10 | W-BERM-042018 | 105 | 105 | 99 | 108 |
| 480-134628-12 | X-2-042018 | 112 | 104 | 92 | 107 |
| 480-134628-12 MS | X-2-042018 | 110 | 95 | 97 | 107 |
| 480-134628-12 MSD | X-2-042018 | 111 | 92 | 95 | 105 |
| LCS 480-410288/1-A | Lab Control Sample | 106 | 99 | 105 | 106 |
| MB 480-410288/2-A | Method Blank | 104 | 106 | 102 | 106 |

**Surrogate Legend**

TOL = Toluene-d8 (Surr)
DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)

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

**Matrix: Solid** **Prep Type: Total/NA**

| | | Percent Surrogate Recovery (Acceptance Limits) | | | | | |
|---|---|---|---|---|---|---|---|
| | | TBP | FBP | 2FP | NBZ | TPHd14 | PHL |
| Lab Sample ID | Client Sample ID | (54-120) | (60-120) | (52-120) | (53-120) | (65-121) | (54-120) |
| 480-134628-2 | E-BERM-042018 | 116 | 96 | 94 | 91 | 111 | 89 |
| 480-134628-4 | W-BERM-042018 | 81 | 85 | 76 | 80 | 97 | 82 |
| 480-134628-6 | X-2-042018 | 75 | 84 | 87 | 75 | 98 | 78 |
| LCS 480-411993/2-A | Lab Control Sample | 93 | 76 | 69 | 78 | 107 | 75 |
| MB 480-411993/1-A | Method Blank | 77 | 88 | 80 | 88 | 106 | 83 |

**Surrogate Legend**

TBP = 2,4,6-Tribromophenol
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
TPHd14 = p-Terphenyl-d14
PHL = Phenol-d5

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

**Matrix: Solid** **Prep Type: Total/NA**

| | | Percent Surrogate Recovery (Acceptance Limits) | | | | | |
|---|---|---|---|---|---|---|---|
| | | TBP | FBP | 2FP | NBZ | TPHd14 | PHL |
| Lab Sample ID | Client Sample ID | (41-120) | (48-120) | (35-120) | (46-120) | (59-136) | (22-120) |
| LCS 480-412129/2-A | Lab Control Sample | 100 | 86 | 44 | 82 | 100 | 30 |
| LCSD 480-412129/3-A | Lab Control Sample Dup | 91 | 84 | 43 | 77 | 100 | 30 |
| MB 480-412129/1-A | Method Blank | 89 | 98 | 48 | 95 | 111 | 33 |

**Surrogate Legend**

TBP = 2,4,6-Tribromophenol
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
TPHd14 = p-Terphenyl-d14
PHL = Phenol-d5

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

**Matrix: Solid** **Prep Type: TCLP**

| | | Percent Surrogate Recovery (Acceptance Limits) | | | | | |
|---|---|---|---|---|---|---|---|
| | | TBP | FBP | 2FP | NBZ | TPHd14 | PHL |
| Lab Sample ID | Client Sample ID | (41-120) | (48-120) | (35-120) | (46-120) | (59-136) | (22-120) |
| 480-134628-1 | NE-SE BERM-042018 | 95 | 82 | 45 | 77 | 104 | 30 |
| 480-134628-3 | NW-SW-BERM-042018 | 89 | 77 | 42 | 78 | 106 | 29 |
| 480-134628-5 | X-1-042018 | 95 | 85 | 42 | 80 | 102 | 29 |
| LB 480-411629/1-D | Method Blank | 87 | 85 | 44 | 81 | 104 | 32 |

**Surrogate Legend**

TBP = 2,4,6-Tribromophenol
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
TPHd14 = p-Terphenyl-d14
PHL = Phenol-d5

# Surrogate Summary

Client: O'Brien & Gere Inc of North America
Project/Site: Midler Crossing - Characteristic Soil

TestAmerica Job ID: 480-134628-1

## Method: 8081B - Organochlorine Pesticides (GC)

**Matrix: Solid**

**Prep Type: Total/NA**

| | | Percent Surrogate Recovery (Acceptance Limits) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | DCBP2 | TCX2 | | | | | | | | |
| Lab Sample ID | Client Sample ID | (45-120) | (30-124) | | | | | | | | |
| 480-134628-2 | E-BERM-042018 | 0 X | 0 X | | | | | | | | |
| 480-134628-4 | W-BERM-042018 | 0 X | 0 X | | | | | | | | |
| 480-134628-6 | X-2-042018 | 0 X | 0 X | | | | | | | | |
| LCS 480-410453/2-A | Lab Control Sample | 73 | 53 | | | | | | | | |
| MB 480-410453/1-A | Method Blank | 73 | 54 | | | | | | | | |

**Surrogate Legend**

DCBP = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

**Matrix: Solid**

**Prep Type: Total/NA**

| | | Percent Surrogate Recovery (Acceptance Limits) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | TCX1 | DCBP1 | | | | | | | | |
| Lab Sample ID | Client Sample ID | (60-154) | (65-174) | | | | | | | | |
| 480-134628-2 | E-BERM-042018 | 100 | 91 | | | | | | | | |
| 480-134628-4 | W-BERM-042018 | 105 | 101 | | | | | | | | |
| 480-134628-6 | X-2-042018 | 91 | 93 | | | | | | | | |
| LCS 480-411220/2-A | Lab Control Sample | 128 | 124 | | | | | | | | |
| MB 480-411220/1-A | Method Blank | 106 | 106 | | | | | | | | |

**Surrogate Legend**

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

## Method: 8260C - TCLP Volatiles

**Lab Sample ID: MB 480-412741/7**
**Matrix: Solid**
**Analysis Batch: 412741**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | ND | | 0.0010 | 0.00029 | mg/L | | | 05/05/18 10:08 | 1 |
| 1,2-Dichloroethane | ND | | 0.0010 | 0.00021 | mg/L | | | 05/05/18 10:08 | 1 |
| 2-Butanone (MEK) | ND | | 0.0050 | 0.0013 | mg/L | | | 05/05/18 10:08 | 1 |
| Benzene | ND | | 0.0010 | 0.00041 | mg/L | | | 05/05/18 10:08 | 1 |
| Carbon tetrachloride | ND | | 0.0010 | 0.00027 | mg/L | | | 05/05/18 10:08 | 1 |
| Chlorobenzene | ND | | 0.0010 | 0.00075 | mg/L | | | 05/05/18 10:08 | 1 |
| Chloroform | ND | | 0.0010 | 0.00034 | mg/L | | | 05/05/18 10:08 | 1 |
| Tetrachloroethene | ND | | 0.0010 | 0.00036 | mg/L | | | 05/05/18 10:08 | 1 |
| Trichloroethene | ND | | 0.0010 | 0.00046 | mg/L | | | 05/05/18 10:08 | 1 |
| Vinyl chloride | ND | | 0.0010 | 0.00090 | mg/L | | | 05/05/18 10:08 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Toluene-d8 (Surr)* | *95* | | *80 - 120* | | *05/05/18 10:08* | *1* |
| *1,2-Dichloroethane-d4 (Surr)* | *105* | | *77 - 120* | | *05/05/18 10:08* | *1* |
| *4-Bromofluorobenzene (Surr)* | *99* | | *73 - 120* | | *05/05/18 10:08* | *1* |
| *Dibromofluoromethane (Surr)* | *103* | | *75 - 123* | | *05/05/18 10:08* | *1* |

**Lab Sample ID: LCS 480-412741/5**
**Matrix: Solid**
**Analysis Batch: 412741**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | 0.0250 | 0.0267 | | mg/L | | 107 | 66 - 127 |
| 1,2-Dichloroethane | 0.0250 | 0.0270 | | mg/L | | 108 | 75 - 120 |
| 2-Butanone (MEK) | 0.125 | 0.164 | | mg/L | | 131 | 57 - 140 |
| Benzene | 0.0250 | 0.0254 | | mg/L | | 102 | 71 - 124 |
| Carbon tetrachloride | 0.0250 | 0.0273 | | mg/L | | 109 | 72 - 134 |
| Chlorobenzene | 0.0250 | 0.0246 | | mg/L | | 98 | 80 - 120 |
| Chloroform | 0.0250 | 0.0247 | | mg/L | | 99 | 73 - 127 |
| Tetrachloroethene | 0.0250 | 0.0284 | | mg/L | | 113 | 74 - 122 |
| Trichloroethene | 0.0250 | 0.0252 | | mg/L | | 101 | 74 - 123 |
| Vinyl chloride | 0.0250 | 0.0249 | | mg/L | | 99 | 65 - 133 |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *Toluene-d8 (Surr)* | *97* | | *80 - 120* |
| *1,2-Dichloroethane-d4 (Surr)* | *108* | | *77 - 120* |
| *4-Bromofluorobenzene (Surr)* | *104* | | *73 - 120* |
| *Dibromofluoromethane (Surr)* | *107* | | *75 - 123* |

**Lab Sample ID: MB 480-413229/7**
**Matrix: Solid**
**Analysis Batch: 413229**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | ND | | 0.0010 | 0.00029 | mg/L | | | 05/08/18 22:46 | 1 |
| 1,2-Dichloroethane | ND | | 0.0010 | 0.00021 | mg/L | | | 05/08/18 22:46 | 1 |
| 2-Butanone (MEK) | ND | | 0.0050 | 0.0013 | mg/L | | | 05/08/18 22:46 | 1 |

## Method: 8260C - TCLP Volatiles (Continued)

**Lab Sample ID: MB 480-413229/7**
**Matrix: Solid**
**Analysis Batch: 413229**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | ND | | 0.0010 | 0.00041 | mg/L | | | 05/08/18 22:46 | 1 |
| Carbon tetrachloride | ND | | 0.0010 | 0.00027 | mg/L | | | 05/08/18 22:46 | 1 |
| Chlorobenzene | ND | | 0.0010 | 0.00075 | mg/L | | | 05/08/18 22:46 | 1 |
| Chloroform | ND | | 0.0010 | 0.00034 | mg/L | | | 05/08/18 22:46 | 1 |
| Tetrachloroethene | ND | | 0.0010 | 0.00036 | mg/L | | | 05/08/18 22:46 | 1 |
| Trichloroethene | ND | | 0.0010 | 0.00046 | mg/L | | | 05/08/18 22:46 | 1 |
| Vinyl chloride | ND | | 0.0010 | 0.00090 | mg/L | | | 05/08/18 22:46 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Toluene-d8 (Surr)* | *105* | | *80 - 120* | | *05/08/18 22:46* | *1* |
| *1,2-Dichloroethane-d4 (Surr)* | *107* | | *77 - 120* | | *05/08/18 22:46* | *1* |
| *4-Bromofluorobenzene (Surr)* | *104* | | *73 - 120* | | *05/08/18 22:46* | *1* |
| *Dibromofluoromethane (Surr)* | *111* | | *75 - 123* | | *05/08/18 22:46* | *1* |

**Lab Sample ID: LCS 480-413229/5**
**Matrix: Solid**
**Analysis Batch: 413229**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | 0.0250 | 0.0263 | | mg/L | | 105 | 66 - 127 |
| 1,2-Dichloroethane | 0.0250 | 0.0255 | | mg/L | | 102 | 75 - 120 |
| 2-Butanone (MEK) | 0.125 | 0.149 | | mg/L | | 119 | 57 - 140 |
| Benzene | 0.0250 | 0.0256 | | mg/L | | 102 | 71 - 124 |
| Carbon tetrachloride | 0.0250 | 0.0261 | | mg/L | | 104 | 72 - 134 |
| Chlorobenzene | 0.0250 | 0.0243 | | mg/L | | 97 | 80 - 120 |
| Chloroform | 0.0250 | 0.0243 | | mg/L | | 97 | 73 - 127 |
| Tetrachloroethene | 0.0250 | 0.0281 | | mg/L | | 112 | 74 - 122 |
| Trichloroethene | 0.0250 | 0.0256 | | mg/L | | 103 | 74 - 123 |
| Vinyl chloride | 0.0250 | 0.0274 | | mg/L | | 110 | 65 - 133 |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *Toluene-d8 (Surr)* | *94* | | *80 - 120* |
| *1,2-Dichloroethane-d4 (Surr)* | *102* | | *77 - 120* |
| *4-Bromofluorobenzene (Surr)* | *101* | | *73 - 120* |
| *Dibromofluoromethane (Surr)* | *106* | | *75 - 123* |

**Lab Sample ID: LB 480-411593/1-A**
**Matrix: Solid**
**Analysis Batch: 412741**

**Client Sample ID: Method Blank**
**Prep Type: TCLP**

| Analyte | LB Result | LB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | ND | | 0.010 | 0.0029 | mg/L | | | 05/05/18 11:02 | 10 |
| 1,2-Dichloroethane | ND | | 0.010 | 0.0021 | mg/L | | | 05/05/18 11:02 | 10 |
| 2-Butanone (MEK) | ND | | 0.050 | 0.013 | mg/L | | | 05/05/18 11:02 | 10 |
| Benzene | ND | | 0.010 | 0.0041 | mg/L | | | 05/05/18 11:02 | 10 |
| Carbon tetrachloride | ND | | 0.010 | 0.0027 | mg/L | | | 05/05/18 11:02 | 10 |
| Chlorobenzene | ND | | 0.010 | 0.0075 | mg/L | | | 05/05/18 11:02 | 10 |
| Chloroform | ND | | 0.010 | 0.0034 | mg/L | | | 05/05/18 11:02 | 10 |

## Method: 8260C - TCLP Volatiles (Continued)

**Lab Sample ID: LB 480-411593/1-A**
**Matrix: Solid**
**Analysis Batch: 412741**

**Client Sample ID: Method Blank**
**Prep Type: TCLP**

| Analyte | LB Result | LB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Tetrachloroethene | ND | | 0.010 | 0.0036 | mg/L | | | 05/05/18 11:02 | 10 |
| Trichloroethene | ND | | 0.010 | 0.0046 | mg/L | | | 05/05/18 11:02 | 10 |
| Vinyl chloride | ND | | 0.010 | 0.0090 | mg/L | | | 05/05/18 11:02 | 10 |

| *Surrogate* | *LB %Recovery* | *LB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Toluene-d8 (Surr)* | *95* | | *80 - 120* | | *05/05/18 11:02* | *10* |
| *1,2-Dichloroethane-d4 (Surr)* | *108* | | *77 - 120* | | *05/05/18 11:02* | *10* |
| *4-Bromofluorobenzene (Surr)* | *101* | | *73 - 120* | | *05/05/18 11:02* | *10* |
| *Dibromofluoromethane (Surr)* | *103* | | *75 - 123* | | *05/05/18 11:02* | *10* |

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

**Lab Sample ID: MB 480-410288/2-A**
**Matrix: Solid**
**Analysis Batch: 410294**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 410288**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ND | | 5.0 | 0.36 | ug/Kg | | 04/23/18 09:21 | 04/23/18 14:45 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | 5.0 | 0.81 | ug/Kg | | 04/23/18 09:21 | 04/23/18 14:45 | 1 |
| 1,1,2-Trichloroethane | ND | | 5.0 | 0.65 | ug/Kg | | 04/23/18 09:21 | 04/23/18 14:45 | 1 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | ND | | 5.0 | 1.1 | ug/Kg | | 04/23/18 09:21 | 04/23/18 14:45 | 1 |
| 1,1-Dichloroethane | ND | | 5.0 | 0.61 | ug/Kg | | 04/23/18 09:21 | 04/23/18 14:45 | 1 |
| 1,1-Dichloroethene | ND | | 5.0 | 0.61 | ug/Kg | | 04/23/18 09:21 | 04/23/18 14:45 | 1 |
| 1,2,4-Trichlorobenzene | ND | | 5.0 | 0.30 | ug/Kg | | 04/23/18 09:21 | 04/23/18 14:45 | 1 |
| 1,2-Dibromo-3-Chloropropane | ND | | 5.0 | 2.5 | ug/Kg | | 04/23/18 09:21 | 04/23/18 14:45 | 1 |
| 1,2-Dichlorobenzene | ND | | 5.0 | 0.39 | ug/Kg | | 04/23/18 09:21 | 04/23/18 14:45 | 1 |
| 1,2-Dichloroethane | ND | | 5.0 | 0.25 | ug/Kg | | 04/23/18 09:21 | 04/23/18 14:45 | 1 |
| 1,2-Dichloropropane | ND | | 5.0 | 2.5 | ug/Kg | | 04/23/18 09:21 | 04/23/18 14:45 | 1 |
| 1,3-Dichlorobenzene | ND | | 5.0 | 0.26 | ug/Kg | | 04/23/18 09:21 | 04/23/18 14:45 | 1 |
| 1,4-Dichlorobenzene | ND | | 5.0 | 0.70 | ug/Kg | | 04/23/18 09:21 | 04/23/18 14:45 | 1 |
| 2-Butanone (MEK) | ND | | 25 | 1.8 | ug/Kg | | 04/23/18 09:21 | 04/23/18 14:45 | 1 |
| 2-Hexanone | ND | | 25 | 2.5 | ug/Kg | | 04/23/18 09:21 | 04/23/18 14:45 | 1 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 25 | 1.6 | ug/Kg | | 04/23/18 09:21 | 04/23/18 14:45 | 1 |
| Acetone | ND | | 25 | 4.2 | ug/Kg | | 04/23/18 09:21 | 04/23/18 14:45 | 1 |
| Benzene | ND | | 5.0 | 0.25 | ug/Kg | | 04/23/18 09:21 | 04/23/18 14:45 | 1 |
| Bromodichloromethane | ND | | 5.0 | 0.67 | ug/Kg | | 04/23/18 09:21 | 04/23/18 14:45 | 1 |
| Bromoform | ND | | 5.0 | 2.5 | ug/Kg | | 04/23/18 09:21 | 04/23/18 14:45 | 1 |
| Bromomethane | ND | | 5.0 | 0.45 | ug/Kg | | 04/23/18 09:21 | 04/23/18 14:45 | 1 |
| Carbon disulfide | ND | | 5.0 | 2.5 | ug/Kg | | 04/23/18 09:21 | 04/23/18 14:45 | 1 |
| Carbon tetrachloride | ND | | 5.0 | 0.48 | ug/Kg | | 04/23/18 09:21 | 04/23/18 14:45 | 1 |
| Chlorobenzene | ND | | 5.0 | 0.66 | ug/Kg | | 04/23/18 09:21 | 04/23/18 14:45 | 1 |
| Dibromochloromethane | ND | | 5.0 | 0.64 | ug/Kg | | 04/23/18 09:21 | 04/23/18 14:45 | 1 |
| Chloroethane | ND | | 5.0 | 1.1 | ug/Kg | | 04/23/18 09:21 | 04/23/18 14:45 | 1 |
| Chloroform | ND | | 5.0 | 0.31 | ug/Kg | | 04/23/18 09:21 | 04/23/18 14:45 | 1 |
| Chloromethane | ND | | 5.0 | 0.30 | ug/Kg | | 04/23/18 09:21 | 04/23/18 14:45 | 1 |
| cis-1,2-Dichloroethene | ND | | 5.0 | 0.64 | ug/Kg | | 04/23/18 09:21 | 04/23/18 14:45 | 1 |
| cis-1,3-Dichloropropene | ND | | 5.0 | 0.72 | ug/Kg | | 04/23/18 09:21 | 04/23/18 14:45 | 1 |
| Cyclohexane | ND | | 5.0 | 0.70 | ug/Kg | | 04/23/18 09:21 | 04/23/18 14:45 | 1 |

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

**Lab Sample ID: MB 480-410288/2-A**
**Matrix: Solid**
**Analysis Batch: 410294**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 410288**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | ND | | 5.0 | 0.41 | ug/Kg | | 04/23/18 09:21 | 04/23/18 14:45 | 1 |
| Ethylbenzene | ND | | 5.0 | 0.35 | ug/Kg | | 04/23/18 09:21 | 04/23/18 14:45 | 1 |
| 1,2-Dibromoethane | ND | | 5.0 | 0.64 | ug/Kg | | 04/23/18 09:21 | 04/23/18 14:45 | 1 |
| Isopropylbenzene | ND | | 5.0 | 0.75 | ug/Kg | | 04/23/18 09:21 | 04/23/18 14:45 | 1 |
| Methyl acetate | ND | | 25 | 3.0 | ug/Kg | | 04/23/18 09:21 | 04/23/18 14:45 | 1 |
| Methyl tert-butyl ether | ND | | 5.0 | 0.49 | ug/Kg | | 04/23/18 09:21 | 04/23/18 14:45 | 1 |
| Methylcyclohexane | ND | | 5.0 | 0.76 | ug/Kg | | 04/23/18 09:21 | 04/23/18 14:45 | 1 |
| Methylene Chloride | ND | | 5.0 | 2.3 | ug/Kg | | 04/23/18 09:21 | 04/23/18 14:45 | 1 |
| Styrene | ND | | 5.0 | 0.25 | ug/Kg | | 04/23/18 09:21 | 04/23/18 14:45 | 1 |
| Tetrachloroethene | ND | | 5.0 | 0.67 | ug/Kg | | 04/23/18 09:21 | 04/23/18 14:45 | 1 |
| Toluene | ND | | 5.0 | 0.38 | ug/Kg | | 04/23/18 09:21 | 04/23/18 14:45 | 1 |
| trans-1,2-Dichloroethene | ND | | 5.0 | 0.52 | ug/Kg | | 04/23/18 09:21 | 04/23/18 14:45 | 1 |
| trans-1,3-Dichloropropene | ND | | 5.0 | 2.2 | ug/Kg | | 04/23/18 09:21 | 04/23/18 14:45 | 1 |
| Trichloroethene | ND | | 5.0 | 1.1 | ug/Kg | | 04/23/18 09:21 | 04/23/18 14:45 | 1 |
| Trichlorofluoromethane | ND | | 5.0 | 0.47 | ug/Kg | | 04/23/18 09:21 | 04/23/18 14:45 | 1 |
| Vinyl chloride | ND | | 5.0 | 0.61 | ug/Kg | | 04/23/18 09:21 | 04/23/18 14:45 | 1 |
| Xylenes, Total | ND | | 10 | 0.84 | ug/Kg | | 04/23/18 09:21 | 04/23/18 14:45 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Toluene-d8 (Surr)* | *104* | | *71 - 125* | *04/23/18 09:21* | *04/23/18 14:45* | *1* |
| *1,2-Dichloroethane-d4 (Surr)* | *106* | | *64 - 126* | *04/23/18 09:21* | *04/23/18 14:45* | *1* |
| *4-Bromofluorobenzene (Surr)* | *102* | | *72 - 126* | *04/23/18 09:21* | *04/23/18 14:45* | *1* |
| *Dibromofluoromethane (Surr)* | *106* | | *60 - 140* | *04/23/18 09:21* | *04/23/18 14:45* | *1* |

**Lab Sample ID: LCS 480-410288/1-A**
**Matrix: Solid**
**Analysis Batch: 410294**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 410288**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 50.0 | 47.0 | | ug/Kg | | 94 | 77 - 121 |
| 1,1,2,2-Tetrachloroethane | 50.0 | 48.1 | | ug/Kg | | 96 | 80 - 120 |
| 1,1,2-Trichloroethane | 50.0 | 48.0 | | ug/Kg | | 96 | 78 - 122 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 50.0 | 47.8 | | ug/Kg | | 96 | 60 - 140 |
| 1,1-Dichloroethane | 50.0 | 48.6 | | ug/Kg | | 97 | 73 - 126 |
| 1,1-Dichloroethene | 50.0 | 47.4 | | ug/Kg | | 95 | 59 - 125 |
| 1,2,4-Trichlorobenzene | 50.0 | 46.9 | | ug/Kg | | 94 | 64 - 120 |
| 1,2-Dibromo-3-Chloropropane | 50.0 | 42.6 | | ug/Kg | | 85 | 63 - 124 |
| 1,2-Dichlorobenzene | 50.0 | 48.9 | | ug/Kg | | 98 | 75 - 120 |
| 1,2-Dichloroethane | 50.0 | 45.6 | | ug/Kg | | 91 | 77 - 122 |
| 1,2-Dichloropropane | 50.0 | 48.8 | | ug/Kg | | 98 | 75 - 124 |
| 1,3-Dichlorobenzene | 50.0 | 49.8 | | ug/Kg | | 100 | 74 - 120 |
| 1,4-Dichlorobenzene | 50.0 | 49.9 | | ug/Kg | | 100 | 73 - 120 |
| 2-Butanone (MEK) | 250 | 240 | | ug/Kg | | 96 | 70 - 134 |
| 2-Hexanone | 250 | 230 | | ug/Kg | | 92 | 59 - 130 |
| 4-Methyl-2-pentanone (MIBK) | 250 | 225 | | ug/Kg | | 90 | 65 - 133 |
| Acetone | 250 | 236 | | ug/Kg | | 95 | 61 - 137 |
| Benzene | 50.0 | 49.9 | | ug/Kg | | 100 | 79 - 127 |

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

**Lab Sample ID: LCS 480-410288/1-A**
**Matrix: Solid**
**Analysis Batch: 410294**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 410288**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Bromodichloromethane | 50.0 | 48.4 | | ug/Kg | | 97 | 80 - 122 |
| Bromoform | 50.0 | 46.1 | | ug/Kg | | 92 | 68 - 126 |
| Bromomethane | 50.0 | 44.4 | | ug/Kg | | 89 | 37 - 149 |
| Carbon disulfide | 50.0 | 56.0 | | ug/Kg | | 112 | 64 - 131 |
| Carbon tetrachloride | 50.0 | 45.6 | | ug/Kg | | 91 | 75 - 135 |
| Chlorobenzene | 50.0 | 51.1 | | ug/Kg | | 102 | 76 - 124 |
| Dibromochloromethane | 50.0 | 50.2 | | ug/Kg | | 100 | 76 - 125 |
| Chloroethane | 50.0 | 43.0 | | ug/Kg | | 86 | 69 - 135 |
| Chloroform | 50.0 | 49.4 | | ug/Kg | | 99 | 80 - 120 |
| Chloromethane | 50.0 | 40.4 | | ug/Kg | | 81 | 63 - 127 |
| cis-1,2-Dichloroethene | 50.0 | 49.7 | | ug/Kg | | 99 | 81 - 120 |
| cis-1,3-Dichloropropene | 50.0 | 47.8 | | ug/Kg | | 96 | 80 - 120 |
| Cyclohexane | 50.0 | 48.4 | | ug/Kg | | 97 | 65 - 120 |
| Dichlorodifluoromethane | 50.0 | 45.3 | | ug/Kg | | 91 | 57 - 142 |
| Ethylbenzene | 50.0 | 50.9 | | ug/Kg | | 102 | 80 - 120 |
| 1,2-Dibromoethane | 50.0 | 49.3 | | ug/Kg | | 99 | 78 - 120 |
| Isopropylbenzene | 50.0 | 50.2 | | ug/Kg | | 100 | 72 - 120 |
| Methyl acetate | 100 | 93.5 | | ug/Kg | | 93 | 55 - 136 |
| Methyl tert-butyl ether | 50.0 | 44.8 | | ug/Kg | | 90 | 63 - 125 |
| Methylcyclohexane | 50.0 | 48.5 | | ug/Kg | | 97 | 60 - 140 |
| Methylene Chloride | 50.0 | 42.4 | | ug/Kg | | 85 | 61 - 127 |
| Styrene | 50.0 | 50.3 | | ug/Kg | | 101 | 80 - 120 |
| Tetrachloroethene | 50.0 | 53.2 | | ug/Kg | | 106 | 74 - 122 |
| Toluene | 50.0 | 49.8 | | ug/Kg | | 100 | 74 - 128 |
| trans-1,2-Dichloroethene | 50.0 | 50.7 | | ug/Kg | | 101 | 78 - 126 |
| trans-1,3-Dichloropropene | 50.0 | 46.7 | | ug/Kg | | 93 | 73 - 123 |
| Trichloroethene | 50.0 | 51.6 | | ug/Kg | | 103 | 77 - 129 |
| Trichlorofluoromethane | 50.0 | 48.2 | | ug/Kg | | 96 | 65 - 146 |
| Vinyl chloride | 50.0 | 41.1 | | ug/Kg | | 82 | 61 - 133 |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *Toluene-d8 (Surr)* | *106* | | *71 - 125* |
| *1,2-Dichloroethane-d4 (Surr)* | *99* | | *64 - 126* |
| *4-Bromofluorobenzene (Surr)* | *105* | | *72 - 126* |
| *Dibromofluoromethane (Surr)* | *106* | | *60 - 140* |

**Lab Sample ID: 480-134628-12 MS**
**Matrix: Solid**
**Analysis Batch: 410294**

**Client Sample ID: X-2-042018**
**Prep Type: Total/NA**
**Prep Batch: 410288**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ND | vs | 55.5 | 46.8 | vs | ug/Kg | ☼ | 84 | 77 - 121 |
| 1,1,2,2-Tetrachloroethane | ND | vs F1 | 55.5 | 44.2 | vs | ug/Kg | ☼ | 80 | 80 - 120 |
| 1,1,2-Trichloroethane | ND | vs F1 | 55.5 | 43.7 | vs | ug/Kg | ☼ | 79 | 78 - 122 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | ND | vs | 55.5 | 49.7 | vs | ug/Kg | ☼ | 89 | 60 - 140 |
| 1,1-Dichloroethane | ND | vs | 55.5 | 49.9 | vs | ug/Kg | ☼ | 90 | 73 - 126 |
| 1,1-Dichloroethene | ND | vs | 55.5 | 47.0 | vs | ug/Kg | ☼ | 85 | 59 - 125 |

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

**Lab Sample ID: 480-134628-12 MS**
**Matrix: Solid**
**Analysis Batch: 410294**

**Client Sample ID: X-2-042018**
**Prep Type: Total/NA**
**Prep Batch: 410288**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| 1,2,4-Trichlorobenzene | ND | vs F1 | 55.5 | 13.5 | vs F1 | ug/Kg | ☼ | 24 | 64 - 120 |
| 1,2-Dibromo-3-Chloropropane | ND | vs F1 | 55.5 | 28.3 | vs F1 | ug/Kg | ☼ | 51 | 63 - 124 |
| 1,2-Dichlorobenzene | ND | vs F1 | 55.5 | 30.5 | vs F1 | ug/Kg | ☼ | 55 | 75 - 120 |
| 1,2-Dichloroethane | ND | vs F1 | 55.5 | 41.7 | vs F1 | ug/Kg | ☼ | 75 | 77 - 122 |
| 1,2-Dichloropropane | ND | vs | 55.5 | 47.6 | vs | ug/Kg | ☼ | 86 | 75 - 124 |
| 1,3-Dichlorobenzene | ND | vs F1 | 55.5 | 28.9 | vs F1 | ug/Kg | ☼ | 52 | 74 - 120 |
| 1,4-Dichlorobenzene | ND | vs F1 | 55.5 | 27.7 | vs F1 | ug/Kg | ☼ | 50 | 73 - 120 |
| 2-Butanone (MEK) | ND | vs F1 | 278 | 175 | vs F1 | ug/Kg | ☼ | 63 | 70 - 134 |
| 2-Hexanone | ND | vs F1 | 278 | 159 | vs F1 | ug/Kg | ☼ | 57 | 59 - 130 |
| 4-Methyl-2-pentanone (MIBK) | ND | vs F1 | 278 | 184 | vs | ug/Kg | ☼ | 66 | 65 - 133 |
| Acetone | ND | vs F1 | 278 | 175 | vs | ug/Kg | ☼ | 63 | 61 - 137 |
| Benzene | ND | vs | 55.5 | 48.0 | vs | ug/Kg | ☼ | 86 | 79 - 127 |
| Bromodichloromethane | ND | vs F1 | 55.5 | 44.7 | vs | ug/Kg | ☼ | 80 | 80 - 122 |
| Bromoform | ND | vs F1 | 55.5 | 32.1 | vs F1 | ug/Kg | ☼ | 58 | 68 - 126 |
| Bromomethane | ND | vs | 55.5 | 48.1 | vs | ug/Kg | ☼ | 87 | 37 - 149 |
| Carbon disulfide | ND | vs F1 | 55.5 | 39.4 | vs | ug/Kg | ☼ | 71 | 64 - 131 |
| Carbon tetrachloride | ND | vs F1 | 55.5 | 42.3 | vs | ug/Kg | ☼ | 76 | 75 - 135 |
| Chlorobenzene | ND | vs F1 | 55.5 | 38.3 | vs F1 | ug/Kg | ☼ | 69 | 76 - 124 |
| Dibromochloromethane | ND | vs F1 | 55.5 | 42.3 | vs | ug/Kg | ☼ | 76 | 76 - 125 |
| Chloroethane | ND | vs | 55.5 | 50.7 | vs | ug/Kg | ☼ | 91 | 69 - 135 |
| Chloroform | ND | vs | 55.5 | 49.1 | vs | ug/Kg | ☼ | 88 | 80 - 120 |
| Chloromethane | ND | vs | 55.5 | 45.6 | vs | ug/Kg | ☼ | 82 | 63 - 127 |
| cis-1,2-Dichloroethene | ND | vs F1 | 55.5 | 45.5 | vs | ug/Kg | ☼ | 82 | 80 - 120 |
| cis-1,3-Dichloropropene | ND | vs F1 | 55.5 | 35.2 | vs F1 | ug/Kg | ☼ | 63 | 80 - 120 |
| Cyclohexane | ND | vs | 55.5 | 41.9 | vs | ug/Kg | ☼ | 75 | 65 - 120 |
| Dichlorodifluoromethane | ND | vs | 55.5 | 51.5 | vs | ug/Kg | ☼ | 93 | 57 - 142 |
| Ethylbenzene | ND | vs F1 | 55.5 | 41.1 | vs F1 | ug/Kg | ☼ | 74 | 80 - 120 |
| 1,2-Dibromoethane | ND | vs F1 | 55.5 | 37.4 | vs F1 | ug/Kg | ☼ | 67 | 78 - 120 |
| Isopropylbenzene | ND | vs | 55.5 | 47.2 | vs | ug/Kg | ☼ | 85 | 72 - 120 |
| Methyl acetate | ND | vs | 111 | 89.8 | vs | ug/Kg | ☼ | 81 | 55 - 136 |
| Methyl tert-butyl ether | ND | vs | 55.5 | 44.6 | vs | ug/Kg | ☼ | 80 | 63 - 125 |
| Methylcyclohexane | ND | vs F1 | 55.5 | 34.6 | vs | ug/Kg | ☼ | 62 | 60 - 140 |
| Methylene Chloride | 6.5 | vs | 55.5 | 50.0 | vs | ug/Kg | ☼ | 78 | 61 - 127 |
| Styrene | ND | vs F1 | 55.5 | 34.2 | vs F1 | ug/Kg | ☼ | 62 | 80 - 120 |
| Tetrachloroethene | 7.4 | vs | 55.5 | 53.4 | vs | ug/Kg | ☼ | 83 | 74 - 122 |
| Toluene | ND | vs | 55.5 | 44.3 | vs | ug/Kg | ☼ | 80 | 74 - 128 |
| trans-1,2-Dichloroethene | ND | vs F1 | 55.5 | 43.8 | vs | ug/Kg | ☼ | 79 | 78 - 126 |
| trans-1,3-Dichloropropene | ND | vs F1 | 55.5 | 32.4 | vs F1 | ug/Kg | ☼ | 58 | 73 - 123 |
| Trichloroethene | 1.5 | J vs F1 | 55.5 | 43.2 | vs F1 | ug/Kg | ☼ | 75 | 77 - 129 |
| Trichlorofluoromethane | ND | vs | 55.5 | 57.4 | vs | ug/Kg | ☼ | 103 | 65 - 146 |
| Vinyl chloride | ND | vs | 55.5 | 43.0 | vs | ug/Kg | ☼ | 77 | 61 - 133 |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *Toluene-d8 (Surr)* | *110* | | *71 - 125* |
| *1,2-Dichloroethane-d4 (Surr)* | *95* | | *64 - 126* |
| *4-Bromofluorobenzene (Surr)* | *97* | | *72 - 126* |
| *Dibromofluoromethane (Surr)* | *107* | | *60 - 140* |

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

**Lab Sample ID: 480-134628-12 MSD**
**Matrix: Solid**
**Analysis Batch: 410294**

**Client Sample ID: X-2-042018**
**Prep Type: Total/NA**
**Prep Batch: 410288**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ND | vs | 54.6 | 43.1 | vs | ug/Kg | ☼ | 79 | 77 - 121 | 8 | 30 |
| 1,1,2,2-Tetrachloroethane | ND | vs F1 | 54.6 | 41.4 | vs F1 | ug/Kg | ☼ | 76 | 80 - 120 | 6 | 30 |
| 1,1,2-Trichloroethane | ND | vs F1 | 54.6 | 40.6 | vs F1 | ug/Kg | ☼ | 74 | 78 - 122 | 7 | 30 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | ND | vs | 54.6 | 43.6 | vs | ug/Kg | ☼ | 80 | 60 - 140 | 13 | 30 |
| 1,1-Dichloroethane | ND | vs | 54.6 | 46.3 | vs | ug/Kg | ☼ | 85 | 73 - 126 | 7 | 30 |
| 1,1-Dichloroethene | ND | vs | 54.6 | 42.4 | vs | ug/Kg | ☼ | 78 | 59 - 125 | 10 | 30 |
| 1,2,4-Trichlorobenzene | ND | vs F1 | 54.6 | 11.1 | vs F1 | ug/Kg | ☼ | 20 | 64 - 120 | 19 | 30 |
| 1,2-Dibromo-3-Chloropropane | ND | vs F1 | 54.6 | 25.6 | vs F1 | ug/Kg | ☼ | 47 | 63 - 124 | 10 | 30 |
| 1,2-Dichlorobenzene | ND | vs F1 | 54.6 | 26.7 | vs F1 | ug/Kg | ☼ | 49 | 75 - 120 | 13 | 30 |
| 1,2-Dichloroethane | ND | vs F1 | 54.6 | 38.5 | vs F1 | ug/Kg | ☼ | 71 | 77 - 122 | 8 | 30 |
| 1,2-Dichloropropane | ND | vs | 54.6 | 44.1 | vs | ug/Kg | ☼ | 81 | 75 - 124 | 8 | 30 |
| 1,3-Dichlorobenzene | ND | vs F1 | 54.6 | 25.2 | vs F1 | ug/Kg | ☼ | 46 | 74 - 120 | 14 | 30 |
| 1,4-Dichlorobenzene | ND | vs F1 | 54.6 | 23.8 | vs F1 | ug/Kg | ☼ | 44 | 73 - 120 | 15 | 30 |
| 2-Butanone (MEK) | ND | vs F1 | 273 | 156 | vs F1 | ug/Kg | ☼ | 57 | 70 - 134 | 12 | 30 |
| 2-Hexanone | ND | vs F1 | 273 | 146 | vs F1 | ug/Kg | ☼ | 54 | 59 - 130 | 8 | 30 |
| 4-Methyl-2-pentanone (MIBK) | ND | vs F1 | 273 | 167 | vs F1 | ug/Kg | ☼ | 61 | 65 - 133 | 10 | 30 |
| Acetone | ND | vs F1 | 273 | 164 | vs F1 | ug/Kg | ☼ | 60 | 61 - 137 | 6 | 30 |
| Benzene | ND | vs | 54.6 | 44.0 | vs | ug/Kg | ☼ | 81 | 79 - 127 | 9 | 30 |
| Bromodichloromethane | ND | vs F1 | 54.6 | 41.7 | vs F1 | ug/Kg | ☼ | 76 | 80 - 122 | 7 | 30 |
| Bromoform | ND | vs F1 | 54.6 | 29.4 | vs F1 | ug/Kg | ☼ | 54 | 68 - 126 | 9 | 30 |
| Bromomethane | ND | vs | 54.6 | 43.3 | vs | ug/Kg | ☼ | 79 | 37 - 149 | 11 | 30 |
| Carbon disulfide | ND | vs F1 | 54.6 | 34.4 | vs F1 | ug/Kg | ☼ | 63 | 64 - 131 | 14 | 30 |
| Carbon tetrachloride | ND | vs F1 | 54.6 | 39.6 | vs F1 | ug/Kg | ☼ | 72 | 75 - 135 | 7 | 30 |
| Chlorobenzene | ND | vs F1 | 54.6 | 35.1 | vs F1 | ug/Kg | ☼ | 64 | 76 - 124 | 9 | 30 |
| Dibromochloromethane | ND | vs F1 | 54.6 | 39.4 | vs F1 | ug/Kg | ☼ | 72 | 76 - 125 | 7 | 30 |
| Chloroethane | ND | vs | 54.6 | 45.1 | vs | ug/Kg | ☼ | 83 | 69 - 135 | 12 | 30 |
| Chloroform | ND | vs | 54.6 | 46.3 | vs | ug/Kg | ☼ | 85 | 80 - 120 | 6 | 30 |
| Chloromethane | ND | vs | 54.6 | 41.1 | vs | ug/Kg | ☼ | 75 | 63 - 127 | 10 | 30 |
| cis-1,2-Dichloroethene | ND | vs F1 | 54.6 | 42.3 | vs F1 | ug/Kg | ☼ | 77 | 80 - 120 | 7 | 30 |
| cis-1,3-Dichloropropene | ND | vs F1 | 54.6 | 32.7 | vs F1 | ug/Kg | ☼ | 60 | 80 - 120 | 7 | 30 |
| Cyclohexane | ND | vs | 54.6 | 36.7 | vs | ug/Kg | ☼ | 67 | 65 - 120 | 13 | 30 |
| Dichlorodifluoromethane | ND | vs | 54.6 | 44.6 | vs | ug/Kg | ☼ | 82 | 57 - 142 | 14 | 30 |
| Ethylbenzene | ND | vs F1 | 54.6 | 37.6 | vs F1 | ug/Kg | ☼ | 69 | 80 - 120 | 9 | 30 |
| 1,2-Dibromoethane | ND | vs F1 | 54.6 | 34.3 | vs F1 | ug/Kg | ☼ | 63 | 78 - 120 | 9 | 30 |
| Isopropylbenzene | ND | vs | 54.6 | 43.1 | vs | ug/Kg | ☼ | 79 | 72 - 120 | 9 | 30 |
| Methyl acetate | ND | vs | 109 | 80.1 | vs | ug/Kg | ☼ | 73 | 55 - 136 | 11 | 30 |
| Methyl tert-butyl ether | ND | vs | 54.6 | 41.4 | vs | ug/Kg | ☼ | 76 | 63 - 125 | 8 | 30 |
| Methylcyclohexane | ND | vs F1 | 54.6 | 29.3 | vs F1 | ug/Kg | ☼ | 54 | 60 - 140 | 17 | 30 |
| Methylene Chloride | 6.5 | vs | 54.6 | 46.2 | vs | ug/Kg | ☼ | 73 | 61 - 127 | 8 | 30 |
| Styrene | ND | vs F1 | 54.6 | 30.2 | vs F1 | ug/Kg | ☼ | 55 | 80 - 120 | 12 | 30 |
| Tetrachloroethene | 7.4 | vs | 54.6 | 50.6 | vs | ug/Kg | ☼ | 79 | 74 - 122 | 5 | 30 |
| Toluene | ND | vs | 54.6 | 41.5 | vs | ug/Kg | ☼ | 76 | 74 - 128 | 6 | 30 |
| trans-1,2-Dichloroethene | ND | vs F1 | 54.6 | 39.5 | vs F1 | ug/Kg | ☼ | 72 | 78 - 126 | 10 | 30 |
| trans-1,3-Dichloropropene | ND | vs F1 | 54.6 | 29.6 | vs F1 | ug/Kg | ☼ | 54 | 73 - 123 | 9 | 30 |
| Trichloroethene | 1.5 | J vs F1 | 54.6 | 39.1 | vs F1 | ug/Kg | ☼ | 69 | 77 - 129 | 10 | 30 |
| Trichlorofluoromethane | ND | vs | 54.6 | 50.5 | vs | ug/Kg | ☼ | 93 | 65 - 146 | 13 | 30 |
| Vinyl chloride | ND | vs | 54.6 | 38.9 | vs | ug/Kg | ☼ | 71 | 61 - 133 | 10 | 30 |

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

**Lab Sample ID: 480-134628-12 MSD**
**Matrix: Solid**
**Analysis Batch: 410294**

**Client Sample ID: X-2-042018**
**Prep Type: Total/NA**
**Prep Batch: 410288**

| Surrogate | MSD %Recovery | MSD Qualifier | Limits |
|---|---|---|---|
| *Toluene-d8 (Surr)* | *111* | | *71 - 125* |
| *1,2-Dichloroethane-d4 (Surr)* | *92* | | *64 - 126* |
| *4-Bromofluorobenzene (Surr)* | *95* | | *72 - 126* |
| *Dibromofluoromethane (Surr)* | *105* | | *60 - 140* |

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

**Lab Sample ID: MB 480-411993/1-A**
**Matrix: Solid**
**Analysis Batch: 412413**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 411993**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Biphenyl | ND | | 170 | 25 | ug/Kg | | 05/02/18 07:03 | 05/03/18 21:19 | 1 |
| bis (2-chloroisopropyl) ether | ND | | 170 | 34 | ug/Kg | | 05/02/18 07:03 | 05/03/18 21:19 | 1 |
| 2,4-Dichlorophenol | ND | | 170 | 18 | ug/Kg | | 05/02/18 07:03 | 05/03/18 21:19 | 1 |
| 2,4-Dimethylphenol | ND | | 170 | 41 | ug/Kg | | 05/02/18 07:03 | 05/03/18 21:19 | 1 |
| 2,4-Dinitrophenol | ND | | 1600 | 780 | ug/Kg | | 05/02/18 07:03 | 05/03/18 21:19 | 1 |
| 2,4-Dinitrotoluene | ND | | 170 | 35 | ug/Kg | | 05/02/18 07:03 | 05/03/18 21:19 | 1 |
| 2,6-Dinitrotoluene | ND | | 170 | 20 | ug/Kg | | 05/02/18 07:03 | 05/03/18 21:19 | 1 |
| 2-Chloronaphthalene | ND | | 170 | 28 | ug/Kg | | 05/02/18 07:03 | 05/03/18 21:19 | 1 |
| 2-Chlorophenol | ND | | 170 | 31 | ug/Kg | | 05/02/18 07:03 | 05/03/18 21:19 | 1 |
| 2,4,5-Trichlorophenol | ND | | 170 | 46 | ug/Kg | | 05/02/18 07:03 | 05/03/18 21:19 | 1 |
| 2-Methylnaphthalene | ND | | 170 | 34 | ug/Kg | | 05/02/18 07:03 | 05/03/18 21:19 | 1 |
| 2,4,6-Trichlorophenol | ND | | 170 | 34 | ug/Kg | | 05/02/18 07:03 | 05/03/18 21:19 | 1 |
| 2-Methylphenol | ND | | 170 | 20 | ug/Kg | | 05/02/18 07:03 | 05/03/18 21:19 | 1 |
| 2-Nitroaniline | ND | | 330 | 25 | ug/Kg | | 05/02/18 07:03 | 05/03/18 21:19 | 1 |
| 2-Nitrophenol | ND | | 170 | 48 | ug/Kg | | 05/02/18 07:03 | 05/03/18 21:19 | 1 |
| 3,3'-Dichlorobenzidine | ND | | 330 | 200 | ug/Kg | | 05/02/18 07:03 | 05/03/18 21:19 | 1 |
| 3-Nitroaniline | ND | | 330 | 47 | ug/Kg | | 05/02/18 07:03 | 05/03/18 21:19 | 1 |
| 4,6-Dinitro-2-methylphenol | ND | | 330 | 170 | ug/Kg | | 05/02/18 07:03 | 05/03/18 21:19 | 1 |
| 4-Bromophenyl phenyl ether | ND | | 170 | 24 | ug/Kg | | 05/02/18 07:03 | 05/03/18 21:19 | 1 |
| 4-Chloro-3-methylphenol | ND | | 170 | 42 | ug/Kg | | 05/02/18 07:03 | 05/03/18 21:19 | 1 |
| 4-Chloroaniline | ND | | 170 | 42 | ug/Kg | | 05/02/18 07:03 | 05/03/18 21:19 | 1 |
| 4-Chlorophenyl phenyl ether | ND | | 170 | 21 | ug/Kg | | 05/02/18 07:03 | 05/03/18 21:19 | 1 |
| 4-Methylphenol | ND | | 330 | 20 | ug/Kg | | 05/02/18 07:03 | 05/03/18 21:19 | 1 |
| 4-Nitroaniline | ND | | 330 | 88 | ug/Kg | | 05/02/18 07:03 | 05/03/18 21:19 | 1 |
| 4-Nitrophenol | ND | | 330 | 120 | ug/Kg | | 05/02/18 07:03 | 05/03/18 21:19 | 1 |
| Acenaphthene | ND | | 170 | 25 | ug/Kg | | 05/02/18 07:03 | 05/03/18 21:19 | 1 |
| Acenaphthylene | ND | | 170 | 22 | ug/Kg | | 05/02/18 07:03 | 05/03/18 21:19 | 1 |
| Acetophenone | ND | | 170 | 23 | ug/Kg | | 05/02/18 07:03 | 05/03/18 21:19 | 1 |
| Anthracene | ND | | 170 | 42 | ug/Kg | | 05/02/18 07:03 | 05/03/18 21:19 | 1 |
| Atrazine | ND | | 170 | 58 | ug/Kg | | 05/02/18 07:03 | 05/03/18 21:19 | 1 |
| Benzaldehyde | ND | | 170 | 130 | ug/Kg | | 05/02/18 07:03 | 05/03/18 21:19 | 1 |
| Benzo[a]anthracene | ND | | 170 | 17 | ug/Kg | | 05/02/18 07:03 | 05/03/18 21:19 | 1 |
| Benzo[a]pyrene | ND | | 170 | 25 | ug/Kg | | 05/02/18 07:03 | 05/03/18 21:19 | 1 |
| Benzo[b]fluoranthene | ND | | 170 | 27 | ug/Kg | | 05/02/18 07:03 | 05/03/18 21:19 | 1 |
| Benzo[g,h,i]perylene | ND | | 170 | 18 | ug/Kg | | 05/02/18 07:03 | 05/03/18 21:19 | 1 |
| Benzo[k]fluoranthene | ND | | 170 | 22 | ug/Kg | | 05/02/18 07:03 | 05/03/18 21:19 | 1 |

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

**Lab Sample ID: MB 480-411993/1-A**
**Matrix: Solid**
**Analysis Batch: 412413**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 411993**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Bis(2-chloroethoxy)methane | ND | | 170 | 36 | ug/Kg | | 05/02/18 07:03 | 05/03/18 21:19 | 1 |
| Bis(2-chloroethyl)ether | ND | | 170 | 22 | ug/Kg | | 05/02/18 07:03 | 05/03/18 21:19 | 1 |
| Bis(2-ethylhexyl) phthalate | ND | | 170 | 57 | ug/Kg | | 05/02/18 07:03 | 05/03/18 21:19 | 1 |
| Butyl benzyl phthalate | ND | | 170 | 28 | ug/Kg | | 05/02/18 07:03 | 05/03/18 21:19 | 1 |
| Caprolactam | ND | | 170 | 50 | ug/Kg | | 05/02/18 07:03 | 05/03/18 21:19 | 1 |
| Carbazole | ND | | 170 | 20 | ug/Kg | | 05/02/18 07:03 | 05/03/18 21:19 | 1 |
| Chrysene | ND | | 170 | 38 | ug/Kg | | 05/02/18 07:03 | 05/03/18 21:19 | 1 |
| Di-n-butyl phthalate | ND | | 170 | 29 | ug/Kg | | 05/02/18 07:03 | 05/03/18 21:19 | 1 |
| Di-n-octyl phthalate | ND | | 170 | 20 | ug/Kg | | 05/02/18 07:03 | 05/03/18 21:19 | 1 |
| Dibenz(a,h)anthracene | ND | | 170 | 30 | ug/Kg | | 05/02/18 07:03 | 05/03/18 21:19 | 1 |
| Dibenzofuran | ND | | 170 | 20 | ug/Kg | | 05/02/18 07:03 | 05/03/18 21:19 | 1 |
| Diethyl phthalate | ND | | 170 | 22 | ug/Kg | | 05/02/18 07:03 | 05/03/18 21:19 | 1 |
| Dimethyl phthalate | ND | | 170 | 20 | ug/Kg | | 05/02/18 07:03 | 05/03/18 21:19 | 1 |
| Fluoranthene | ND | | 170 | 18 | ug/Kg | | 05/02/18 07:03 | 05/03/18 21:19 | 1 |
| Fluorene | ND | | 170 | 20 | ug/Kg | | 05/02/18 07:03 | 05/03/18 21:19 | 1 |
| Hexachlorobenzene | ND | | 170 | 23 | ug/Kg | | 05/02/18 07:03 | 05/03/18 21:19 | 1 |
| Hexachlorobutadiene | ND | | 170 | 25 | ug/Kg | | 05/02/18 07:03 | 05/03/18 21:19 | 1 |
| Hexachlorocyclopentadiene | ND | | 170 | 23 | ug/Kg | | 05/02/18 07:03 | 05/03/18 21:19 | 1 |
| Hexachloroethane | ND | | 170 | 22 | ug/Kg | | 05/02/18 07:03 | 05/03/18 21:19 | 1 |
| Indeno[1,2,3-cd]pyrene | ND | | 170 | 21 | ug/Kg | | 05/02/18 07:03 | 05/03/18 21:19 | 1 |
| Isophorone | ND | | 170 | 36 | ug/Kg | | 05/02/18 07:03 | 05/03/18 21:19 | 1 |
| N-Nitrosodi-n-propylamine | ND | | 170 | 29 | ug/Kg | | 05/02/18 07:03 | 05/03/18 21:19 | 1 |
| N-Nitrosodiphenylamine | ND | | 170 | 140 | ug/Kg | | 05/02/18 07:03 | 05/03/18 21:19 | 1 |
| Naphthalene | ND | | 170 | 22 | ug/Kg | | 05/02/18 07:03 | 05/03/18 21:19 | 1 |
| Nitrobenzene | ND | | 170 | 19 | ug/Kg | | 05/02/18 07:03 | 05/03/18 21:19 | 1 |
| Pentachlorophenol | ND | | 330 | 170 | ug/Kg | | 05/02/18 07:03 | 05/03/18 21:19 | 1 |
| Phenanthrene | ND | | 170 | 25 | ug/Kg | | 05/02/18 07:03 | 05/03/18 21:19 | 1 |
| Phenol | ND | | 170 | 26 | ug/Kg | | 05/02/18 07:03 | 05/03/18 21:19 | 1 |
| Pyrene | ND | | 170 | 20 | ug/Kg | | 05/02/18 07:03 | 05/03/18 21:19 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *2,4,6-Tribromophenol* | *77* | | *54 - 120* | *05/02/18 07:03* | *05/03/18 21:19* | *1* |
| *2-Fluorobiphenyl* | *88* | | *60 - 120* | *05/02/18 07:03* | *05/03/18 21:19* | *1* |
| *2-Fluorophenol* | *80* | | *52 - 120* | *05/02/18 07:03* | *05/03/18 21:19* | *1* |
| *Nitrobenzene-d5* | *88* | | *53 - 120* | *05/02/18 07:03* | *05/03/18 21:19* | *1* |
| *p-Terphenyl-d14* | *106* | | *65 - 121* | *05/02/18 07:03* | *05/03/18 21:19* | *1* |
| *Phenol-d5* | *83* | | *54 - 120* | *05/02/18 07:03* | *05/03/18 21:19* | *1* |

**Lab Sample ID: LCS 480-411993/2-A**
**Matrix: Solid**
**Analysis Batch: 412413**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 411993**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Biphenyl | 1650 | 1320 | | ug/Kg | | 80 | 59 - 120 |
| bis (2-chloroisopropyl) ether | 1650 | 1050 | | ug/Kg | | 63 | 44 - 120 |
| 2,4-Dichlorophenol | 1650 | 1340 | | ug/Kg | | 81 | 61 - 120 |
| 2,4-Dimethylphenol | 1650 | 1380 | | ug/Kg | | 83 | 59 - 120 |
| 2,4-Dinitrophenol | 3300 | 2500 | | ug/Kg | | 76 | 41 - 146 |

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

**Lab Sample ID: LCS 480-411993/2-A**
**Matrix: Solid**
**Analysis Batch: 412413**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 411993**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| 2,4-Dinitrotoluene | 1650 | 1540 | | ug/Kg | | 93 | 63 - 120 |
| 2,6-Dinitrotoluene | 1650 | 1520 | | ug/Kg | | 92 | 66 - 120 |
| 2-Chloronaphthalene | 1650 | 1280 | | ug/Kg | | 78 | 57 - 120 |
| 2-Chlorophenol | 1650 | 1200 | | ug/Kg | | 73 | 53 - 120 |
| 2,4,5-Trichlorophenol | 1650 | 1320 | | ug/Kg | | 80 | 59 - 126 |
| 2-Methylnaphthalene | 1650 | 1330 | | ug/Kg | | 81 | 59 - 120 |
| 2,4,6-Trichlorophenol | 1650 | 1310 | | ug/Kg | | 80 | 59 - 123 |
| 2-Methylphenol | 1650 | 1260 | | ug/Kg | | 76 | 54 - 120 |
| 2-Nitroaniline | 1650 | 1450 | | ug/Kg | | 88 | 61 - 120 |
| 2-Nitrophenol | 1650 | 1310 | | ug/Kg | | 80 | 56 - 120 |
| 3,3'-Dichlorobenzidine | 3300 | 2980 | | ug/Kg | | 90 | 54 - 120 |
| 3-Nitroaniline | 1650 | 1380 | | ug/Kg | | 83 | 48 - 120 |
| 4,6-Dinitro-2-methylphenol | 3300 | 2860 | | ug/Kg | | 87 | 49 - 122 |
| 4-Bromophenyl phenyl ether | 1650 | 1380 | | ug/Kg | | 84 | 58 - 120 |
| 4-Chloro-3-methylphenol | 1650 | 1470 | | ug/Kg | | 89 | 61 - 120 |
| 4-Chloroaniline | 1650 | 1170 | | ug/Kg | | 71 | 38 - 120 |
| 4-Chlorophenyl phenyl ether | 1650 | 1330 | | ug/Kg | | 80 | 63 - 124 |
| 4-Methylphenol | 1650 | 1330 | | ug/Kg | | 81 | 55 - 120 |
| 4-Nitroaniline | 1650 | 1510 | | ug/Kg | | 92 | 56 - 120 |
| 4-Nitrophenol | 3300 | 3340 | | ug/Kg | | 101 | 43 - 147 |
| Acenaphthene | 1650 | 1330 | | ug/Kg | | 81 | 62 - 120 |
| Acenaphthylene | 1650 | 1350 | | ug/Kg | | 82 | 58 - 121 |
| Acetophenone | 1650 | 1320 | | ug/Kg | | 80 | 54 - 120 |
| Anthracene | 1650 | 1530 | | ug/Kg | | 93 | 62 - 120 |
| Atrazine | 3300 | 3530 | | ug/Kg | | 107 | 60 - 127 |
| Benzaldehyde | 3300 | 1450 | | ug/Kg | | 44 | 10 - 150 |
| Benzo[a]anthracene | 1650 | 1700 | | ug/Kg | | 103 | 65 - 120 |
| Benzo[a]pyrene | 1650 | 1680 | | ug/Kg | | 102 | 64 - 120 |
| Benzo[b]fluoranthene | 1650 | 1820 | | ug/Kg | | 110 | 64 - 120 |
| Benzo[g,h,i]perylene | 1650 | 1660 | | ug/Kg | | 100 | 45 - 145 |
| Benzo[k]fluoranthene | 1650 | 1540 | | ug/Kg | | 93 | 65 - 120 |
| Bis(2-chloroethoxy)methane | 1650 | 1310 | | ug/Kg | | 79 | 55 - 120 |
| Bis(2-chloroethyl)ether | 1650 | 1210 | | ug/Kg | | 74 | 45 - 120 |
| Bis(2-ethylhexyl) phthalate | 1650 | 1750 | | ug/Kg | | 106 | 61 - 133 |
| Butyl benzyl phthalate | 1650 | 1780 | | ug/Kg | | 108 | 61 - 129 |
| Caprolactam | 3300 | 3260 | | ug/Kg | | 99 | 47 - 120 |
| Carbazole | 1650 | 1610 | | ug/Kg | | 98 | 65 - 120 |
| Chrysene | 1650 | 1750 | | ug/Kg | | 106 | 64 - 120 |
| Di-n-butyl phthalate | 1650 | 1780 | | ug/Kg | | 108 | 58 - 130 |
| Di-n-octyl phthalate | 1650 | 1820 | | ug/Kg | | 110 | 57 - 133 |
| Dibenz(a,h)anthracene | 1650 | 1700 | | ug/Kg | | 103 | 54 - 132 |
| Dibenzofuran | 1650 | 1380 | | ug/Kg | | 84 | 63 - 120 |
| Diethyl phthalate | 1650 | 1580 | | ug/Kg | | 96 | 66 - 120 |
| Dimethyl phthalate | 1650 | 1490 | | ug/Kg | | 90 | 65 - 124 |
| Fluoranthene | 1650 | 1640 | | ug/Kg | | 99 | 62 - 120 |
| Fluorene | 1650 | 1430 | | ug/Kg | | 87 | 63 - 120 |
| Hexachlorobenzene | 1650 | 1450 | | ug/Kg | | 88 | 60 - 120 |
| Hexachlorobutadiene | 1650 | 1240 | | ug/Kg | | 75 | 45 - 120 |

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

**Lab Sample ID: LCS 480-411993/2-A**
**Matrix: Solid**
**Analysis Batch: 412413**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 411993**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Hexachlorocyclopentadiene | 1650 | 1180 | | ug/Kg | | 72 | 47 - 120 |
| Hexachloroethane | 1650 | 1150 | | ug/Kg | | 70 | 41 - 120 |
| Indeno[1,2,3-cd]pyrene | 1650 | 1660 | | ug/Kg | | 101 | 56 - 134 |
| Isophorone | 1650 | 1370 | | ug/Kg | | 83 | 56 - 120 |
| N-Nitrosodi-n-propylamine | 1650 | 1280 | | ug/Kg | | 78 | 52 - 120 |
| Naphthalene | 1650 | 1260 | | ug/Kg | | 76 | 55 - 120 |
| Nitrobenzene | 1650 | 1260 | | ug/Kg | | 76 | 54 - 120 |
| Pentachlorophenol | 3300 | 2730 | | ug/Kg | | 83 | 51 - 120 |
| Phenanthrene | 1650 | 1560 | | ug/Kg | | 95 | 60 - 120 |
| Phenol | 1650 | 1260 | | ug/Kg | | 76 | 53 - 120 |
| Pyrene | 1650 | 1770 | | ug/Kg | | 107 | 61 - 133 |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *2,4,6-Tribromophenol* | *93* | | *54 - 120* |
| *2-Fluorobiphenyl* | *76* | | *60 - 120* |
| *2-Fluorophenol* | *69* | | *52 - 120* |
| *Nitrobenzene-d5* | *78* | | *53 - 120* |
| *p-Terphenyl-d14* | *107* | | *65 - 121* |
| *Phenol-d5* | *75* | | *54 - 120* |

**Lab Sample ID: MB 480-412129/1-A**
**Matrix: Solid**
**Analysis Batch: 412361**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 412129**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,4-Dichlorobenzene | ND | | 0.0025 | 0.00012 | mg/L | | 05/02/18 14:55 | 05/03/18 18:33 | 1 |
| 3-Methylphenol | ND | | 0.0025 | 0.00010 | mg/L | | 05/02/18 14:55 | 05/03/18 18:33 | 1 |
| 2,4-Dinitrotoluene | ND | | 0.0013 | 0.00011 | mg/L | | 05/02/18 14:55 | 05/03/18 18:33 | 1 |
| Pyridine | ND | | 0.0063 | 0.00010 | mg/L | | 05/02/18 14:55 | 05/03/18 18:33 | 1 |
| 2,4,5-Trichlorophenol | ND | | 0.0013 | 0.00012 | mg/L | | 05/02/18 14:55 | 05/03/18 18:33 | 1 |
| 2,4,6-Trichlorophenol | ND | | 0.0013 | 0.00015 | mg/L | | 05/02/18 14:55 | 05/03/18 18:33 | 1 |
| 2-Methylphenol | ND | | 0.0013 | 0.00010 | mg/L | | 05/02/18 14:55 | 05/03/18 18:33 | 1 |
| 4-Methylphenol | ND | | 0.0025 | 0.000090 | mg/L | | 05/02/18 14:55 | 05/03/18 18:33 | 1 |
| Hexachlorobenzene | ND | | 0.0013 | 0.00013 | mg/L | | 05/02/18 14:55 | 05/03/18 18:33 | 1 |
| Hexachlorobutadiene | ND | | 0.0013 | 0.00017 | mg/L | | 05/02/18 14:55 | 05/03/18 18:33 | 1 |
| Hexachloroethane | ND | | 0.0013 | 0.00015 | mg/L | | 05/02/18 14:55 | 05/03/18 18:33 | 1 |
| Nitrobenzene | ND | | 0.0013 | 0.000073 | mg/L | | 05/02/18 14:55 | 05/03/18 18:33 | 1 |
| Pentachlorophenol | ND | | 0.0025 | 0.00055 | mg/L | | 05/02/18 14:55 | 05/03/18 18:33 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *2,4,6-Tribromophenol* | *89* | | *41 - 120* | *05/02/18 14:55* | *05/03/18 18:33* | *1* |
| *2-Fluorobiphenyl* | *98* | | *48 - 120* | *05/02/18 14:55* | *05/03/18 18:33* | *1* |
| *2-Fluorophenol* | *48* | | *35 - 120* | *05/02/18 14:55* | *05/03/18 18:33* | *1* |
| *Nitrobenzene-d5* | *95* | | *46 - 120* | *05/02/18 14:55* | *05/03/18 18:33* | *1* |
| *p-Terphenyl-d14* | *111* | | *59 - 136* | *05/02/18 14:55* | *05/03/18 18:33* | *1* |
| *Phenol-d5* | *33* | | *22 - 120* | *05/02/18 14:55* | *05/03/18 18:33* | *1* |

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

**Lab Sample ID: LCS 480-412129/2-A**
**Matrix: Solid**
**Analysis Batch: 412361**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 412129**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,4-Dichlorobenzene | | | 0.0500 | 0.0285 | | mg/L | | 57 | 51 - 120 | | |
| 3-Methylphenol | | | 0.0500 | 0.0303 | | mg/L | | 61 | 39 - 120 | | |
| 2,4-Dinitrotoluene | | | 0.0500 | 0.0475 | | mg/L | | 95 | 69 - 120 | | |
| Pyridine | | | 0.100 | 0.0405 | | mg/L | | 41 | 10 - 120 | | |
| 2,4,5-Trichlorophenol | | | 0.0500 | 0.0458 | | mg/L | | 92 | 65 - 126 | | |
| 2,4,6-Trichlorophenol | | | 0.0500 | 0.0474 | | mg/L | | 95 | 64 - 120 | | |
| 2-Methylphenol | | | 0.0500 | 0.0322 | | mg/L | | 64 | 39 - 120 | | |
| 4-Methylphenol | | | 0.0500 | 0.0303 | | mg/L | | 61 | 29 - 131 | | |
| Hexachlorobenzene | | | 0.0500 | 0.0488 | | mg/L | | 98 | 61 - 120 | | |
| Hexachlorobutadiene | | | 0.0500 | 0.0321 | | mg/L | | 64 | 35 - 120 | | |
| Hexachloroethane | | | 0.0500 | 0.0264 | | mg/L | | 53 | 43 - 120 | | |
| Nitrobenzene | | | 0.0500 | 0.0407 | | mg/L | | 81 | 53 - 123 | | |
| Pentachlorophenol | | | 0.100 | 0.0807 | | mg/L | | 81 | 29 - 136 | | |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *2,4,6-Tribromophenol* | *100* | | *41 - 120* |
| *2-Fluorobiphenyl* | *86* | | *48 - 120* |
| *2-Fluorophenol* | *44* | | *35 - 120* |
| *Nitrobenzene-d5* | *82* | | *46 - 120* |
| *p-Terphenyl-d14* | *100* | | *59 - 136* |
| *Phenol-d5* | *30* | | *22 - 120* |

**Lab Sample ID: LCSD 480-412129/3-A**
**Matrix: Solid**
**Analysis Batch: 412361**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 412129**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,4-Dichlorobenzene | | | 0.0500 | 0.0282 | | mg/L | | 56 | 51 - 120 | 1 | 36 |
| 3-Methylphenol | | | 0.0500 | 0.0299 | | mg/L | | 60 | 39 - 120 | 1 | 30 |
| 2,4-Dinitrotoluene | | | 0.0500 | 0.0493 | | mg/L | | 99 | 69 - 120 | 4 | 20 |
| Pyridine | | | 0.100 | 0.0432 | | mg/L | | 43 | 10 - 120 | 6 | 49 |
| 2,4,5-Trichlorophenol | | | 0.0500 | 0.0476 | | mg/L | | 95 | 65 - 126 | 4 | 18 |
| 2,4,6-Trichlorophenol | | | 0.0500 | 0.0448 | | mg/L | | 90 | 64 - 120 | 6 | 19 |
| 2-Methylphenol | | | 0.0500 | 0.0311 | | mg/L | | 62 | 39 - 120 | 3 | 27 |
| 4-Methylphenol | | | 0.0500 | 0.0299 | | mg/L | | 60 | 29 - 131 | 1 | 24 |
| Hexachlorobenzene | | | 0.0500 | 0.0424 | | mg/L | | 85 | 61 - 120 | 14 | 15 |
| Hexachlorobutadiene | | | 0.0500 | 0.0308 | | mg/L | | 62 | 35 - 120 | 4 | 44 |
| Hexachloroethane | | | 0.0500 | 0.0263 | | mg/L | | 53 | 43 - 120 | 0 | 46 |
| Nitrobenzene | | | 0.0500 | 0.0376 | | mg/L | | 75 | 53 - 123 | 8 | 24 |
| Pentachlorophenol | | | 0.100 | 0.0766 | | mg/L | | 77 | 29 - 136 | 5 | 37 |

| *Surrogate* | *LCSD %Recovery* | *LCSD Qualifier* | *Limits* |
|---|---|---|---|
| *2,4,6-Tribromophenol* | *91* | | *41 - 120* |
| *2-Fluorobiphenyl* | *84* | | *48 - 120* |
| *2-Fluorophenol* | *43* | | *35 - 120* |
| *Nitrobenzene-d5* | *77* | | *46 - 120* |
| *p-Terphenyl-d14* | *100* | | *59 - 136* |

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

**Lab Sample ID: LCSD 480-412129/3-A**
**Matrix: Solid**
**Analysis Batch: 412361**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 412129**

| Surrogate | LCSD %Recovery | LCSD Qualifier | Limits |
|---|---|---|---|
| *Phenol-d5* | *30* | | *22 - 120* |

**Lab Sample ID: LB 480-411629/1-D**
**Matrix: Solid**
**Analysis Batch: 412361**

**Client Sample ID: Method Blank**
**Prep Type: TCLP**
**Prep Batch: 412129**

| Analyte | LB Result | LB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,4-Dichlorobenzene | ND | | 0.010 | 0.00046 | mg/L | | 05/02/18 14:55 | 05/03/18 19:56 | 1 |
| 3-Methylphenol | ND | | 0.010 | 0.00040 | mg/L | | 05/02/18 14:55 | 05/03/18 19:56 | 1 |
| 2,4-Dinitrotoluene | ND | | 0.0050 | 0.00045 | mg/L | | 05/02/18 14:55 | 05/03/18 19:56 | 1 |
| Pyridine | ND | | 0.025 | 0.00041 | mg/L | | 05/02/18 14:55 | 05/03/18 19:56 | 1 |
| 2,4,5-Trichlorophenol | ND | | 0.0050 | 0.00048 | mg/L | | 05/02/18 14:55 | 05/03/18 19:56 | 1 |
| 2,4,6-Trichlorophenol | ND | | 0.0050 | 0.00061 | mg/L | | 05/02/18 14:55 | 05/03/18 19:56 | 1 |
| 2-Methylphenol | ND | | 0.0050 | 0.00040 | mg/L | | 05/02/18 14:55 | 05/03/18 19:56 | 1 |
| 4-Methylphenol | ND | | 0.010 | 0.00036 | mg/L | | 05/02/18 14:55 | 05/03/18 19:56 | 1 |
| Hexachlorobenzene | ND | | 0.0050 | 0.00051 | mg/L | | 05/02/18 14:55 | 05/03/18 19:56 | 1 |
| Hexachlorobutadiene | ND | | 0.0050 | 0.00068 | mg/L | | 05/02/18 14:55 | 05/03/18 19:56 | 1 |
| Hexachloroethane | ND | | 0.0050 | 0.00059 | mg/L | | 05/02/18 14:55 | 05/03/18 19:56 | 1 |
| Nitrobenzene | ND | | 0.0050 | 0.00029 | mg/L | | 05/02/18 14:55 | 05/03/18 19:56 | 1 |
| Pentachlorophenol | ND | | 0.010 | 0.0022 | mg/L | | 05/02/18 14:55 | 05/03/18 19:56 | 1 |

| Surrogate | LB %Recovery | LB Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| *2,4,6-Tribromophenol* | *87* | | *41 - 120* | *05/02/18 14:55* | *05/03/18 19:56* | *1* |
| *2-Fluorobiphenyl* | *85* | | *48 - 120* | *05/02/18 14:55* | *05/03/18 19:56* | *1* |
| *2-Fluorophenol* | *44* | | *35 - 120* | *05/02/18 14:55* | *05/03/18 19:56* | *1* |
| *Nitrobenzene-d5* | *81* | | *46 - 120* | *05/02/18 14:55* | *05/03/18 19:56* | *1* |
| *p-Terphenyl-d14* | *104* | | *59 - 136* | *05/02/18 14:55* | *05/03/18 19:56* | *1* |
| *Phenol-d5* | *32* | | *22 - 120* | *05/02/18 14:55* | *05/03/18 19:56* | *1* |

## Method: 8081B - Organochlorine Pesticides (GC)

**Lab Sample ID: MB 480-410453/1-A**
**Matrix: Solid**
**Analysis Batch: 410968**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 410453**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 4,4'-DDD | ND | | 1.6 | 0.32 | ug/Kg | | 04/24/18 07:51 | 04/26/18 11:19 | 1 |
| 4,4'-DDE | ND | | 1.6 | 0.34 | ug/Kg | | 04/24/18 07:51 | 04/26/18 11:19 | 1 |
| 4,4'-DDT | ND | | 1.6 | 0.38 | ug/Kg | | 04/24/18 07:51 | 04/26/18 11:19 | 1 |
| Aldrin | ND | | 1.6 | 0.40 | ug/Kg | | 04/24/18 07:51 | 04/26/18 11:19 | 1 |
| alpha-BHC | ND | | 1.6 | 0.29 | ug/Kg | | 04/24/18 07:51 | 04/26/18 11:19 | 1 |
| cis-Chlordane | ND | | 1.6 | 0.81 | ug/Kg | | 04/24/18 07:51 | 04/26/18 11:19 | 1 |
| beta-BHC | ND | | 1.6 | 0.29 | ug/Kg | | 04/24/18 07:51 | 04/26/18 11:19 | 1 |
| delta-BHC | ND | | 1.6 | 0.30 | ug/Kg | | 04/24/18 07:51 | 04/26/18 11:19 | 1 |
| Dieldrin | ND | | 1.6 | 0.39 | ug/Kg | | 04/24/18 07:51 | 04/26/18 11:19 | 1 |
| Endosulfan I | ND | | 1.6 | 0.31 | ug/Kg | | 04/24/18 07:51 | 04/26/18 11:19 | 1 |
| Endosulfan II | ND | | 1.6 | 0.29 | ug/Kg | | 04/24/18 07:51 | 04/26/18 11:19 | 1 |

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

**Lab Sample ID: MB 480-410453/1-A**
**Matrix: Solid**
**Analysis Batch: 410968**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 410453**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Endosulfan sulfate | ND | | 1.6 | 0.30 | ug/Kg | | 04/24/18 07:51 | 04/26/18 11:19 | 1 |
| Endrin | ND | | 1.6 | 0.32 | ug/Kg | | 04/24/18 07:51 | 04/26/18 11:19 | 1 |
| Endrin aldehyde | ND | | 1.6 | 0.42 | ug/Kg | | 04/24/18 07:51 | 04/26/18 11:19 | 1 |
| Endrin ketone | ND | | 1.6 | 0.40 | ug/Kg | | 04/24/18 07:51 | 04/26/18 11:19 | 1 |
| gamma-BHC (Lindane) | ND | | 1.6 | 0.30 | ug/Kg | | 04/24/18 07:51 | 04/26/18 11:19 | 1 |
| trans-Chlordane | ND | | 1.6 | 0.52 | ug/Kg | | 04/24/18 07:51 | 04/26/18 11:19 | 1 |
| Heptachlor | ND | | 1.6 | 0.35 | ug/Kg | | 04/24/18 07:51 | 04/26/18 11:19 | 1 |
| Heptachlor epoxide | ND | | 1.6 | 0.42 | ug/Kg | | 04/24/18 07:51 | 04/26/18 11:19 | 1 |
| Methoxychlor | ND | | 1.6 | 0.33 | ug/Kg | | 04/24/18 07:51 | 04/26/18 11:19 | 1 |
| Toxaphene | ND | | 16 | 9.5 | ug/Kg | | 04/24/18 07:51 | 04/26/18 11:19 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *DCB Decachlorobiphenyl* | *73* | | *45 - 120* | *04/24/18 07:51* | *04/26/18 11:19* | *1* |
| *Tetrachloro-m-xylene* | *54* | | *30 - 124* | *04/24/18 07:51* | *04/26/18 11:19* | *1* |

**Lab Sample ID: LCS 480-410453/2-A**
**Matrix: Solid**
**Analysis Batch: 410968**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 410453**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| 4,4'-DDD | 16.4 | 11.9 | | ug/Kg | | 73 | 56 - 120 |
| 4,4'-DDE | 16.4 | 11.4 | | ug/Kg | | 70 | 44 - 120 |
| 4,4'-DDT | 16.4 | 12.5 | | ug/Kg | | 76 | 38 - 120 |
| Aldrin | 16.4 | 8.25 | | ug/Kg | | 50 | 38 - 120 |
| alpha-BHC | 16.4 | 9.77 | | ug/Kg | | 60 | 39 - 120 |
| cis-Chlordane | 16.4 | 11.6 | | ug/Kg | | 71 | 47 - 120 |
| beta-BHC | 16.4 | 10.1 | | ug/Kg | | 62 | 40 - 120 |
| delta-BHC | 16.4 | 9.62 | | ug/Kg | | 59 | 45 - 120 |
| Dieldrin | 16.4 | 12.0 | | ug/Kg | | 73 | 58 - 120 |
| Endosulfan I | 16.4 | 11.4 | | ug/Kg | | 69 | 49 - 120 |
| Endosulfan II | 16.4 | 11.1 | | ug/Kg | | 68 | 55 - 120 |
| Endosulfan sulfate | 16.4 | 10.2 | | ug/Kg | | 62 | 49 - 124 |
| Endrin | 16.4 | 11.8 | | ug/Kg | | 72 | 58 - 120 |
| Endrin aldehyde | 16.4 | 9.63 | | ug/Kg | | 59 | 37 - 121 |
| Endrin ketone | 16.4 | 11.3 | | ug/Kg | | 69 | 46 - 123 |
| gamma-BHC (Lindane) | 16.4 | 10.4 | | ug/Kg | | 63 | 50 - 120 |
| trans-Chlordane | 16.4 | 11.3 | | ug/Kg | | 69 | 48 - 120 |
| Heptachlor | 16.4 | 11.4 | | ug/Kg | | 70 | 50 - 120 |
| Heptachlor epoxide | 16.4 | 9.82 | | ug/Kg | | 60 | 50 - 120 |
| Methoxychlor | 16.4 | 12.1 | | ug/Kg | | 73 | 58 - 133 |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *DCB Decachlorobiphenyl* | *73* | | *45 - 120* |
| *Tetrachloro-m-xylene* | *53* | | *30 - 124* |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

**Lab Sample ID: MB 480-411220/1-A**
**Matrix: Solid**
**Analysis Batch: 411578**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 411220**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| PCB-1016 | ND | | 0.19 | 0.037 | mg/Kg | | 04/27/18 07:20 | 04/30/18 20:09 | 1 |
| PCB-1221 | ND | | 0.19 | 0.037 | mg/Kg | | 04/27/18 07:20 | 04/30/18 20:09 | 1 |
| PCB-1232 | ND | | 0.19 | 0.037 | mg/Kg | | 04/27/18 07:20 | 04/30/18 20:09 | 1 |
| PCB-1242 | ND | | 0.19 | 0.037 | mg/Kg | | 04/27/18 07:20 | 04/30/18 20:09 | 1 |
| PCB-1248 | ND | | 0.19 | 0.037 | mg/Kg | | 04/27/18 07:20 | 04/30/18 20:09 | 1 |
| PCB-1254 | ND | | 0.19 | 0.089 | mg/Kg | | 04/27/18 07:20 | 04/30/18 20:09 | 1 |
| PCB-1260 | ND | | 0.19 | 0.089 | mg/Kg | | 04/27/18 07:20 | 04/30/18 20:09 | 1 |
| PCB-1262 | ND | | 0.19 | 0.089 | mg/Kg | | 04/27/18 07:20 | 04/30/18 20:09 | 1 |
| PCB-1268 | ND | | 0.19 | 0.089 | mg/Kg | | 04/27/18 07:20 | 04/30/18 20:09 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Tetrachloro-m-xylene* | *106* | | *60 - 154* | *04/27/18 07:20* | *04/30/18 20:09* | *1* |
| *DCB Decachlorobiphenyl* | *106* | | *65 - 174* | *04/27/18 07:20* | *04/30/18 20:09* | *1* |

**Lab Sample ID: LCS 480-411220/2-A**
**Matrix: Solid**
**Analysis Batch: 411578**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 411220**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| PCB-1016 | 1.89 | 2.62 | | mg/Kg | | 139 | 51 - 185 |
| PCB-1260 | 1.89 | 2.86 | | mg/Kg | | 152 | 61 - 184 |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *Tetrachloro-m-xylene* | *128* | | *60 - 154* |
| *DCB Decachlorobiphenyl* | *124* | | *65 - 174* |

## Method: 6010C - Metals (ICP)

**Lab Sample ID: MB 480-410124/1-A**
**Matrix: Solid**
**Analysis Batch: 410498**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 410124**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Aluminum | ND | | 9.7 | 4.3 | mg/Kg | | 04/21/18 11:57 | 04/24/18 04:26 | 1 |
| Antimony | ND | | 14.6 | 0.39 | mg/Kg | | 04/21/18 11:57 | 04/24/18 04:26 | 1 |
| Arsenic | ND | | 1.9 | 0.39 | mg/Kg | | 04/21/18 11:57 | 04/24/18 04:26 | 1 |
| Barium | ND | | 0.49 | 0.11 | mg/Kg | | 04/21/18 11:57 | 04/24/18 04:26 | 1 |
| Beryllium | ND | | 0.19 | 0.027 | mg/Kg | | 04/21/18 11:57 | 04/24/18 04:26 | 1 |
| Cadmium | ND | | 0.19 | 0.029 | mg/Kg | | 04/21/18 11:57 | 04/24/18 04:26 | 1 |
| Calcium | 5.02 | J | 48.5 | 3.2 | mg/Kg | | 04/21/18 11:57 | 04/24/18 04:26 | 1 |
| Chromium | 0.265 | J | 0.49 | 0.19 | mg/Kg | | 04/21/18 11:57 | 04/24/18 04:26 | 1 |
| Cobalt | ND | | 0.49 | 0.049 | mg/Kg | | 04/21/18 11:57 | 04/24/18 04:26 | 1 |
| Copper | ND | | 0.97 | 0.20 | mg/Kg | | 04/21/18 11:57 | 04/24/18 04:26 | 1 |
| Iron | 3.40 | J | 9.7 | 3.4 | mg/Kg | | 04/21/18 11:57 | 04/24/18 04:26 | 1 |
| Lead | ND | | 0.97 | 0.23 | mg/Kg | | 04/21/18 11:57 | 04/24/18 04:26 | 1 |
| Magnesium | ND | | 19.4 | 0.90 | mg/Kg | | 04/21/18 11:57 | 04/24/18 04:26 | 1 |
| Manganese | ND | | 0.19 | 0.031 | mg/Kg | | 04/21/18 11:57 | 04/24/18 04:26 | 1 |

## Method: 6010C - Metals (ICP) (Continued)

**Lab Sample ID: MB 480-410124/1-A**
**Matrix: Solid**
**Analysis Batch: 410498**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 410124**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Nickel | ND | | 4.9 | 0.22 | mg/Kg | | 04/21/18 11:57 | 04/24/18 04:26 | 1 |
| Potassium | ND | | 29.1 | 19.4 | mg/Kg | | 04/21/18 11:57 | 04/24/18 04:26 | 1 |
| Selenium | ND | | 3.9 | 0.39 | mg/Kg | | 04/21/18 11:57 | 04/24/18 04:26 | 1 |
| Silver | ND | | 0.58 | 0.19 | mg/Kg | | 04/21/18 11:57 | 04/24/18 04:26 | 1 |
| Sodium | ND | | 136 | 12.6 | mg/Kg | | 04/21/18 11:57 | 04/24/18 04:26 | 1 |
| Thallium | ND | | 5.8 | 0.29 | mg/Kg | | 04/21/18 11:57 | 04/24/18 04:26 | 1 |
| Vanadium | ND | | 0.49 | 0.11 | mg/Kg | | 04/21/18 11:57 | 04/24/18 04:26 | 1 |
| Zinc | ND | | 1.9 | 0.62 | mg/Kg | | 04/21/18 11:57 | 04/24/18 04:26 | 1 |

**Lab Sample ID: LCSSRM 480-410124/2-A**
**Matrix: Solid**
**Analysis Batch: 410498**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 410124**

| Analyte | Spike Added | LCSSRM Result | LCSSRM Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Aluminum | 8040 | 9695 | | mg/Kg | | 120.5 | 39.4 - 160.4 |
| Antimony | 91.4 | 86.39 | | mg/Kg | | 94.5 | 25.1 - 275.7 |
| Arsenic | 146 | 119.3 | | mg/Kg | | 81.7 | 69.9 - 132.9 |
| Barium | 102 | 96.12 | | mg/Kg | | 94.2 | 71.5 - 136.3 |
| Beryllium | 134 | 107.0 | | mg/Kg | | 79.8 | 75.4 - 138.1 |
| Cadmium | 63.2 | 49.31 | | mg/Kg | | 78.0 | 73.3 - 141.5 |
| Calcium | 5930 | 4958 | | mg/Kg | | 83.6 | 73.7 - 136.1 |
| Chromium | 89.3 | 80.06 | | mg/Kg | | 89.6 | 69.1 - 143.3 |
| Cobalt | 119 | 124.3 | | mg/Kg | | 104.4 | 74.6 - 142.0 |
| Copper | 60.8 | 51.61 | | mg/Kg | | 84.9 | 72.7 - 141.6 |
| Iron | 14400 | 17020 | | mg/Kg | | 118.2 | 35.6 - 163.9 |
| Lead | 98.5 | 105.3 | | mg/Kg | | 106.8 | 70.8 - 137.1 |
| Magnesium | 2580 | 2289 | | mg/Kg | | 88.7 | 63.6 - 136.0 |
| Manganese | 370 | 324.9 | | mg/Kg | | 87.8 | 75.7 - 134.3 |
| Nickel | 66.6 | 68.88 | | mg/Kg | | 103.4 | 70.7 - 146.2 |
| Potassium | 2340 | 2865 | | mg/Kg | | 122.4 | 59.8 - 140.2 |
| Selenium | 136 | 108.2 | | mg/Kg | | 79.5 | 67.1 - 136.8 |
| Silver | 48.9 | 39.29 | | mg/Kg | | 80.3 | 66.5 - 139.5 |
| Sodium | 318 | 327.5 | | mg/Kg | | 103.0 | 40.6 - 159.7 |

## Method: 6010C - Metals (ICP) (Continued)

**Lab Sample ID: LCSSRM 480-410124/2-A**
**Matrix: Solid**
**Analysis Batch: 410498**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 410124**

| Analyte | Spike Added | LCSSRM Result | LCSSRM Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Thallium | 138 | 137.3 | | mg/Kg | | 99.5 | 68.0 - 136.2 |
| Vanadium | 69.7 | 73.47 | | mg/Kg | | 105.4 | 58.7 - 141.3 |
| Zinc | 177 | 137.4 | | mg/Kg | | 77.6 | 69.5 - 131.1 |

**Lab Sample ID: MB 480-411807/2-A**
**Matrix: Solid**
**Analysis Batch: 412567**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 411807**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | ND | | 0.015 | 0.0056 | mg/L | | 05/01/18 10:12 | 05/01/18 22:31 | 1 |
| Barium | ND | | 1.0 | 0.10 | mg/L | | 05/01/18 10:12 | 05/01/18 22:31 | 1 |
| Cadmium | ND | | 0.0020 | 0.00050 | mg/L | | 05/01/18 10:12 | 05/01/18 22:31 | 1 |
| Chromium | ND | | 0.020 | 0.010 | mg/L | | 05/01/18 10:12 | 05/01/18 22:31 | 1 |
| Lead | ND | | 0.020 | 0.0030 | mg/L | | 05/01/18 10:12 | 05/01/18 22:31 | 1 |
| Selenium | ND | | 0.025 | 0.0087 | mg/L | | 05/01/18 10:12 | 05/01/18 22:31 | 1 |
| Silver | ND | | 0.0060 | 0.0017 | mg/L | | 05/01/18 10:12 | 05/01/18 22:31 | 1 |

**Lab Sample ID: LCS 480-411807/3-A**
**Matrix: Solid**
**Analysis Batch: 412567**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 411807**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Arsenic | 1.00 | 1.00 | | mg/L | | 100 | 80 - 120 |
| Barium | 1.00 | 1.01 | | mg/L | | 101 | 80 - 120 |
| Cadmium | 1.00 | 1.03 | | mg/L | | 103 | 80 - 120 |
| Chromium | 1.00 | 1.00 | | mg/L | | 100 | 80 - 120 |
| Lead | 1.00 | 0.980 | | mg/L | | 98 | 80 - 120 |
| Selenium | 1.00 | 1.05 | | mg/L | | 105 | 80 - 120 |
| Silver | 1.00 | 0.988 | | mg/L | | 99 | 80 - 120 |

**Lab Sample ID: LB 480-411629/1-B**
**Matrix: Solid**
**Analysis Batch: 412567**

**Client Sample ID: Method Blank**
**Prep Type: TCLP**
**Prep Batch: 411807**

| Analyte | LB Result | LB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | ND | | 0.015 | 0.0056 | mg/L | | 05/01/18 10:12 | 05/01/18 22:27 | 1 |
| Barium | ND | | 1.0 | 0.10 | mg/L | | 05/01/18 10:12 | 05/01/18 22:27 | 1 |
| Cadmium | ND | | 0.0020 | 0.00050 | mg/L | | 05/01/18 10:12 | 05/01/18 22:27 | 1 |
| Chromium | ND | | 0.020 | 0.010 | mg/L | | 05/01/18 10:12 | 05/01/18 22:27 | 1 |
| Lead | ND | | 0.020 | 0.0030 | mg/L | | 05/01/18 10:12 | 05/01/18 22:27 | 1 |
| Selenium | ND | | 0.025 | 0.0087 | mg/L | | 05/01/18 10:12 | 05/01/18 22:27 | 1 |
| Silver | ND | | 0.0060 | 0.0017 | mg/L | | 05/01/18 10:12 | 05/01/18 22:27 | 1 |

## Method: 6010C - Metals (ICP) (Continued)

**Lab Sample ID: 480-134628-1 MS**
**Matrix: Solid**
**Analysis Batch: 412567**

**Client Sample ID: NE-SE BERM-042018**
**Prep Type: TCLP**
**Prep Batch: 411807**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | ND | | 1.00 | 1.09 | | mg/L | | 109 | 75 - 125 |
| Barium | 0.46 | J | 1.00 | 1.47 | | mg/L | | 100 | 75 - 125 |
| Cadmium | 0.0035 | | 1.00 | 1.09 | | mg/L | | 109 | 75 - 125 |
| Chromium | ND | | 1.00 | 0.950 | | mg/L | | 95 | 75 - 125 |
| Lead | 0.037 | | 1.00 | 1.05 | | mg/L | | 101 | 75 - 125 |
| Selenium | ND | | 1.00 | 1.12 | | mg/L | | 112 | 75 - 125 |
| Silver | ND | | 1.00 | 1.08 | | mg/L | | 108 | 75 - 125 |

**Lab Sample ID: 480-134628-1 MSD**
**Matrix: Solid**
**Analysis Batch: 412567**

**Client Sample ID: NE-SE BERM-042018**
**Prep Type: TCLP**
**Prep Batch: 411807**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Arsenic | ND | | 1.00 | 1.08 | | mg/L | | 108 | 75 - 125 | 1 | 20 |
| Barium | 0.46 | J | 1.00 | 1.45 | | mg/L | | 98 | 75 - 125 | 1 | 20 |
| Cadmium | 0.0035 | | 1.00 | 1.08 | | mg/L | | 108 | 75 - 125 | 1 | 20 |
| Chromium | ND | | 1.00 | 0.934 | | mg/L | | 93 | 75 - 125 | 2 | 20 |
| Lead | 0.037 | | 1.00 | 1.03 | | mg/L | | 100 | 75 - 125 | 2 | 20 |
| Selenium | ND | | 1.00 | 1.11 | | mg/L | | 111 | 75 - 125 | 1 | 20 |
| Silver | ND | | 1.00 | 1.06 | | mg/L | | 106 | 75 - 125 | 2 | 20 |

## Method: 7470A - TCLP Mercury

**Lab Sample ID: MB 480-411863/2-A**
**Matrix: Solid**
**Analysis Batch: 412067**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 411863**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | 0.00012 | mg/L | | 05/01/18 13:35 | 05/01/18 20:11 | 1 |

**Lab Sample ID: LCS 480-411863/3-A**
**Matrix: Solid**
**Analysis Batch: 412067**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 411863**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Mercury | 0.00668 | 0.00623 | | mg/L | | 93 | 80 - 120 |

**Lab Sample ID: LB 480-411629/1-C**
**Matrix: Solid**
**Analysis Batch: 412067**

**Client Sample ID: Method Blank**
**Prep Type: TCLP**
**Prep Batch: 411863**

| Analyte | LB Result | LB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | 0.00012 | mg/L | | 05/01/18 13:35 | 05/01/18 20:09 | 1 |

## Method: 7470A - TCLP Mercury (Continued)

**Lab Sample ID: 480-134628-1 MS**
**Matrix: Solid**
**Analysis Batch: 412067**

**Client Sample ID: NE-SE BERM-042018**
**Prep Type: TCLP**
**Prep Batch: 411863**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00668 | 0.00600 | | mg/L | | 90 | 80 - 120 |

**Lab Sample ID: 480-134628-1 MSD**
**Matrix: Solid**
**Analysis Batch: 412067**

**Client Sample ID: NE-SE BERM-042018**
**Prep Type: TCLP**
**Prep Batch: 411863**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00668 | 0.00600 | | mg/L | | 90 | 80 - 120 | 0 | 20 |

## Method: 7471B - Mercury (CVAA)

**Lab Sample ID: MB 480-411938/1-A**
**Matrix: Solid**
**Analysis Batch: 412200**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 411938**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.020 | 0.0082 | mg/Kg | | 05/02/18 15:10 | 05/02/18 16:37 | 1 |

**Lab Sample ID: LCSSRM 480-411938/2-A ^10**
**Matrix: Solid**
**Analysis Batch: 412200**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 411938**

| Analyte | Spike Added | LCSSRM Result | LCSSRM Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Mercury | 13.3 | 13.20 | | mg/Kg | | 99.3 | 51.2 - 148.1 |

## Method: 1010A - Ignitability, Pensky-Martens Closed-Cup Method

**Lab Sample ID: LCS 480-411934/1**
**Matrix: Solid**
**Analysis Batch: 411934**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Flashpoint | 81.0 | 82.00 | | Degrees F | | 101 | 97.5 - 102.5 |

## Method: 9012 - Cyanide, Reactive

**Lab Sample ID: MB 480-411671/1-A**
**Matrix: Solid**
**Analysis Batch: 411713**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 411671**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Cyanide, Reactive | ND | | 10.0 | 10.0 | mg/Kg | | 04/30/18 05:03 | 04/30/18 16:38 | 1 |

## Method: 9012 - Cyanide, Reactive (Continued)

**Lab Sample ID: LCS 480-411671/2-A**
**Matrix: Solid**
**Analysis Batch: 411713**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 411671**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Cyanide, Reactive | 1000 | ND | | mg/Kg | | 22 | 10 - 100 |

## Method: 9034 - Sulfide, Reactive

**Lab Sample ID: MB 480-411676/1-A**
**Matrix: Solid**
**Analysis Batch: 411721**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 411676**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Sulfide, Reactive | ND | | 10.0 | 10.0 | mg/Kg | | 04/30/18 05:03 | 04/30/18 15:45 | 1 |

**Lab Sample ID: LCS 480-411676/2-A**
**Matrix: Solid**
**Analysis Batch: 411721**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 411676**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Sulfide, Reactive | 860 | 801.5 | | mg/Kg | | 93 | 10 - 100 |

## Method: 9045D - pH

**Lab Sample ID: LCS 480-410913/1**
**Matrix: Solid**
**Analysis Batch: 410913**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| pH | 7.00 | 7.0 | | SU | | 100 | 99 - 101 |

**Lab Sample ID: LCS 480-410915/1**
**Matrix: Solid**
**Analysis Batch: 410915**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| pH | 10.0 | 10.0 | | SU | | 100 | 99 - 101 |

**Lab Sample ID: 480-134628-1 DU**
**Matrix: Solid**
**Analysis Batch: 410915**

**Client Sample ID: NE-SE BERM-042018**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit | D | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|
| pH | 10.5 | HF | 10.5 | | SU | | 0.4 | 5 |
| Temperature | 25.5 | HF | 25.5 | | Degrees C | | 0 | 10 |

## Method: 9095B - Paint Filter

**Lab Sample ID: 480-134628-3 DU**
**Matrix: Solid**
**Analysis Batch: 410886**

**Client Sample ID: NW-SW-BERM-042018**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | | DU Result | DU Qualifier | Unit | D | | | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Free Liquid | passed | | | passed | | mL/100g | | | | NC | |

## GC/MS VOA

### Prep Batch: 410288

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 480-134628-8 | E-BERM-042018 | Total/NA | Solid | 5035A_L | |
| 480-134628-10 | W-BERM-042018 | Total/NA | Solid | 5035A_L | |
| 480-134628-12 | X-2-042018 | Total/NA | Solid | 5035A_L | |
| MB 480-410288/2-A | Method Blank | Total/NA | Solid | 5035A_L | |
| LCS 480-410288/1-A | Lab Control Sample | Total/NA | Solid | 5035A_L | |
| 480-134628-12 MS | X-2-042018 | Total/NA | Solid | 5035A_L | |
| 480-134628-12 MSD | X-2-042018 | Total/NA | Solid | 5035A_L | |

### Analysis Batch: 410294

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 480-134628-8 | E-BERM-042018 | Total/NA | Solid | 8260C | 410288 |
| 480-134628-10 | W-BERM-042018 | Total/NA | Solid | 8260C | 410288 |
| 480-134628-12 | X-2-042018 | Total/NA | Solid | 8260C | 410288 |
| MB 480-410288/2-A | Method Blank | Total/NA | Solid | 8260C | 410288 |
| LCS 480-410288/1-A | Lab Control Sample | Total/NA | Solid | 8260C | 410288 |
| 480-134628-12 MS | X-2-042018 | Total/NA | Solid | 8260C | 410288 |
| 480-134628-12 MSD | X-2-042018 | Total/NA | Solid | 8260C | 410288 |

### Leach Batch: 411593

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 480-134628-7 | NE-SE BERM-042018 | TCLP | Solid | 1311 | |
| 480-134628-9 | NW-SW-BERM-042018 | TCLP | Solid | 1311 | |
| 480-134628-11 | X-1-042018 | TCLP | Solid | 1311 | |
| LB 480-411593/1-A | Method Blank | TCLP | Solid | 1311 | |

### Analysis Batch: 412741

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| LB 480-411593/1-A | Method Blank | TCLP | Solid | 8260C | 411593 |
| MB 480-412741/7 | Method Blank | Total/NA | Solid | 8260C | |
| LCS 480-412741/5 | Lab Control Sample | Total/NA | Solid | 8260C | |

### Analysis Batch: 413229

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 480-134628-7 | NE-SE BERM-042018 | TCLP | Solid | 8260C | 411593 |
| 480-134628-9 | NW-SW-BERM-042018 | TCLP | Solid | 8260C | 411593 |
| 480-134628-11 | X-1-042018 | TCLP | Solid | 8260C | 411593 |
| MB 480-413229/7 | Method Blank | Total/NA | Solid | 8260C | |
| LCS 480-413229/5 | Lab Control Sample | Total/NA | Solid | 8260C | |

## GC/MS Semi VOA

### Leach Batch: 411629

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 480-134628-1 | NE-SE BERM-042018 | TCLP | Solid | 1311 | |
| 480-134628-3 | NW-SW-BERM-042018 | TCLP | Solid | 1311 | |
| 480-134628-5 | X-1-042018 | TCLP | Solid | 1311 | |
| LB 480-411629/1-D | Method Blank | TCLP | Solid | 1311 | |

## GC/MS Semi VOA (Continued)

### Prep Batch: 411993

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 480-134628-2 | E-BERM-042018 | Total/NA | Solid | 3550C | |
| 480-134628-4 | W-BERM-042018 | Total/NA | Solid | 3550C | |
| 480-134628-6 | X-2-042018 | Total/NA | Solid | 3550C | |
| MB 480-411993/1-A | Method Blank | Total/NA | Solid | 3550C | |
| LCS 480-411993/2-A | Lab Control Sample | Total/NA | Solid | 3550C | |

### Prep Batch: 412129

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 480-134628-1 | NE-SE BERM-042018 | TCLP | Solid | 3510C | 411629 |
| 480-134628-3 | NW-SW-BERM-042018 | TCLP | Solid | 3510C | 411629 |
| 480-134628-5 | X-1-042018 | TCLP | Solid | 3510C | 411629 |
| LB 480-411629/1-D | Method Blank | TCLP | Solid | 3510C | 411629 |
| MB 480-412129/1-A | Method Blank | Total/NA | Solid | 3510C | |
| LCS 480-412129/2-A | Lab Control Sample | Total/NA | Solid | 3510C | |
| LCSD 480-412129/3-A | Lab Control Sample Dup | Total/NA | Solid | 3510C | |

### Analysis Batch: 412361

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 480-134628-1 | NE-SE BERM-042018 | TCLP | Solid | 8270D | 412129 |
| 480-134628-3 | NW-SW-BERM-042018 | TCLP | Solid | 8270D | 412129 |
| 480-134628-5 | X-1-042018 | TCLP | Solid | 8270D | 412129 |
| LB 480-411629/1-D | Method Blank | TCLP | Solid | 8270D | 412129 |
| MB 480-412129/1-A | Method Blank | Total/NA | Solid | 8270D | 412129 |
| LCS 480-412129/2-A | Lab Control Sample | Total/NA | Solid | 8270D | 412129 |
| LCSD 480-412129/3-A | Lab Control Sample Dup | Total/NA | Solid | 8270D | 412129 |

### Analysis Batch: 412413

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 480-134628-2 | E-BERM-042018 | Total/NA | Solid | 8270D | 411993 |
| 480-134628-4 | W-BERM-042018 | Total/NA | Solid | 8270D | 411993 |
| 480-134628-6 | X-2-042018 | Total/NA | Solid | 8270D | 411993 |
| MB 480-411993/1-A | Method Blank | Total/NA | Solid | 8270D | 411993 |
| LCS 480-411993/2-A | Lab Control Sample | Total/NA | Solid | 8270D | 411993 |

## GC Semi VOA

### Prep Batch: 410453

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 480-134628-2 | E-BERM-042018 | Total/NA | Solid | 3550C | |
| 480-134628-4 | W-BERM-042018 | Total/NA | Solid | 3550C | |
| 480-134628-6 | X-2-042018 | Total/NA | Solid | 3550C | |
| MB 480-410453/1-A | Method Blank | Total/NA | Solid | 3550C | |
| LCS 480-410453/2-A | Lab Control Sample | Total/NA | Solid | 3550C | |

### Analysis Batch: 410968

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 480-134628-2 | E-BERM-042018 | Total/NA | Solid | 8081B | 410453 |
| 480-134628-4 | W-BERM-042018 | Total/NA | Solid | 8081B | 410453 |
| 480-134628-6 | X-2-042018 | Total/NA | Solid | 8081B | 410453 |
| MB 480-410453/1-A | Method Blank | Total/NA | Solid | 8081B | 410453 |

## GC Semi VOA (Continued)

### Analysis Batch: 410968 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| LCS 480-410453/2-A | Lab Control Sample | Total/NA | Solid | 8081B | 410453 |

### Prep Batch: 411220

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 480-134628-2 | E-BERM-042018 | Total/NA | Solid | 3550C | |
| 480-134628-4 | W-BERM-042018 | Total/NA | Solid | 3550C | |
| 480-134628-6 | X-2-042018 | Total/NA | Solid | 3550C | |
| MB 480-411220/1-A | Method Blank | Total/NA | Solid | 3550C | |
| LCS 480-411220/2-A | Lab Control Sample | Total/NA | Solid | 3550C | |

### Analysis Batch: 411578

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 480-134628-2 | E-BERM-042018 | Total/NA | Solid | 8082A | 411220 |
| 480-134628-4 | W-BERM-042018 | Total/NA | Solid | 8082A | 411220 |
| 480-134628-6 | X-2-042018 | Total/NA | Solid | 8082A | 411220 |
| MB 480-411220/1-A | Method Blank | Total/NA | Solid | 8082A | 411220 |
| LCS 480-411220/2-A | Lab Control Sample | Total/NA | Solid | 8082A | 411220 |

## Metals

### Prep Batch: 410124

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 480-134628-2 | E-BERM-042018 | Total/NA | Solid | 3050B | |
| 480-134628-4 | W-BERM-042018 | Total/NA | Solid | 3050B | |
| 480-134628-6 | X-2-042018 | Total/NA | Solid | 3050B | |
| MB 480-410124/1-A | Method Blank | Total/NA | Solid | 3050B | |
| LCSSRM 480-410124/2-A | Lab Control Sample | Total/NA | Solid | 3050B | |

### Analysis Batch: 410498

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| MB 480-410124/1-A | Method Blank | Total/NA | Solid | 6010C | 410124 |
| LCSSRM 480-410124/2-A | Lab Control Sample | Total/NA | Solid | 6010C | 410124 |

### Analysis Batch: 410722

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 480-134628-2 | E-BERM-042018 | Total/NA | Solid | 6010C | 410124 |
| 480-134628-2 | E-BERM-042018 | Total/NA | Solid | 6010C | 410124 |
| 480-134628-4 | W-BERM-042018 | Total/NA | Solid | 6010C | 410124 |
| 480-134628-6 | X-2-042018 | Total/NA | Solid | 6010C | 410124 |

### Analysis Batch: 410770

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 480-134628-6 | X-2-042018 | Total/NA | Solid | 6010C | 410124 |

### Leach Batch: 411629

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 480-134628-1 | NE-SE BERM-042018 | TCLP | Solid | 1311 | |
| 480-134628-3 | NW-SW-BERM-042018 | TCLP | Solid | 1311 | |
| 480-134628-5 | X-1-042018 | TCLP | Solid | 1311 | |
| LB 480-411629/1-B | Method Blank | TCLP | Solid | 1311 | |

## Metals (Continued)

### Leach Batch: 411629 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| LB 480-411629/1-C | Method Blank | TCLP | Solid | 1311 | |
| 480-134628-1 MS | NE-SE BERM-042018 | TCLP | Solid | 1311 | |
| 480-134628-1 MSD | NE-SE BERM-042018 | TCLP | Solid | 1311 | |

### Prep Batch: 411807

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 480-134628-1 | NE-SE BERM-042018 | TCLP | Solid | 3010A | 411629 |
| 480-134628-3 | NW-SW-BERM-042018 | TCLP | Solid | 3010A | 411629 |
| 480-134628-5 | X-1-042018 | TCLP | Solid | 3010A | 411629 |
| LB 480-411629/1-B | Method Blank | TCLP | Solid | 3010A | 411629 |
| MB 480-411807/2-A | Method Blank | Total/NA | Solid | 3010A | |
| LCS 480-411807/3-A | Lab Control Sample | Total/NA | Solid | 3010A | |
| 480-134628-1 MS | NE-SE BERM-042018 | TCLP | Solid | 3010A | 411629 |
| 480-134628-1 MSD | NE-SE BERM-042018 | TCLP | Solid | 3010A | 411629 |

### Prep Batch: 411863

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 480-134628-1 | NE-SE BERM-042018 | TCLP | Solid | 7470A | 411629 |
| 480-134628-3 | NW-SW-BERM-042018 | TCLP | Solid | 7470A | 411629 |
| 480-134628-5 | X-1-042018 | TCLP | Solid | 7470A | 411629 |
| LB 480-411629/1-C | Method Blank | TCLP | Solid | 7470A | 411629 |
| MB 480-411863/2-A | Method Blank | Total/NA | Solid | 7470A | |
| LCS 480-411863/3-A | Lab Control Sample | Total/NA | Solid | 7470A | |
| 480-134628-1 MS | NE-SE BERM-042018 | TCLP | Solid | 7470A | 411629 |
| 480-134628-1 MSD | NE-SE BERM-042018 | TCLP | Solid | 7470A | 411629 |

### Prep Batch: 411938

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 480-134628-2 | E-BERM-042018 | Total/NA | Solid | 7471B | |
| 480-134628-4 | W-BERM-042018 | Total/NA | Solid | 7471B | |
| 480-134628-6 | X-2-042018 | Total/NA | Solid | 7471B | |
| MB 480-411938/1-A | Method Blank | Total/NA | Solid | 7471B | |
| LCSSRM 480-411938/2-A ^10 | Lab Control Sample | Total/NA | Solid | 7471B | |

### Analysis Batch: 412067

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 480-134628-1 | NE-SE BERM-042018 | TCLP | Solid | 7470A | 411863 |
| 480-134628-3 | NW-SW-BERM-042018 | TCLP | Solid | 7470A | 411863 |
| 480-134628-5 | X-1-042018 | TCLP | Solid | 7470A | 411863 |
| LB 480-411629/1-C | Method Blank | TCLP | Solid | 7470A | 411863 |
| MB 480-411863/2-A | Method Blank | Total/NA | Solid | 7470A | 411863 |
| LCS 480-411863/3-A | Lab Control Sample | Total/NA | Solid | 7470A | 411863 |
| 480-134628-1 MS | NE-SE BERM-042018 | TCLP | Solid | 7470A | 411863 |
| 480-134628-1 MSD | NE-SE BERM-042018 | TCLP | Solid | 7470A | 411863 |

### Analysis Batch: 412200

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 480-134628-2 | E-BERM-042018 | Total/NA | Solid | 7471B | 411938 |
| 480-134628-4 | W-BERM-042018 | Total/NA | Solid | 7471B | 411938 |
| 480-134628-6 | X-2-042018 | Total/NA | Solid | 7471B | 411938 |
| MB 480-411938/1-A | Method Blank | Total/NA | Solid | 7471B | 411938 |

## Metals (Continued)

### Analysis Batch: 412200 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| LCSSRM 480-411938/2-A ^10 | Lab Control Sample | Total/NA | Solid | 7471B | 411938 |

### Analysis Batch: 412567

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 480-134628-1 | NE-SE BERM-042018 | TCLP | Solid | 6010C | 411807 |
| 480-134628-3 | NW-SW-BERM-042018 | TCLP | Solid | 6010C | 411807 |
| 480-134628-5 | X-1-042018 | TCLP | Solid | 6010C | 411807 |
| LB 480-411629/1-B | Method Blank | TCLP | Solid | 6010C | 411807 |
| MB 480-411807/2-A | Method Blank | Total/NA | Solid | 6010C | 411807 |
| LCS 480-411807/3-A | Lab Control Sample | Total/NA | Solid | 6010C | 411807 |
| 480-134628-1 MS | NE-SE BERM-042018 | TCLP | Solid | 6010C | 411807 |
| 480-134628-1 MSD | NE-SE BERM-042018 | TCLP | Solid | 6010C | 411807 |

## General Chemistry

### Analysis Batch: 410104

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 480-134628-2 | E-BERM-042018 | Total/NA | Solid | Moisture | |
| 480-134628-4 | W-BERM-042018 | Total/NA | Solid | Moisture | |
| 480-134628-6 | X-2-042018 | Total/NA | Solid | Moisture | |

### Analysis Batch: 410886

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 480-134628-1 | NE-SE BERM-042018 | Total/NA | Solid | 9095B | |
| 480-134628-3 | NW-SW-BERM-042018 | Total/NA | Solid | 9095B | |
| 480-134628-5 | X-1-042018 | Total/NA | Solid | 9095B | |
| 480-134628-3 DU | NW-SW-BERM-042018 | Total/NA | Solid | 9095B | |

### Analysis Batch: 410913

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 480-134628-3 | NW-SW-BERM-042018 | Total/NA | Solid | 9045D | |
| 480-134628-5 | X-1-042018 | Total/NA | Solid | 9045D | |
| LCS 480-410913/1 | Lab Control Sample | Total/NA | Solid | 9045D | |

### Analysis Batch: 410915

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 480-134628-1 | NE-SE BERM-042018 | Total/NA | Solid | 9045D | |
| LCS 480-410915/1 | Lab Control Sample | Total/NA | Solid | 9045D | |
| 480-134628-1 DU | NE-SE BERM-042018 | Total/NA | Solid | 9045D | |

### Prep Batch: 411671

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 480-134628-1 | NE-SE BERM-042018 | Total/NA | Solid | 7.3.3 | |
| 480-134628-3 | NW-SW-BERM-042018 | Total/NA | Solid | 7.3.3 | |
| 480-134628-5 | X-1-042018 | Total/NA | Solid | 7.3.3 | |
| MB 480-411671/1-A | Method Blank | Total/NA | Solid | 7.3.3 | |
| LCS 480-411671/2-A | Lab Control Sample | Total/NA | Solid | 7.3.3 | |

## General Chemistry (Continued)

### Prep Batch: 411676

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 480-134628-1 | NE-SE BERM-042018 | Total/NA | Solid | 7.3.4 | |
| 480-134628-3 | NW-SW-BERM-042018 | Total/NA | Solid | 7.3.4 | |
| 480-134628-5 | X-1-042018 | Total/NA | Solid | 7.3.4 | |
| MB 480-411676/1-A | Method Blank | Total/NA | Solid | 7.3.4 | |
| LCS 480-411676/2-A | Lab Control Sample | Total/NA | Solid | 7.3.4 | |

### Analysis Batch: 411713

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 480-134628-1 | NE-SE BERM-042018 | Total/NA | Solid | 9012 | 411671 |
| 480-134628-3 | NW-SW-BERM-042018 | Total/NA | Solid | 9012 | 411671 |
| 480-134628-5 | X-1-042018 | Total/NA | Solid | 9012 | 411671 |
| MB 480-411671/1-A | Method Blank | Total/NA | Solid | 9012 | 411671 |
| LCS 480-411671/2-A | Lab Control Sample | Total/NA | Solid | 9012 | 411671 |

### Analysis Batch: 411721

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 480-134628-1 | NE-SE BERM-042018 | Total/NA | Solid | 9034 | 411676 |
| 480-134628-3 | NW-SW-BERM-042018 | Total/NA | Solid | 9034 | 411676 |
| 480-134628-5 | X-1-042018 | Total/NA | Solid | 9034 | 411676 |
| MB 480-411676/1-A | Method Blank | Total/NA | Solid | 9034 | 411676 |
| LCS 480-411676/2-A | Lab Control Sample | Total/NA | Solid | 9034 | 411676 |

### Analysis Batch: 411934

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 480-134628-1 | NE-SE BERM-042018 | Total/NA | Solid | 1010A | |
| 480-134628-3 | NW-SW-BERM-042018 | Total/NA | Solid | 1010A | |
| 480-134628-5 | X-1-042018 | Total/NA | Solid | 1010A | |
| LCS 480-411934/1 | Lab Control Sample | Total/NA | Solid | 1010A | |

### Analysis Batch: 412609

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 480-134628-8 | E-BERM-042018 | Total/NA | Solid | Moisture | |
| 480-134628-10 | W-BERM-042018 | Total/NA | Solid | Moisture | |
| 480-134628-12 | X-2-042018 | Total/NA | Solid | Moisture | |

## Client Sample ID: NE-SE BERM-042018

**Lab Sample ID: 480-134628-1**

**Date Collected: 04/20/18 09:30**

**Matrix: Solid**

**Date Received: 04/21/18 01:45**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| TCLP | Leach | 1311 | | | 411629 | 04/30/18 11:22 | RLT | TAL BUF |
| TCLP | Prep | 3510C | | | 412129 | 05/02/18 14:55 | ATG | TAL BUF |
| TCLP | Analysis | 8270D | | 1 | 412361 | 05/03/18 20:51 | PJQ | TAL BUF |
| TCLP | Leach | 1311 | | | 411629 | 04/30/18 11:22 | RLT | TAL BUF |
| TCLP | Prep | 3010A | | | 411807 | 05/01/18 10:12 | EMB | TAL BUF |
| TCLP | Analysis | 6010C | | 1 | 412567 | 05/01/18 22:39 | LMH | TAL BUF |
| TCLP | Leach | 1311 | | | 411629 | 04/30/18 11:22 | RLT | TAL BUF |
| TCLP | Prep | 7470A | | | 411863 | 05/01/18 13:35 | BMB | TAL BUF |
| TCLP | Analysis | 7470A | | 1 | 412067 | 05/01/18 20:14 | BMB | TAL BUF |
| Total/NA | Analysis | 1010A | | 1 | 411934 | 05/01/18 09:30 | AED | TAL BUF |
| Total/NA | Prep | 7.3.3 | | | 411671 | 04/30/18 05:03 | LAW | TAL BUF |
| Total/NA | Analysis | 9012 | | 1 | 411713 | 04/30/18 16:38 | MDL | TAL BUF |
| Total/NA | Prep | 7.3.4 | | | 411676 | 04/30/18 05:03 | LAW | TAL BUF |
| Total/NA | Analysis | 9034 | | 1 | 411721 | 04/30/18 15:45 | MDL | TAL BUF |
| Total/NA | Analysis | 9045D | | 1 | 410915 | 04/25/18 17:57 | ALZ | TAL BUF |
| Total/NA | Analysis | 9095B | | 1 | 410886 | 04/25/18 15:22 | ALZ | TAL BUF |

## Client Sample ID: E-BERM-042018

**Lab Sample ID: 480-134628-2**

**Date Collected: 04/20/18 10:15**

**Matrix: Solid**

**Date Received: 04/21/18 01:45**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | Moisture | | 1 | 410104 | 04/21/18 08:45 | CSW | TAL BUF |

## Client Sample ID: E-BERM-042018

**Lab Sample ID: 480-134628-2**

**Date Collected: 04/20/18 10:15**

**Matrix: Solid**

**Date Received: 04/21/18 01:45**

**Percent Solids: 88.3**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 3550C | | | 411993 | 05/02/18 07:03 | CAM | TAL BUF |
| Total/NA | Analysis | 8270D | | 20 | 412413 | 05/04/18 01:21 | MKP | TAL BUF |
| Total/NA | Prep | 3550C | | | 410453 | 04/24/18 07:51 | SMP | TAL BUF |
| Total/NA | Analysis | 8081B | | 50 | 410968 | 04/26/18 13:57 | JLS | TAL BUF |
| Total/NA | Prep | 3550C | | | 411220 | 04/27/18 07:20 | SMP | TAL BUF |
| Total/NA | Analysis | 8082A | | 1 | 411578 | 04/30/18 21:26 | W1T | TAL BUF |
| Total/NA | Prep | 3050B | | | 410124 | 04/21/18 11:57 | JAK | TAL BUF |
| Total/NA | Analysis | 6010C | | 1 | 410722 | 04/24/18 11:42 | LMH | TAL BUF |
| Total/NA | Prep | 3050B | | | 410124 | 04/21/18 11:57 | JAK | TAL BUF |
| Total/NA | Analysis | 6010C | | 5 | 410722 | 04/24/18 11:46 | LMH | TAL BUF |
| Total/NA | Prep | 7471B | | | 411938 | 05/02/18 15:10 | BMB | TAL BUF |
| Total/NA | Analysis | 7471B | | 1 | 412200 | 05/02/18 16:43 | BMB | TAL BUF |

## Client Sample ID: NW-SW-BERM-042018

**Lab Sample ID: 480-134628-3**

**Date Collected: 04/20/18 10:30**

**Matrix: Solid**

**Date Received: 04/21/18 01:45**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| TCLP | Leach | 1311 | | | 411629 | 04/30/18 11:22 | RLT | TAL BUF |
| TCLP | Prep | 3510C | | | 412129 | 05/02/18 14:55 | ATG | TAL BUF |
| TCLP | Analysis | 8270D | | 1 | 412361 | 05/03/18 21:19 | PJQ | TAL BUF |
| TCLP | Leach | 1311 | | | 411629 | 04/30/18 11:22 | RLT | TAL BUF |
| TCLP | Prep | 3010A | | | 411807 | 05/01/18 10:12 | EMB | TAL BUF |
| TCLP | Analysis | 6010C | | 1 | 412567 | 05/01/18 23:10 | LMH | TAL BUF |
| TCLP | Leach | 1311 | | | 411629 | 04/30/18 11:22 | RLT | TAL BUF |
| TCLP | Prep | 7470A | | | 411863 | 05/01/18 13:35 | BMB | TAL BUF |
| TCLP | Analysis | 7470A | | 1 | 412067 | 05/01/18 20:22 | BMB | TAL BUF |
| Total/NA | Analysis | 1010A | | 1 | 411934 | 05/01/18 09:30 | AED | TAL BUF |
| Total/NA | Prep | 7.3.3 | | | 411671 | 04/30/18 05:03 | LAW | TAL BUF |
| Total/NA | Analysis | 9012 | | 1 | 411713 | 04/30/18 16:38 | MDL | TAL BUF |
| Total/NA | Prep | 7.3.4 | | | 411676 | 04/30/18 05:03 | LAW | TAL BUF |
| Total/NA | Analysis | 9034 | | 1 | 411721 | 04/30/18 15:45 | MDL | TAL BUF |
| Total/NA | Analysis | 9045D | | 1 | 410913 | 04/25/18 14:13 | ALZ | TAL BUF |
| Total/NA | Analysis | 9095B | | 1 | 410886 | 04/25/18 15:22 | ALZ | TAL BUF |

## Client Sample ID: W-BERM-042018

**Lab Sample ID: 480-134628-4**

**Date Collected: 04/20/18 11:00**

**Matrix: Solid**

**Date Received: 04/21/18 01:45**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | Moisture | | 1 | 410104 | 04/21/18 08:45 | CSW | TAL BUF |

## Client Sample ID: W-BERM-042018

**Lab Sample ID: 480-134628-4**

**Date Collected: 04/20/18 11:00**

**Matrix: Solid**

**Date Received: 04/21/18 01:45**

**Percent Solids: 84.2**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 3550C | | | 411993 | 05/02/18 07:03 | CAM | TAL BUF |
| Total/NA | Analysis | 8270D | | 10 | 412413 | 05/04/18 01:48 | MKP | TAL BUF |
| Total/NA | Prep | 3550C | | | 410453 | 04/24/18 07:51 | SMP | TAL BUF |
| Total/NA | Analysis | 8081B | | 50 | 410968 | 04/26/18 14:16 | JLS | TAL BUF |
| Total/NA | Prep | 3550C | | | 411220 | 04/27/18 07:20 | SMP | TAL BUF |
| Total/NA | Analysis | 8082A | | 1 | 411578 | 04/30/18 21:41 | W1T | TAL BUF |
| Total/NA | Prep | 3050B | | | 410124 | 04/21/18 11:57 | JAK | TAL BUF |
| Total/NA | Analysis | 6010C | | 1 | 410722 | 04/24/18 11:50 | LMH | TAL BUF |
| Total/NA | Prep | 7471B | | | 411938 | 05/02/18 15:10 | BMB | TAL BUF |
| Total/NA | Analysis | 7471B | | 1 | 412200 | 05/02/18 16:45 | BMB | TAL BUF |

## Client Sample ID: X-1-042018

**Lab Sample ID: 480-134628-5**

**Date Collected: 04/20/18 00:00**

**Matrix: Solid**

**Date Received: 04/21/18 01:45**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| TCLP | Leach | 1311 | | | 411629 | 04/30/18 11:22 | RLT | TAL BUF |
| TCLP | Prep | 3510C | | | 412129 | 05/02/18 14:55 | ATG | TAL BUF |
| TCLP | Analysis | 8270D | | 1 | 412361 | 05/03/18 21:46 | PJQ | TAL BUF |
| TCLP | Leach | 1311 | | | 411629 | 04/30/18 11:22 | RLT | TAL BUF |
| TCLP | Prep | 3010A | | | 411807 | 05/01/18 10:12 | EMB | TAL BUF |
| TCLP | Analysis | 6010C | | 1 | 412567 | 05/01/18 23:14 | LMH | TAL BUF |
| TCLP | Leach | 1311 | | | 411629 | 04/30/18 11:22 | RLT | TAL BUF |
| TCLP | Prep | 7470A | | | 411863 | 05/01/18 13:35 | BMB | TAL BUF |
| TCLP | Analysis | 7470A | | 1 | 412067 | 05/01/18 20:24 | BMB | TAL BUF |
| Total/NA | Analysis | 1010A | | 1 | 411934 | 05/01/18 09:30 | AED | TAL BUF |
| Total/NA | Prep | 7.3.3 | | | 411671 | 04/30/18 05:03 | LAW | TAL BUF |
| Total/NA | Analysis | 9012 | | 1 | 411713 | 04/30/18 16:38 | MDL | TAL BUF |
| Total/NA | Prep | 7.3.4 | | | 411676 | 04/30/18 05:03 | LAW | TAL BUF |
| Total/NA | Analysis | 9034 | | 1 | 411721 | 04/30/18 15:45 | MDL | TAL BUF |
| Total/NA | Analysis | 9045D | | 1 | 410913 | 04/25/18 14:13 | ALZ | TAL BUF |
| Total/NA | Analysis | 9095B | | 1 | 410886 | 04/25/18 15:22 | ALZ | TAL BUF |

## Client Sample ID: X-2-042018

**Lab Sample ID: 480-134628-6**

**Date Collected: 04/20/18 00:00**

**Matrix: Solid**

**Date Received: 04/21/18 01:45**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | Moisture | | 1 | 410104 | 04/21/18 08:45 | CSW | TAL BUF |

## Client Sample ID: X-2-042018

**Lab Sample ID: 480-134628-6**

**Date Collected: 04/20/18 00:00**

**Matrix: Solid**

**Date Received: 04/21/18 01:45**

**Percent Solids: 85.1**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 3550C | | | 411993 | 05/02/18 07:03 | CAM | TAL BUF |
| Total/NA | Analysis | 8270D | | 10 | 412413 | 05/04/18 02:14 | MKP | TAL BUF |
| Total/NA | Prep | 3550C | | | 410453 | 04/24/18 07:51 | SMP | TAL BUF |
| Total/NA | Analysis | 8081B | | 50 | 410968 | 04/26/18 14:36 | JLS | TAL BUF |
| Total/NA | Prep | 3550C | | | 411220 | 04/27/18 07:20 | SMP | TAL BUF |
| Total/NA | Analysis | 8082A | | 1 | 411578 | 04/30/18 21:56 | W1T | TAL BUF |
| Total/NA | Prep | 3050B | | | 410124 | 04/21/18 11:57 | JAK | TAL BUF |
| Total/NA | Analysis | 6010C | | 1 | 410722 | 04/24/18 11:57 | LMH | TAL BUF |
| Total/NA | Prep | 3050B | | | 410124 | 04/21/18 11:57 | JAK | TAL BUF |
| Total/NA | Analysis | 6010C | | 5 | 410770 | 04/25/18 10:15 | AMH | TAL BUF |
| Total/NA | Prep | 7471B | | | 411938 | 05/02/18 15:10 | BMB | TAL BUF |
| Total/NA | Analysis | 7471B | | 1 | 412200 | 05/02/18 16:46 | BMB | TAL BUF |

## Client Sample ID: NE-SE BERM-042018

**Lab Sample ID: 480-134628-7**

**Date Collected: 04/20/18 09:30**
**Matrix: Solid**
**Date Received: 04/21/18 01:45**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| TCLP | Leach | 1311 | | | 411593 | 04/30/18 10:14 | RLT | TAL BUF |
| TCLP | Analysis | 8260C | | 10 | 413229 | 05/08/18 23:33 | SV | TAL BUF |

## Client Sample ID: E-BERM-042018

**Lab Sample ID: 480-134628-8**

**Date Collected: 04/20/18 10:15**
**Matrix: Solid**
**Date Received: 04/21/18 01:45**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | Moisture | | 1 | 412609 | 05/04/18 10:57 | KPK | TAL BUF |

## Client Sample ID: E-BERM-042018

**Lab Sample ID: 480-134628-8**

**Date Collected: 04/20/18 10:15**
**Matrix: Solid**
**Date Received: 04/21/18 01:45**
**Percent Solids: 91.1**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 5035A_L | | | 410288 | 04/23/18 09:21 | CDC | TAL BUF |
| Total/NA | Analysis | 8260C | | 1 | 410294 | 04/23/18 19:10 | AEM | TAL BUF |

## Client Sample ID: NW-SW-BERM-042018

**Lab Sample ID: 480-134628-9**

**Date Collected: 04/20/18 10:30**
**Matrix: Solid**
**Date Received: 04/21/18 01:45**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| TCLP | Leach | 1311 | | | 411593 | 04/30/18 10:14 | RLT | TAL BUF |
| TCLP | Analysis | 8260C | | 10 | 413229 | 05/08/18 23:57 | SV | TAL BUF |

## Client Sample ID: W-BERM-042018

**Lab Sample ID: 480-134628-10**

**Date Collected: 04/20/18 11:00**
**Matrix: Solid**
**Date Received: 04/21/18 01:45**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | Moisture | | 1 | 412609 | 05/04/18 10:57 | KPK | TAL BUF |

## Client Sample ID: W-BERM-042018

**Lab Sample ID: 480-134628-10**

**Date Collected: 04/20/18 11:00**
**Matrix: Solid**
**Date Received: 04/21/18 01:45**
**Percent Solids: 86.6**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 5035A_L | | | 410288 | 04/23/18 09:21 | CDC | TAL BUF |
| Total/NA | Analysis | 8260C | | 1 | 410294 | 04/23/18 19:36 | AEM | TAL BUF |

# Lab Chronicle

Client: O'Brien & Gere Inc of North America
Project/Site: Midler Crossing - Characteristic Soil

TestAmerica Job ID: 480-134628-1

## Client Sample ID: X-1-042018

**Lab Sample ID: 480-134628-11**

**Date Collected: 04/20/18 00:00**

**Matrix: Solid**

**Date Received: 04/21/18 01:45**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| TCLP | Leach | 1311 | | | 411593 | 04/30/18 10:48 | RLT | TAL BUF |
| TCLP | Analysis | 8260C | | 10 | 413229 | 05/09/18 00:21 | SV | TAL BUF |

## Client Sample ID: X-2-042018

**Lab Sample ID: 480-134628-12**

**Date Collected: 04/20/18 00:00**

**Matrix: Solid**

**Date Received: 04/21/18 01:45**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | Moisture | | 1 | 412609 | 05/04/18 10:57 | KPK | TAL BUF |

## Client Sample ID: X-2-042018

**Lab Sample ID: 480-134628-12**

**Date Collected: 04/20/18 00:00**

**Matrix: Solid**

**Date Received: 04/21/18 01:45**

**Percent Solids: 89.9**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 5035A_L | | | 410288 | 04/23/18 09:21 | CDC | TAL BUF |
| Total/NA | Analysis | 8260C | | 1 | 410294 | 04/23/18 20:01 | AEM | TAL BUF |

**Laboratory References:**

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

# Accreditation/Certification Summary

Client: O'Brien & Gere Inc of North America
TestAmerica Job ID: 480-134628-1
Project/Site: Midler Crossing - Characteristic Soil

## Laboratory: TestAmerica Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

| Authority | Program | EPA Region | Identification Number | Expiration Date |
|---|---|---|---|---|
| New York | NELAP | 2 | 10026 | 03-31-18 * |

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

| Analysis Method | Prep Method | Matrix | Analyte |
|---|---|---|---|
| 7470A | 7470A | Solid | Mercury |
| 9012 | 7.3.3 | Solid | Cyanide, Reactive |
| 9034 | 7.3.4 | Solid | Sulfide, Reactive |
| 9045D | | Solid | Temperature |
| Moisture | | Solid | Percent Moisture |
| Moisture | | Solid | Percent Solids |

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

# Method Summary

Client: O'Brien & Gere Inc of North America
Project/Site: Midler Crossing - Characteristic Soil

TestAmerica Job ID: 480-134628-1

| Method | Method Description | Protocol | Laboratory |
|---|---|---|---|
| 8260C | TCLP Volatiles | SW846 | TAL BUF |
| 8260C | Volatile Organic Compounds by GC/MS | SW846 | TAL BUF |
| 8270D | Semivolatile Organic Compounds (GC/MS) | SW846 | TAL BUF |
| 8081B | Organochlorine Pesticides (GC) | SW846 | TAL BUF |
| 8082A | Polychlorinated Biphenyls (PCBs) by Gas Chromatography | SW846 | TAL BUF |
| 6010C | Metals (ICP) | SW846 | TAL BUF |
| 7470A | TCLP Mercury | SW846 | TAL BUF |
| 7471B | Mercury (CVAA) | SW846 | TAL BUF |
| 1010A | Ignitability, Pensky-Martens Closed-Cup Method | SW846 | TAL BUF |
| 9012 | Cyanide, Reactive | SW846 | TAL BUF |
| 9034 | Sulfide, Reactive | SW846 | TAL BUF |
| 9045D | pH | SW846 | TAL BUF |
| 9095B | Paint Filter | SW846 | TAL BUF |
| Moisture | Percent Moisture | EPA | TAL BUF |
| 1311 | TCLP Extraction | SW846 | TAL BUF |
| 3010A | Preparation, Total Metals | SW846 | TAL BUF |
| 3050B | Preparation, Metals | SW846 | TAL BUF |
| 3510C | Liquid-Liquid Extraction (Separatory Funnel) | SW846 | TAL BUF |
| 3550C | Ultrasonic Extraction | SW846 | TAL BUF |
| 5030C | Purge and Trap | SW846 | TAL BUF |
| 5035A_L | Closed System Purge and Trap | SW846 | TAL BUF |
| 7.3.3 | Cyanide, Reactive | SW846 | TAL BUF |
| 7.3.4 | Sulfide, Reactive | SW846 | TAL BUF |
| 7470A | Preparation, Mercury | SW846 | TAL BUF |
| 7471B | Preparation, Mercury | SW846 | TAL BUF |

**Protocol References:**

EPA = US Environmental Protection Agency

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

**Laboratory References:**

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

# Sample Summary

Client: O'Brien & Gere Inc of North America
Project/Site: Midler Crossing - Characteristic Soil

TestAmerica Job ID: 480-134628-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 480-134628-1 | NE-SE BERM-042018 | Solid | 04/20/18 09:30 | 04/21/18 01:45 |
| 480-134628-2 | E-BERM-042018 | Solid | 04/20/18 10:15 | 04/21/18 01:45 |
| 480-134628-3 | NW-SW-BERM-042018 | Solid | 04/20/18 10:30 | 04/21/18 01:45 |
| 480-134628-4 | W-BERM-042018 | Solid | 04/20/18 11:00 | 04/21/18 01:45 |
| 480-134628-5 | X-1-042018 | Solid | 04/20/18 00:00 | 04/21/18 01:45 |
| 480-134628-6 | X-2-042018 | Solid | 04/20/18 00:00 | 04/21/18 01:45 |
| 480-134628-7 | NE-SE BERM-042018 | Solid | 04/20/18 09:30 | 04/21/18 01:45 |
| 480-134628-8 | E-BERM-042018 | Solid | 04/20/18 10:15 | 04/21/18 01:45 |
| 480-134628-9 | NW-SW-BERM-042018 | Solid | 04/20/18 10:30 | 04/21/18 01:45 |
| 480-134628-10 | W-BERM-042018 | Solid | 04/20/18 11:00 | 04/21/18 01:45 |
| 480-134628-11 | X-1-042018 | Solid | 04/20/18 00:00 | 04/21/18 01:45 |
| 480-134628-12 | X-2-042018 | Solid | 04/20/18 00:00 | 04/21/18 01:45 |

**TestAmerica Buffalo**
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

# Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

| Client Information | Sampler: C. Yuri Veliz | Lab PM: Deyo, Melissa L | Carrier Tra | COC No: 480-112151-26023.1 |
|---|---|---|---|---|
| Client Contact: Mr. Yuri Veliz | Phone: | E-Mail: melissa.deyo@testamericainc.com | | Page: Page 1 of 1 |
| Company: O'Brien & Gere Inc of North America | | | 480-134628 COC | Job #: |
| Address: 333 West Washington St. PO BOX 4873 | Due Date Requested: | Analysis Requested | | |
| City: East Syracuse | TAT Requested (days): Regular | | | |
| State, Zip: NY, 13221 | | | | |
| Phone: 315-956-6100(Tel) 315-463-7554(Fax) | PO #: Purchase Order Requested | | | |
| Email: Yuri.Veliz@obg.com | WO #: | | | |
| Project Name: Midler Crossing - Characteristic Soil | Project #: 48017926 | | | |
| Site: | SSOW#: | | | |

**Preservation Codes:**

| | |
|---|---|
| A - HCL | M - Hexane |
| B - NaOH | N - None |
| C - Zn Acetate | O - AsNaO2 |
| D - Nitric Acid | P - Na2O4S |
| E - NaHSO4 | Q - Na2SO3 |
| F - MeOH | R - Na2S2O3 |
| G - Amchlor | S - H2SO4 |
| H - Ascorbic Acid | T - TSP Dodecahydrate |
| I - Ice | U - Acetone |
| J - DI Water | V - MCAA |
| K - EDTA | W - pH 4-5 |
| L - EDA | Z - other (specify) |

Other:

| Sample Identification | Sample Date | Sample Time | Sample Type (C=Comp, G=grab) | Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air) | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | 9012_ReactiveCN, 9034_Reactive | 9095B - Paint Filter | 6010C, 7470A, 8270D - | 8260C - TCLP Volatiles - | 1010A, 9045D | 6010C, 7471B | 8081B, 8082A, 8270D - | 8260C - TCL VOCs | | | | | Total Number of containers | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preservation Code: | | | | N | N | N | N | N | N | N | N | | | | | | |
| NE-SE Berm-042018 | 4-20-18 | 0930 | C | Solid | | | X | X | X | | X | [redacted] | [redacted] | [redacted] | | | | | 4 | |
| NE-SE Berm-042018 | 4-20-18 | 0930 | G | Solid | | | | | | X | | | | | | | | | 1 | |
| E-Berm-042018 | 4-20-18 | 1015 | C | Solid | | | | | | | | X | X | | | | | | 3 | |
| E-Berm-042018 | 4-20-18 | 1015 | G | Solid | | | | | | | | | | X | | | | | 1 | |
| NW-SW-Berm-042018 | 4-20-18 | 1050 | C | | | | X | X | X | | X | | | | | | | | 4 | |
| NW-SW-Berm-042018 | 4-20-18 | 1050 | G | | | | | | | X | | | | | | | | | 1 | |
| W-Berm-042018 | 4-20-18 | 1100 | C | | | | | | | | | X | X | | | | | | 3 | |
| W-Berm-042018 | 4-20-18 | 1100 | G | | | | | | | | | | | X | | | | | 1 | |
| X-1-042018 | 4-20-18 | - | C/G | | | | X | X | X | X | X | | | | | | | | 5 | Grab sample VOC |
| X-2-042018 | 4-20-18 | - | C/G | | | | | | | | | X | X | X | | | | | 4 | Grab sample VOC |
| [redacted] | | | | | | | | | | [redacted] | | | | [redacted] | CYY | | | | | |

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

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

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

| Empty Kit Relinquished by: | Date: | Time: | Method of Shipment: |
|---|---|---|---|

| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |
|---|---|---|---|---|---|
| C. Yuri Veliz | 4-20-18/1410 | OBG | R. English | 4-20-18, 14:50 | SyR |
| Relinquished by: R. English | Date/Time: 4-20-18, 1900 | Company SyR | Received by: | Date/Time: 4-21-18 0145 | Company |
| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |

| Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: 0.4 #1 |
|---|---|---|

Ver: 08/04/2016

483325 - Syracuse SC

5/10/2018

# Login Sample Receipt Checklist

Client: O'Brien & Gere Inc of North America

Job Number: 480-134628-1

**Login Number: 134628**

**List Source: TestAmerica Buffalo**

**List Number: 1**

**Creator: Williams, Christopher S**

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