



February 9, 2016

Reference No. 077150

Ms. Carol Crooks
Bureau of Land and Waste Management
2600 Bull Street
Columbia, South Carolina 29201

RECEIVED

FEB 10 2017

**SITE ASSESSMENT,
REMEDICATION &
REVITALIZATION**

Dear Ms. Crooks:

**Re: Soil and Groundwater Delineation Report
Bluewater Thermal Solutions LLC
VCC # 14-6226
Fountain Inn, Laurens County, South Carolina**

GHD is providing the attached Soil and Groundwater Delineation Report (Delineation Report) for the Former Bluewater Thermal Solutions (Bluewater) Site located at 100 Hunts Bridge Road in Fountain Inn, South Carolina. The investigation was conducted based on the requirement of the May 2015 Voluntary Cleanup Contract (VCC # 14-6226) and the Remedial Site Investigation Work Plan which was approved by SCDHEC by a letter dated September 12, 2016.

The soil and groundwater delineation work was conducted by installing four soil borings and seven monitoring wells which included one deep monitoring well. Soil samples were collected from all boring locations including the monitoring wells and groundwater samples were collected from all monitoring wells. Attached are two hard copies and one electronic copy (compact disk) of the delineation report.

Please contact the undersigned or Mr. Richard Scherer with Lippes Mathias Wexler Friedman LLP for any comments or questions on the report and attachments.

We appreciate the input which will be provided by your unit during the review of this report.

Sincerely,

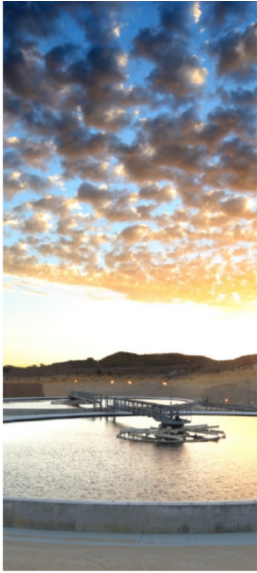
GHD

Terefe Mazengia, PG.

TM/tb/3

Encl.

cc: Richard Scherer, Lippes Mathis Wexler Friedman, LLP
Steven Wilsey, GHD



Soil and Groundwater Delineation Report

Bluewater Thermal Solutions
100 Hunts Bridge Road
Fountain Inn, South Carolina

Lippes Mathias Wexler Friedman LLP



Table of Contents

1.	Introduction.....	1
1.1	Scope of Work	1
1.2	Report Layout	1
2.	Site Investigation	2
2.1	Soil Sampling	2
2.2	Monitoring Well Installation	3
3.	Groundwater Monitoring.....	4
3.1	Groundwater Elevations.....	4
3.2	Groundwater Sampling Procedures.....	4
4.	Analytical Results	5
4.1	Soil Analytical Results.....	5
4.2	Groundwater Analytical results	5
5.	Summary and Conclusion	6
6.	Certification	6

Figure Index

Figure 1	Site Location Map
Figure 2	Monitoring Well and Soil Boring Locations
Figure 3	Groundwater Elevation Map
Figure 4	Groundwater Analytical Results – October 2016
Figure 5	Groundwater Analytical Results – 2013 and 2016



Table Index

Table 1	Groundwater Elevation Table
Table 2	Soil and Groundwater Field Sample Key
Table 3	Soil Analytical Results
Table 4	Groundwater Analytical Results
Table 5	November 2013 Groundwater Analytical Results Summary

Appendix Index

Appendix A	Stratigraphic and Well Construction Logs and Well Development Forms
Appendix B	Purging and Sampling Forms
Appendix C	Data Validation Memo and Analytical Reports



1. Introduction

GHD, on behalf of Gibraltar Industries Inc. (Gibraltar), hereby submits this Soil and Groundwater Delineation Report (Report) to the South Carolina Department of Health and Environmental Control (SCDHEC) for the former Bluewater Thermal Solutions facility located at 100 Hunts Bridge Road in Fountain Inn, South Carolina (Property or Site). The Site is currently owned by Bodycote Thermal Processing, Inc. Refer to Figure 1 for a Site Location Map.

This work was conducted in accordance with the Remedial Site Investigation Work Plan which was prepared based on the requirement of the State of South Carolina Voluntary Cleanup Program (VCP) and approved by the South Carolina Department of Health and Environmental Control (DHEC) in a letter dated September 21, 2016. A monitoring well permit (MW-10811) was issued by DHEC for this portion of the work.

The purpose of the site investigation was to delineate the extent of soil and groundwater impacts at areas of concern identified during the August 2012 and November 2013 site investigations. The Site investigation included installation and sampling of soil borings and permanent monitoring wells. Refer to Figure 2 for a Site Plan showing the soil boring and monitoring well locations.

The Site investigation was conducted between October 11 and November 8, 2016. The activities performed during this event are detailed in the following sections and include the preparation for and performance of remedial investigation activities, as approved by the DHEC.

1.1 Scope of Work

The scope of work (SOW) of the Work Plan included the following:

- Soil sampling at shallow and deep (above water table) intervals at six shallow monitoring well locations, B-1 through B-5, B-9 and B-10 to assesses and delineate soil impact.
- Soil sampling at shallow and deep intervals at three locations (B-6, B-7 and B-8) downgradient of the tote, construction and household debris area.
- Installation of six shallow (MW-1S-16 through MW-6-16) monitoring wells and one deep (MW-1D-16) monitoring well to delineate groundwater impact.
- Development and sampling of all monitoring wells 24 hours after well construction.
- Analysis of all soil and groundwater samples for Target Compound List (TCL) volatile organic compounds (VOCs) and select TCL semi-volatile organic compounds (SVOCs) and Target Analyte List (TAL) metals.
- Surveying and gauging monitoring wells to assist in evaluations of gradients and groundwater flow direction.



1.2 Report Layout

The remaining sections of the report are organized as follows:

- Section 2.0 Site Investigation: description of soil sampling and monitoring wells installation methodology;
- Section 3.0 Groundwater Monitoring: description of groundwater sampling methodology;
- Section 4.0 Analytical results: presentation of soil and groundwater analytical results; and
- Section 5.0 Summary and Conclusions: summary of the findings of all site investigation activities during this event.
- Section 6.0 Certification

2. Site Investigation

The Site assessment included installation of soil borings and soil sampling at all proposed monitoring well locations and immediately downgradient of the tote, construction and household debris area to assess impact in the soil and delineate source of contamination. It also included installation of six shallow monitoring wells for groundwater sampling to define the horizontal extent of groundwater impact and one deep monitoring well paired with the shallow monitoring well, MW-1S-16. The deep monitoring well was installed for vertical delineation purpose. Soil samples from surface (0 to 2 ft. below ground surface (bgs)) and deep (above the water table) and groundwater were collected. Soil boring and monitoring well locations are provided on Figure 2.

2.1 Soil Sampling

Under the supervision and direction of a GHD geologist, AE Drilling Services of Greenville, South Carolina advanced ten direct push technology (DPT) soil borings (B-1 through B-10). The soil borings were advanced utilizing a Geoprobe Model 8020 DPT rig using 2-inch outer diameter, five-foot long steel core soil samplers equipped with dedicated plastic liners.

During this Site investigation, soil samples were collected from all soil borings starting from the surface continuously to boring termination. All samples were examined for soil type, stratigraphy, banding, moisture, color, and visual evidence of potential impact. The stratigraphy observed in each soil boring was described and logged according to the Unified Soil Classification System (USCS). Representative portions of the soil from each interval were screened for total VOCs with a photoionization detector (PID), and a soil sample was collected for laboratory analysis from a shallow intervals and the interval above the water table. The soil samples were analyzed for target compound list (TCL) VOCs, TCL SVOCs and target analyte list (TAL) metals. The soil sampling helped fill in the data gaps in areas or intervals which were not sampled during the previous two Phase II Environmental Site Assessments (ESA).

Three of the soil borings (B-6, B-7 and B-8) were installed downgradient of the area identified as tote, construction and household debris area. One shallow and one deep (above the water table) soil samples were collected from each boring location. All soil samples were analyzed for TCL VOCs, TCL SVOCs and TAL metals. Stratigraphic and well construction logs are provided in Appendix A.



Following completion of the soil sampling activities, the borings were either drilled and converted to monitoring wells or backfilled with bentonite chips where no monitoring well was proposed. All backfilled borings were restored to match the original condition and grade.

2.2 Monitoring Well Installation

The six shallow monitoring wells (MW-1S-16 through MW-6-16) were installed at the proposed areas at and around the impacted groundwater area identified by the 2013 Supplemental Phase II ESA and at property boundaries.

- A shallow and a deep monitoring well pair (MW-1S-16/MW-1D-16) were installed south of the oil-water separator between borings BH-4 and BH-5 (2013 ESA).
- One monitoring well (MW-5-16) was installed south of Building 6, west of the water tank.
- Two shallow monitoring wells (MW-2-16 and MW-3-16) were installed further south by the tree line for horizontal delineation.
- Another shallow monitoring well (MW06-16) was installed at the downgradient portion of the site east of Building 4.
- Monitoring well MW-4-16 was installed on the front side of the property north of Building 6 for background purpose.

Monitoring wells were installed in general accordance to the United States Environmental Protection Agency (USEPA) Region 4, Science and Ecosystem Support Division (SESD), Field Branches and Quality System and Technical Procedures (FBQSTP) (SESDGUID-101-R1) and GHD's Standard Operating Procedures (SOPs). The shallow monitoring wells were drilled and installed to depths ranging from 25 to 29 feet bgs using 4¼-inches inside diameter hollow stem auger (HSA) drilling techniques. The deep monitoring well was installed to a depth of 58 feet bgs using HSA and mud rotary. The deep well was installed with surface casing (double cased) to 40 feet bgs to protect potential pathways for deep migration of contamination from the shallow.

All shallow monitoring well were completed with standard 2-inch diameter PVC casing with 10-foot machine slotted #10, schedule 40 PVC screen. The deep monitoring well was completed with 5-foot screen. The annular space around the wells was filled with sand to a depth of approximately 2-feet above the top of the screened interval. A nominal 2-foot thick layer of bentonite chips was poured in above the sand to create a seal. The remaining space was filled with cement and bentonite grout mix. Monitoring wells MW-1S-16, MW-1D-16, MW-4-16 and MW-6-16 were finished with flush mount well covers within a 2-foot by 2-foot concrete pad. Monitoring wells MW-2-16, MW-3-16 and MW-5-16 were finished with aluminum stick up well covers. All monitoring wells were secured with locks. The monitoring wells were developed 24 hours after well construction to remove any silt introduced during the well installation process. Each monitoring well was developed until zero Nephelometric Turbidity Unit (NTU) turbidity was attained. Well Construction logs and well development forms are provided in Appendix A.

Soil cuttings and water generated during well installation, decontamination of augers, well development, purging and sampling activities were drummed and staged on-site for subsequent characterization and off-site disposal.



Top of casing and ground surface elevations and the corresponding x-y coordinates of monitoring wells were surveyed by GEL Geophysics of Charleston of South Carolina to assist in evaluating the groundwater elevations and the groundwater flow directions.

3. Groundwater Monitoring

The groundwater monitoring event was conducted on November 7 and 8, 2016 on all site monitoring wells to assess impact in groundwater quality and define extent of groundwater impact horizontally and vertically. All monitoring wells were sampled and analyzed for TCL VOCs, TCL SVOCs and TAL metals.

3.1 Groundwater Elevations

Depth to groundwater was measured in all monitoring wells on November 7, 2016. Water level data were reduced to a common vertical datum based on the surveyed top of casing (TOC) elevations. Table 1 provides the depth to water measurements and corresponding groundwater elevations. The groundwater elevation data were further evaluated to show groundwater flow direction as shown on Figure 3. Groundwater flows toward the southeast with an average hydraulic gradient of 0.014.

3.2 Groundwater Sampling Procedures

Groundwater measurement and sampling procedures were conducted in general accordance with the USEPA Region IV, Field Branches Quality System and Technical Procedures (FBQSTP) guidance documents¹. All samples were collected in laboratory supplied containers with appropriate preservative as specified by the method. The list of monitoring wells sampled during this groundwater monitoring event along with the field sample key is provided in Table 2.

Groundwater sampling was conducted between November 7 and 8, 2016. Prior to groundwater sampling, each monitoring well was purged using low flow purging (LFP) technique. The LFP technique was performed using a peristaltic pump fitted with new disposable polyethylene tubing prior to use in each well. During purging, the water level was measured, and field parameters (i.e., pH, conductivity, turbidity, temperature, dissolved oxygen [DO], and oxidation reduction potential [ORP]) were recorded every five minutes using a Horiba U-53 with flow through cell. The flow through cell was decontaminated prior to use at each well location. Flow rates were monitored and maintained within a steady range to minimize drawdown of the water column. Drawdown in monitoring well MW-1D-16 was recorded slightly above the standard drawdown of 0.35 ft. Stabilization of parameters in the groundwater in the screened interval was evaluated using the real time parameter data measured by the flow through cell of a calibrated Horiba U-53 and was determined complete when three consecutive sets of parameter measurements were within the appropriate range².

¹ SESD, Guidance Numbers SESDPROC-105-R2 and SESDPROC-301-R3.

² pH ± 0.1 pH units of the average value of the three readings; temperature ± 3 percent of the average value of the three readings; conductivity ± 0.005 milliSiemen per centimeter (mS/cm) of the average value of the three readings for conductivity < 1 mS/cm and ± 0.01 mS/cm of the average value of the three readings for conductivity > 1 mS/cm; ORP ± 10 millivolts (mV) of the average value of the three readings; DO ± 10 percent of the average value of the three readings; and turbidity ± 10 percent of the average value of the three readings or a final value of less than 10 NTU.



Following stabilization of field measured parameters for LFP, the flow through cell was disconnected and groundwater samples were collected directly from the discharge end of the pump. Purge water was containerized in 55-gallon drums and staged at the Site pending off Site disposal. Appendix B provides summary of field measurements that were recorded during purging and sampling activities for each monitoring well location.

A blind duplicate groundwater sample was collected from monitoring well MW-6-16 (GW-077150-110816-TBM-106). Matrix spike/matrix spike duplicate (MS/MSD) samples were collected from monitoring well MW-2-16 (GW-077150-110816-TBM-104). The duplicate and MS/MSD samples were collected for quality assurance/quality control (QA/QC) purposes and the data were independently validated by a GHD chemist.

All samples were stored in ice-filled coolers and hand delivered to Analytical Environmental Services (AES) of Atlanta, GA under proper Chain-of-Custody (COC) protocols for analyses.

4. Analytical Results

The soil and groundwater analytical results are presented in this section. Soil concentrations were compared to the USEPA Regional Screening Levels (RSLs) for Industrial Soils screening value and groundwater was compared to USEPA Maximum Contaminant Level (MCL) obtained from the May 2016 Regional Screening Level (RSL) table. For constituents where no MCL is available, Tapwater screening criteria was used for the groundwater samples.

Soil analytical results are summarized in Table 3. Groundwater analytical results are summarized in Table 4. Copies of the AES analytical reports and the GHD data validation memorandum for all samples are provided in Appendix C.

4.1 Soil Analytical Results

No TCL VOCs and TCL SVOCs were detected in any of the soil samples above the laboratory reporting limits except acetone which was detected in the shallow intervals (less than 2 feet) at B-1, B-2, B-3, B-4, B-5, B-9 and B-10 above the reporting limit but more than five orders of magnitude below the Industrial Soils screening criteria. As there is no evidence of other impact in this zone, the acetone detection may be attributed to laboratory artifact. Tetrachloroethylene (PCE) (30 µg/kg) was detected slightly above the reporting limit of 3.9 micrograms per kilograms (µg/kg) but below the screening criteria in the sample collected from B-1 between 15 and 15.5 ft bgs. The low PCE concentration might be attributed to the groundwater because the sample was collected from the capillary fringe immediately above the water table.

Select TAL metals were detected at various locations and intervals above their respective reporting limits but all were below the Industrial soils screening criteria except thallium which exceeded the Industrial soils screening criteria of 1200 µg/kg at B-2 (2370 µg/kg) from interval 14 to 15 feet bgs.

4.2 Groundwater Analytical results

No TCL SVOCs were detected in groundwater above the screening criteria (MCL or Tapwater). Select VOC compounds (PCE, TCE, 1,1-dichloroethane (1,1-DCA), and 1,1-dichloroethene (1,1-DCE)) were detected above the screening criteria in select groundwater samples (MW-1S-16, MW-5-16 and MW-6-16). Highest concentration of PCE and TCE were detected at MW-1S-16. PCE



was also detected at side-gradient well MW-5-16 above the MCL. Slight exceedances of 1,1-DCA and 1,1-DCE (daughter products of PCE) were detected at the furthest downgradient monitoring well MW-6-16. Overall, the possible source area focuses around wells MW-1S-16 and slightly upgradient of the two monitoring wells.

The November 2013 site investigation has also identified the same area (BH-4 and BH-5) with the highest concentration of PCE and TCE. Summary of the November 2013 groundwater analytical results are presented in Table 5 and Figure 5 shows the 2013 and 2016 VOC concentrations in groundwater.

All TAL metals were reported below their respective screening criteria except antimony and selenium at MW-1D-16, manganese at MW-1S-16 and MW-3-16 which were detected above their respective MCLs. Detections of groundwater analytical results are summarized in the data boxes presented on Figure 4.

5. Summary and Conclusion

Six shallow and one deep monitoring well were installed at and around the area where the 2003 Phase II ESA showed concentrations of PCE and TCE in the groundwater as part of the soil and groundwater delineation effort. Soil samples were collected at each locations at shallow and deep (above water) intervals to investigate source of the groundwater impact. Groundwater samples were also collected from all monitoring wells. All soil and groundwater samples were analyzed for TCL VOCs, TCL SVOCs and TAL metals.

Overall, no VOCs, SVOCs and TAL metals were detected above Industrial Screening Criteria in the soil samples except thallium detected at B-2 (14 to 15 feet bgs) which slightly exceeded the industrial soil screening criteria. (discuss VOCs that were detected) No source area for the chlorinated compounds detected in the groundwater samples was identified at the areas investigated. The former furnace pit inside Building 6 which was remediated by excavating the soil in February 2010 could be possible source area for the groundwater contamination of the VOCs.

PCE and TCE in groundwater were detected above the MCL at MW-1S-16 and TCE was detected above MCL at the side-gradient well MW-5-16. Daughter products 1,1-DCA and 1,1-DCE were detected at the further downgradient well MW-6-16 slightly above the criteria used. No TCL VOCs and SVOCs were detected at MW-2-16, MW-3-16 and MW-6-16 above the reporting limits.

Antimony and selenium at MW-1D-16 and manganese at MW-1S-16 and MW-3-16 were detected above their respective screening criteria used. All groundwater samples were collected unfiltered with zero NTU turbidity. We suspect that these select metals detected above the MCL may be associated with background/naturally occurring concentrations in the piedmont soils as the two metals were not detected in all the shallow wells.

In an effort to investigate source of the groundwater impact, we recommend sampling and analyzing contents of the oil water separator which is located immediately upgradient of MW-1S provided that access is granted by Bodycote.



6. Certification

In accordance with Section 3 (RESPONSE ACTION) of the VCC 14-6226-RP, this report is signed as sealed below by a Professional Geologist duly-licensed in the State of South Carolina.



Professional Geologist Statement

I certify that I am a qualified groundwater scientist who has received a baccalaureate or postgraduate degree in the natural sciences or engineering, and have sufficient training and experience in groundwater hydrology and related fields, as demonstrated by state registration and completion of accredited university courses, that enable me to make sound professional judgments regarding groundwater monitoring and contaminant fate and transport. I further certify that this Soil and Groundwater Delineation Report was prepared in conjunction with others working under my direction.

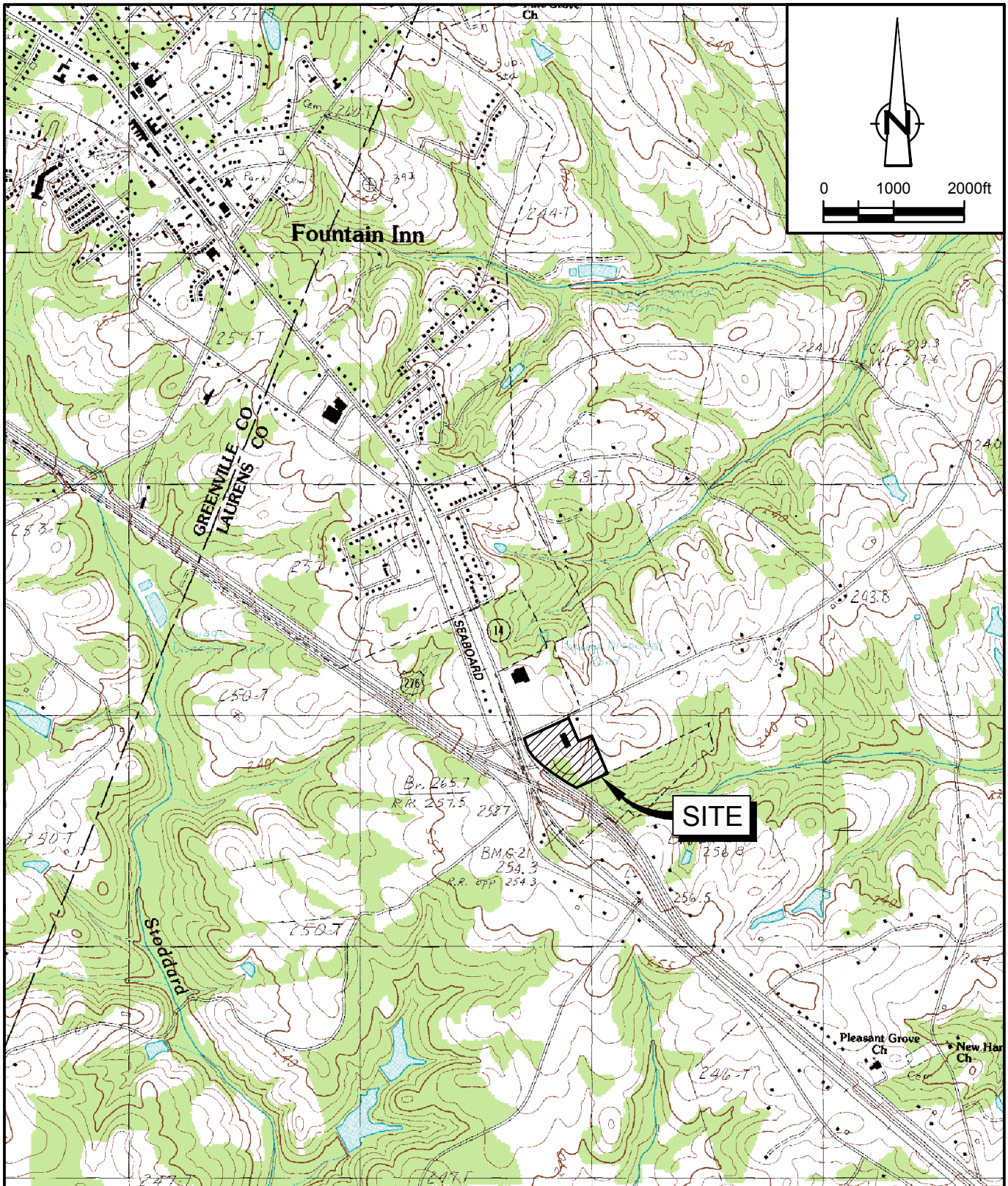
Terefe Mazengia, RPG #2573

Registered Professional Geologist



Signature (Registered Professional Geologist)

Figures



SOURCE: USGS QUADRANGLE MAP: FOUNTAIN INN, SC.

figure 1

SITE LOCATION MAP
BLUEWATER THERMAL SOLUTIONS
100 HUNTS BRIDGE ROAD
Fountain Inn, South Carolina



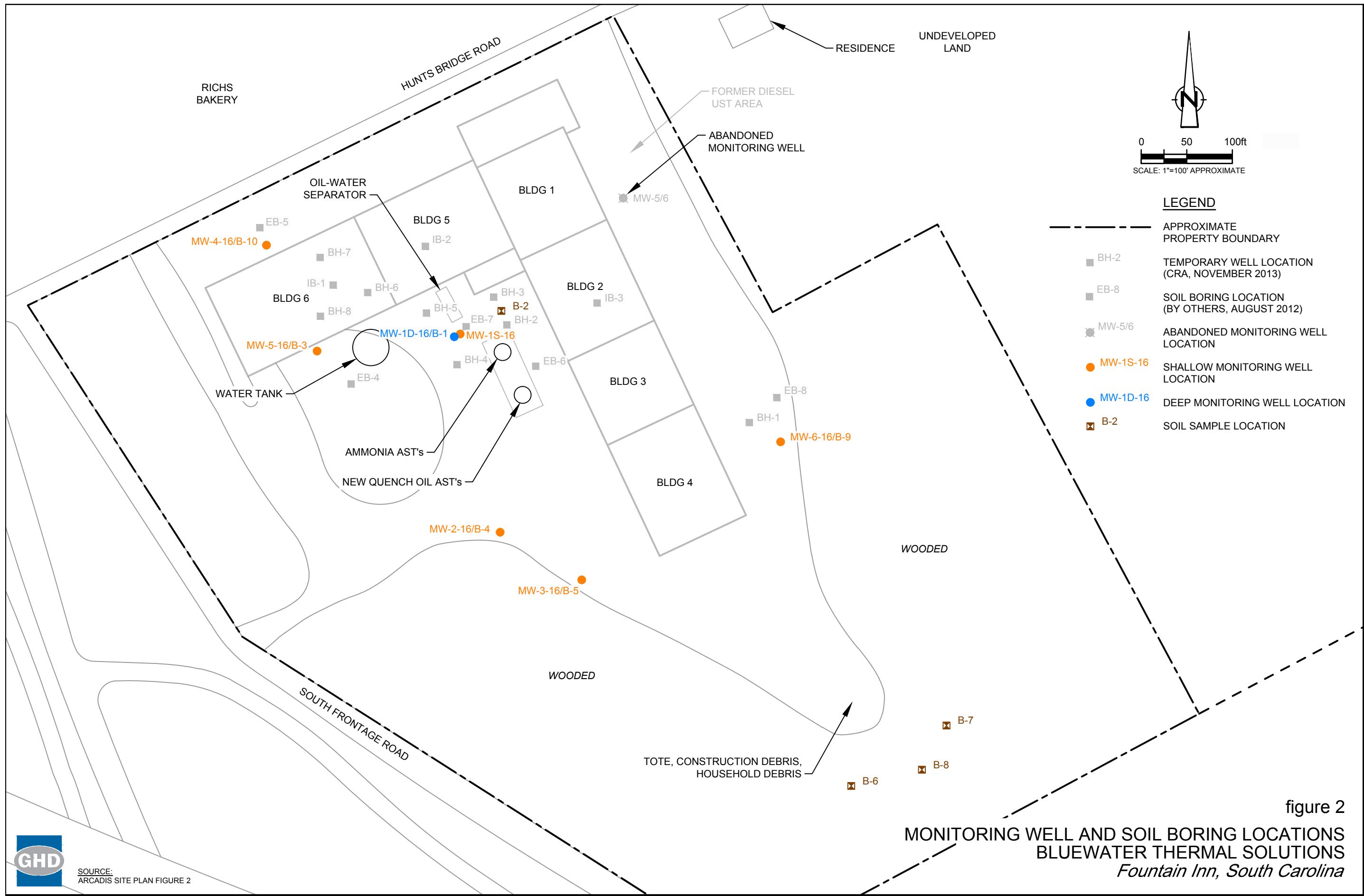
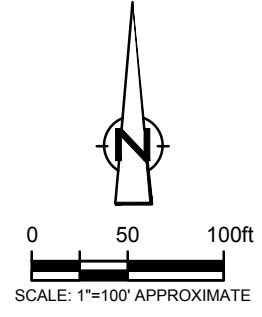
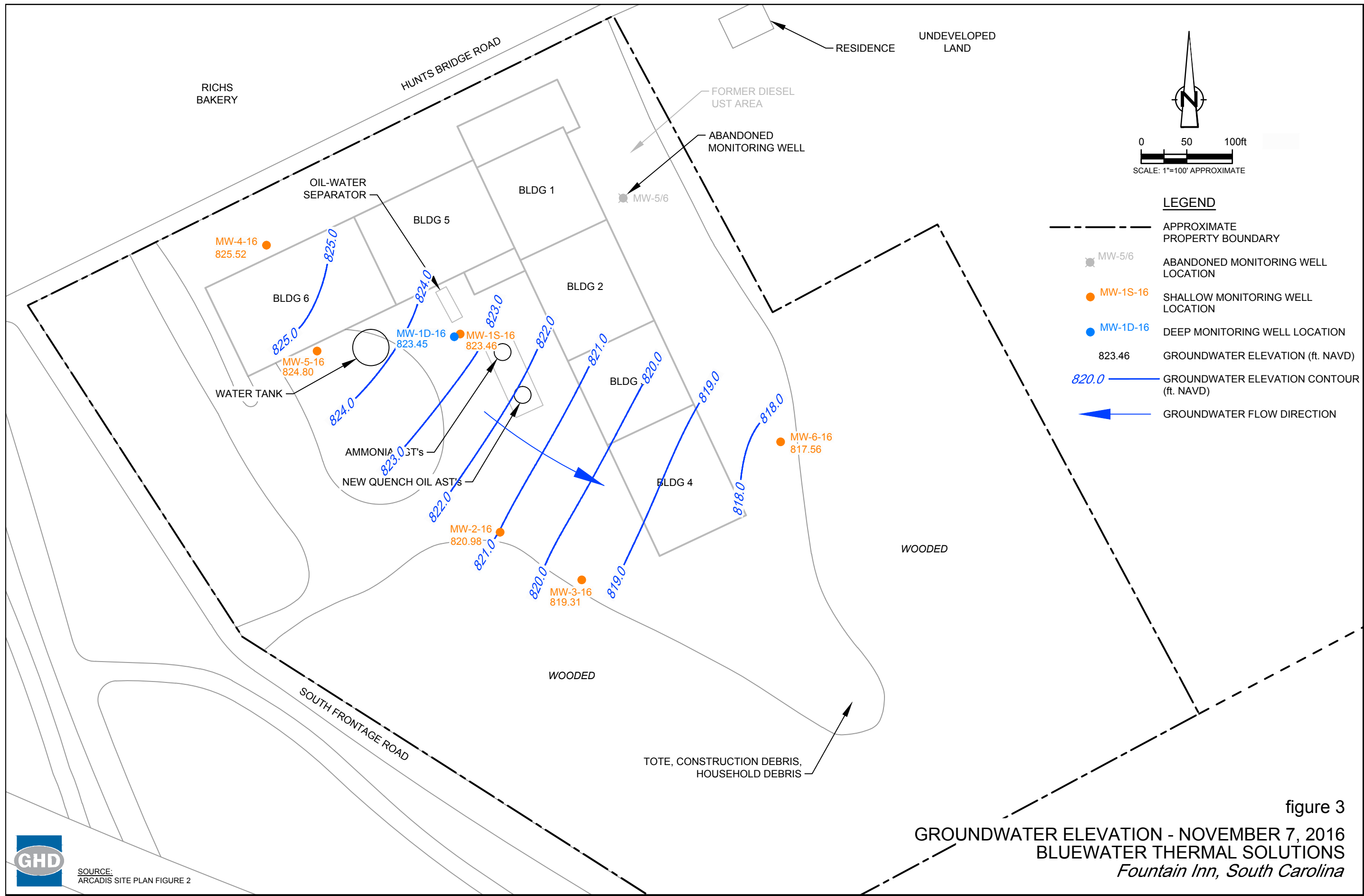


figure 2
 MONITORING WELL AND SOIL BORING LOCATIONS
 BLUEWATER THERMAL SOLUTIONS
 Fountain Inn, South Carolina



SOURCE:
 ARCADIS SITE PLAN FIGURE 2

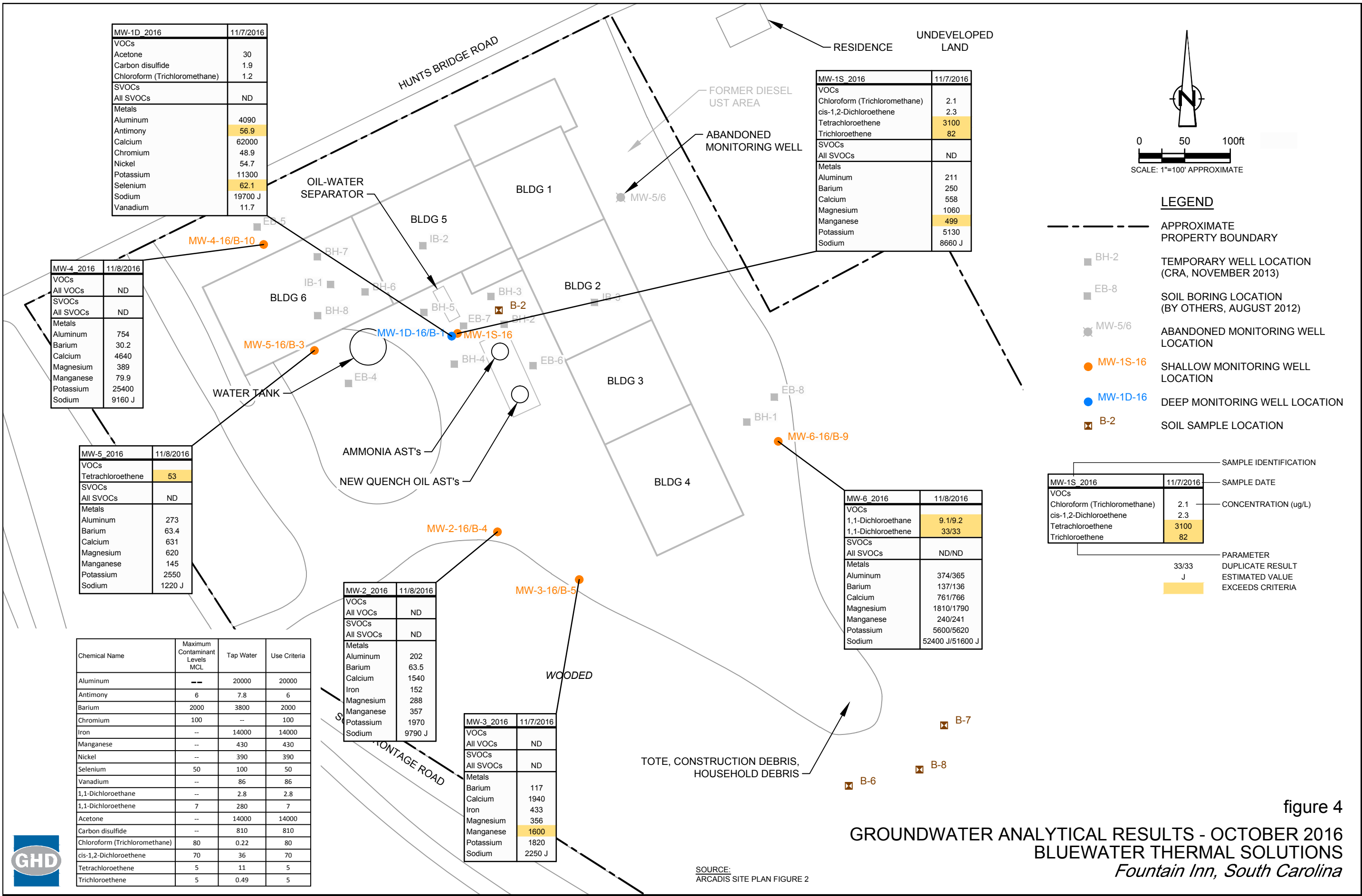


- LEGEND**
- APPROXIMATE PROPERTY BOUNDARY
 - MW-5/6 ABANDONED MONITORING WELL LOCATION
 - MW-1S-16 SHALLOW MONITORING WELL LOCATION
 - MW-1D-16 DEEP MONITORING WELL LOCATION
 - 823.46 GROUNDWATER ELEVATION (ft. NAVD)
 - 820.0 GROUNDWATER ELEVATION CONTOUR (ft. NAVD)
 - ← GROUNDWATER FLOW DIRECTION

figure 3
 GROUNDWATER ELEVATION - NOVEMBER 7, 2016
 BLUEWATER THERMAL SOLUTIONS
 Fountain Inn, South Carolina



SOURCE:
 ARCADIS SITE PLAN FIGURE 2



MW-1D 2016	11/7/2016
VOCs	
Acetone	30
Carbon disulfide	1.9
Chloroform (Trichloromethane)	1.2
SVOCs	
All SVOCs	ND
Metals	
Aluminum	4090
Antimony	56.9
Calcium	62000
Chromium	48.9
Nickel	54.7
Potassium	11300
Selenium	62.1
Sodium	19700 J
Vanadium	11.7

MW-1S 2016	11/7/2016
VOCs	
Chloroform (Trichloromethane)	2.1
cis-1,2-Dichloroethene	2.3
Tetrachloroethene	3100
Trichloroethene	82
SVOCs	
All SVOCs	ND
Metals	
Aluminum	211
Barium	250
Calcium	558
Magnesium	1060
Manganese	499
Potassium	5130
Sodium	8660 J

MW-4 2016	11/8/2016
VOCs	
All VOCs	ND
SVOCs	
All SVOCs	ND
Metals	
Aluminum	754
Barium	30.2
Calcium	4640
Magnesium	389
Manganese	79.9
Potassium	25400
Sodium	9160 J

MW-5 2016	11/8/2016
VOCs	
Tetrachloroethene	53
SVOCs	
All SVOCs	ND
Metals	
Aluminum	273
Barium	63.4
Calcium	631
Magnesium	620
Manganese	145
Potassium	2550
Sodium	1220 J

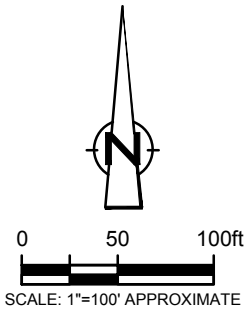
MW-2 2016	11/8/2016
VOCs	
All VOCs	ND
SVOCs	
All SVOCs	ND
Metals	
Aluminum	202
Barium	63.5
Calcium	1540
Iron	152
Magnesium	288
Manganese	357
Potassium	1970
Sodium	9790 J

MW-3 2016	11/7/2016
VOCs	
All VOCs	ND
SVOCs	
All SVOCs	ND
Metals	
Barium	117
Calcium	1940
Iron	433
Magnesium	356
Manganese	1600
Potassium	1820
Sodium	2250 J

MW-6 2016	11/8/2016
VOCs	
1,1-Dichloroethane	9.1/9.2
1,1-Dichloroethene	33/33
SVOCs	
All SVOCs	ND/ND
Metals	
Aluminum	374/365
Barium	137/136
Calcium	761/766
Magnesium	1810/1790
Manganese	240/241
Potassium	5600/5620
Sodium	52400 J/51600 J

MW-1S 2016	11/7/2016
VOCs	
Chloroform (Trichloromethane)	2.1
cis-1,2-Dichloroethene	2.3
Tetrachloroethene	3100
Trichloroethene	82

Chemical Name	Maximum Contaminant Levels MCL	Tap Water	Use Criteria
Aluminum	--	20000	20000
Antimony	6	7.8	6
Barium	2000	3800	2000
Chromium	100	--	100
Iron	--	14000	14000
Manganese	--	430	430
Nickel	--	390	390
Selenium	50	100	50
Vanadium	--	86	86
1,1-Dichloroethane	--	2.8	2.8
1,1-Dichloroethene	7	280	7
Acetone	--	14000	14000
Carbon disulfide	--	810	810
Chloroform (Trichloromethane)	80	0.22	80
cis-1,2-Dichloroethene	70	36	70
Tetrachloroethene	5	11	5
Trichloroethene	5	0.49	5



LEGEND

- APPROXIMATE PROPERTY BOUNDARY
- BH-2 TEMPORARY WELL LOCATION (CRA, NOVEMBER 2013)
- EB-8 SOIL BORING LOCATION (BY OTHERS, AUGUST 2012)
- ⊙ MW-5/6 ABANDONED MONITORING WELL LOCATION
- MW-1S-16 SHALLOW MONITORING WELL LOCATION
- MW-1D-16 DEEP MONITORING WELL LOCATION
- ⊠ B-2 SOIL SAMPLE LOCATION

— SAMPLE IDENTIFICATION
 — SAMPLE DATE
 — CONCENTRATION (ug/L)
 — PARAMETER
 — DUPLICATE RESULT
 — ESTIMATED VALUE
 — EXCEEDS CRITERIA

figure 4
 GROUNDWATER ANALYTICAL RESULTS - OCTOBER 2016
 BLUEWATER THERMAL SOLUTIONS
 Fountain Inn, South Carolina



SOURCE:
 ARCADIS SITE PLAN FIGURE 2

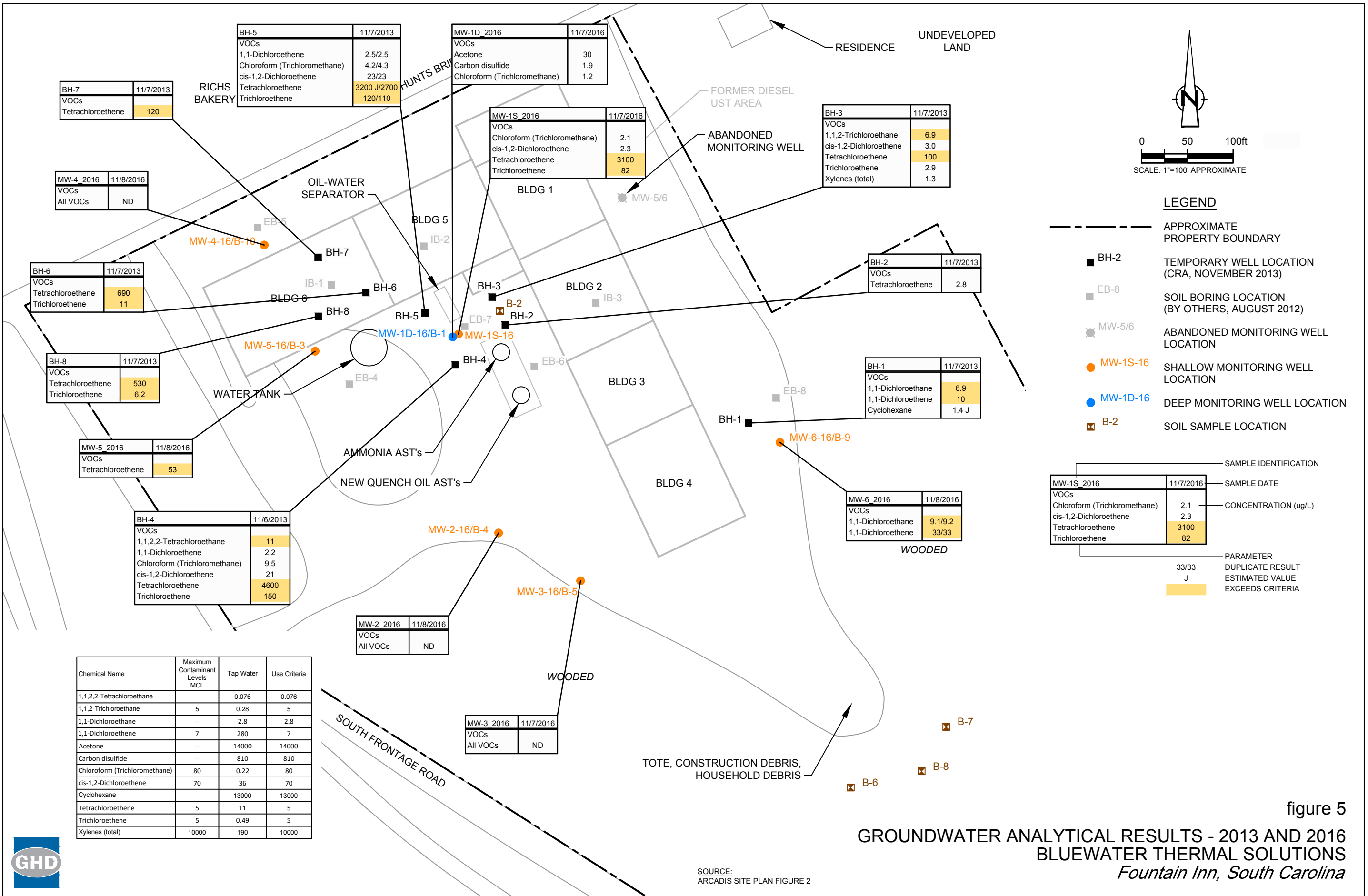


figure 5
 GROUNDWATER ANALYTICAL RESULTS - 2013 AND 2016
 BLUEWATER THERMAL SOLUTIONS
 Fountain Inn, South Carolina

SOURCE:
 ARCADIS SITE PLAN FIGURE 2

Tables

Table 1
Groundwater Elevations
Former Bluewater Thermal Solutions Site
Fountain Inn, South Carolina

<i>Wells</i>	<i>Total Depth feet bTOC</i>	<i>Ground Surface Elevation¹</i>	<i>TOC Elevation¹</i>	<i>November 7, 2016</i>	
				<i>Depth to Groundwater (feet bTOC)</i>	<i>Groundwater Elevation (feet NAVD)</i>
MW-1S-16	29.15	845.06	845.06	21.60	823.46
MW-1D-16	58.25	844.42	844.05	20.80	823.25
MW-2-16	27.45	838.72	841.03	20.05	820.98
MW-3-16	27.55	838.71	841.03	21.72	819.31
MW-4-16	29.70	847.47	847.22	21.70	825.52
MW-5-16	30.28	847.03	849.13	24.33	824.80
MW-6-16	29.90	839.71	839.46	21.90	817.56

Notes:

¹ Elevations are reported relative to SC State Plane NAD83 and NAVD88

Table 2
Soil and Groundwater Sample Key
Remedial Site Investigation
Bluewater Thermal Solutions
Fountain Inn, South Carolina

Sample ID	Sample Location	Sample Interval (ft)	Collection Date	Collection Time	Analysis/Parameters			Comments
					TCL VOCs	TCL SVOCs	TAL Metals	
S-077150-101116-DJB-001	MW-1D-16/B-1	0.6 - 1.5	11-Oct-16	11:00	X	X	X	
S-077150-101116-DJB-002		15.0 - 15.5	11-Oct-16	11:15	X	X	X	
S-077150-101116-DJB-003	B-2	0.5 - 1.5	11-Oct-16	13:30	X	X	X	
S-077150-101116-DJB-004		14 - 15	11-Oct-16	13:45	X	X	X	
S-077150-101116-DJB-005	MW-5-16/B-3	0.5 - 1.5	11-Oct-16	15:30	X	X	X	
S-077150-101116-DJB-006		14 - 15	11-Oct-16	15:50	X	X	X	
S-077150-101116-DJB-007	MW-2-16/B-4	3 - 5	11-Oct-16	16:30	X	X	X	
S-077150-101116-DJB-008		9 - 10	11-Oct-16	17:00	X	X	X	
S-077150-101216-DJB-009	MW-3-16/B-5	0 - 2	12-Oct-16	9:15	X	X	X	
S-077150-101216-DJB-010		10 - 13	12-Oct-16	9:40	X	X	X	
S-077150-101216-DJB-011	B-6	0.5 - 1.5	12-Oct-16	10:00	X	X	X	
S-077150-101216-DJB-012		8 - 9	12-Oct-16	10:15	X	X	X	
S-077150-101216-DJB-013	B-7	0.5 - 1.5	12-Oct-16	11:30	X	X	X	
S-077150-101216-DJB-014		9 - 10	12-Oct-16	12:00	X	X	X	
S-077150-101216-DJB-015	B-8	0.5 - 1.5	12-Oct-16	12:15	X	X	X	
S-077150-101216-DJB-016		9 - 10	12-Oct-16	12:35	X	X	X	
S-077150-101216-DJB-017	MW-6-16/B-9	0.5 - 1.5	12-Oct-16	14:00	X	X	X	
S-077150-101216-DJB-018		0.5 - 1.5	12-Oct-16	14:10	X	X	X	Duplicate
S-077150-101216-DJB-019		13 - 15	12-Oct-16	14:45	X	X	X	
S-077150-101216-DJB-020	MW-4-16/B-10	0 - 1.2	12-Oct-16	16:10	X	X	X	
S-077150-101216-DJB-021		18 - 20	12-Oct-16	16:40	X	X	X	
TRIP BLANK	-			-	X			
GW-077150-110716-TBM-101	MW-1S-16	-	07-Nov-16	14:30	X	X	X	
GW-077150-110716-TBM-102	MW-1D-16	-	07-Nov-16	15:50	X	X	X	
GW-077150-110716-TBM-103	MW-3-16	-	07-Nov-16	17:25	X	X	X	
GW-077150-110816-TBM-104	MW-2-16	-	08-Nov-16	9:15	X	X	X	MS/MSD
GW-077150-110816-TBM-105	MW-6-16	-	08-Nov-16	10:40	X	X	X	
GW-077150-110816-TBM-106	MW-6-16	-	08-Nov-16	10:50	X	X	X	Duplicate
GW-077150-110816-TBM-107	MW-4-16	-	08-Nov-16	12:00	X	X	X	
GW-077150-110816-TBM-108	MW-5-16	-	08-Nov-16	13:10	X	X	X	
TRIP BLANK					X			

Notes:

Table 3

**Soil Analytical Results Summary
Remedial Site Investigation
Bluewater Thermal Solutions Site
Fountain Inn, South Carolina**

Sample Location:	MW-1D-16/B-1	MW-1D-16/B-1	MW-2-16/B-4	MW-2-16/B-4	MW-3-16/B-5	MW-3-16/B-5	MW-4-16/B-10		
Sample ID:	SO-077150-101116-DJB-001	SO-077150-101116-DJB-002	SO-077150-101116-DJB-007	SO-077150-101116-DJB-008	SO-077150-101216-DJB-009	SO-077150-101216-DJB-010	SO-077150-101216-DJB-020		
Sample Date:	10/11/2016	10/11/2016	10/11/2016	10/11/2016	10/12/2016	10/12/2016	10/12/2016		
Sample Depth:	(0.6-1.5) ft BGS	(15-15.5) ft BGS	(3-5) ft BGS	(9-10) ft BGS	(0-2) ft BGS	(10-13) ft BGS	(0-1.2) ft BGS		
Parameters	Units	USEPA Industrial Soil							
VOCs									
1,1,1,2-Tetrachloroethane	ug/kg	8800	3.8 U	3.9 U	5.5 U	5.1 U	3.6 U	4.3 U	4.1 U
1,1,1-Trichloroethane	ug/kg	3600000	3.8 U	3.9 U	5.5 U	5.1 U	3.6 U	4.3 U	4.1 U
1,1,2-Trichloroethane	ug/kg	630	3.8 U	3.9 U	5.5 U	5.1 U	3.6 U	4.3 U	4.1 U
1,1-Dichloroethane	ug/kg	16000	3.8 U	3.9 U	5.5 U	5.1 U	3.6 U	4.3 U	4.1 U
1,1-Dichloroethene	ug/kg	100000	3.8 U	3.9 U	5.5 U	5.1 U	3.6 U	4.3 U	4.1 U
1,2,4-Trichlorobenzene	ug/kg	26000	3.8 U	3.9 U	5.5 U	5.1 U	3.6 U	4.3 U	4.1 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/kg	64	3.8 U	3.9 U	5.5 U	5.1 U	3.6 U	4.3 U	4.1 U
1,2-Dibromoethane (Ethylene dibromide)	ug/kg	160	3.8 U	3.9 U	5.5 U	5.1 U	3.6 U	4.3 U	4.1 U
1,2-Dichlorobenzene	ug/kg	930000	3.8 U	3.9 U	5.5 U	5.1 U	3.6 U	4.3 U	4.1 U
1,2-Dichloroethane	ug/kg	2000	3.8 U	3.9 U	5.5 U	5.1 U	3.6 U	4.3 U	4.1 U
1,2-Dichloropropane	ug/kg	4400	3.8 U	3.9 U	5.5 U	5.1 U	3.6 U	4.3 U	4.1 U
1,3-Dichloropropane	ug/kg	2300000	3.8 U	3.9 U	5.5 U	5.1 U	3.6 U	4.3 U	4.1 U
1,4-Dichlorobenzene	ug/kg	11000	3.8 U	3.9 U	5.5 U	5.1 U	3.6 U	4.3 U	4.1 U
2-Butanone (Methyl ethyl ketone) (MEK)	ug/kg	19000000	7.6 U	7.9 U	11 U	10 U	7.2 U	8.6 U	8.2 U
2-Hexanone	ug/kg	130000	7.6 U	7.9 U	11 U	10 U	7.2 U	8.6 U	8.2 U
4-Methyl-2-pentanone (MIBK)	ug/kg	14000000	7.6 U	7.9 U	11 U	10 U	7.2 U	8.6 U	8.2 U
Acetone	ug/kg	67000000	20	7.9 U	47	10 U	19	16	150
Benzene	ug/kg	5100	3.8 U	3.9 U	5.5 U	5.1 U	3.6 U	4.3 U	4.1 U
Bromoform	ug/kg	86000	3.8 U	3.9 U	5.5 U	5.1 U	3.6 U	4.3 U	4.1 U
Bromomethane (Methyl bromide)	ug/kg	3000	3.8 U	3.9 U	5.5 U	5.1 U	3.6 U	4.3 U	4.1 U
Carbon disulfide	ug/kg	350000	7.6 U	7.9 U	11 U	10 U	7.2 U	8.6 U	8.2 U
Carbon tetrachloride	ug/kg	2900	3.8 U	3.9 U	5.5 U	5.1 U	3.6 U	4.3 U	4.1 U
Chlorobenzene	ug/kg	130000	3.8 U	3.9 U	5.5 U	5.1 U	3.6 U	4.3 U	4.1 U
Chlorobromomethane	ug/kg	63000	3.8 U	3.9 U	5.5 U	5.1 U	3.6 U	4.3 U	4.1 U
Chloroethane	ug/kg	5700000	7.6 U	7.9 U	11 U	10 U	7.2 U	8.6 U	8.2 U
Chloroform (Trichloromethane)	ug/kg	1400	3.8 U	3.9 U	5.5 U	5.1 U	3.6 U	4.3 U	4.1 U
Chloromethane (Methyl chloride)	ug/kg	46000	7.6 U	7.9 U	11 U	10 U	7.2 U	8.6 U	8.2 U
cis-1,2-Dichloroethene	ug/kg	230000	3.8 U	3.9 U	5.5 U	5.1 U	3.6 U	4.3 U	4.1 U
cis-1,3-Dichloropropene	ug/kg	--	3.8 U	3.9 U	5.5 U	5.1 U	3.6 U	4.3 U	4.1 U
Cyclohexane	ug/kg	2700000	3.8 U	3.9 U	5.5 U	5.1 U	3.6 U	4.3 U	4.1 U
Dibromochloromethane	ug/kg	39000	3.8 U	3.9 U	5.5 U	5.1 U	3.6 U	4.3 U	4.1 U
Dichlorodifluoromethane (CFC-12)	ug/kg	37000	7.6 U	7.9 U	11 U	10 U	7.2 U	8.6 U	8.2 U
Ethylbenzene	ug/kg	25000	3.8 U	3.9 U	5.5 U	5.1 U	3.6 U	4.3 U	4.1 U
Isopropyl benzene	ug/kg	990000	3.8 U	3.9 U	5.5 U	5.1 U	3.6 U	4.3 U	4.1 U
Methyl acetate	ug/kg	120000000	3.8 U	3.9 U	5.5 U	5.1 U	3.6 U	4.3 U	4.1 U
Methyl cyclohexane	ug/kg	--	3.8 U	3.9 U	5.5 U	5.1 U	3.6 U	4.3 U	4.1 U
Methyl tert butyl ether (MTBE)	ug/kg	210000	3.8 U	3.9 U	5.5 U	5.1 U	3.6 U	4.3 U	4.1 U
Methylene chloride	ug/kg	320000	7.6 U	7.9 U	11 U	10 U	7.2 U	8.6 U	8.2 U
Styrene	ug/kg	3500000	3.8 U	3.9 U	5.5 U	5.1 U	3.6 U	4.3 U	4.1 U
Tetrachloroethene	ug/kg	39000	3.8 U	30	5.5 U	5.1 U	3.6 U	4.3 U	4.1 U
Toluene	ug/kg	4700000	3.8 U	3.9 U	5.5 U	5.1 U	3.6 U	4.3 U	4.1 U
trans-1,2-Dichloroethene	ug/kg	2300000	3.8 U	3.9 U	5.5 U	5.1 U	3.6 U	4.3 U	4.1 U
trans-1,3-Dichloropropene	ug/kg	--	3.8 U	3.9 U	5.5 U	5.1 U	3.6 U	4.3 U	4.1 U
Trichloroethene	ug/kg	1900	3.8 U	3.9 U	5.5 U	5.1 U	3.6 U	4.3 U	4.1 U
Trichlorofluoromethane (CFC-11)	ug/kg	35000000	3.8 U	3.9 U	5.5 U	5.1 U	3.6 U	4.3 U	4.1 U
Trifluorotrichloroethane (CFC-113)	ug/kg	17000000	7.6 U	7.9 U	11 U	10 U	7.2 U	8.6 U	8.2 U
Vinyl chloride	ug/kg	1700	7.6 U	7.9 U	11 U	10 U	7.2 U	8.6 U	8.2 U
Xylenes (total)	ug/kg	250000	3.8 U	3.9 U	5.5 U	5.1 U	3.6 U	4.3 U	4.1 U

Table 3

**Soil Analytical Results Summary
Remedial Site Investigation
Bluewater Thermal Solutions Site
Fountain Inn, South Carolina**

Sample Location:		MW-1D-16/B-1	MW-1D-16/B-1	MW-2-16/B-4	MW-2-16/B-4	MW-3-16/B-5	MW-3-16/B-5	MW-4-16/B-10	
Sample ID:		SO-077150-101116-DJB-001	SO-077150-101116-DJB-002	SO-077150-101116-DJB-007	SO-077150-101116-DJB-008	SO-077150-101216-DJB-009	SO-077150-101216-DJB-010	SO-077150-101216-DJB-020	
Sample Date:		10/11/2016	10/11/2016	10/11/2016	10/11/2016	10/12/2016	10/12/2016	10/12/2016	
Sample Depth:		(0.6-1.5) ft BGS	(15-15.5) ft BGS	(3-5) ft BGS	(9-10) ft BGS	(0-2) ft BGS	(10-13) ft BGS	(0-1.2) ft BGS	
Parameters	Units	USEPA Industrial Soil							
SVOCs									
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	ug/kg	4700000	400 U	420 U	400 U	410 U	360 U	410 U	360 U
2,4,5-Trichlorophenol	ug/kg	8200000	1000 U	1100 U	1000 U	1000 U	900 U	1000 U	900 U
2,4,6-Trichlorophenol	ug/kg	82000	400 U	420 U	400 U	410 U	360 U	410 U	360 U
2,4-Dichlorophenol	ug/kg	250000	400 U	420 U	400 U	410 U	360 U	410 U	360 U
2,4-Dimethylphenol	ug/kg	1600000	400 U	420 U	400 U	410 U	360 U	410 U	360 U
2,4-Dinitrophenol	ug/kg	160000	1000 U	1100 U	1000 U	1000 U	900 U	1000 U	900 U
2,4-Dinitrotoluene	ug/kg	7400	400 U	420 U	400 U	410 U	360 U	410 U	360 U
2,6-Dinitrotoluene	ug/kg	1500	400 U	420 U	400 U	410 U	360 U	410 U	360 U
2-Chloronaphthalene	ug/kg	6000000	400 U	420 U	400 U	410 U	360 U	410 U	360 U
2-Chlorophenol	ug/kg	580000	400 U	420 U	400 U	410 U	360 U	410 U	360 U
2-Methylnaphthalene	ug/kg	300000	400 U	420 U	400 U	410 U	360 U	410 U	360 U
2-Methylphenol	ug/kg	4100000	400 U	420 U	400 U	410 U	360 U	410 U	360 U
2-Nitroaniline	ug/kg	800000	1000 U	1100 U	1000 U	1000 U	900 U	1000 U	900 U
2-Nitrophenol	ug/kg	--	400 U	420 U	400 U	410 U	360 U	410 U	360 U
3,3'-Dichlorobenzidine	ug/kg	5100	400 U	420 U	400 U	410 U	360 U	410 U	360 U
3-Nitroaniline	ug/kg	--	1000 U	1100 U	1000 U	1000 U	900 U	1000 U	900 U
4,6-Dinitro-2-methylphenol	ug/kg	6600	1000 U	1100 U	1000 U	1000 U	900 U	1000 U	900 U
4-Bromophenyl phenyl ether	ug/kg	--	400 U	420 U	400 U	410 U	360 U	410 U	360 U
4-Chloro-3-methylphenol	ug/kg	8200000	400 U	420 U	400 U	410 U	360 U	410 U	360 U
4-Chloroaniline	ug/kg	11000	400 U	420 U	400 U	410 U	360 U	410 U	360 U
4-Chlorophenyl phenyl ether	ug/kg	--	400 U	420 U	400 U	410 U	360 U	410 U	360 U
4-Methylphenol	ug/kg	8200000	400 U	420 U	400 U	410 U	360 U	410 U	360 U
4-Nitroaniline	ug/kg	110000	1000 U	1100 U	1000 U	1000 U	900 U	1000 U	900 U
4-Nitrophenol	ug/kg	--	1000 U	1100 U	1000 U	1000 U	900 U	1000 U	900 U
Acenaphthene	ug/kg	4500000	400 U	420 U	400 U	410 U	360 U	410 U	360 U
Acenaphthylene	ug/kg	--	400 U	420 U	400 U	410 U	360 U	410 U	360 U
Acetophenone	ug/kg	12000000	400 U	420 U	400 U	410 U	360 U	410 U	360 U
Anthracene	ug/kg	23000000	400 U	420 U	400 U	410 U	360 U	410 U	360 U
Atrazine	ug/kg	10000	400 U	420 U	400 U	410 U	360 U	410 U	360 U
Benzaldehyde	ug/kg	820000	400 U	420 U	400 U	410 U	360 U	410 U	360 U
Benzo(a)anthracene	ug/kg	2900	400 U	420 U	400 U	410 U	360 U	410 U	360 U
Benzo(a)pyrene	ug/kg	290	400 U	420 U	400 U	410 U	360 U	410 U	360 U
Benzo(b)fluoranthene	ug/kg	2900	400 U	420 U	400 U	410 U	360 U	410 U	360 U
Benzo(g,h,i)perylene	ug/kg	--	400 U	420 U	400 U	410 U	360 U	410 U	360 U
Benzo(k)fluoranthene	ug/kg	29000	400 U	420 U	400 U	410 U	360 U	410 U	360 U
Biphenyl (1,1-Biphenyl)	ug/kg	20000	400 U	420 U	400 U	410 U	360 U	410 U	360 U
bis(2-Chloroethoxy)methane	ug/kg	250000	400 U	420 U	400 U	410 U	360 U	410 U	360 U
bis(2-Chloroethyl)ether	ug/kg	1000	400 U	420 U	400 U	410 U	360 U	410 U	360 U
bis(2-Ethylhexyl)phthalate (DEHP)	ug/kg	160000	400 U	420 U	400 U	410 U	360 U	410 U	360 U
Butyl benzylphthalate (BBP)	ug/kg	1200000	400 U	420 U	400 U	410 U	360 U	410 U	360 U
Caprolactam	ug/kg	40000000	400 U	420 U	400 U	410 U	360 U	410 U	360 U
Carbazole	ug/kg	--	400 U	420 U	400 U	410 U	360 U	410 U	360 U
Chrysene	ug/kg	290000	400 U	420 U	400 U	410 U	360 U	410 U	360 U
Dibenz(a,h)anthracene	ug/kg	290	400 U	420 U	400 U	410 U	360 U	410 U	360 U
Dibenzofuran	ug/kg	100000	400 U	420 U	400 U	410 U	360 U	410 U	360 U
Diethyl phthalate	ug/kg	66000000	400 U	420 U	400 U	410 U	360 U	410 U	360 U
Dimethyl phthalate	ug/kg	--	400 U	420 U	400 U	410 U	360 U	410 U	360 U
Di-n-butylphthalate (DBP)	ug/kg	8200000	400 U	420 U	400 U	410 U	360 U	410 U	360 U
Di-n-octyl phthalate (DnOP)	ug/kg	820000	400 U	420 U	400 U	410 U	360 U	410 U	360 U

Table 3

**Soil Analytical Results Summary
Remedial Site Investigation
Bluewater Thermal Solutions Site
Fountain Inn, South Carolina**

Sample Location:		MW-1D-16/B-1	MW-1D-16/B-1	MW-2-16/B-4	MW-2-16/B-4	MW-3-16/B-5	MW-3-16/B-5	MW-4-16/B-10	
Sample ID:		SO-077150-101116-DJB-001	SO-077150-101116-DJB-002	SO-077150-101116-DJB-007	SO-077150-101116-DJB-008	SO-077150-101216-DJB-009	SO-077150-101216-DJB-010	SO-077150-101216-DJB-020	
Sample Date:		10/11/2016	10/11/2016	10/11/2016	10/11/2016	10/12/2016	10/12/2016	10/12/2016	
Sample Depth:		(0.6-1.5) ft BGS	(15-15.5) ft BGS	(3-5) ft BGS	(9-10) ft BGS	(0-2) ft BGS	(10-13) ft BGS	(0-1.2) ft BGS	
Parameters	Units	USEPA Industrial Soil							
SVOCs continued									
Fluoranthene	ug/kg	3000000	400 U	420 U	400 U	410 U	360 U	410 U	360 U
Fluorene	ug/kg	3000000	400 U	420 U	400 U	410 U	360 U	410 U	360 U
Hexachlorobenzene	ug/kg	960	400 U	420 U	400 U	410 U	360 U	410 U	360 U
Hexachlorobutadiene	ug/kg	5300	400 U	420 U	400 U	410 U	360 U	410 U	360 U
Hexachlorocyclopentadiene	ug/kg	750	400 U	420 U	400 U	410 U	360 U	410 U	360 U
Hexachloroethane	ug/kg	8000	400 U	420 U	400 U	410 U	360 U	410 U	360 U
Indeno(1,2,3-cd)pyrene	ug/kg	2900	400 U	420 U	400 U	410 U	360 U	410 U	360 U
Isophorone	ug/kg	2400000	400 U	420 U	400 U	410 U	360 U	410 U	360 U
Naphthalene	ug/kg	17000	400 U	420 U	400 U	410 U	360 U	410 U	360 U
Nitrobenzene	ug/kg	22000	400 U	420 U	400 U	410 U	360 U	410 U	360 U
N-Nitrosodi-n-propylamine	ug/kg	330	400 U	420 U	400 U	410 U	360 U	410 U	360 U
N-Nitrosodiphenylamine	ug/kg	470000	400 U	420 U	400 U	410 U	360 U	410 U	360 U
Pentachlorophenol	ug/kg	4000	1000 U	1100 U	1000 U	1000 U	900 U	1000 U	900 U
Phenanthrene	ug/kg	--	400 U	420 U	400 U	410 U	360 U	410 U	360 U
Phenol	ug/kg	25000000	400 U	420 U	400 U	410 U	360 U	410 U	360 U
Pyrene	ug/kg	2300000	400 U	420 U	400 U	410 U	360 U	410 U	360 U
Metals									
Aluminum	ug/kg	110000000	16200000	9400000	22400000	8670000	8090000	6480000	11700000
Antimony	ug/kg	47000	349 J	6340 UJ	805 J	4720 UJ	4340 UJ	5300 UJ	397 J
Arsenic	ug/kg	3000	655 J	1270 U	1650	990	724 J	470 J	1000
Barium	ug/kg	22000000	8570	12700	31800	9680	182000	4440 J	19900
Beryllium	ug/kg	230000	273 J	464 J	245 J	82 J	90.5 J	744	161 J
Cadmium	ug/kg	--	588 U	634 U	563 U	472 U	19.2 J	530 U	141 J
Calcium	ug/kg	--	1050000 J	255000 J	2460000 J	1120000 J	769000 J	1370000 J	1430000 J
Chromium	ug/kg	--	5590	1720	15000	7350	6930	10100	12500
Cobalt	ug/kg	35000	749 J	1990 J	2060 J	877 J	735 J	898 J	1380 J
Copper	ug/kg	4700000	1860 J	574 J	5560	1650 J	1340 J	1220 J	11100
Iron	ug/kg	82000000	6280000	1620000	16600000	7790000	4410000	10400000	9870000
Lead	ug/kg	800000	11300	26700	11400	5980	6840	20600	26800
Magnesium	ug/kg	--	252000	124000	266000	111000	94200	108000	156000
Manganese	ug/kg	2600000	16000	205000	26800	12000	10900	11700	26800
Mercury	ug/kg	4600	10.4 J	108 U	12.6 J	16.4 J	14.5 J	117 U	35.5 J
Nickel	ug/kg	2200000	769 J	296 J	2860 J	816 J	1080 J	597 J	1720 J
Potassium	ug/kg	--	545000	267000	412000	173000	155000	195000	208000
Selenium	ug/kg	580000	588 U	634 U	563 U	472 U	434 U	530 U	497 U
Silver	ug/kg	580000	25.7 J	1270 U	1130 U	944 U	868 U	1060 U	993 U
Sodium	ug/kg	--	73500 J	30700 J	55700 J	20700 J	43700 J	30100 J	22500 J
Thallium	ug/kg	1200	1180 U	1270 U	1130 U	944 U	868 U	1060 U	993 U
Vanadium	ug/kg	580000	8490 J	456 J	31800 J	13700 J	8600 J	15200 J	15700 J
Zinc	ug/kg	35000000	6180	5220	7020	2750	3780	4810	40900

Notes:

- U Not detected at the associated reporting limit.
- J Estimated concentration.
- UJ Not detected; associated reporting limit is estimated.
- Screening value USEPA RSL - Industrial soil screening value (THQ=0.1)
- Bold, red and highlighted represent exceedance of criteria

Table 3

**Soil Analytical Results Summary
Remedial Site Investigation
Bluewater Thermal Solutions Site
Fountain Inn, South Carolina**

Sample Location:	MW-4-16/B-10	MW-5-16/B-3	MW-5-16/B-3	MW-6-16/B-9	MW-6-16/B-9	MW-6-16/B-9	B-2		
Sample ID:	SO-077150-101216-DJB-021	SO-077150-101116-DJB-005	SO-077150-101116-DJB-006	SO-077150-101216-DJB-017	SO-077150-101216-DJB-018	SO-077150-101216-DJB-019	SO-077150-101116-DJB-003		
Sample Date:	10/12/2016	10/11/2016	10/11/2016	10/12/2016	10/12/2016	10/12/2016	10/11/2016		
Sample Depth:	(18-20) ft BGS	(0.5-1.5) ft BGS	(14-15) ft BGS	(0.5-1.5) ft BGS	(0.5-1.5) ft BGS (Duplicate)	(13-15) ft BGS	(0.5-1.5) ft BGS		
Parameters	Units	USEPA Industrial Soil							
VOCs									
1,1,1,2-Tetrachloroethane	ug/kg	8800	3.6 U	4.4 U	4.3 U	4.3 U	4.1 U	4.4 U	5.3 U
1,1,1-Trichloroethane	ug/kg	3600000	3.6 U	4.4 U	4.3 U	4.3 U	4.1 U	4.4 U	5.3 U
1,1,2-Trichloroethane	ug/kg	630	3.6 U	4.4 U	4.3 U	4.3 U	4.1 U	4.4 U	5.3 U
1,1-Dichloroethane	ug/kg	16000	3.6 U	4.4 U	4.3 U	4.3 U	4.1 U	4.4 U	5.3 U
1,1-Dichloroethene	ug/kg	100000	3.6 U	4.4 U	4.3 U	4.3 U	4.1 U	4.4 U	5.3 U
1,2,4-Trichlorobenzene	ug/kg	26000	3.6 U	4.4 U	4.3 U	4.3 U	4.1 U	4.4 U	5.3 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/kg	64	3.6 U	4.4 U	4.3 U	4.3 U	4.1 U	4.4 U	5.3 U
1,2-Dibromoethane (Ethylene dibromide)	ug/kg	160	3.6 U	4.4 U	4.3 U	4.3 U	4.1 U	4.4 U	5.3 U
1,2-Dichlorobenzene	ug/kg	930000	3.6 U	4.4 U	4.3 U	4.3 U	4.1 U	4.4 U	5.3 U
1,2-Dichloroethane	ug/kg	2000	3.6 U	4.4 U	4.3 U	4.3 U	4.1 U	4.4 U	5.3 U
1,2-Dichloropropane	ug/kg	4400	3.6 U	4.4 U	4.3 U	4.3 U	4.1 U	4.4 U	5.3 U
1,3-Dichloropropane	ug/kg	2300000	3.6 U	4.4 U	4.3 U	4.3 U	4.1 U	4.4 U	5.3 U
1,4-Dichlorobenzene	ug/kg	11000	3.6 U	4.4 U	4.3 U	4.3 U	4.1 U	4.4 U	5.3 U
2-Butanone (Methyl ethyl ketone) (MEK)	ug/kg	19000000	7.2 U	8.7 U	8.5 U	8.7 U	8.2 U	8.8 U	38
2-Hexanone	ug/kg	130000	7.2 U	8.7 U	8.5 U	8.7 U	8.2 U	8.8 U	11 U
4-Methyl-2-pentanone (MIBK)	ug/kg	14000000	7.2 U	8.7 U	8.5 U	8.7 U	8.2 U	8.8 U	11 U
Acetone	ug/kg	67000000	7.2 U	44	8.5 U	17	15	8.8 U	220
Benzene	ug/kg	5100	3.6 U	4.4 U	4.3 U	4.3 U	4.1 U	4.4 U	5.3 U
Bromoform	ug/kg	86000	3.6 U	4.4 U	4.3 U	4.3 U	4.1 U	4.4 U	5.3 U
Bromomethane (Methyl bromide)	ug/kg	3000	3.6 U	4.4 U	4.3 U	4.3 U	4.1 U	4.4 U	5.3 U
Carbon disulfide	ug/kg	350000	7.2 U	8.7 U	8.5 U	8.7 U	8.2 U	8.8 U	11 U
Carbon tetrachloride	ug/kg	2900	3.6 U	4.4 U	4.3 U	4.3 U	4.1 U	4.4 U	5.3 U
Chlorobenzene	ug/kg	130000	3.6 U	4.4 U	4.3 U	4.3 U	4.1 U	4.4 U	5.3 U
Chlorobromomethane	ug/kg	63000	3.6 U	4.4 U	4.3 U	4.3 U	4.1 U	4.4 U	5.3 U
Chloroethane	ug/kg	5700000	7.2 U	8.7 U	8.5 U	8.7 U	8.2 U	8.8 U	11 U
Chloroform (Trichloromethane)	ug/kg	1400	3.6 U	4.4 U	4.3 U	4.3 U	4.1 U	4.4 U	5.3 U
Chloromethane (Methyl chloride)	ug/kg	46000	7.2 U	8.7 U	8.5 U	8.7 U	8.2 U	8.8 U	11 U
cis-1,2-Dichloroethene	ug/kg	230000	3.6 U	4.4 U	4.3 U	4.3 U	4.1 U	4.4 U	5.3 U
cis-1,3-Dichloropropene	ug/kg	--	3.6 U	4.4 U	4.3 U	4.3 U	4.1 U	4.4 U	5.3 U
Cyclohexane	ug/kg	2700000	3.6 U	4.4 U	4.3 U	4.3 U	4.1 U	4.4 U	5.3 U
Dibromochloromethane	ug/kg	39000	3.6 U	4.4 U	4.3 U	4.3 U	4.1 U	4.4 U	5.3 U
Dichlorodifluoromethane (CFC-12)	ug/kg	37000	7.2 U	8.7 U	8.5 U	8.7 U	8.2 U	8.8 U	11 U
Ethylbenzene	ug/kg	25000	3.6 U	4.4 U	4.3 U	4.3 U	4.1 U	4.4 U	5.3 U
Isopropyl benzene	ug/kg	990000	3.6 U	4.4 U	4.3 U	4.3 U	4.1 U	4.4 U	5.3 U
Methyl acetate	ug/kg	120000000	3.6 U	4.4 U	4.3 U	4.3 U	4.1 U	4.4 U	5.3 U
Methyl cyclohexane	ug/kg	--	3.6 U	4.4 U	4.3 U	4.3 U	4.1 U	4.4 U	5.3 U
Methyl tert butyl ether (MTBE)	ug/kg	210000	3.6 U	4.4 U	4.3 U	4.3 U	4.1 U	4.4 U	5.3 U
Methylene chloride	ug/kg	320000	7.2 U	8.7 U	8.5 U	8.7 U	8.2 U	8.8 U	11 U
Styrene	ug/kg	3500000	3.6 U	4.4 U	4.3 U	4.3 U	4.1 U	4.4 U	5.3 U
Tetrachloroethene	ug/kg	39000	3.6 U	4.4 U	2.4 J	4.3 U	4.1 U	4.4 U	5.3 U
Toluene	ug/kg	4700000	3.6 U	4.4 U	4.3 U	4.3 U	4.1 U	4.4 U	5.3 U
trans-1,2-Dichloroethene	ug/kg	2300000	3.6 U	4.4 U	4.3 U	4.3 U	4.1 U	4.4 U	5.3 U
trans-1,3-Dichloropropene	ug/kg	--	3.6 U	4.4 U	4.3 U	4.3 U	4.1 U	4.4 U	5.3 U
Trichloroethene	ug/kg	1900	3.6 U	4.4 U	4.3 U	4.3 U	4.1 U	4.4 U	5.3 U
Trichlorofluoromethane (CFC-11)	ug/kg	35000000	3.6 U	4.4 U	4.3 U	4.3 U	4.1 U	4.4 U	5.3 U
Trifluorotrichloroethane (CFC-113)	ug/kg	17000000	7.2 U	8.7 U	8.5 U	8.7 U	8.2 U	8.8 U	11 U
Vinyl chloride	ug/kg	1700	7.2 U	8.7 U	8.5 U	8.7 U	8.2 U	8.8 U	11 U
Xylenes (total)	ug/kg	250000	3.6 U	4.4 U	4.3 U	4.3 U	4.1 U	4.4 U	5.3 U

Table 3

**Soil Analytical Results Summary
Remedial Site Investigation
Bluewater Thermal Solutions Site
Fountain Inn, South Carolina**

Sample Location:	MW-4-16/B-10	MW-5-16/B-3	MW-5-16/B-3	MW-6-16/B-9	MW-6-16/B-9	MW-6-16/B-9	B-2
Sample ID:	SO-077150-101216-DJB-021	SO-077150-101116-DJB-005	SO-077150-101116-DJB-006	SO-077150-101216-DJB-017	SO-077150-101216-DJB-018	SO-077150-101216-DJB-019	SO-077150-101116-DJB-003
Sample Date:	10/12/2016	10/11/2016	10/11/2016	10/12/2016	10/12/2016	10/12/2016	10/11/2016
Sample Depth:	(18-20) ft BGS	(0.5-1.5) ft BGS	(14-15) ft BGS	(0.5-1.5) ft BGS	(0.5-1.5) ft BGS (Duplicate)	(13-15) ft BGS	(0.5-1.5) ft BGS
Parameters	Units	USEPA Industrial Soil					
SVOCs							
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	ug/kg	4700000	410 U	370 U	450 U	380 U	450 U
2,4,5-Trichlorophenol	ug/kg	8200000	1000 U	940 U	1100 U	970 U	1100 U
2,4,6-Trichlorophenol	ug/kg	82000	410 U	370 U	450 U	380 U	450 U
2,4-Dichlorophenol	ug/kg	250000	410 U	370 U	450 U	380 U	450 U
2,4-Dimethylphenol	ug/kg	1600000	410 U	370 U	450 U	380 U	450 U
2,4-Dinitrophenol	ug/kg	160000	1000 U	940 U	1100 U	970 U	1100 U
2,4-Dinitrotoluene	ug/kg	7400	410 U	370 U	450 U	380 U	450 U
2,6-Dinitrotoluene	ug/kg	1500	410 U	370 U	450 U	380 U	450 U
2-Chloronaphthalene	ug/kg	6000000	410 U	370 U	450 U	380 U	450 U
2-Chlorophenol	ug/kg	580000	410 U	370 U	450 U	380 U	450 U
2-Methylnaphthalene	ug/kg	300000	410 U	370 U	450 U	380 U	450 U
2-Methylphenol	ug/kg	4100000	410 U	370 U	450 U	380 U	450 U
2-Nitroaniline	ug/kg	800000	1000 U	940 U	1100 U	970 U	1100 U
2-Nitrophenol	ug/kg	--	410 U	370 U	450 U	380 U	450 U
3,3'-Dichlorobenzidine	ug/kg	5100	410 U	370 U	450 U	380 U	450 U
3-Nitroaniline	ug/kg	--	1000 U	940 U	1100 U	970 U	1100 U
4,6-Dinitro-2-methylphenol	ug/kg	6600	1000 U	940 U	1100 U	970 U	1100 U
4-Bromophenyl phenyl ether	ug/kg	--	410 U	370 U	450 U	380 U	450 U
4-Chloro-3-methylphenol	ug/kg	8200000	410 U	370 U	450 U	380 U	450 U
4-Chloroaniline	ug/kg	11000	410 U	370 U	450 U	380 U	450 U
4-Chlorophenyl phenyl ether	ug/kg	--	410 U	370 U	450 U	380 U	450 U
4-Methylphenol	ug/kg	8200000	410 U	370 U	450 U	380 U	450 U
4-Nitroaniline	ug/kg	110000	1000 U	940 U	1100 U	970 U	1100 U
4-Nitrophenol	ug/kg	--	1000 U	940 U	1100 U	970 U	1100 U
Acenaphthene	ug/kg	4500000	410 U	370 U	450 U	380 U	450 U
Acenaphthylene	ug/kg	--	410 U	370 U	450 U	380 U	450 U
Acetophenone	ug/kg	12000000	410 U	370 U	450 U	380 U	450 U
Anthracene	ug/kg	23000000	410 U	370 U	450 U	380 U	450 U
Atrazine	ug/kg	10000	410 U	370 U	450 U	380 U	450 U
Benzaldehyde	ug/kg	820000	410 U	370 U	450 U	380 U	450 U
Benzo(a)anthracene	ug/kg	2900	410 U	370 U	450 U	380 U	450 U
Benzo(a)pyrene	ug/kg	290	410 U	370 U	450 U	380 U	450 U
Benzo(b)fluoranthene	ug/kg	2900	410 U	370 U	450 U	380 U	450 U
Benzo(g,h,i)perylene	ug/kg	--	410 U	370 U	450 U	380 U	450 U
Benzo(k)fluoranthene	ug/kg	29000	410 U	370 U	450 U	380 U	450 U
Biphenyl (1,1-Biphenyl)	ug/kg	20000	410 U	370 U	450 U	380 U	450 U
bis(2-Chloroethoxy)methane	ug/kg	250000	410 U	370 U	450 U	380 U	450 U
bis(2-Chloroethyl)ether	ug/kg	1000	410 U	370 U	450 U	380 U	450 U
bis(2-Ethylhexyl)phthalate (DEHP)	ug/kg	160000	410 U	370 U	450 U	380 U	450 U
Butyl benzylphthalate (BBP)	ug/kg	1200000	410 U	370 U	450 U	380 U	450 U
Caprolactam	ug/kg	40000000	410 U	370 U	450 U	380 U	450 U
Carbazole	ug/kg	--	410 U	370 U	450 U	380 U	450 U
Chrysene	ug/kg	290000	410 U	370 U	450 U	380 U	450 U
Dibenz(a,h)anthracene	ug/kg	290	410 U	370 U	450 U	380 U	450 U
Dibenzofuran	ug/kg	100000	410 U	370 U	450 U	380 U	450 U
Diethyl phthalate	ug/kg	66000000	410 U	370 U	450 U	380 U	450 U
Dimethyl phthalate	ug/kg	--	410 U	370 U	450 U	380 U	450 U
Di-n-butylphthalate (DBP)	ug/kg	8200000	410 U	370 U	450 U	380 U	450 U
Di-n-octyl phthalate (DnOP)	ug/kg	820000	410 U	370 U	450 U	380 U	450 U

Table 3

**Soil Analytical Results Summary
Remedial Site Investigation
Bluewater Thermal Solutions Site
Fountain Inn, South Carolina**

Sample Location:			MW-4-16/B-10	MW-5-16/B-3	MW-5-16/B-3	MW-6-16/B-9	MW-6-16/B-9	MW-6-16/B-9	B-2
Sample ID:			SO-077150-101216-DJB-021	SO-077150-101116-DJB-005	SO-077150-101116-DJB-006	SO-077150-101216-DJB-017	SO-077150-101216-DJB-018	SO-077150-101216-DJB-019	SO-077150-101116-DJB-003
Sample Date:			10/12/2016	10/11/2016	10/11/2016	10/12/2016	10/12/2016	10/12/2016	10/11/2016
Sample Depth:			(18-20) ft BGS	(0.5-1.5) ft BGS	(14-15) ft BGS	(0.5-1.5) ft BGS	(0.5-1.5) ft BGS (Duplicate)	(13-15) ft BGS	(0.5-1.5) ft BGS
Parameters	Units	USEPA Industrial Soil							
SVOCs continued									
Fluoranthene	ug/kg	3000000	410 U	370 U	450 U	380 U	380 U	410 U	450 U
Fluorene	ug/kg	3000000	410 U	370 U	450 U	380 U	380 U	410 U	450 U
Hexachlorobenzene	ug/kg	960	410 U	370 U	450 U	380 U	380 U	410 U	450 U
Hexachlorobutadiene	ug/kg	5300	410 U	370 U	450 U	380 U	380 U	410 U	450 U
Hexachlorocyclopentadiene	ug/kg	750	410 U	370 U	450 U	380 U	380 U	410 U	450 U
Hexachloroethane	ug/kg	8000	410 U	370 U	450 U	380 U	380 U	410 U	450 U
Indeno(1,2,3-cd)pyrene	ug/kg	2900	410 U	370 U	450 U	380 U	380 U	410 U	450 U
Isophorone	ug/kg	2400000	410 U	370 U	450 U	380 U	380 U	410 U	450 U
Naphthalene	ug/kg	17000	410 U	370 U	450 U	380 U	380 U	410 U	450 U
Nitrobenzene	ug/kg	22000	410 U	370 U	450 U	380 U	380 U	410 U	450 U
N-Nitrosodi-n-propylamine	ug/kg	330	410 U	370 U	450 U	380 U	380 U	410 U	450 U
N-Nitrosodiphenylamine	ug/kg	470000	410 U	370 U	450 U	380 U	380 U	410 U	450 U
Pentachlorophenol	ug/kg	4000	1000 U	940 U	1100 U	950 U	970 U	1000 U	1100 U
Phenanthrene	ug/kg	--	410 U	370 U	450 U	380 U	380 U	410 U	450 U
Phenol	ug/kg	25000000	410 U	370 U	450 U	380 U	380 U	410 U	450 U
Pyrene	ug/kg	2300000	410 U	370 U	450 U	380 U	380 U	410 U	450 U
Metals									
Aluminum	ug/kg	110000000	3390000	14200000	11200000	17000000	19000000	12200000	18800000
Antimony	ug/kg	47000	5890 U	5260 UJ	6550 UJ	783 J	613 J	5130 UJ	514 J
Arsenic	ug/kg	3000	1180 U	1010 J	1310 U	2010	2070	303 J	1990
Barium	ug/kg	22000000	2550 J	8650	1980 J	10100	9080	9450	43900
Beryllium	ug/kg	230000	157 J	233 J	450 J	147 J	160 J	198 J	314 J
Cadmium	ug/kg	--	589 U	526 U	655 U	549 U	429 U	513 U	602 U
Calcium	ug/kg	--	186000 J	1570000 J	115000 J	1980000 J	2240000 J	665000 J	2100000 J
Chromium	ug/kg	--	231 J	8840	191 J	13200	13900	6330	11100
Cobalt	ug/kg	35000	139 J	1260 J	99.9 J	1330 J	1360 J	637 J	1090 J
Copper	ug/kg	4700000	1880 J	3300	464 J	2690 J	2710	1140 J	3000 J
Iron	ug/kg	82000000	1330000	10400000	511000	14600000	15700000	5420000	14000000
Lead	ug/kg	800000	2140 J	18100	10800	9170	8700	13100	13300
Magnesium	ug/kg	--	22500 J	178000	104000	127000	135000	224000	110000
Manganese	ug/kg	2600000	3400 J	28900	4650	12200	8390	9200	6210
Mercury	ug/kg	4600	119 U	13.7 J	117 U	59.6 J	54.7 J	32.5 J	14.3 J
Nickel	ug/kg	2200000	137 J	1240 J	132 J	1210 J	1370 J	1090 J	1080 J
Potassium	ug/kg	--	214000	270000	242000	217000	258000	383000	152000
Selenium	ug/kg	580000	589 U	526 U	655 U	549 U	429 U	513 U	602 U
Silver	ug/kg	580000	1180 U	1050 U	1310 U	1100 U	857 U	1030 U	1200 U
Sodium	ug/kg	--	12500 J	22200 J	18200 J	23600 J	20800 J	21100 J	33600 J
Thallium	ug/kg	1200	1180 U	1050 U	335 J	1100 U	857 U	1030 U	1200 U
Vanadium	ug/kg	580000	117 J	16300 J	60.7 J	22300 J	24400 J	9660 J	21900 J
Zinc	ug/kg	35000000	2060 J	7000	3840	5870	5010	5870	18400

Notes:
 U Not detected at the associate
 J Estimated concentration.
 UJ Not detected; associated rep
 Screening value USEPA RSL - Industrial soil
 Bold, red and highlighted rep

Table 3

**Soil Analytical Results Summary
Remedial Site Investigation
Bluewater Thermal Solutions Site
Fountain Inn, South Carolina**

Sample Location:			B-2	B-6	B-6	B-7	B-7	B-8	B-8
Sample ID:			SO-077150-101116-DJB-004	SO-077150-101216-DJB-011	SO-077150-101216-DJB-012	SO-077150-101216-DJB-013	SO-077150-101216-DJB-014	SO-077150-101216-DJB-015	SO-077150-101216-DJB-016
Sample Date:			10/11/2016	10/12/2016	10/12/2016	10/12/2016	10/12/2016	10/12/2016	10/12/2016
Sample Depth:			(14-15) ft BGS	(0.5-1.5) ft BGS	(8-9) ft BGS	(0.5-1.5) ft BGS	(9-10) ft BGS	(0.5-1.5) ft BGS	(9-10) ft BGS
Parameters	Units	USEPA Industrial Soil							
VOCs									
1,1,1,2-Tetrachloroethane	ug/kg	8800	5.2 U	4.3 U	3.8 U	3.2 U	4.8 U	3.6 U	3.2 U
1,1,1-Trichloroethane	ug/kg	3600000	5.2 U	4.3 U	3.8 U	3.2 U	4.8 U	3.6 U	3.2 U
1,1,2-Trichloroethane	ug/kg	630	5.2 U	4.3 U	3.8 U	3.2 U	4.8 U	3.6 U	3.2 U
1,1-Dichloroethane	ug/kg	16000	5.2 U	4.3 U	3.8 U	3.2 U	4.8 U	3.6 U	3.2 U
1,1-Dichloroethene	ug/kg	100000	5.2 U	4.3 U	3.8 U	3.2 U	4.8 U	3.6 U	3.2 U
1,2,4-Trichlorobenzene	ug/kg	26000	5.2 U	4.3 U	3.8 U	3.2 U	4.8 U	3.6 U	3.2 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/kg	64	5.2 U	4.3 U	3.8 U	3.2 U	4.8 U	3.6 U	3.2 U
1,2-Dibromoethane (Ethylene dibromide)	ug/kg	160	5.2 U	4.3 U	3.8 U	3.2 U	4.8 U	3.6 U	3.2 U
1,2-Dichlorobenzene	ug/kg	930000	5.2 U	4.3 U	3.8 U	3.2 U	4.8 U	3.6 U	3.2 U
1,2-Dichloroethane	ug/kg	2000	5.2 U	4.3 U	3.8 U	3.2 U	4.8 U	3.6 U	3.2 U
1,2-Dichloropropane	ug/kg	4400	5.2 U	4.3 U	3.8 U	3.2 U	4.8 U	3.6 U	3.2 U
1,3-Dichloropropane	ug/kg	2300000	5.2 U	4.3 U	3.8 U	3.2 U	4.8 U	3.6 U	3.2 U
1,4-Dichlorobenzene	ug/kg	11000	5.2 U	4.3 U	3.8 U	3.2 U	4.8 U	3.6 U	3.2 U
2-Butanone (Methyl ethyl ketone) (MEK)	ug/kg	19000000	10 U	8.6 U	7.5 U	6.5 U	9.7 U	7.2 U	6.3 U
2-Hexanone	ug/kg	130000	10 U	8.6 U	7.5 U	6.5 U	9.7 U	7.2 U	6.3 U
4-Methyl-2-pentanone (MIBK)	ug/kg	14000000	10 U	8.6 U	7.5 U	6.5 U	9.7 U	7.2 U	6.3 U
Acetone	ug/kg	67000000	8.2 J	8.6 U	7.5 U	6.5 U	9.7 U	7.2 U	6.3 U
Benzene	ug/kg	5100	5.2 U	4.3 U	3.8 U	3.2 U	4.8 U	3.6 U	3.2 U
Bromoform	ug/kg	86000	5.2 U	4.3 U	3.8 U	3.2 U	4.8 U	3.6 U	3.2 U
Bromomethane (Methyl bromide)	ug/kg	3000	5.2 U	4.3 U	3.8 U	3.2 U	4.8 U	3.6 U	3.2 U
Carbon disulfide	ug/kg	350000	10 U	8.6 U	7.5 U	6.5 U	9.7 U	7.2 U	6.3 U
Carbon tetrachloride	ug/kg	2900	5.2 U	4.3 U	3.8 U	3.2 U	4.8 U	3.6 U	3.2 U
Chlorobenzene	ug/kg	130000	5.2 U	4.3 U	3.8 U	3.2 U	4.8 U	3.6 U	3.2 U
Chlorobromomethane	ug/kg	63000	5.2 U	4.3 U	3.8 U	3.2 U	4.8 U	3.6 U	3.2 U
Chloroethane	ug/kg	5700000	10 U	8.6 U	7.5 U	6.5 U	9.7 U	7.2 U	6.3 U
Chloroform (Trichloromethane)	ug/kg	1400	5.2 U	4.3 U	3.8 U	3.2 U	4.8 U	3.6 U	3.2 U
Chloromethane (Methyl chloride)	ug/kg	46000	10 U	8.6 U	7.5 U	6.5 U	9.7 U	7.2 U	6.3 U
cis-1,2-Dichloroethene	ug/kg	230000	5.2 U	4.3 U	3.8 U	3.2 U	4.8 U	3.6 U	3.2 U
cis-1,3-Dichloropropene	ug/kg	--	5.2 U	4.3 U	3.8 U	3.2 U	4.8 U	3.6 U	3.2 U
Cyclohexane	ug/kg	2700000	5.2 U	4.3 U	3.8 U	3.2 U	4.8 U	3.6 U	3.2 U
Dibromochloromethane	ug/kg	39000	5.2 U	4.3 U	3.8 U	3.2 U	4.8 U	3.6 U	3.2 U
Dichlorodifluoromethane (CFC-12)	ug/kg	37000	10 U	8.6 U	7.5 U	6.5 U	9.7 U	7.2 U	6.3 U
Ethylbenzene	ug/kg	25000	5.2 U	4.3 U	3.8 U	3.2 U	4.8 U	3.6 U	3.2 U
Isopropyl benzene	ug/kg	990000	5.2 U	4.3 U	3.8 U	3.2 U	4.8 U	3.6 U	3.2 U
Methyl acetate	ug/kg	120000000	5.2 U	4.3 U	3.8 U	3.2 U	4.8 U	3.6 U	3.2 U
Methyl cyclohexane	ug/kg	--	5.2 U	4.3 U	3.8 U	3.2 U	4.8 U	3.6 U	3.2 U
Methyl tert butyl ether (MTBE)	ug/kg	210000	5.2 U	4.3 U	3.8 U	3.2 U	4.8 U	3.6 U	3.2 U
Methylene chloride	ug/kg	320000	10 U	8.6 U	7.5 U	6.5 U	9.7 U	7.2 U	6.3 U
Styrene	ug/kg	3500000	5.2 U	4.3 U	3.8 U	3.2 U	4.8 U	3.6 U	3.2 U
Tetrachloroethene	ug/kg	39000	5.2 U	4.3 U	3.8 U	3.2 U	4.8 U	3.6 U	3.2 U
Toluene	ug/kg	4700000	5.2 U	4.3 U	3.8 U	3.2 U	4.8 U	3.6 U	3.2 U
trans-1,2-Dichloroethene	ug/kg	2300000	5.2 U	4.3 U	3.8 U	3.2 U	4.8 U	3.6 U	3.2 U
trans-1,3-Dichloropropene	ug/kg	--	5.2 U	4.3 U	3.8 U	3.2 U	4.8 U	3.6 U	3.2 U
Trichloroethene	ug/kg	1900	5.2 U	4.3 U	3.8 U	3.2 U	4.8 U	3.6 U	3.2 U
Trichlorofluoromethane (CFC-11)	ug/kg	35000000	5.2 U	4.3 U	3.8 U	3.2 U	4.8 U	3.6 U	3.2 U
Trifluorotrichloroethane (CFC-113)	ug/kg	17000000	10 U	8.6 U	7.5 U	6.5 U	9.7 U	7.2 U	6.3 U
Vinyl chloride	ug/kg	1700	10 U	8.6 U	7.5 U	6.5 U	9.7 U	7.2 U	6.3 U
Xylenes (total)	ug/kg	250000	5.2 U	4.3 U	3.8 U	3.2 U	4.8 U	3.6 U	3.2 U

Table 3

**Soil Analytical Results Summary
Remedial Site Investigation
Bluewater Thermal Solutions Site
Fountain Inn, South Carolina**

Sample Location:			B-2	B-6	B-6	B-7	B-7	B-8	B-8
Sample ID:			SO-077150-101116-DJB-004	SO-077150-101216-DJB-011	SO-077150-101216-DJB-012	SO-077150-101216-DJB-013	SO-077150-101216-DJB-014	SO-077150-101216-DJB-015	SO-077150-101216-DJB-016
Sample Date:			10/11/2016	10/12/2016	10/12/2016	10/12/2016	10/12/2016	10/12/2016	10/12/2016
Sample Depth:			(14-15) ft BGS	(0.5-1.5) ft BGS	(8-9) ft BGS	(0.5-1.5) ft BGS	(9-10) ft BGS	(0.5-1.5) ft BGS	(9-10) ft BGS
Parameters	Units	USEPA Industrial Soil							
SVOCs									
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	ug/kg	4700000	440 U	420 U	420 U	390 U	410 U	350 U	420 U
2,4,5-Trichlorophenol	ug/kg	8200000	1100 U	1000 U	1100 U	990 U	1000 U	890 U	1100 U
2,4,6-Trichlorophenol	ug/kg	82000	440 U	420 U	420 U	390 U	410 U	350 U	420 U
2,4-Dichlorophenol	ug/kg	250000	440 U	420 U	420 U	390 U	410 U	350 U	420 U
2,4-Dimethylphenol	ug/kg	1600000	440 U	420 U	420 U	390 U	410 U	350 U	420 U
2,4-Dinitrophenol	ug/kg	160000	1100 U	1000 U	1100 U	990 U	1000 U	890 U	1100 U
2,4-Dinitrotoluene	ug/kg	7400	440 U	420 U	420 U	390 U	410 U	350 U	420 U
2,6-Dinitrotoluene	ug/kg	1500	440 U	420 U	420 U	390 U	410 U	350 U	420 U
2-Chloronaphthalene	ug/kg	6000000	440 U	420 U	420 U	390 U	410 U	350 U	420 U
2-Chlorophenol	ug/kg	580000	440 U	420 U	420 U	390 U	410 U	350 U	420 U
2-Methylnaphthalene	ug/kg	300000	440 U	420 U	420 U	390 U	410 U	350 U	420 U
2-Methylphenol	ug/kg	4100000	440 U	420 U	420 U	390 U	410 U	350 U	420 U
2-Nitroaniline	ug/kg	800000	1100 U	1000 U	1100 U	990 U	1000 U	890 U	1100 U
2-Nitrophenol	ug/kg	--	440 U	420 U	420 U	390 U	410 U	350 U	420 U
3,3'-Dichlorobenzidine	ug/kg	5100	440 U	420 U	420 U	390 U	410 U	350 U	420 U
3-Nitroaniline	ug/kg	--	1100 U	1000 U	1100 U	990 U	1000 U	890 U	1100 U
4,6-Dinitro-2-methylphenol	ug/kg	6600	1100 U	1000 U	1100 U	990 U	1000 U	890 U	1100 U
4-Bromophenyl phenyl ether	ug/kg	--	440 U	420 U	420 U	390 U	410 U	350 U	420 U
4-Chloro-3-methylphenol	ug/kg	8200000	440 U	420 U	420 U	390 U	410 U	350 U	420 U
4-Chloroaniline	ug/kg	11000	440 U	420 U	420 U	390 U	410 U	350 U	420 U
4-Chlorophenyl phenyl ether	ug/kg	--	440 U	420 U	420 U	390 U	410 U	350 U	420 U
4-Methylphenol	ug/kg	8200000	440 U	420 U	420 U	390 U	410 U	350 U	420 U
4-Nitroaniline	ug/kg	110000	1100 U	1000 U	1100 U	990 U	1000 U	890 U	1100 U
4-Nitrophenol	ug/kg	--	1100 U	1000 U	1100 U	990 U	1000 U	890 U	1100 U
Acenaphthene	ug/kg	4500000	440 U	420 U	420 U	390 U	410 U	350 U	420 U
Acenaphthylene	ug/kg	--	440 U	420 U	420 U	390 U	410 U	350 U	420 U
Acetophenone	ug/kg	12000000	440 U	420 U	420 U	390 U	410 U	350 U	420 U
Anthracene	ug/kg	23000000	440 U	420 U	420 U	390 U	410 U	350 U	420 U
Atrazine	ug/kg	10000	440 U	420 U	420 U	390 U	410 U	350 U	420 U
Benzaldehyde	ug/kg	820000	440 U	420 U	420 U	390 U	410 U	350 U	420 U
Benzo(a)anthracene	ug/kg	2900	440 U	420 U	420 U	390 U	410 U	350 U	420 U
Benzo(a)pyrene	ug/kg	290	440 U	420 U	420 U	390 U	410 U	350 U	420 U
Benzo(b)fluoranthene	ug/kg	2900	440 U	420 U	420 U	390 U	410 U	350 U	420 U
Benzo(g,h,i)perylene	ug/kg	--	440 U	420 U	420 U	390 U	410 U	350 U	420 U
Benzo(k)fluoranthene	ug/kg	29000	440 U	420 U	420 U	390 U	410 U	350 U	420 U
Biphenyl (1,1-Biphenyl)	ug/kg	20000	440 U	420 U	420 U	390 U	410 U	350 U	420 U
bis(2-Chloroethoxy)methane	ug/kg	250000	440 U	420 U	420 U	390 U	410 U	350 U	420 U
bis(2-Chloroethyl)ether	ug/kg	1000	440 U	420 U	420 U	390 U	410 U	350 U	420 U
bis(2-Ethylhexyl)phthalate (DEHP)	ug/kg	160000	440 U	420 U	420 U	390 U	410 U	350 U	420 U
Butyl benzylphthalate (BBP)	ug/kg	1200000	440 U	420 U	420 U	390 U	410 U	350 U	420 U
Caprolactam	ug/kg	40000000	440 U	420 U	420 U	390 U	410 U	350 U	420 U
Carbazole	ug/kg	--	440 U	420 U	420 U	390 U	410 U	350 U	420 U
Chrysene	ug/kg	290000	440 U	420 U	420 U	390 U	410 U	350 U	420 U
Dibenz(a,h)anthracene	ug/kg	290	440 U	420 U	420 U	390 U	410 U	350 U	420 U
Dibenzofuran	ug/kg	100000	440 U	420 U	420 U	390 U	410 U	350 U	420 U
Diethyl phthalate	ug/kg	66000000	440 U	420 U	420 U	390 U	410 U	350 U	420 U
Dimethyl phthalate	ug/kg	--	440 U	420 U	420 U	390 U	410 U	350 U	420 U
Di-n-butylphthalate (DBP)	ug/kg	8200000	440 U	420 U	420 U	390 U	410 U	350 U	420 U
Di-n-octyl phthalate (DnOP)	ug/kg	820000	440 U	420 U	420 U	390 U	410 U	350 U	420 U

Table 3

**Soil Analytical Results Summary
Remedial Site Investigation
Bluewater Thermal Solutions Site
Fountain Inn, South Carolina**

Sample Location:			B-2	B-6	B-6	B-7	B-7	B-8	B-8
Sample ID:			SO-077150-101116-DJB-004	SO-077150-101216-DJB-011	SO-077150-101216-DJB-012	SO-077150-101216-DJB-013	SO-077150-101216-DJB-014	SO-077150-101216-DJB-015	SO-077150-101216-DJB-016
Sample Date:			10/11/2016	10/12/2016	10/12/2016	10/12/2016	10/12/2016	10/12/2016	10/12/2016
Sample Depth:			(14-15) ft BGS	(0.5-1.5) ft BGS	(8-9) ft BGS	(0.5-1.5) ft BGS	(9-10) ft BGS	(0.5-1.5) ft BGS	(9-10) ft BGS
Parameters	Units	USEPA Industrial Soil							
SVOCs continued									
Fluoranthene	ug/kg	3000000	440 U	420 U	420 U	390 U	410 U	350 U	420 U
Fluorene	ug/kg	3000000	440 U	420 U	420 U	390 U	410 U	350 U	420 U
Hexachlorobenzene	ug/kg	960	440 U	420 U	420 U	390 U	410 U	350 U	420 U
Hexachlorobutadiene	ug/kg	5300	440 U	420 U	420 U	390 U	410 U	350 U	420 U
Hexachlorocyclopentadiene	ug/kg	750	440 U	420 U	420 U	390 U	410 U	350 U	420 U
Hexachloroethane	ug/kg	8000	440 U	420 U	420 U	390 U	410 U	350 U	420 U
Indeno(1,2,3-cd)pyrene	ug/kg	2900	440 U	420 U	420 U	390 U	410 U	350 U	420 U
Isophorone	ug/kg	2400000	440 U	420 U	420 U	390 U	410 U	350 U	420 U
Naphthalene	ug/kg	17000	440 U	420 U	420 U	390 U	410 U	350 U	420 U
Nitrobenzene	ug/kg	22000	440 U	420 U	420 U	390 U	410 U	350 U	420 U
N-Nitrosodi-n-propylamine	ug/kg	330	440 U	420 U	420 U	390 U	410 U	350 U	420 U
N-Nitrosodiphenylamine	ug/kg	470000	440 U	420 U	420 U	390 U	410 U	350 U	420 U
Pentachlorophenol	ug/kg	4000	1100 U	1000 U	1100 U	990 U	1000 U	890 U	1100 U
Phenanthrene	ug/kg	--	440 U	420 U	420 U	390 U	410 U	350 U	420 U
Phenol	ug/kg	25000000	440 U	420 U	420 U	390 U	410 U	350 U	420 U
Pyrene	ug/kg	2300000	440 U	420 U	420 U	390 U	410 U	350 U	420 U
Metals									
Aluminum	ug/kg	110000000	9850000	9680000	17000000	4100000	5170000	4370000	5540000
Antimony	ug/kg	47000	6490 UJ	5620 UJ	339 J	5650 UJ	4380 UJ	4170 UJ	5990 UJ
Arsenic	ug/kg	3000	1300 U	1120 U	587 J	1130 U	876 U	833 U	231 J
Barium	ug/kg	22000000	26700	12600	25700	4910 J	4970	3720 J	15200
Beryllium	ug/kg	230000	464 J	228 J	417 J	147 J	177 J	27.7 J	333 J
Cadmium	ug/kg	--	649 U	562 U	607 U	565 U	438 U	417 U	599 U
Calcium	ug/kg	--	1650000 J	666000 J	1910000 J	1600000 J	308000 J	101000 J	1150000 J
Chromium	ug/kg	--	3450	2450	2820	3540	995	2810	1100 J
Cobalt	ug/kg	35000	2320 J	899 J	9060	813 J	368 J	78.2 J	1110 J
Copper	ug/kg	4700000	1820 J	5190	15000	650 J	651 J	367 J	1090 J
Iron	ug/kg	82000000	12400000	4850000	14200000	13300000	2060000	443000	6640000
Lead	ug/kg	800000	35500	18700	56500	11000	8480	6090	19100
Magnesium	ug/kg	--	981000	912000	944000	54400 J	233000	23300 J	374000
Manganese	ug/kg	2600000	138000	27100	369000	2190	8290	1480	66700
Mercury	ug/kg	4600	127 U	8.45 J	23.2 J	112 U	125 U	103 U	108 U
Nickel	ug/kg	2200000	528 J	643 J	2350 J	198 J	186 J	479 J	208 J
Potassium	ug/kg	--	1200000	1160000	1500000	191000	372000	114000	539000
Selenium	ug/kg	580000	649 U	562 U	607 U	565 U	438 U	417 U	599 U
Silver	ug/kg	580000	1300 U	1120 U	1210 U	1130 U	876 U	833 U	1200 U
Sodium	ug/kg	--	51100 J	42200 J	68800 J	47000 J	25300 J	15500 J	20700 J
Thallium	ug/kg	1200	2370	250 J	1210 U	1130 U	290 J	245 J	1200 U
Vanadium	ug/kg	580000	17700 J	7390 J	11500 J	1090 J	1630 J	1740 J	2110 J
Zinc	ug/kg	35000000	28100	15300	21000	2070 J	6370	1710	10000

Notes:
 U Not detected at the associate
 J Estimated concentration.
 UJ Not detected; associated rep
 Screening value USEPA RSL - Industrial soil :
 Bold, red and highlighted rep

Table 4

**Groundwater Analytical Results Summary
Remedial Site Investigation
Bluewater Thermal Solution Site
Fountain Inn, South Carolina**

Sample Location: Sample ID: Sample Date:	Parameters	Units	EPA MCL May 2016	EPA Tapwater May 2016	Criteria Used May 2016	MW-1D-2016	MW-1S-2016	MW-2-2016	MW-3-2016	MW-4-2016	MW-5-2016	MW-6-2016	MW-6-2016
						GW-077150-110716-TBM-102	GW-077150-110716-TBM-101	GW-077150-110816-TBM-104	GW-077150-110716-TBM-103	GW-077150-110816-TBM-107	GW-077150-110816-TBM-108	GW-077150-110816-TBM-105	GW-077150-110816-TBM-106
						11/7/2016	11/7/2016	11/8/2016	11/7/2016	11/8/2016	11/8/2016	11/8/2016	11/8/2016 (Duplicate)
VOCs													
	1,1,1,2-Tetrachloroethane	ug/L	--	0.57	0.57	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	1,1,1-Trichloroethane	ug/L	200	8000	200	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	1,1,2-Trichloroethane	ug/L	5	0.28	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	1,1-Dichloroethane	ug/L	--	2.8	2.8	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	1,1-Dichloroethene	ug/L	7	280	7	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	1,2,4-Trichlorobenzene	ug/L	70	1.2	70	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	1,2-Dibromo-3-chloropropane (DBCP)	ug/L	0.2	0.00033	0.2	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	1,2-Dibromoethane (Ethylene dibromide)	ug/L	0.05	0.0075	0.05	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	1,2-Dichlorobenzene	ug/L	600	300	600	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	1,2-Dichloroethane	ug/L	5	0.17	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	1,2-Dichloropropane	ug/L	5	0.44	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	1,3-Dichlorobenzene	ug/L	--	--	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	1,4-Dichlorobenzene	ug/L	75	0.48	75	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	--	5600	5600	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
	2-Hexanone	ug/L	--	38	38	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
	Methyl isobutyl ketone (MIBK)	ug/L	--	6300	6300	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
	Acetone	ug/L	--	14000	14000	30	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
	Benzene	ug/L	5	0.46	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	Bromodichloromethane	ug/L	80	0.13	80	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	Bromoform	ug/L	80	3.3	80	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	Bromomethane (Methyl bromide)	ug/L	--	7.5	7.5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	Carbon disulfide	ug/L	--	810	810	1.9	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	Carbon tetrachloride	ug/L	5	0.46	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	Chlorobenzene	ug/L	100	78	100	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	Chloroethane	ug/L	--	21000	21000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	Chloroform (Trichloromethane)	ug/L	80	0.22	80	1.2	2.1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	Chloromethane (Methyl chloride)	ug/L	--	190	190	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	cis-1,2-Dichloroethene	ug/L	70	36	70	1.0 U	2.3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	cis-1,3-Dichloropropene	ug/L	--	--	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	Cyclohexane	ug/L	--	13000	13000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	Dibromochloromethane	ug/L	80	0.87	80	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	Dichlorodifluoromethane (CFC-12)	ug/L	--	200	200	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	Ethylbenzene	ug/L	700	1.5	700	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	Isopropyl benzene	ug/L	--	450	450	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	Methyl acetate	ug/L	--	20000	20000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	Methyl cyclohexane	ug/L	--	--	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	Methyl tert butyl ether (MTBE)	ug/L	--	14	14	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	Methylene chloride	ug/L	5	11	5	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
	Styrene	ug/L	100	1200	100	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	Tetrachloroethene	ug/L	5	11	5	1.0 U	3100	1.0 U	1.0 U	1.0 U	53	1.0 U	1.0 U
	Toluene	ug/L	1000	1100	1000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	trans-1,2-Dichloroethene	ug/L	100	360	100	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	trans-1,3-Dichloropropene	ug/L	--	--	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	Trichloroethene	ug/L	5	0.49	5	1.0 U	82	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	Trichlorofluoromethane (CFC-11)	ug/L	--	5200	5200	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	Trifluorotrchloroethane (CFC-113)	ug/L	--	55000	55000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	Vinyl chloride	ug/L	2	0.019	2	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	Xylenes (total)	ug/L	10000	190	10000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Table 4

**Groundwater Analytical Results Summary
Remedial Site Investigation
Bluewater Thermal Solution Site
Fountain Inn, South Carolina**

Sample Location: Sample ID: Sample Date:	MW-1D-2016		MW-1S-2016		MW-2-2016		MW-3-2016		MW-4-2016		MW-5-2016		MW-6-2016	
	GW-077150-110716-TBM-102		GW-077150-110716-TBM-101		GW-077150-110816-TBM-104		GW-077150-110716-TBM-103		GW-077150-110816-TBM-107		GW-077150-110816-TBM-108		GW-077150-110816-TBM-105	
	11/7/2016		11/7/2016		11/8/2016		11/7/2016		11/8/2016		11/8/2016		11/8/2016	
Parameters	Units	EPA MCL May 2016	EPA Tapwater May 2016	Criteria Used May 2016										
SVOCs														
bis(2-Chloroisopropyl) ether	ug/L	--	710	710	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol	ug/L	--	1200	1200	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
2,4,6-Trichlorophenol	ug/L	--	4.1	4.1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dichlorophenol	ug/L	--	46	46	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
2,4-Dimethylphenol	ug/L	--	360	360	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
2,4-Dinitrophenol	ug/L	--	39	39	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
2,4-Dinitrotoluene	ug/L	--	0.24	0.24	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,6-Dinitrotoluene	ug/L	--	0.049	0.049	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Chloronaphthalene	ug/L	--	750	750	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Chlorophenol	ug/L	--	91	91	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylnaphthalene	ug/L	--	36	36	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylphenol	ug/L	--	930	930	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
2-Nitroaniline	ug/L	--	190	190	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
2-Nitrophenol	ug/L	--	--	--	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
3,3'-Dichlorobenzidine	ug/L	--	0.13	0.13	10 U	10 U	R	10 U	10 U	10 U	10 U	10 U	10 U	10 U
3-Nitroaniline	ug/L	--	--	--	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
4,6-Dinitro-2-methylphenol	ug/L	--	1.5	1.5	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
4-Bromophenyl phenyl ether	ug/L	--	--	--	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloro-3-methylphenol	ug/L	--	1400	1400	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloroaniline	ug/L	--	0.37	0.37	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chlorophenyl phenyl ether	ug/L	--	--	--	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methylphenol	ug/L	--	1900	1900	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitroaniline	ug/L	--	3.8	3.8	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
4-Nitrophenol	ug/L	--	--	--	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
Acenaphthene	ug/L	--	530	530	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acenaphthylene	ug/L	--	--	--	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acetophenone	ug/L	--	1900	1900	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Anthracene	ug/L	--	1800	1800	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Atrazine	ug/L	3	0.3	3	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzaldehyde	ug/L	--	19	19	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(a)anthracene	ug/L	--	0.012	0.012	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(a)pyrene	ug/L	0.2	0.0034	0.2	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	ug/L	--	0.034	0.034	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)perylene	ug/L	--	--	--	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	ug/L	--	0.34	0.34	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Biphenyl (1,1-Biphenyl)	ug/L	--	0.83	0.83	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroethoxy)methane	ug/L	--	59	59	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroethyl)ether	ug/L	--	0.014	0.014	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	6	5.6	6	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Butyl benzylphthalate (BBP)	ug/L	--	16	16	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Caprolactam	ug/L	--	9900	9900	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbazole	ug/L	--	--	--	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chrysene	ug/L	--	3.4	3.4	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibenz(a,h)anthracene	ug/L	--	0.0034	0.0034	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibenzofuran	ug/L	--	7.9	7.9	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Diethyl phthalate	ug/L	--	15000	15000	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dimethyl phthalate	ug/L	--	--	--	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Di-n-butylphthalate (DBP)	ug/L	--	900	900	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Di-n-octyl phthalate (DnOP)	ug/L	--	200	200	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluoranthene	ug/L	--	800	800	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluorene	ug/L	--	290	290	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobenzene	ug/L	1	0.0098	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobutadiene	ug/L	--	0.14	0.14	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
Hexachlorocyclopentadiene	ug/L	50	0.41	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachloroethane	ug/L	--	0.33	0.33	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U

Table 4

**Groundwater Analytical Results Summary
Remedial Site Investigation
Bluewater Thermal Solution Site
Fountain Inn, South Carolina**

Sample Location: Sample ID: Sample Date:	Parameters	Units	EPA MCL May 2016	EPA Tapwater May 2016	Criteria Used May 2016	MW-1D-2016	MW-1S-2016	MW-2-2016	MW-3-2016	MW-4-2016	MW-5-2016	MW-6-2016	MW-6-2016
						GW-077150-110716-TBM-102	GW-077150-110716-TBM-101	GW-077150-110816-TBM-104	GW-077150-110716-TBM-103	GW-077150-110816-TBM-107	GW-077150-110816-TBM-108	GW-077150-110816-TBM-105	GW-077150-110816-TBM-106
						11/7/2016	11/7/2016	11/8/2016	11/7/2016	11/8/2016	11/8/2016	11/8/2016	11/8/2016
SVOCs continued													
	Indeno(1,2,3-cd)pyrene	ug/L	--	0.034	0.034	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	Isophorone	ug/L	--	78	78	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	Naphthalene	ug/L	--	0.17	0.17	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	Nitrobenzene	ug/L	--	0.14	0.14	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	N-Nitrosodi-n-propylamine	ug/L	--	0.011	0.011	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	N-Nitrosodiphenylamine	ug/L	--	12	12	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	Pentachlorophenol	ug/L	1	0.041	1	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
	Phenanthrene	ug/L	--	--	--	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	Phenol	ug/L	--	5800	5800	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	Pyrene	ug/L	--	120	120	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Metals													
	Aluminum	ug/L	--	20000	20000	4090	211	202	200 U	754	273	374	365
	Antimony	ug/L	6	7.8	6	56.9	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U
	Arsenic	ug/L	10	0.052	10	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
	Barium	ug/L	2000	3800	2000	20.0 U	250	63.5	117	30.2	63.4	137	136
	Beryllium	ug/L	4	25	4	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U
	Cadmium	ug/L	5	9.2	5	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U
	Calcium	ug/L	--	--	--	62000	558	1540	1940	4640	631	761	766
	Chromium	ug/L	100	--	100	48.9	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
	Cobalt	ug/L	--	6	6	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U
	Copper	ug/L	1300	800	1300	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
	Iron	ug/L	--	14000	14000	100 U	100 U	152	433	100 U	100 U	100 U	100 U
	Lead	ug/L	--	15	15	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U
	Magnesium	ug/L	--	--	--	100 U	1060	288	356	389	620	1810	1790
	Manganese	ug/L	--	430	430	15.0 U	499	357	1600	79.9	145	240	241
	Mercury	ug/L	2	0.63	2	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U
	Nickel	ug/L	--	390	390	54.7	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U
	Potassium	ug/L	--	--	--	11300	5130	1970	1820	25400	2550	5600	5620
	Selenium	ug/L	50	100	50	62.1	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
	Silver	ug/L	--	94	94	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
	Sodium	ug/L	--	--	--	19700 J	8660 J	9790 J	2250 J	9160 J	1220 J	52400 J	51600 J
	Thallium	ug/L	2	0.2	2	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
	Vanadium	ug/L	--	86	86	11.7	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
	Zinc	ug/L	--	6000	6000	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U

Notes:

U Not detected at the associated reporting limit.

J Estimated concentration.

UJ Not detected; associated reporting limit is estimated.

R Rejected.

Screening value USEPA RSL - Maximum Contaminant Levels (MCL) or Tapwater criteria

Bold, red and highlighted value represent exceedance of the screening value

Table 5

**November 2013 Groundwater Analytical Results Summary
Bluewater Thermal Solutions LLC
Fountain Inn, South Carolina**

Sample Location:	<i>BH-1</i>	<i>BH-2</i>	<i>BH-3</i>	<i>BH-4</i>					
Sample ID:	<i>GW-077150-110713-AWY-106</i>	<i>GW-077150-110713-AWY-102</i>	<i>GW-077150-110713-AWY-103</i>	<i>GW-077150-110613-AWY-101</i>					
Sample Date:	<i>11/7/2013</i>	<i>11/7/2013</i>	<i>11/7/2013</i>	<i>11/6/2013</i>					
Parameters	<i>Units</i>	<i>EPA - MCL</i>	<i>EPA - Tapwater</i>	<i>Criteria Used</i>					
Volatile Organic Compounds									
1,1,1-Trichloroethane	ug/L	200	7500	200	1.0 U	1.0 U	1.0 U	1.0 U	
1,1,2,2-Tetrachloroethane	ug/L	-	0.066	0.066	1.0 U	1.0 U	1.0 U	11	
1,1,2-Trichloroethane	ug/L	5	0.24	5	1.0 U	1.0 U	6.9	1.0 U	
1,1-Dichloroethane	ug/L	-	2.4	2.4	6.9	1.0 U	1.0 U	1.0 U	
1,1-Dichloroethene	ug/L	7	260	7	10	2.0 U	2.0 U	2.2	
1,2,4-Trichlorobenzene	ug/L	70	0.99	70	1.0 U	1.0 U	1.0 U	1.0 U	
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	0.2	0.00032	0.2	1.0 U	1.0 U	1.0 U	1.0 U	
1,2-Dibromoethane (Ethylene dibromide)	ug/L	0.05	0.0065	0.05	1.0 U	1.0 U	1.0 U	1.0 U	
1,2-Dichlorobenzene	ug/L	600	280	600	1.0 U	1.0 U	1.0 U	1.0 U	
1,2-Dichloroethane	ug/L	5	0.15	5	1.0 U	1.0 U	1.0 U	1.0 U	
1,2-Dichloropropane	ug/L	5	0.38	5	1.0 U	1.0 U	1.0 U	1.0 U	
1,3-Dichlorobenzene	ug/L	-	-	-	1.0 U	1.0 U	1.0 U	1.0 U	
1,4-Dichlorobenzene	ug/L	75	0.42	75	1.0 U	1.0 U	1.0 U	1.0 U	
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	-	4900	4900	10 U	10 U	10 U	10 U	
2-Hexanone	ug/L	-	34	34	10 U	10 U	10 U	10 U	
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	-	1000	1000	10 U	10 U	10 U	10 U	
Acetone	ug/L	-	12000	12000	20 U	20 U	20 U	20 U	
Benzene	ug/L	5	0.39	5	1.0 U	1.0 U	1.0 U	1.0 U	
Bromodichloromethane	ug/L	80	0.12	80	1.0 U	1.0 U	1.0 U	1.0 U	
Bromoform	ug/L	80	7.9	80	1.0 U	1.0 U	1.0 U	1.0 U	
Bromomethane (Methyl bromide)	ug/L	-	7	7	1.0 U	1.0 U	1.0 U	1.0 U	
Carbon disulfide	ug/L	-	720	720	5.0 U	5.0 U	5.0 U	5.0 U	
Carbon tetrachloride	ug/L	5	0.39	5	2.0 U	2.0 U	2.0 U	2.0 U	
Chlorobenzene	ug/L	100	72	100	1.0 U	1.0 U	1.0 U	1.0 U	
Chloroethane	ug/L	-	21000	21000	1.0 U	1.0 U	1.0 U	1.0 U	
Chloroform (Trichloromethane)	ug/L	80	0.19	80	1.0 U	1.0 U	1.0 U	9.5	
Chloromethane (Methyl chloride)	ug/L	-	190	190	1.0 U	1.0 U	1.0 U	1.0 U	
cis-1,2-Dichloroethene	ug/L	70	28	70	1.0 U	1.0 U	3.0	21	
cis-1,3-Dichloropropene	ug/L	-	-	-	1.0 U	1.0 U	1.0 U	1.0 U	
Cyclohexane	ug/L	-	13000	13000	1.4 J	2.0 U	2.0 U	2.0 U	
Dibromochloromethane	ug/L	80	0.15	80	1.0 U	1.0 U	1.0 U	1.0 U	
Dichlorodifluoromethane (CFC-12)	ug/L	-	190	190	1.0 U	1.0 U	1.0 U	1.0 U	
Ethylbenzene	ug/L	700	1.3	700	1.0 U	1.0 U	1.0 U	1.0 U	
Isopropyl benzene	ug/L	-	390	390	1.0 U	1.0 U	1.0 U	1.0 U	
Methyl acetate	ug/L	-	16000	16000	2.0 U	2.0 U	2.0 U	2.0 U	
Methyl cyclohexane	ug/L	-	-	-	2.0 U	2.0 U	2.0 U	2.0 U	
Methyl tert butyl ether (MTBE)	ug/L	-	12	12	1.0 U	1.0 U	1.0 U	1.0 U	
Methylene chloride	ug/L	5	9.9	5	5.0 U	5.0 U	5.0 U	5.0 U	

Table 5

November 2013 Groundwater Analytical Results Summary
 Bluewater Thermal Solutions LLC
 Fountain Inn, South Carolina

Sample Location:					BH-1	BH-2	BH-3	BH-4
Sample ID:					GW-077150-110713-AWY-106	GW-077150-110713-AWY-102	GW-077150-110713-AWY-103	GW-077150-110613-AWY-101
Sample Date:					11/7/2013	11/7/2013	11/7/2013	11/6/2013
Parameters	Units	EPA - MCL	EPA - Tapwater	Criteria Used				
Volatile Organic Compounds								
Styrene	ug/L	100	1100	100	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	5	9.7	5	1.0 U	2.8	100	4600
Toluene	ug/L	1000	860	1000	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	100	86	100	2.0 U	2.0 U	2.0 U	2.0 U
trans-1,3-Dichloropropene	ug/L	-	-	-	2.0 U	2.0 U	2.0 U	2.0 U
Trichloroethene	ug/L	5	0.44	5	1.0 U	1.0 U	2.9	150
Trichlorofluoromethane (CFC-11)	ug/L	-	1100	1100	1.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrchloroethane (Freon 113)	ug/L	-	53000	53000	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl chloride	ug/L	2	0.015	2	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	ug/L	10000	190	10000	1.0 U	1.0 U	1.3	1.0 U

Notes:

- U - Not detected at the associated reporting limit.
- J - Estimated concentrations.
- 10** - Concentrations exceed the criteria used.

Table 5

November 2013 Groundwater Analytical Results Summary
Bluewater Thermal Solutions LLC
Fountain Inn, South Carolina

Sample Location:									
Sample ID:									
Sample Date:									
					<i>BH-5</i>	<i>BH-5</i>	<i>BH-6</i>	<i>BH-7</i>	<i>BH-8</i>
					<i>GW-077150-110713-AWY-105</i>	<i>GW-077150-110713-AWY-104</i>	<i>GW-077150-110713-AWY-107</i>	<i>GW-077150-110713-AWY-108</i>	<i>GW-077150-110713-AWY-109</i>
					<i>11/7/2013</i>	<i>11/7/2013</i>	<i>11/7/2013</i>	<i>11/7/2013</i>	<i>11/7/2013</i>
					<i>(Duplicate)</i>				
Parameters	<i>Units</i>	<i>EPA - MCL</i>	<i>EPA - Tapwater</i>	<i>Criteria Used</i>					
<i>Volatile Organic Compounds</i>									
1,1,1-Trichloroethane	ug/L	200	7500	200	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	-	0.066	0.066	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	ug/L	5	0.24	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	-	2.4	2.4	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	7	260	7	2.5	2.5	2.0 U	2.0 U	2.0 U
1,2,4-Trichlorobenzene	ug/L	70	0.99	70	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	0.2	0.00032	0.2	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	0.05	0.0065	0.05	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	ug/L	600	280	600	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	5	0.15	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	5	0.38	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	ug/L	-	-	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	75	0.42	75	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	-	4900	4900	10 U	10 U	10 U	10 U	10 U
2-Hexanone	ug/L	-	34	34	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	-	1000	1000	10 U	10 U	10 U	10 U	10 U
Acetone	ug/L	-	12000	12000	20 U	20 U	20 U	20 U	20 U
Benzene	ug/L	5	0.39	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	ug/L	80	0.12	80	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	80	7.9	80	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	ug/L	-	7	7	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	ug/L	-	720	720	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	5	0.39	5	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Chlorobenzene	ug/L	100	72	100	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	ug/L	-	21000	21000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	80	0.19	80	4.3	4.2	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	ug/L	-	190	190	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	70	28	70	23	23	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	-	-	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	-	13000	13000	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Dibromochloromethane	ug/L	80	0.15	80	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	-	190	190	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	ug/L	700	1.3	700	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	ug/L	-	390	390	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	ug/L	-	16000	16000	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methyl cyclohexane	ug/L	-	-	-	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methyl tert butyl ether (MTBE)	ug/L	-	12	12	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	ug/L	5	9.9	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

Table 5

November 2013 Groundwater Analytical Results Summary
Bluewater Thermal Solutions LLC
Fountain Inn, South Carolina

Sample Location:										
Sample ID:										
Sample Date:										
					<i>BH-5</i>	<i>BH-5</i>	<i>BH-6</i>	<i>BH-7</i>	<i>BH-8</i>	
					<i>GW-077150-110713-AWY-105</i>	<i>GW-077150-110713-AWY-104</i>	<i>GW-077150-110713-AWY-107</i>	<i>GW-077150-110713-AWY-108</i>	<i>GW-077150-110713-AWY-109</i>	
					<i>11/7/2013</i>	<i>11/7/2013</i>	<i>11/7/2013</i>	<i>11/7/2013</i>	<i>11/7/2013</i>	
					<i>(Duplicate)</i>					
Parameters	<i>Units</i>	<i>EPA - MCL</i>	<i>EPA - Tapwater</i>	<i>Criteria Used</i>						
<i>Volatile Organic Compounds</i>										
Styrene	ug/L	100	1100	100	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	5	9.7	5	2700	3200 J	690	120	530	
Toluene	ug/L	1000	860	1000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	100	86	100	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
trans-1,3-Dichloropropene	ug/L	-	-	-	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Trichloroethene	ug/L	5	0.44	5	110	120	11	1.0 U	1.0 U	6.2
Trichlorofluoromethane (CFC-11)	ug/L	-	1100	1100	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (Freon 113)	ug/L	-	53000	53000	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl chloride	ug/L	2	0.015	2	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	ug/L	10000	190	10000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Notes:

U - Not detected at the associated reporting limit.

J - Estimated concentrations.

10 - Concentrations exceed the criteria used.

Appendices

Appendix A

Stratigraphic and Well Construction Logs and Well Development Forms



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: BODYCOATE THERMAL PROCESSING, INC
 PROJECT NUMBER: 077150
 CLIENT: LIPPES, MATHIAS, WEXLER & FRIEDMAN LLP
 LOCATION: FOUNTAIN INN, SC

HOLE DESIGNATION: B-2
 DATE COMPLETED: October 11, 2016
 DRILLING METHOD: DIRECT PUSH/HSA 4-1/4"/CORING
 FIELD PERSONNEL: D. BRYTOWSKI

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE	SAMPLE				
				NUMBER	INTERVAL	REC (%)	N' VALUE	PID (ppm)
2	SM-SILT/SAND (FILL), low moisture			1DP 0-5' -003		80		0.3
4								
6	SM-SAND/SILT (residuum) - increasing moisture content with depth at 10.0ft BGS	6.70		2DP		96		0.6
8								
10								
12				3DP 10-15' -004		100		0.9
14								
16	END OF BOREHOLE @ 15.0ft BGS	15.00						
18								
20								
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS ○

OVERBURDEN LOG 077150-WI.GPJ CRA_CORP.GDT 11/30/16



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: BODYCOATE THERMAL PROCESSING, INC
 PROJECT NUMBER: 077150
 CLIENT: LIPPES, MATHIAS, WEXLER & FRIEDMAN LLP
 LOCATION: FOUNTAIN INN, SC

HOLE DESIGNATION: B-6
 DATE COMPLETED: October 12, 2016
 DRILLING METHOD: DIRECT PUSH
 FIELD PERSONNEL: D. BRYTOWSKI

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE	SAMPLE					
				NUMBER	INTERVAL	REC (%)	N' VALUE	PID (ppm)	
2	SM-SAND/SILT (FILL), compact, micaceous, tan, moist		<p style="text-align: center;">BACKFILLED WITH BENTONITE CHIPS</p>	1DP 0-5' -011		52		1.5	
4	SM-SAND/SILT (residuum), micaceous, tan, moist	4.30							
6					2DP 5-10' -012		90		1.6
8									
10	- saturated at 9.2ft BGS	10.00							
12									
14									
16									
18									
20									
22									
24									
26	END OF BOREHOLE @ 25.0ft BGS								
28									
30									
32									
34									

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

OVERBURDEN LOG 077150-WI.GPJ CRA_CORP.GDT 11/30/16



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: BODYCOATE THERMAL PROCESSING, INC
 PROJECT NUMBER: 077150
 CLIENT: LIPPES, MATHIAS, WEXLER & FRIEDMAN LLP
 LOCATION: FOUNTAIN INN, SC

HOLE DESIGNATION: B-7
 DATE COMPLETED: October 12, 2016
 DRILLING METHOD: DIRECT PUSH
 FIELD PERSONNEL: D. BRYTOWSKI

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE	SAMPLE				
				NUMBER	INTERVAL	REC (%)	N' VALUE	PID (ppm)
0.30	TOPSOIL	0.30						
2	SM-SAND/SILT (residuum), dense, low moisture			1DP 0-5' -013		48		2.2
4								
6	- increase in moisture content at 5.0ft BGS							
8				2DP 5-10' -014		82		1.3
10								
12	- saturated at 11.0ft BGS							
14				3DP		58		1.6
15.00	END OF BOREHOLE @ 15.0ft BGS	15.00						
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								

← BACKFILLED WITH BENTONITE CHIPS

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS



OVERBURDEN LOG 077150-WI.GPJ CRA_CORP.GDT 11/30/16



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: BODYCOATE THERMAL PROCESSING, INC
 PROJECT NUMBER: 077150
 CLIENT: LIPPES, MATHIAS, WEXLER & FRIEDMAN LLP
 LOCATION: FOUNTAIN INN, SC

HOLE DESIGNATION: B-8
 DATE COMPLETED: October 12, 2016
 DRILLING METHOD: DIRECT PUSH
 FIELD PERSONNEL: D. BRYTOWSKI

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE	SAMPLE				
				NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
2	SM-SAND/SILT (FILL), trace gravel, dense, tan, moist			1DP 0.5' -015		76		1.4
4								
6	SM-SAND/SILT (residuum), dense, moist	4.70	← BACKFILLED WITH BENTONITE CHIPS	2DP 5.5' -016		64		2.0
8								
10	- saturated at 11.0ft BGS					70		1.7
12								
14	END OF BOREHOLE @ 15.0ft BGS	15.00						
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

OVERBURDEN LOG 077150-WI.GPJ CRA_CORP.GDT 11/30/16



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: BODYCOATE THERMAL PROCESSING, INC
 PROJECT NUMBER: 077150
 CLIENT: LIPPES, MATHIAS, WEXLER & FRIEDMAN LLP
 LOCATION: FOUNTAIN INN, SC

HOLE DESIGNATION: MW-1D-16/B-1
 DATE COMPLETED: October 11, 2016
 DRILLING METHOD: DIRECT PUSH/HSA 4-1/4"/CORING
 FIELD PERSONNEL: D. BRYTOWSKI

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft	MONITORING WELL	SAMPLE				
				NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
	GROUND SURFACE TOP OF CASING	844.42 844.05						
2	GP-GRAVEL (FILL) SM-SILT/SAND (FILL), dense, tan/black, low moisture	844.02	CONCRETE	0.6-1.5 -001				
4			2" PVC WELL CASING	1DP		46		0.5
6	ML-SILT/SAND (residuum), gray/tan, very moist	839.42	CEMENT GROUT					
8			8" BOREHOLE	2DP		60		0.8
12	ML/SM-SILT/SAND (residuum), saprolite, tan/light gray, very moist	832.92		3DP		94		2.4
14								
16	- saturated at 15.5ft BGS							
18				4DP 15-20' -002		100		2.1
20								
22				5DP		100		1.1
24								
26								
28				6DP		100		11.2
30								
32				7DP		100		2.9
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

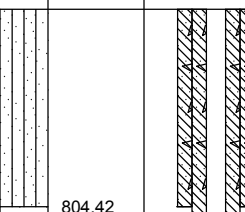
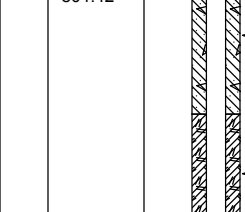
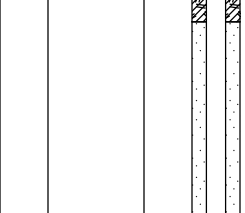
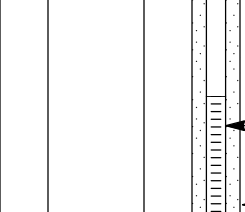
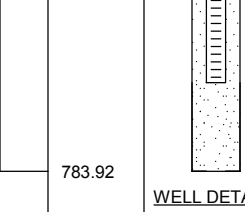
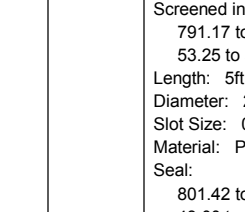
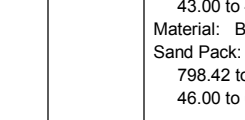

OVERBURDEN LOG 077150-WI-GPJ CRA_CORP.GDT 11/30/16



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: BODYCOATE THERMAL PROCESSING, INC
 PROJECT NUMBER: 077150
 CLIENT: LIPPES, MATHIAS, WEXLER & FRIEDMAN LLP
 LOCATION: FOUNTAIN INN, SC

HOLE DESIGNATION: MW-1D-16/B-1
 DATE COMPLETED: October 11, 2016
 DRILLING METHOD: DIRECT PUSH/HSA 4-1/4"/CORING
 FIELD PERSONNEL: D. BRYTOWSKI

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft	MONITORING WELL	SAMPLE				
				NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
36	- 0.5' sand and gravel, loose at 36.5ft BGS							
38				8DP		100		1.0
40	- END OF DIRECT PUSH at 40.0ft BGS NO SAMPLE RECOVERED (40.0 to 60.5ft BGS)	804.42						
42								
44								
46								
48								
50								
52								
54								
56								
58								
60	END OF BOREHOLE @ 60.5ft BGS	783.92						
62								
64								
66								
68								

WELL DETAILS
 Screened interval:
 791.17 to 786.17ft
 53.25 to 58.25ft BGS
 Length: 5ft
 Diameter: 2in
 Slot Size: 0.010
 Material: PVC
 Seal:
 801.42 to 798.42ft
 43.00 to 46.00ft BGS
 Material: BENTONITE CHIPS
 Sand Pack:
 798.42 to 783.92ft
 46.00 to 60.50ft BGS

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS



OVERBURDEN LOG 077150-WI-GPJ CRA_CORP.GDT 11/30/16



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: BODYCOATE THERMAL PROCESSING, INC
 PROJECT NUMBER: 077150
 CLIENT: LIPPES, MATHIAS, WEXLER & FRIEDMAN LLP
 LOCATION: FOUNTAIN INN, SC

HOLE DESIGNATION: MW-1D-16/B-1
 DATE COMPLETED: October 11, 2016
 DRILLING METHOD: DIRECT PUSH/HSA 4-1/4"/CORING
 FIELD PERSONNEL: D. BRYTOWSKI

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft	MONITORING WELL	SAMPLE				
				NUMBER	INTERVAL	REC (%)	N' VALUE	PID (ppm)
72 74 76 78 80 82 84 86 88 90 92 94 96 98 100 102 104			Material: SAND					

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS



OVERBURDEN LOG 077150-WI.GPJ CRA_CORP.GDT 11/30/16



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: BODYCOATE THERMAL PROCESSING, INC
 PROJECT NUMBER: 077150
 CLIENT: LIPPES, MATHIAS, WEXLER & FRIEDMAN LLP
 LOCATION: FOUNTAIN INN, SC

HOLE DESIGNATION: MW-1S-16
 DATE COMPLETED: October 11, 2016
 DRILLING METHOD: DIRECT PUSH/HSA 4-1/4"
 FIELD PERSONNEL: D. BRYTOWSKI

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft	MONITORING WELL	SAMPLE				
				NUMBER	INTERVAL	REC (%)	'N' VALUE	
	GROUND SURFACE TOP OF CASING	845.06 844.81						
2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34	SEE LOG MW-1D-16/B-1 FOR STRATIGRAPHIC DESCRIPTION (0.0 to 29.5 ft BGS)	815.56	<p style="font-size: small;"> CONCRETE 2" PVC WELL CASING CEMENT GROUT 8" BOREHOLE BENTONITE GROUT 2" PVC WELL SCREEN SAND PACK </p>					
	END OF BOREHOLE @ 29.5ft BGS							
			WELL DETAILS Screened interval: 826.06 to 816.06ft 19.00 to 29.00ft BGS Length: 10ft Diameter: 2in Slot Size: 0.010 Material: PVC Seal:					

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 077150-MI-GPJ-CRA-CORP-GDT 11/30/16



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: BODYCOATE THERMAL PROCESSING, INC
 PROJECT NUMBER: 077150
 CLIENT: LIPPES, MATHIAS, WEXLER & FRIEDMAN LLP
 LOCATION: FOUNTAIN INN, SC

HOLE DESIGNATION: MW-1S-16
 DATE COMPLETED: October 11, 2016
 DRILLING METHOD: DIRECT PUSH/HSA 4-1/4"
 FIELD PERSONNEL: D. BRYTOWSKI

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft	MONITORING WELL	SAMPLE					
				NUMBER	INTERVAL	REC (%)	N' VALUE		
36 38 40 42 44 46 48 50 52 54 56 58 60 62 64 66 68			830.76 to 828.06ft 14.30 to 17.00ft BGS Material: BENTONTIE GROUT Sand Pack: 828.06 to 815.56ft 17.00 to 29.50ft BGS Material: SAND						

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 077150-WI-GPJ CRA_CORP.GDT 11/30/16



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: BODYCOATE THERMAL PROCESSING, INC
 PROJECT NUMBER: 077150
 CLIENT: LIPPES, MATHIAS, WEXLER & FRIEDMAN LLP
 LOCATION: FOUNTAIN INN, SC

HOLE DESIGNATION: MW-2-16/B-4
 DATE COMPLETED: October 11, 2016
 DRILLING METHOD: DIRECT PUSH/HSA 4-1/4"
 FIELD PERSONNEL: D. BRYTOWSKI

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft	MONITORING WELL	SAMPLE				
				NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
	TOP OF CASING GROUND SURFACE	841.03 838.72						
2	TOPSOIL, grass SM-SAND/SILT (FILL), tan, low moisture	838.42	CONCRETE					
4	MH-SILT, soft, gray	835.42	2" PVC WELL CASING	1DP 0-5' -007		82		1.8
6	SM-SAND/SILT (residuum), very dense, tan/light gray, moist	833.72	CEMENT GROUT					
8			8" BOREHOLE	2DP 5-10' -008		100		1.3
12	- saturated at 12.0ft BGS		BENTONITE GROUT					
14				3DP				0.3
16	- END OF DIRECT PUSH at 15.0ft BGS NOT SAMPLED (15.0 to 25.5ft BGS)	823.72	2" PVC WELL SCREEN					
18			SAND PACK					
26	END OF BOREHOLE @ 25.5ft BGS	813.22						

WELL DETAILS
 Screened interval:
 823.57 to 813.57ft
 15.15 to 25.15ft BGS
 Length: 10ft
 Diameter: 2in
 Slot Size: 0.010
 Material: PVC
 Seal:
 828.72 to 825.57ft
 10.00 to 13.15ft BGS
 Material: BENTONITE GROUT
 Sand Pack:
 825.57 to 813.22ft
 13.15 to 25.50ft BGS

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

OVERBURDEN LOG 077150-WI-GPJ CRA_CORP.GDT 11/30/16



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: BODYCOATE THERMAL PROCESSING, INC
 PROJECT NUMBER: 077150
 CLIENT: LIPPES, MATHIAS, WEXLER & FRIEDMAN LLP
 LOCATION: FOUNTAIN INN, SC

HOLE DESIGNATION: MW-2-16/B-4
 DATE COMPLETED: October 11, 2016
 DRILLING METHOD: DIRECT PUSH/HSA 4-1/4"
 FIELD PERSONNEL: D. BRYTOWSKI

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft	MONITORING WELL	SAMPLE				
				NUMBER	INTERVAL	REC (%)	N' VALUE	PID (ppm)
36 38 40 42 44 46 48 50 52 54 56 58 60 62 64 66 68			Material: SAND					

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS



OVERBURDEN LOG 077150-WI-GPJ CRA_CORP.GDT 11/30/16



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: BODYCOATE THERMAL PROCESSING, INC
 PROJECT NUMBER: 077150
 CLIENT: LIPPES, MATHIAS, WEXLER & FRIEDMAN LLP
 LOCATION: FOUNTAIN INN, SC

HOLE DESIGNATION: MW-3-16/B-5
 DATE COMPLETED: October 12, 2016
 DRILLING METHOD: DIRECT PUSH/HSA 4-1/4"
 FIELD PERSONNEL: D. BRYTOWSKI

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft	MONITORING WELL	SAMPLE				
				NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
	TOP OF CASING GROUND SURFACE	841.03 838.71						
2	SM-SAND/SILT (FILL), dense, tan, low to moderate moisture		CONCRETE 2" PVC WELL CASING CEMENT GROUT 8" BOREHOLE BENTONITE GROUT	1DP 0-5' -009		34		1.7
4								
6	SM-SILT/SAND (residuum), dense, tan, moist	833.21		2DP		28		1.4
8								
10	- saturated at 13.0ft BGS			3DP 10-15' -010		24		1.2
12								
14				4DP		32		1.6
16								
18	- END OF DIRECT PUSH at 20.0ft BGS NOT SAMPLED (20.0 to 25.5ft BGS)	818.71	2" PVC WELL SCREEN SAND PACK					
20								
22	END OF BOREHOLE @ 25.5ft BGS	813.21						
24								
26								
28								
30								
32								
34								

WELL DETAILS
 Screened interval:
 823.48 to 813.48ft
 15.23 to 25.23ft BGS
 Length: 10ft
 Diameter: 2in
 Slot Size: 0.010
 Material: PVC
 Seal:
 828.71 to 826.21ft
 10.00 to 12.50ft BGS
 Material: BENTONITE GROUT
 Sand Pack:
 826.21 to 813.21ft
 12.50 to 25.50ft BGS

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

OVERBURDEN LOG 077150-WI-GPJ CRA_CORP.GDT 11/30/16



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: BODYCOATE THERMAL PROCESSING, INC
 PROJECT NUMBER: 077150
 CLIENT: LIPPES, MATHIAS, WEXLER & FRIEDMAN LLP
 LOCATION: FOUNTAIN INN, SC

HOLE DESIGNATION: MW-3-16/B-5
 DATE COMPLETED: October 12, 2016
 DRILLING METHOD: DIRECT PUSH/HSA 4-1/4"
 FIELD PERSONNEL: D. BRYTOWSKI

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft	MONITORING WELL	SAMPLE				
				NUMBER	INTERVAL	REC (%)	N' VALUE	PID (ppm)
36 38 40 42 44 46 48 50 52 54 56 58 60 62 64 66 68			Material: SAND					

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS



OVERBURDEN LOG 077150-WI-GPJ CRA_CORP.GDT 11/30/16



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: BODYCOATE THERMAL PROCESSING, INC
 PROJECT NUMBER: 077150
 CLIENT: LIPPES, MATHIAS, WEXLER & FRIEDMAN LLP
 LOCATION: FOUNTAIN INN, SC

HOLE DESIGNATION: MW-4-16/B-10
 DATE COMPLETED: October 12, 2016
 DRILLING METHOD: DIRECT PUSH/HSA 4-1/4"
 FIELD PERSONNEL: D. BRYTOWSKI

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft	MONITORING WELL	SAMPLE				
				NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
	GROUND SURFACE TOP OF CASING	847.47 847.22						
2	ML-SILT (FILL), dense, brown, dry		CONCRETE	0-1.5' -020				
4	SM-SAND/SILT (residuum), dense, tan, moist	843.47	2" PVC WELL CASING	1DP		24		0.0
6			CEMENT GROUT					
8			8" BOREHOLE	2DP		78		0.2
10								
12				3DP		100		0.0
14								
16	- increase in moisture content at 15.0ft BGS		BENTONITE GROUT	4DP		100		0.2
18								
20	- saturated at 20.0ft BGS							
22			2" PVC WELL SCREEN					
24			SAND PACK	5DP		100		0.0
26	- END OF DIRECT PUSH at 25.0ft BGS NOT SAMPLED (25.0 to 30.5ft BGS)	822.47						
28								
30								
32	END OF BOREHOLE @ 30.5ft BGS	816.97						
34								

WELL DETAILS
 Screened interval:
 827.77 to 817.77ft
 19.70 to 29.70ft BGS
 Length: 10ft
 Diameter: 2in
 Slot Size: 0.010

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

OVERBURDEN LOG 077150-WI.GPJ CRA_CORP.GDT 11/30/16



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: BODYCOATE THERMAL PROCESSING, INC
 PROJECT NUMBER: 077150
 CLIENT: LIPPES, MATHIAS, WEXLER & FRIEDMAN LLP
 LOCATION: FOUNTAIN INN, SC

HOLE DESIGNATION: MW-4-16/B-10
 DATE COMPLETED: October 12, 2016
 DRILLING METHOD: DIRECT PUSH/HSA 4-1/4"
 FIELD PERSONNEL: D. BRYTOWSKI

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft	MONITORING WELL	SAMPLE				
				NUMBER	INTERVAL	REC (%)	N' VALUE	PID (ppm)
36 38 40 42 44 46 48 50 52 54 56 58 60 62 64 66 68			Material: PVC Seal: 832.77 to 829.67ft 14.70 to 17.80ft BGS Material: BENTONITE GROUT Sand Pack: 829.67 to 816.97ft 17.80 to 30.50ft BGS Material: SAND					

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

OVERBURDEN LOG 077150-WI-GPJ CRA_CORP.GDT 11/30/16



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: BODYCOATE THERMAL PROCESSING, INC
 PROJECT NUMBER: 077150
 CLIENT: LIPPES, MATHIAS, WEXLER & FRIEDMAN LLP
 LOCATION: FOUNTAIN INN, SC

HOLE DESIGNATION: MW-5-16/B-3
 DATE COMPLETED: October 11, 2016
 DRILLING METHOD: DIRECT PUSH/HSA 4-1/4"
 FIELD PERSONNEL: D. BRYTOWSKI

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft	MONITORING WELL	SAMPLE				
				NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
	TOP OF CASING GROUND SURFACE	849.13 847.03						
2	SM-SAND/SILT (FILL), dense, tan/brown, low moisture		CONCRETE	1DP 0-5' -005		86		1.5
4			2" PVC WELL CASING					
6			CEMENT GROUT					
8	SM-SAND/SILT (residuum), very dense, red/brown, moist	839.53	8" BOREHOLE	2DP		96		0.8
10								
12	- pink, moist at 12.3ft BGS			3DP 10-15' -006		96		0.5
14	- saprolite at 14.5ft BGS		BENTONITE GROUT					
16	- saturated at 16.0ft BGS							
18				4DP		96		1.1
20								
22			2" PVC WELL SCREEN	5DP		96		0.9
24			SAND PACK					
26	- END OF DIRECT PUSH at 25.0ft BGS NOT SAMPLED (25.0 to 28.5ft BGS)	822.03						
28	END OF BOREHOLE @ 28.5ft BGS	818.53						
30			WELL DETAILS Screened interval: 828.95 to 818.95ft 18.08 to 28.08ft BGS Length: 10ft Diameter: 2in Slot Size: 0.010 Material: PVC Seal: 834.13 to 831.13ft					
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

OVERBURDEN LOG 077150-WI-GPJ CRA_CORP.GDT 11/30/16



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: BODYCOATE THERMAL PROCESSING, INC
 PROJECT NUMBER: 077150
 CLIENT: LIPPES, MATHIAS, WEXLER & FRIEDMAN LLP
 LOCATION: FOUNTAIN INN, SC

HOLE DESIGNATION: MW-5-16/B-3
 DATE COMPLETED: October 11, 2016
 DRILLING METHOD: DIRECT PUSH/HSA 4-1/4"
 FIELD PERSONNEL: D. BRYTOWSKI

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft	MONITORING WELL	SAMPLE				
				NUMBER	INTERVAL	REC (%)	N' VALUE	PID (ppm)
36 38 40 42 44 46 48 50 52 54 56 58 60 62 64 66 68			12.90 to 15.90ft BGS Material: BENTONITE GROUT Sand Pack: 831.13 to 818.53ft 15.90 to 28.50ft BGS Material: SAND					

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS



OVERBURDEN LOG 077150-WI-GPJ CRA_CORP.GDT 11/30/16



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: BODYCOATE THERMAL PROCESSING, INC
 PROJECT NUMBER: 077150
 CLIENT: LIPPES, MATHIAS, WEXLER & FRIEDMAN LLP
 LOCATION: FOUNTAIN INN, SC

HOLE DESIGNATION: MW-6-16/B-9
 DATE COMPLETED: October 12, 2016
 DRILLING METHOD: DIRECT PUSH/HSA 4-1/4"
 FIELD PERSONNEL: D. BRYTOWSKI

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft	MONITORING WELL	SAMPLE				
				NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
	GROUND SURFACE TOP OF CASING	839.71 839.46						
2	SM-SAND/SILT (FILL), compact, tan, low moisture			1DP 0.5' -017/018		64		0.2
4								
6								
8								
10								
12	SM-SAND/SILT (residuum), trace gravel, soft, tan/light gray, saturated	828.71		2DP		64		0.0
14								
16								
18	CL-CLAY/SILT (residuum), stiff, saturated	820.91		3DP		74		0.0
20								
22	SM-SILT/SAND (residuum), dense, brown, saturated	819.71		4DP		64		1.7
24								
26	- saprolite at 23.7ft BGS	814.71		5DP		96		NA
28								
30	END OF BOREHOLE @ 30.5ft BGS							
32								
34								
36								

WELL DETAILS
 Screened interval:
 819.81 to 809.81ft
 19.90 to 29.90ft BGS
 Length: 10ft
 Diameter: 2in
 Slot Size: 0.010

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

OVERBURDEN LOG 077150-WI-GPJ CRA_CORP.GDT 11/30/16



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: BODYCOATE THERMAL PROCESSING, INC
 PROJECT NUMBER: 077150
 CLIENT: LIPPES, MATHIAS, WEXLER & FRIEDMAN LLP
 LOCATION: FOUNTAIN INN, SC

HOLE DESIGNATION: MW-6-16/B-9
 DATE COMPLETED: October 12, 2016
 DRILLING METHOD: DIRECT PUSH/HSA 4-1/4"
 FIELD PERSONNEL: D. BRYTOWSKI

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft	MONITORING WELL	SAMPLE					
				NUMBER	INTERVAL	REC (%)	N' VALUE	PID (ppm)	
36 38 40 42 44 46 48 50 52 54 56 58 60 62 64 66 68			Material: PVC Seal: 824.61 to 821.81ft 15.10 to 17.90ft BGS Material: BENTONITE GROUT Sand Pack: 821.81 to 809.21ft 17.90 to 30.50ft BGS Material: SAND						

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

OVERBURDEN LOG 077150-WI-GPJ CRA_CORP.GDT 11/30/16

PROJECT #: 77150 PROJECT NAME: Bluewater Thermal Solutions DATE: 10/18/2016

WELL ID: MW-1S FIELD PERSONNEL: Terefe Mazengia

WELL DIAMETER 2 in
 WELL DEPTH 29.15 m/ft
 STATIC DEPTH TO WATER 20.95 m/ft
 WATER COLUMN HEIGHT 8.2 m/ft
 CASING VOLUME 1.34 L/gal
 MEASURING REFERENCE POINT TOC

Well Diameter (in)	Casing Volume	
	(L/m)	(US gallon/foot)
1.5	1.14	0.09
2	2.03	0.16
4	8.11	0.65
6	18.24	1.47

PURGING AND SAMPLING EQUIPMENT

DEDICATED PURGING EQUIPMENT? YES NO DEDICATED SAMPLING EQUIPMENT? YES NO

PURGING DEVICE	<input type="checkbox"/> D	A - INERTIAL PUMP (WATERRA®)	B - BAILER	C - PERISTALTIC PUMP	D - SUBMERSIBLE PUMP	X - _____
SAMPLING DEVICE	<input type="checkbox"/> C	E - BLADDER PUMP	F - PURGE PUMP	G - DIPPER BOTTLE	H - GAS LIFT PUMP	OTHER (SPECIFY) _____
PURGING MATERIAL	<input type="checkbox"/> A	A - POLYETHYLENE	B - TEFLON	C - PVC	D - POLYPROPYLENE	X - _____
SAMPLING MATERIAL	<input type="checkbox"/> A	E - STAINLESS STEEL				OTHER (SPECIFY) _____
TUBING PURGING	<input type="checkbox"/> A	A - POLYETHYLENE	B - TEFLON	C - TYGON	D - POLYPROPYLENE	X - _____
TUBING SAMPLING	<input type="checkbox"/> A	E - SILICONE	F - ROPE	G - COMBINATION TEFLON/POLYPROPYLENE		OTHER (SPECIFY) _____
FILTERING DEVICES	<input type="checkbox"/> -	A - IN-LINE DISPOSABLE	B - PRESSURE	C - VACUUM		PORE SIZE : _____

DEVELOPMENT/PURGING FIELD MEASUREMENTS ARE RECORDED ON PAGE 2.

SAMPLING INFORMATION

SAMPLE DATE/TIME: 11/7/2016 @ 14:30
 WEATHER CONDITIONS AT TIME OF SAMPLING: Sunny 75 degrees Fahrenheit
 SAMPLE ID: GW-077150-110716-TBM-101
 SAMPLE WAS FILTERED FOR (ANALYSIS): No
 SAMPLE APPEARANCE: _____

FIELD MEASUREMENTS

DATE	TIME Units: Stabilization:	VOLUME (US gal)	TEMPERATURE (°C)	CONDUCTIVITY (mS/cm) ±10%	pH - ±0.1 units	TURBIDITY (NTU) <5	COLOUR -	ODOUR -	COMMENTS -
10/18/2016		5	22.5	0.106	9.40	66	-	-	
		10	22.5	0.105	8.22	0	-	-	
		15	22.0	0.090	5.75	0	-	-	
		20	21.7	0.087	5.04	0	-	-	
		25	21.6	0.087	4.82	0	-	-	

PROJECT #: 77150 PROJECT NAME: Bluewater Thermal Solutions DATE: 10/18/2016

WELL ID: MW-1D FIELD PERSONNEL: Terefe Mazengia

WELL DIAMETER 2 in
 WELL DEPTH 58.25 m/ft
 STATIC DEPTH TO WATER 22.3 m/ft
 WATER COLUMN HEIGHT 35.95 m/ft
 CASING VOLUME 5.87 L/gal
 MEASURING REFERENCE POINT TOC

Well Diameter (in)	Casing Volume	
	(L/m)	(US gallon/foot)
1.5	1.14	0.09
2	2.03	0.16
4	8.11	0.65
6	18.24	1.47

PURGING AND SAMPLING EQUIPMENT

DEDICATED PURGING EQUIPMENT? YES NO DEDICATED SAMPLING EQUIPMENT? YES NO

PURGING DEVICE	<input type="checkbox"/> D	A - INERTIAL PUMP (WATERRA®)	B - BAILER	C - PERISTALTIC PUMP	D - SUBMERSIBLE PUMP	X - _____
SAMPLING DEVICE	<input type="checkbox"/> C	E - BLADDER PUMP	F - PURGE PUMP	G - DIPPER BOTTLE	H - GAS LIFT PUMP	OTHER (SPECIFY) _____
PURGING MATERIAL	<input type="checkbox"/> A	A - POLYETHYLENE	B - TEFLON	C - PVC	D - POLYPROPYLENE	X - _____
SAMPLING MATERIAL	<input type="checkbox"/> A	E - STAINLESS STEEL				OTHER (SPECIFY) _____
TUBING PURGING	<input type="checkbox"/> A	A - POLYETHYLENE	B - TEFLON	C - TYGON	D - POLYPROPYLENE	X - _____
TUBING SAMPLING	<input type="checkbox"/> A	E - SILICONE	F - ROPE	G - COMBINATION TEFLON/POLYPROPYLENE		OTHER (SPECIFY) _____
FILTERING DEVICES	<input type="checkbox"/> -	A - IN-LINE DISPOSABLE	B - PRESSURE	C - VACUUM		PORE SIZE : _____

DEVELOPMENT/PURGING FIELD MEASUREMENTS ARE RECORDED ON PAGE 2.

SAMPLING INFORMATION

SAMPLE DATE/TIME: 11/7/2016 @15:50
 WEATHER CONDITIONS AT TIME OF SAMPLING: Sunny 75 degrees Fahrenheit
 SAMPLE ID: GW-077150-110716-TBM-102
 SAMPLE WAS FILTERED FOR (ANALYSIS): No
 SAMPLE APPEARANCE: _____

FIELD MEASUREMENTS

DATE	TIME Units: Stabilization:	VOLUME (US gal) -	TEMPERATURE (°C)	CONDUCTIVITY (mS/cm) ±10%	pH - ±0.1 units	TURBIDITY (NTU) <5	COLOUR -	ODOUR -	COMMENTS -
10/18/2016		10	22.4	1.76	12.89	72	-	-	
		15	22.0	1.57	12.88	32	-	-	
		20	22.5	1.26	12.77	76	-	-	
		30	23.3	1.03	12.60	36	-	-	
		40	23.5	0.808	12.46	6.8	-	-	
		50	21.92	0.670	12.18	0	-	-	

PROJECT #: 77150 PROJECT NAME: Bluewater Thermal Solutions DATE: 10/17/2016

WELL ID: MW-2 FIELD PERSONNEL: Terefe Mazengia

WELL DIAMETER 2 in
 WELL DEPTH 27.45 m/ft
 STATIC DEPTH TO WATER 19.2 m/ft
 WATER COLUMN HEIGHT 8.25 m/ft
 CASING VOLUME 1.35 L/gal
 MEASURING REFERENCE POINT TOC (2.45)

Well Diameter (in)	Casing Volume	
	(L/m)	(US gallon/foot)
1.5	1.14	0.09
2	2.03	0.16
4	8.11	0.65
6	18.24	1.47

PURGING AND SAMPLING EQUIPMENT

DEDICATED PURGING EQUIPMENT? YES NO DEDICATED SAMPLING EQUIPMENT? YES NO

PURGING DEVICE	<input type="checkbox"/> D	A - INERTIAL PUMP (WATERRA®)	B - BAILER	C - PERISTALTIC PUMP	D - SUBMERSIBLE PUMP	X - _____
SAMPLING DEVICE	<input type="checkbox"/> C	E - BLADDER PUMP	F - PURGE PUMP	G - DIPPER BOTTLE	H - GAS LIFT PUMP	OTHER (SPECIFY) _____
PURGING MATERIAL	<input type="checkbox"/> A	A - POLYETHYLENE	B - TEFLON	C - PVC	D - POLYPROPYLENE	X - _____
SAMPLING MATERIAL	<input type="checkbox"/> A	E - STAINLESS STEEL				OTHER (SPECIFY) _____
TUBING PURGING	<input type="checkbox"/> A	A - POLYETHYLENE	B - TEFLON	C - TYGON	D - POLYPROPYLENE	X - _____
TUBING SAMPLING	<input type="checkbox"/> A	E - SILICONE	F - ROPE	G - COMBINATION TEFLON/POLYPROPYLENE		OTHER (SPECIFY) _____
FILTERING DEVICES	<input type="checkbox"/> -	A - IN-LINE DISPOSABLE	B - PRESSURE	C - VACUUM		PORE SIZE : _____

DEVELOPMENT/PURGING FIELD MEASUREMENTS ARE RECORDED ON PAGE 2.

SAMPLING INFORMATION

SAMPLE DATE/TIME: 11/8/2016 @ 9:15
 WEATHER CONDITIONS AT TIME OF SAMPLING: Overcast 45 degrees Fahrenheit
 SAMPLE ID: GW-077150-110816-TBM-104
 SAMPLE WAS FILTERED FOR (ANALYSIS): No
 SAMPLE APPEARANCE: _____

FIELD MEASUREMENTS

DATE	TIME Units: Stabilization:	VOLUME (US gal) -	TEMPERATURE (°C)	CONDUCTIVITY (mS/cm) ±10%	pH - ±0.1 units	TURBIDITY (NTU) <5	COLOUR -	ODOUR -	COMMENTS -
10/17/2016		5	20.43	0.079	5.07	1000	-	-	
		15	21.21	0.072	5.06	22	-	-	
		20	20.70	0.070	4.96	150	-	-	
		25	19.81	0.068	4.80	0	-	-	

PROJECT #: 77150 PROJECT NAME: Bluewater Thermal Solutions DATE: 10/17/2016

WELL ID: MW-3 FIELD PERSONNEL: Terefe Mazengia

WELL DIAMETER 2 in
 WELL DEPTH 27.55 m/ft
 STATIC DEPTH TO WATER 21.35 m/ft
 WATER COLUMN HEIGHT 6.2 m/ft
 CASING VOLUME 1.01 L/gal
 MEASURING REFERENCE POINT TOC (2.55)

Well Diameter (in)	Casing Volume	
	(L/m)	(US gallon/foot)
1.5	1.14	0.09
2	2.03	0.16
4	8.11	0.65
6	18.24	1.47

PURGING AND SAMPLING EQUIPMENT

DEDICATED PURGING EQUIPMENT? YES NO DEDICATED SAMPLING EQUIPMENT? YES NO

PURGING DEVICE	<input type="checkbox"/> D	A - INERTIAL PUMP (WATERRA®)	B - BAILER	C - PERISTALTIC PUMP	D - SUBMERSIBLE PUMP	X - _____
SAMPLING DEVICE	<input type="checkbox"/> C	E - BLADDER PUMP	F - PURGE PUMP	G - DIPPER BOTTLE	H - GAS LIFT PUMP	OTHER (SPECIFY) _____
PURGING MATERIAL	<input type="checkbox"/> A	A - POLYETHYLENE	B - TEFLON	C - PVC	D - POLYPROPYLENE	X - _____
SAMPLING MATERIAL	<input type="checkbox"/> A	E - STAINLESS STEEL				OTHER (SPECIFY) _____
TUBING PURGING	<input type="checkbox"/> A	A - POLYETHYLENE	B - TEFLON	C - TYGON	D - POLYPROPYLENE	X - _____
TUBING SAMPLING	<input type="checkbox"/> A	E - SILICONE	F - ROPE	G - COMBINATION TEFLON/POLYPROPYLENE		OTHER (SPECIFY) _____
FILTERING DEVICES	<input type="checkbox"/> -	A - IN-LINE DISPOSABLE	B - PRESSURE	C - VACUUM		PORE SIZE : _____

DEVELOPMENT/PURGING FIELD MEASUREMENTS ARE RECORDED ON PAGE 2.

SAMPLING INFORMATION

SAMPLE DATE/TIME: 11/7/2016 @17:25
 WEATHER CONDITIONS AT TIME OF SAMPLING: Sunny 75 degrees Fahrenheit
 SAMPLE ID: GW-077150-110716-TBM-103
 SAMPLE WAS FILTERED FOR (ANALYSIS): NO
 SAMPLE APPEARANCE: _____

FIELD MEASUREMENTS

DATE	TIME	VOLUME	TEMPERATURE	CONDUCTIVITY	pH	TURBIDITY	COLOUR	ODOUR	COMMENTS
	Units: Stabilization:	(US gal) -	(°C) ±10%	(mS/cm) ±10%	- ±0.1 units	(NTU) <5	- -	- -	- -
10/17/2016	15:40		24.09	0.050	4.81	34.3	-	-	
	15:50		21.19	0.084	6.69	0	-	-	
	15:55	45	19.85	0.062	4.86	0	-	-	

PROJECT #: 77150 PROJECT NAME: Bluewater Thermal Solutions DATE: 10/18/2016

WELL ID: MW-4 FIELD PERSONNEL: Terefe Mazengia

WELL DIAMETER 2 in
 WELL DEPTH 29.7 m/ft
 STATIC DEPTH TO WATER 21.05 m/ft
 WATER COLUMN HEIGHT 8.65 m/ft
 CASING VOLUME 1.41 L/gal
 MEASURING REFERENCE POINT TOC

Well Diameter (in)	Casing Volume	
	(L/m)	(US gallon/foot)
1.5	1.14	0.09
2	2.03	0.16
4	8.11	0.65
6	18.24	1.47

PURGING AND SAMPLING EQUIPMENT

DEDICATED PURGING EQUIPMENT? YES NO DEDICATED SAMPLING EQUIPMENT? YES NO

PURGING DEVICE	<input type="checkbox"/> D	A - INERTIAL PUMP (WATERRA®)	B - BAILER	C - PERISTALTIC PUMP	D - SUBMERSIBLE PUMP	X - _____
SAMPLING DEVICE	<input type="checkbox"/> C	E - BLADDER PUMP	F - PURGE PUMP	G - DIPPER BOTTLE	H - GAS LIFT PUMP	OTHER (SPECIFY) _____
PURGING MATERIAL	<input type="checkbox"/> A	A - POLYETHYLENE	B - TEFLON	C - PVC	D - POLYPROPYLENE	X - _____
SAMPLING MATERIAL	<input type="checkbox"/> A	E - STAINLESS STEEL				OTHER (SPECIFY) _____
TUBING PURGING	<input type="checkbox"/> A	A - POLYETHYLENE	B - TEFLON	C - TYGON	D - POLYPROPYLENE	X - _____
TUBING SAMPLING	<input type="checkbox"/> A	E - SILICONE	F - ROPE	G - COMBINATION TEFLON/POLYPROPYLENE		OTHER (SPECIFY) _____
FILTERING DEVICES	<input type="checkbox"/> -	A - IN-LINE DISPOSABLE	B - PRESSURE	C - VACUUM		PORE SIZE : _____

DEVELOPMENT/PURGING FIELD MEASUREMENTS ARE RECORDED ON PAGE 2.

SAMPLING INFORMATION

SAMPLE DATE/TIME: 11/8/2016 @ 12:00
 WEATHER CONDITIONS AT TIME OF SAMPLING: Overcast 55 degrees Fahrenheit
 SAMPLE ID: GW-077150-110816-TBM-107
 SAMPLE WAS FILTERED FOR (ANALYSIS): NO
 SAMPLE APPEARANCE: _____

FIELD MEASUREMENTS

DATE	TIME Units: Stabilization:	VOLUME (US gal) -	TEMPERATURE (°C)	CONDUCTIVITY (mS/cm) ±10%	pH - ±0.1 units	TURBIDITY (NTU) <5	COLOUR -	ODOUR -	COMMENTS -
10/18/2016		5	21.54	0.170	7.88	26	-	-	
		10	20.0	0.109	6.79	1.7	-	-	
		15	19.3	0.093	5.86	1.7	-	-	
		20	19.0	0.081	5.65	0.8	-	-	
		25	18.89	0.077	5.57	0.0	-	-	

PROJECT #: 77150 PROJECT NAME: Bluewater Thermal Solutions DATE: 10/17/2016

WELL ID: MW-5 FIELD PERSONNEL: Terefe Mazengia

WELL DIAMETER 2 in
 WELL DEPTH 30.28 m/ft
 STATIC DEPTH TO WATER 23.65 m/ft
 WATER COLUMN HEIGHT 6.63 m/ft
 CASING VOLUME 1.08 L/gal
 MEASURING REFERENCE POINT TOC

Well Diameter (in)	Casing Volume	
	(L/m)	(US gallon/foot)
1.5	1.14	0.09
2	2.03	0.16
4	8.11	0.65
6	18.24	1.47

PURGING AND SAMPLING EQUIPMENT

DEDICATED PURGING EQUIPMENT? YES NO DEDICATED SAMPLING EQUIPMENT? YES NO

PURGING DEVICE	<input type="checkbox"/> D	A - INERTIAL PUMP (WATERRA®)	B - BAILER	C - PERISTALTIC PUMP	D - SUBMERSIBLE PUMP	X - _____
SAMPLING DEVICE	<input type="checkbox"/> C	E - BLADDER PUMP	F - PURGE PUMP	G - DIPPER BOTTLE	H - GAS LIFT PUMP	OTHER (SPECIFY) _____
PURGING MATERIAL	<input type="checkbox"/> A	A - POLYETHYLENE	B - TEFLON	C - PVC	D - POLYPROPYLENE	X - _____
SAMPLING MATERIAL	<input type="checkbox"/> A	E - STAINLESS STEEL				OTHER (SPECIFY) _____
TUBING PURGING	<input type="checkbox"/> A	A - POLYETHYLENE	B - TEFLON	C - TYGON	D - POLYPROPYLENE	X - _____
TUBING SAMPLING	<input type="checkbox"/> A	E - SILICONE	F - ROPE	G - COMBINATION TEFLON/POLYPROPYLENE		OTHER (SPECIFY) _____
FILTERING DEVICES	<input type="checkbox"/> -	A - IN-LINE DISPOSABLE	B - PRESSURE	C - VACUUM		PORE SIZE : _____

DEVELOPMENT/PURGING FIELD MEASUREMENTS ARE RECORDED ON PAGE 2.

SAMPLING INFORMATION

SAMPLE DATE/TIME: 11/8/2016 @13:10
 WEATHER CONDITIONS AT TIME OF SAMPLING: Sunny 70 degrees Fahrenheit
 SAMPLE ID: GW-077150-110816-TBM-108
 SAMPLE WAS FILTERED FOR (ANALYSIS): NO
 SAMPLE APPEARANCE: _____

FIELD MEASUREMENTS

DATE	TIME Units: Stabilization:	VOLUME (US gal) -	TEMPERATURE (°C)	CONDUCTIVITY (mS/cm) ±10%	pH - ±0.1 units	TURBIDITY (NTU) <5	COLOUR -	ODOUR -	COMMENTS -
10/17/2016		5	20.65	0.067	5.04	530	-	-	
		10	21.55	0.057	4.87	6.9	-	-	
		15	21.50	0.054	4.69	0	-	-	Well dried two times, water cleared up

PROJECT #: 77150 PROJECT NAME: Bluewater Thermal Solutions DATE: 10/18/2016

WELL ID: MW-6 FIELD PERSONNEL: Terefe Mazengia

WELL DIAMETER 2 in
 WELL DEPTH 29.9 m/ft
 STATIC DEPTH TO WATER 22.32 m/ft
 WATER COLUMN HEIGHT 7.58 m/ft
 CASING VOLUME 1.24 L/gal
 MEASURING REFERENCE POINT TOC

Well Diameter (in)	Casing Volume	
	(L/m)	(US gallon/foot)
1.5	1.14	0.09
2	2.03	0.16
4	8.11	0.65
6	18.24	1.47

PURGING AND SAMPLING EQUIPMENT

DEDICATED PURGING EQUIPMENT? YES NO DEDICATED SAMPLING EQUIPMENT? YES NO

PURGING DEVICE	<input type="checkbox"/> D	A - INERTIAL PUMP (WATERRA®)	B - BAILER	C - PERISTALTIC PUMP	D - SUBMERSIBLE PUMP	X - _____
SAMPLING DEVICE	<input type="checkbox"/> C	E - BLADDER PUMP	F - PURGE PUMP	G - DIPPER BOTTLE	H - GAS LIFT PUMP	OTHER (SPECIFY) _____
PURGING MATERIAL	<input type="checkbox"/> A	A - POLYETHYLENE	B - TEFLON	C - PVC	D - POLYPROPYLENE	X - _____
SAMPLING MATERIAL	<input type="checkbox"/> A	E - STAINLESS STEEL				OTHER (SPECIFY) _____
TUBING PURGING	<input type="checkbox"/> A	A - POLYETHYLENE	B - TEFLON	C - TYGON	D - POLYPROPYLENE	X - _____
TUBING SAMPLING	<input type="checkbox"/> A	E - SILICONE	F - ROPE	G - COMBINATION TEFLON/POLYPROPYLENE		OTHER (SPECIFY) _____
FILTERING DEVICES	<input type="checkbox"/> -	A - IN-LINE DISPOSABLE	B - PRESSURE	C - VACUUM		PORE SIZE : _____

DEVELOPMENT/PURGING FIELD MEASUREMENTS ARE RECORDED ON PAGE 2.

SAMPLING INFORMATION

SAMPLE DATE/TIME: 11/8/2016 @10:40
 WEATHER CONDITIONS AT TIME OF SAMPLING: Overcast 55 degrees Fahrenheit
 SAMPLE ID: GW-077150-110816-TBM-105, -106
 SAMPLE WAS FILTERED FOR (ANALYSIS): NO
 SAMPLE APPEARANCE: _____

FIELD MEASUREMENTS

DATE	TIME Units: Stabilization:	VOLUME (US gal)	TEMPERATURE (°C)	CONDUCTIVITY (mS/cm) ±10%	pH - ±0.1 units	TURBIDITY (NTU) <5	COLOUR -	ODOUR -	COMMENTS -
10/18/2016		10	18.1	0.346	5.08	143	-	-	
		15	18.0	0.336	5.01	16	-	-	
		20	18.0	0.331	4.92	22	-	-	
		25	18.0	0.329	4.85	27	-	-	
		28	18.1	0.329	4.77	4.9	-	-	

Appendix B

Purging and Sampling Forms

MONITORING WELL RECORD FOR LOW-FLOW PURGING

Project Data:

Project Name: Bluewater
 Ref. No.: 77150

Date: November 7, 2016
 Personnel: Terefe Mazengia

Monitoring Well Data:

Well ID: MW-1S
 Measured Well Depth (ft): 29.15
 Screen Length (ft): 10
 Well Diameter, D (in): 2
 Total Volume in Well (gal): 1.21

Purging/Sampling Data:

Purging/Sampling Device: Peristaltic
 Depth to Pump Intake (ft)⁽¹⁾: 25
 Initial Depth to Water (ft): 21.60
 Total Volume Purged (gal): 1

Time	Pumping Rate (mL/min)	Depth to Water (ft)	Drawdown from Initial Water Level ⁽³⁾ (ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)
13:45	100	21.70	0.10	22.20	0.105	0.0	0.00	4.52	338
13:50	100	21.78	0.18	22.50	0.104	0.0	0.00	4.54	345
13:55	100	21.80	0.20	22.80	0.105	0.0	0.00	4.27	367
14:00	100	21.80	0.20	22.90	0.107	0.0	0.00	4.34	361
14:05	100	21.80	0.20	23.10	0.106	0.0	0.00	4.48	353
14:10	100	21.80	0.20	23.20	0.106	0.0	0.00	4.51	351
14:15	100	21.81	0.21	23.30	0.104	0.0	0.00	4.51	350
14:20	100	21.81	0.21	23.40	0.103	0.0	0.00	4.51	350
14:30	Sample Time	<u>GW-077150-110716-TBM-101</u>							
				x2 VOAs w/ HCl	VOCs				
				x2 1000 mL ambers	SVOCs				
				x1 250 mL plastic w/HNO3	TAL Metals				

Notes:

- (1) The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2 ft) above any sediment accumulated at the well bottom.
- (2) The drawdown from the initial water level should not exceed 0.1 m (0.3 ft). The pumping rate should not exceed 600 mL/min.
- (3) For conductivity, the average value of three readings <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.

MONITORING WELL RECORD FOR LOW-FLOW PURGING

Project Data:

Project Name: Bluewater
 Ref. No.: 77150

Date: November 7, 2016
 Personnel: Terefe Mazengia

Monitoring Well Data:

Well ID: MW-1D
 Measured Well Depth (ft): 58.25
 Screen Length (ft): 5
 Well Diameter, D (in): 2
 Total Volume in Well (gal): 5.99

Purging/Sampling Data:

Purging/Sampling Device: Peristaltic
 Depth to Pump Intake (ft)⁽¹⁾: 56
 Initial Depth to Water (ft): 20.80
 Total Volume Purged (gal): 0.75

Time	Pumping Rate (mL/min)	Depth to Water (ft)	Drawdown from Initial Water Level ⁽³⁾ (ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)
14:55	50	21.35	0.55	23.20	0.568	0.0	2.80	11.01	-42
15:05	50	21.32	0.52	23.10	0.605	0.0	2.85	11.14	-62
15:10	50	21.35	0.55	23.00	0.614	0.0	3.08	11.09	-58
15:15	50	21.35	0.55	22.90	0.626	0.0	2.80	11.28	-65
15:20	50	21.36	0.56	22.77	0.640	0.0	2.93	11.27	-62
15:25	50	21.35	0.55	22.65	0.648	0.0	2.97	11.25	-59
15:30	50	21.35	0.55	22.67	0.649	0.0	2.84	11.29	-60
15:35	50	21.35	0.55	22.64	0.650	0.0	2.75	11.30	-60
15:40	50	21.35	0.55	22.57	0.654	0.0	2.87	11.32	-60
15:45	50	21.35	0.55	22.50	0.660	0.0	2.96	11.33	-60
15:50	Sample Time	<u>GW-077150-110716-TBM-102</u>							
			x2 VOAs w/ HCl	VOCs					
			x2 1000 mL ambers	SVOCs					
			x1 250 mL plastic w/HNO3	TAL Metals					

Notes:

- (1) The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2 ft) above any sediment accumulated at the well bottom.
- (2) The drawdown from the initial water level should not exceed 0.1 m (0.3 ft). The pumping rate should not exceed 600 mL/min.
- (3) For conductivity, the average value of three readings <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.

MONITORING WELL RECORD FOR LOW-FLOW PURGING

Project Data:

Project Name: Bluewater
 Ref. No.: 77150

Date: November 8, 2016
 Personnel: Terefe Mazengia

Monitoring Well Data:

Well ID: MW-2
 Measured Well Depth (ft): 27.45
 Screen Length (ft): 10
 Well Diameter, D (in): 2
 Total Volume in Well (gal): 1.18

Purging/Sampling Data:

Purging/Sampling Device: Peristaltic
 Depth to Pump Intake (ft)⁽¹⁾: 24
 Initial Depth to Water (ft): 20.05
 Total Volume Purged (gal): 2

Time	Pumping Rate (mL/min)	Depth to Water (ft)	Drawdown from Initial Water Level ⁽³⁾ (ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)
8:35	225	20.25	0.20	15.80	0.087	0.0	0.00	5.07	194
8:40	225	20.28	0.23	16.63	0.084	0.0	0.00	5.07	212
8:45	225	20.28	0.23	17.05	0.082	0.0	0.00	5.08	231
8:50	225	20.28	0.23	17.30	0.081	0.0	0.00	5.08	241
8:55	225	20.30	0.25	17.40	0.080	0.0	0.00	5.10	248
9:00	225	20.30	0.25	17.40	0.081	0.0	0.00	5.09	257
9:05	225	20.30	0.25	17.40	0.080	0.0	0.00	5.10	252
9:15	Sample Time	<u>GW-077150-110816-TBM-104, + MS/MSD</u>							
					x6 VOAs w/ HCl	VOCs			
					x6 1000 mL ambers	SVOCs			
					x3 250 mL plastic w/HNO3	TAL Metals			

Notes:

- (1) The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2 ft) above any sediment accumulated at the well bottom.
- (2) The drawdown from the initial water level should not exceed 0.1 m (0.3 ft). The pumping rate should not exceed 600 mL/min.
- (3) For conductivity, the average value of three readings <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.

MONITORING WELL RECORD FOR LOW-FLOW PURGING

Project Data:

Project Name: Bluewater
 Ref. No.: 77150

Date: November 7, 2016
 Personnel: Terefe Mazengia

Monitoring Well Data:

Well ID: MW-3
 Measured Well Depth (ft): 27.55
 Screen Length (ft): 10
 Well Diameter, D (in): 2
 Total Volume in Well (gal): 0.93

Purging/Sampling Data:

Purging/Sampling Device: Peristaltic
 Depth to Pump Intake (ft)⁽¹⁾: 24
 Initial Depth to Water (ft): 21.72
 Total Volume Purged (gal): 1.5

Time	Pumping Rate (mL/min)	Depth to Water (ft)	Drawdown from Initial Water Level ⁽³⁾ (ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)
16:30	125	21.82	0.10	20.40	0.071	0.0	3.04	8.70	65
16:35	125	21.88	0.16	19.70	0.075	0.0	0.00	6.70	161
16:40	125	21.88	0.16	19.40	0.069	0.0	0.00	5.79	187
16:45	125	21.88	0.16	19.30	0.066	0.0	0.00	5.28	195
16:50	125	21.88	0.16	19.06	0.058	0.0	0.00	4.78	208
16:55	125	21.88	0.16	19.10	0.052	0.0	0.00	4.61	204
17:00	125	21.88	0.16	19.00	0.051	0.0	0.00	4.65	165
17:05	125	21.88	0.16	18.70	0.051	0.0	0.00	4.48	160
17:10	125	21.88	0.16	18.60	0.052	0.0	0.00	4.35	165
17:15	125	21.88	0.16	18.60	0.052	0.0	0.00	4.30	165
17:25	Sample Time		GW-077150-110716-TBM-103						
			x2 VOAs w/ HCl		VOCs				
			x2 1000 mL ambers		SVOCs				
			x1 250 mL plastic w/HNO3		TAL Metals				

Notes:

- (1) The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2 ft) above any sediment accumulated at the well bottom.
- (2) The drawdown from the initial water level should not exceed 0.1 m (0.3 ft). The pumping rate should not exceed 600 mL/min.
- (3) For conductivity, the average value of three readings <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.

MONITORING WELL RECORD FOR LOW-FLOW PURGING

Project Data:

Project Name: Bluewater
 Ref. No.: 77150

Date: November 8, 2016
 Personnel: Terefe Mazengia

Monitoring Well Data:

Well ID: MW-4
 Measured Well Depth (ft): 29.70
 Screen Length (ft): 10
 Well Diameter, D (in): 2
 Total Volume in Well (gal): 1.28

Purging/Sampling Data:

Purging/Sampling Device: Peristaltic
 Depth to Pump Intake (ft)⁽¹⁾: 26
 Initial Depth to Water (ft): 21.70
 Total Volume Purged (gal): 1.2

Time	Pumping Rate (mL/min)	Depth to Water (ft)	Drawdown from Initial Water Level ⁽³⁾ (ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)
11:25	150	21.85	0.15	17.60	0.156	17.8	8.38	5.49	189
11:30	150	21.96	0.26	17.80	0.154	10.3	2.83	5.99	128
11:35	150	21.95	0.25	17.90	0.154	6.8	2.66	5.91	132
11:40	150	22.00	0.30	18.10	0.153	0.7	2.23	6.21	130
11:45	150	22.00	0.30	18.10	0.153	0.0	2.03	6.20	135
11:50	150	22.00	0.30	18.20	0.153	0.0	2.01	6.21	141
11:55	150	22.00	0.30	18.20	0.152	0.0	1.99	6.22	144
12:00	Sample Time	<u>GW-077150-110816-TBM-107</u>							
			x2 VOAs w/ HCl		VOCs				
			x2 1000 mL ambers		SVOCs				
			x1 250 mL plastic w/HNO3		TAL Metals				

Notes:

- (1) The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2 ft) above any sediment accumulated at the well bottom.
- (2) The drawdown from the initial water level should not exceed 0.1 m (0.3 ft). The pumping rate should not exceed 600 mL/min.
- (3) For conductivity, the average value of three readings <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.

MONITORING WELL RECORD FOR LOW-FLOW PURGING

Project Data:

Project Name: Bluewater
 Ref. No.: 77150

Date: November 8, 2016
 Personnel: Terefe Mazengia

Monitoring Well Data:

Well ID: MW-5
 Measured Well Depth (ft): 30.28
 Screen Length (ft): 10
 Well Diameter, D (in): 2
 Total Volume in Well (gal): 0.95

Purging/Sampling Data:

Purging/Sampling Device: Peristaltic
 Depth to Pump Intake (ft)⁽¹⁾: 27
 Initial Depth to Water (ft): 24.33
 Total Volume Purged (gal): 0.8

Time	Pumping Rate (mL/min)	Depth to Water (ft)	Drawdown from Initial Water Level ⁽³⁾ (ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)
12:35	100	24.42	0.09	18.30	0.045	0.0	4.68	6.29	183
12:40	100	24.58	0.25	18.80	0.043	0.0	3.17	4.90	292
12:45	100	24.62	0.29	19.20	0.042	0.0	3.05	4.78	308
12:50	100	24.62	0.29	19.40	0.042	0.0	3.01	4.76	310
12:55	100	24.65	0.32	19.80	.041	0.0	2.66	4.76	315
13:00	100	24.66	0.33	20.00	0.040	0.0	2.15	4.78	317
13:05	100	24.66	0.33	20.02	0.040	0.0	2.03	4.78	320
13:10	Sample Time	<u>GW-077150-110816-TBM-108</u>							
			x2 VOAs w/ HCl		VOCs				
			x2 1000 mL ambers		SVOCs				
			x1 250 mL plastic w/HNO3		TAL Metals				

Notes:

- (1) The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2 ft) above any sediment accumulated at the well bottom.
- (2) The drawdown from the initial water level should not exceed 0.1 m (0.3 ft). The pumping rate should not exceed 600 mL/min.
- (3) For conductivity, the average value of three readings <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.

MONITORING WELL RECORD FOR LOW-FLOW PURGING

Project Data:

Project Name: Bluewater
 Ref. No.: 77150

Date: November 8, 2016
 Personnel: Terefe Mazengia

Monitoring Well Data:

Well ID: MW-6
 Measured Well Depth (ft): 29.90
 Screen Length (ft): 10
 Well Diameter, D (in): 2
 Total Volume in Well (gal): 1.28

Purging/Sampling Data:

Purging/Sampling Device: Peristaltic
 Depth to Pump Intake (ft)⁽¹⁾: 26
 Initial Depth to Water (ft): 21.90
 Total Volume Purged (gal): 0.9

Time	Pumping Rate (mL/min)	Depth to Water (ft)	Drawdown from Initial Water Level ⁽³⁾ (ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)
10:00	100	22.00	0.10	17.40	0.329	0.0	2.16	4.69	269
10:05	100	22.15	0.25	17.88	0.327	0.0	0.84	4.59	296
10:10	100	22.18	0.28	18.00	0.325	0.0	0.82	4.68	292
10:15	100	22.18	0.28	18.16	0.324	0.0	0.83	4.69	291
10:20	100	22.18	0.28	18.20	0.325	0.0	4.58	4.62	295
10:25	100	22.18	0.28	18.30	0.323	0.0	4.65	4.69	290
10:30	100	22.18	0.28	18.40	0.323	0.0	4.50	4.70	290
10:35	100	22.18	0.28	18.50	0.322	0.0	4.23	4.70	290
10:40/10:50	Sample Time	GW-077150-110816-TBM-105, -106 (Duplicate)							
			x2 VOAs w/ HCl	VOCs					
			x2 1000 mL ambers	SVOCs					
			x1 250 mL plastic w/HNO3	TAL Metals					

Notes:

- (1) The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2 ft) above any sediment accumulated at the well bottom.
- (2) The drawdown from the initial water level should not exceed 0.1 m (0.3 ft). The pumping rate should not exceed 600 mL/min.
- (3) For conductivity, the average value of three readings <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.

Appendix C

Data Validation Memo and Analytical Reports



Memorandum

November 28, 2016

To: Terefe Mazengia Ref. No.: 077150

From: ^{pm} Chris G. Knight/Paul McMahon/adh/6 Tel: 716-205-1970

**Subject: Analytical Results and Reduced Validation
Phase II Sampling Program
Blue Water Thermal Solutions LLC
Fountain Inn, South Carolina
October – November 2016**

1. Introduction

This document details a reduced validation of analytical results for soil and groundwater samples collected in support of the Phase II Sampling program at the Fountain Inn, South Carolina site during October and November 2016. Samples were submitted to Analytical Environmental Services, Inc., located in Atlanta, Georgia. A sample collection and analysis summary is presented in Table 1. The validated analytical results are summarized in Tables 2A and 2B. A summary of the analytical methodology is presented in Table 3.

Standard GHD report deliverables were submitted by the laboratory. The final results and supporting quality assurance/quality control (QA/QC) data were assessed. Evaluation of the data was based on information obtained from the chain of custody forms, the finished report forms, method blank data, recovery data from surrogate spikes/laboratory control samples (LCS)/matrix spikes (MS), and field QA/QC samples.

The QA/QC criteria by which these data have been assessed are outlined in the analytical methods referenced in Table 3 and applicable guidance from the documents entitled:

- i) "USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review", United States Environmental Protection Agency (USEPA) 540-R-10-011, January 2010
- ii) "USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review", USEPA 540-R-08-01, June 2008

Items i) and ii) will subsequently be referred to as the "Guidelines" in this Memorandum.

2. Sample Holding Time and Preservation

The sample holding time criteria for the analyses are summarized in Table 3. Sample chain of custody documents and the analytical reports were used to determine sample holding times. All samples were prepared and analyzed within the required holding times.

All samples were delivered on ice and stored by the laboratory at the required temperature (0-6°C).



3. Laboratory Method Blank Analyses

Method blanks are prepared from a purified matrix and analyzed with investigative samples to determine the existence and magnitude of sample contamination introduced during the analytical procedures.

For this study, laboratory method blanks were analyzed at a minimum frequency of 1 per 20 investigative samples and/or 1 per analytical batch.

Most method blank results were non-detect, indicating that laboratory contamination was not a factor for this investigation. Two soil method blanks yielded detected results for the following metals: chromium, magnesium, potassium, and sodium. All associated sample results were significantly greater than the concentrations found in the method blanks and were not impacted. No further qualification was necessary.

4. Surrogate Spike Recoveries - Organic Analyses

In accordance with the methods employed, all samples, blanks, and QC samples analyzed for organics are spiked with surrogate compounds prior to sample extraction and/or analysis. Surrogate recoveries provide a means to evaluate the effects of laboratory performance on individual sample matrices.

All samples submitted for volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs) determinations were spiked with the appropriate number of surrogate compounds prior to sample extraction and analysis.

Each individual surrogate compound is expected to meet the laboratory control limits with the exception of SVOCs analyses. According to the "Guidelines" for SVOCs analyses, up to one outlying surrogate in the base/neutral or acid fractions is acceptable as long as the recovery is at least 10 percent.

Surrogate recoveries were assessed against laboratory control limits. All surrogate recoveries met the above criteria.

5. Laboratory Control Sample Analyses

LCS are prepared and analyzed as samples to assess the analytical efficiencies of the methods employed, independent of sample matrix effects.

For this study, LCS were analyzed at a minimum frequency of 1 per 20 investigative samples and/or 1 per analytical batch.

Organic Analyses

The LCS contained all the compounds of interest. Most LCS recoveries were within the laboratory control limits, demonstrating acceptable analytical accuracy. One high VOC recovery was reported; all associated sample results were non-detect and were not impacted by the indicated high bias. Four low SVOC recoveries were reported, and the associated sample results were qualified as estimated to reflect the indicated low bias (see Table 4).



Inorganic Analyses

The LCS contained all analytes of interest. LCS recoveries were assessed per the "Guidelines". All LCS recoveries were within the control limits, demonstrating acceptable analytical accuracy.

6. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analyses

To evaluate the effects of sample matrices on the preparation process, measurement procedures, and accuracy of a particular analysis, samples are spiked with a known concentration of the analyte of concern and analyzed as MS/MSD samples. The relative percent difference (RPD) between the MS and MSD is used to assess analytical precision.

MS/MSD analyses were performed as specified in Table 1.

Organic Analyses

The MS/MSD samples were spiked with all compounds of interest. Most percent recoveries and all RPD values were within the laboratory control limits, demonstrating acceptable analytical accuracy and precision. High VOC recoveries were reported for one compound; the associated sample result was non-detect and was not impacted by the indicated high bias. Zero percent recoveries were reported for one SVOC, and the associated non-detect result was rejected due to the poor recoveries (see Table 5).

Inorganic Analyses

The MS/MSD samples were spiked with the analytes of interest, and the results were evaluated using the "Guidelines". The original sample concentrations were significantly greater than the spike concentrations in some instances, and the recoveries were not assessed. Most percent recoveries and RPD values were within the control limits, demonstrating acceptable analytical accuracy and precision. Results associated with outlying recoveries and RPDs were qualified as estimated (see Table 5).

7. Field QA/QC Samples

The field QA/QC consisted of three trip blank samples and two field duplicate samples.

Trip Blank Sample Analysis

To evaluate contamination from sample collection, transportation, storage, and analytical activities, three trip blank samples were submitted to the laboratory for VOCs analysis. All results were non-detect for the compounds of interest.

Field Duplicate Sample Analysis

To assess the analytical and sampling protocol precision, two field duplicate samples were collected and submitted "blind" to the laboratory, as specified in Table 1. The RPDs associated with these duplicate samples must be less than 50 and 100 percent for water and soil samples, respectively. If the reported



concentration in either the investigative sample or its duplicate is less than five times the reporting limit (RL), the evaluation criteria is one or two times the RL value for water and soil samples, respectively.

All field duplicate results were within acceptable agreement, demonstrating acceptable sampling and analytical precision.

8. Analyte Reporting

Non-detect results were presented as non-detect at the RL in Tables 2A and 2B.

All soil results were reported on a dry weight basis.

9. Conclusion

Based on the assessment detailed in the foregoing, the data summarized in Tables 2A and 2B are acceptable with the specific exception and qualifications noted herein.

Table 1

**Sample Collection and Analysis Summary
Phase II Sampling Program
Blue Water Thermal Solutions LLC
Fountain Inn, South Carolina
October - November 2016**

Sample Identification	Location	Matrix	Initial Sample Depth (ft. bgs.)	Final Sample Depth (ft. bgs.)	Collection Date (mm/dd/yyyy)	Collection Time (hr:min)	Analysis/Parameters				Comments
							VOCs	SVOCs	Metals	Mercury	
SO-077150-101116-DJB-001	MW-1D-16/B1	Soil	0.6	1.5	10/11/2016	11:00	X	X	X	X	Matrix Spike/Matrix Spike Duplicate (Partial parameters)
SO-077150-101116-DJB-002	MW-1D-16/B1	Soil	15	15.5	10/11/2016	11:15	X	X	X	X	
SO-077150-101116-DJB-003	B-2	Soil	0.5	1.5	10/11/2016	13:30	X	X	X	X	
SO-077150-101116-DJB-004	B-2	Soil	14	15	10/11/2016	13:45	X	X	X	X	
SO-077150-101116-DJB-005	MW-5-16/B3	Soil	0.5	1.5	10/11/2016	15:30	X	X	X	X	Matrix Spike/Matrix Spike Duplicate (Partial parameters)
SO-077150-101116-DJB-006	MW-5-16/B3	Soil	14	15	10/11/2016	15:50	X	X	X	X	
SO-077150-101116-DJB-007	MW-2-16/B-4	Soil	3	5	10/11/2016	16:30	X	X	X	X	
SO-077150-101116-DJB-008	MW-2-16/B-4	Soil	9	10	10/11/2016	17:00	X	X	X	X	
SO-077150-101216-DJB-009	MW-3-16/B-5	Soil	0	2	10/12/2016	09:15	X	X	X	X	
SO-077150-101216-DJB-010	MW-3-16/B-5	Soil	10	13	10/12/2016	09:40	X	X	X	X	
SO-077150-101216-DJB-011	B-6	Soil	0.5	1.5	10/12/2016	10:00	X	X	X	X	
SO-077150-101216-DJB-012	B-6	Soil	8	9	10/12/2016	10:15	X	X	X	X	
SO-077150-101216-DJB-013	B-7	Soil	0.5	1.5	10/12/2016	11:30	X	X	X	X	
SO-077150-101216-DJB-014	B-7	Soil	9	10	10/12/2016	12:00	X	X	X	X	
SO-077150-101216-DJB-015	B-8	Soil	0.5	1.5	10/12/2016	12:15	X	X	X	X	
SO-077150-101216-DJB-016	B-8	Soil	9	10	10/12/2016	12:35	X	X	X	X	
SO-077150-101216-DJB-017	MW-6-16/B-9	Soil	0.5	1.5	10/12/2016	14:00	X	X	X	X	
SO-077150-101216-DJB-018	MW-6-16/B-9	Soil	0.5	1.5	10/12/2016	14:10	X	X	X	X	Duplicate of SO-077150-101216-DJB-017
SO-077150-101216-DJB-019	MW-6-16/B-9	Soil	13	15	10/12/2016	14:45	X	X	X	X	
SO-077150-101216-DJB-020	MW-4-16/B102016	Soil	0	1.2	10/12/2016	16:10	X	X	X	X	Matrix Spike/Matrix Spike Duplicate (Partial parameters)
SO-077150-101216-DJB-021	MW-4-16/B102016	Soil	18	20	10/12/2016	16:40	X	X	X	X	Matrix Spike/Matrix Spike Duplicate (Partial parameters)
TRIP BLANK	-	Water	-	-	10/14/2016	-	X				Trip Blank
GW-077150-110716-TBM-101	MW-1S-16	Water	-	-	11/07/2016	14:30	X	X	X	X	
GW-077150-110716-TBM-102	MW-1D-16	Water	-	-	11/07/2016	15:50	X	X	X	X	
GW-077150-110716-TBM-103	MW-3-16	Water	-	-	11/07/2016	17:25	X	X	X	X	
GW-077150-110816-TBM-104	MW-2-16	Water	-	-	11/08/2016	9:15	X	X	X	X	Matrix Spike/Matrix Spike Duplicate
GW-077150-110816-TBM-105	MW-6-16	Water	-	-	11/08/2016	10:40	X	X	X	X	
GW-077150-110816-TBM-106	MW-6-16	Water	-	-	11/08/2016	10:50	X	X	X	X	Duplicate of GW-077150-110816-TBM-105
GW-077150-110816-TBM-107	MW-4-16	Water	-	-	11/08/2016	12:00	X	X	X	X	
GW-077150-110816-TBM-108	MW-5-16	Water	-	-	11/08/2016	13:10	X	X	X	X	
TRIP BLANK	-	Water	-	-	11/08/2016	-	X				Trip Blank

Notes:

- VOCs - Volatile Organic Compounds
- SVOCs - Semi-volatile Organic Compounds
- ft. bgs. - Feet below ground surface
- - Not applicable

Table 2A

**Analytical Results Summary - Soil
Phase II Sampling Program
Blue Water Thermal Solutions LLC
Fountain Inn, South Carolina
October - November 2016**

Location ID:	B-2	B-2	B-6
Sample Name:	SO-077150-101116-DJB-003	SO-077150-101116-DJB-004	SO-077150-101216-DJB-011
Sample Date:	10/11/2016	10/11/2016	10/12/2016
Depth:	0.5-1.5 ft. bgs.	14-15 ft. bgs.	0.5-1.5 ft. bgs.

Parameters	Unit			
Volatile Organic Compounds				
1,1,1,2-Tetrachloroethane	µg/kg	5.3 U	5.2 U	4.3 U
1,1,1-Trichloroethane	µg/kg	5.3 U	5.2 U	4.3 U
1,1,2-Trichloroethane	µg/kg	5.3 U	5.2 U	4.3 U
1,1-Dichloroethane	µg/kg	5.3 U	5.2 U	4.3 U
1,1-Dichloroethene	µg/kg	5.3 U	5.2 U	4.3 U
1,2,4-Trichlorobenzene	µg/kg	5.3 U	5.2 U	4.3 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/kg	5.3 U	5.2 U	4.3 U
1,2-Dibromoethane (Ethylene dibromide)	µg/kg	5.3 U	5.2 U	4.3 U
1,2-Dichlorobenzene	µg/kg	5.3 U	5.2 U	4.3 U
1,2-Dichloroethane	µg/kg	5.3 U	5.2 U	4.3 U
1,2-Dichloropropane	µg/kg	5.3 U	5.2 U	4.3 U
1,3-Dichloropropane	µg/kg	5.3 U	5.2 U	4.3 U
1,4-Dichlorobenzene	µg/kg	5.3 U	5.2 U	4.3 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/kg	38	10 U	8.6 U
2-Hexanone	µg/kg	11 U	10 U	8.6 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/kg	11 U	10 U	8.6 U
Acetone	µg/kg	220	8.2 J	8.6 U
Benzene	µg/kg	5.3 U	5.2 U	4.3 U
Bromoform	µg/kg	5.3 U	5.2 U	4.3 U
Bromomethane (Methyl bromide)	µg/kg	5.3 U	5.2 U	4.3 U
Carbon disulfide	µg/kg	11 U	10 U	8.6 U
Carbon tetrachloride	µg/kg	5.3 U	5.2 U	4.3 U
Chlorobenzene	µg/kg	5.3 U	5.2 U	4.3 U
Chlorobromomethane	µg/kg	5.3 U	5.2 U	4.3 U
Chloroethane	µg/kg	11 U	10 U	8.6 U
Chloroform (Trichloromethane)	µg/kg	5.3 U	5.2 U	4.3 U
Chloromethane (Methyl chloride)	µg/kg	11 U	10 U	8.6 U
cis-1,2-Dichloroethene	µg/kg	5.3 U	5.2 U	4.3 U
cis-1,3-Dichloropropene	µg/kg	5.3 U	5.2 U	4.3 U
Cyclohexane	µg/kg	5.3 U	5.2 U	4.3 U

Table 2A

**Analytical Results Summary - Soil
Phase II Sampling Program
Blue Water Thermal Solutions LLC
Fountain Inn, South Carolina
October - November 2016**

Location ID:	B-2	B-2	B-6
Sample Name:	SO-077150-101116-DJB-003	SO-077150-101116-DJB-004	SO-077150-101216-DJB-011
Sample Date:	10/11/2016	10/11/2016	10/12/2016
Depth:	0.5-1.5 ft. bgs.	14-15 ft. bgs.	0.5-1.5 ft. bgs.

Parameters	Unit			
Volatile Organic Compounds-Continued				
Dibromochloromethane	µg/kg	5.3 U	5.2 U	4.3 U
Dichlorodifluoromethane (CFC-12)	µg/kg	11 U	10 U	8.6 U
Ethylbenzene	µg/kg	5.3 U	5.2 U	4.3 U
Isopropyl benzene	µg/kg	5.3 U	5.2 U	4.3 U
Methyl acetate	µg/kg	5.3 U	5.2 U	4.3 U
Methyl cyclohexane	µg/kg	5.3 U	5.2 U	4.3 U
Methyl tert butyl ether (MTBE)	µg/kg	5.3 U	5.2 U	4.3 U
Methylene chloride	µg/kg	11 U	10 U	8.6 U
Styrene	µg/kg	5.3 U	5.2 U	4.3 U
Tetrachloroethene	µg/kg	5.3 U	5.2 U	4.3 U
Toluene	µg/kg	5.3 U	5.2 U	4.3 U
trans-1,2-Dichloroethene	µg/kg	5.3 U	5.2 U	4.3 U
trans-1,3-Dichloropropene	µg/kg	5.3 U	5.2 U	4.3 U
Trichloroethene	µg/kg	5.3 U	5.2 U	4.3 U
Trichlorofluoromethane (CFC-11)	µg/kg	5.3 U	5.2 U	4.3 U
Trifluorotrchloroethane (CFC-113)	µg/kg	11 U	10 U	8.6 U
Vinyl chloride	µg/kg	11 U	10 U	8.6 U
Xylenes (total)	µg/kg	5.3 U	5.2 U	4.3 U
Semi-volatile Organic Compounds				
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	µg/kg	450 U	440 U	420 U
2,4,5-Trichlorophenol	µg/kg	1100 U	1100 U	1000 U
2,4,6-Trichlorophenol	µg/kg	450 U	440 U	420 U
2,4-Dichlorophenol	µg/kg	450 U	440 U	420 U
2,4-Dimethylphenol	µg/kg	450 U	440 U	420 U
2,4-Dinitrophenol	µg/kg	1100 U	1100 U	1000 U
2,4-Dinitrotoluene	µg/kg	450 U	440 U	420 U
2,6-Dinitrotoluene	µg/kg	450 U	440 U	420 U
2-Chloronaphthalene	µg/kg	450 U	440 U	420 U
2-Chlorophenol	µg/kg	450 U	440 U	420 U

Table 2A

**Analytical Results Summary - Soil
Phase II Sampling Program
Blue Water Thermal Solutions LLC
Fountain Inn, South Carolina
October - November 2016**

Location ID:	B-2	B-2	B-6
Sample Name:	SO-077150-101116-DJB-003	SO-077150-101116-DJB-004	SO-077150-101216-DJB-011
Sample Date:	10/11/2016	10/11/2016	10/12/2016
Depth:	0.5-1.5 ft. bgs.	14-15 ft. bgs.	0.5-1.5 ft. bgs.

Parameters	Unit			
Semi-volatile Organic Compounds-Continued				
2-Methylnaphthalene	µg/kg	450 U	440 U	420 U
2-Methylphenol	µg/kg	450 U	440 U	420 U
2-Nitroaniline	µg/kg	1100 U	1100 U	1000 U
2-Nitrophenol	µg/kg	450 U	440 U	420 U
3,3'-Dichlorobenzidine	µg/kg	450 U	440 U	420 U
3-Nitroaniline	µg/kg	1100 U	1100 U	1000 U
4,6-Dinitro-2-methylphenol	µg/kg	1100 U	1100 U	1000 U
4-Bromophenyl phenyl ether	µg/kg	450 U	440 U	420 U
4-Chloro-3-methylphenol	µg/kg	450 U	440 U	420 U
4-Chloroaniline	µg/kg	450 U	440 U	420 U
4-Chlorophenyl phenyl ether	µg/kg	450 U	440 U	420 U
4-Methylphenol	µg/kg	450 U	440 U	420 U
4-Nitroaniline	µg/kg	1100 U	1100 U	1000 U
4-Nitrophenol	µg/kg	1100 U	1100 U	1000 U
Acenaphthene	µg/kg	450 U	440 U	420 U
Acenaphthylene	µg/kg	450 U	440 U	420 U
Acetophenone	µg/kg	450 U	440 U	420 U
Anthracene	µg/kg	450 U	440 U	420 U
Atrazine	µg/kg	450 U	440 U	420 U
Benzaldehyde	µg/kg	450 U	440 U	420 U
Benzo(a)anthracene	µg/kg	450 U	440 U	420 U
Benzo(a)pyrene	µg/kg	450 U	440 U	420 U
Benzo(b)fluoranthene	µg/kg	450 U	440 U	420 U
Benzo(g,h,i)perylene	µg/kg	450 U	440 U	420 U
Benzo(k)fluoranthene	µg/kg	450 U	440 U	420 U
Biphenyl (1,1-Biphenyl)	µg/kg	450 U	440 U	420 U
bis(2-Chloroethoxy)methane	µg/kg	450 U	440 U	420 U
bis(2-Chloroethyl)ether	µg/kg	450 U	440 U	420 U
bis(2-Ethylhexyl)phthalate (DEHP)	µg/kg	450 U	440 U	420 U
Butyl benzylphthalate (BBP)	µg/kg	450 U	440 U	420 U

Table 2A

**Analytical Results Summary - Soil
Phase II Sampling Program
Blue Water Thermal Solutions LLC
Fountain Inn, South Carolina
October - November 2016**

Location ID:	B-2	B-2	B-6
Sample Name:	SO-077150-101116-DJB-003	SO-077150-101116-DJB-004	SO-077150-101216-DJB-011
Sample Date:	10/11/2016	10/11/2016	10/12/2016
Depth:	0.5-1.5 ft. bgs.	14-15 ft. bgs.	0.5-1.5 ft. bgs.

Parameters	Unit			
Semi-volatile Organic Compounds-Continued				
Caprolactam	µg/kg	450 U	440 U	420 U
Carbazole	µg/kg	450 U	440 U	420 U
Chrysene	µg/kg	450 U	440 U	420 U
Di-n-butylphthalate (DBP)	µg/kg	450 U	440 U	420 U
Di-n-octyl phthalate (DnOP)	µg/kg	450 U	440 U	420 U
Dibenz(a,h)anthracene	µg/kg	450 U	440 U	420 U
Dibenzofuran	µg/kg	450 U	440 U	420 U
Diethyl phthalate	µg/kg	450 U	440 U	420 U
Dimethyl phthalate	µg/kg	450 U	440 U	420 U
Fluoranthene	µg/kg	450 U	440 U	420 U
Fluorene	µg/kg	450 U	440 U	420 U
Hexachlorobenzene	µg/kg	450 U	440 U	420 U
Hexachlorobutadiene	µg/kg	450 U	440 U	420 U
Hexachlorocyclopentadiene	µg/kg	450 U	440 U	420 U
Hexachloroethane	µg/kg	450 U	440 U	420 U
Indeno(1,2,3-cd)pyrene	µg/kg	450 U	440 U	420 U
Isophorone	µg/kg	450 U	440 U	420 U
N-Nitrosodi-n-propylamine	µg/kg	450 U	440 U	420 U
N-Nitrosodiphenylamine	µg/kg	450 U	440 U	420 U
Naphthalene	µg/kg	450 U	440 U	420 U
Nitrobenzene	µg/kg	450 U	440 U	420 U
Pentachlorophenol	µg/kg	1100 U	1100 U	1000 U
Phenanthrene	µg/kg	450 U	440 U	420 U
Phenol	µg/kg	450 U	440 U	420 U
Pyrene	µg/kg	450 U	440 U	420 U
Metals				
Aluminum	mg/kg	18800	9850	9680
Antimony	mg/kg	0.514 J	6.49 UJ	5.62 UJ
Arsenic	mg/kg	1.99	1.30 U	1.12 U

Table 2A

**Analytical Results Summary - Soil
Phase II Sampling Program
Blue Water Thermal Solutions LLC
Fountain Inn, South Carolina
October - November 2016**

Location ID:	B-2	B-2	B-6
Sample Name:	SO-077150-101116-DJB-003	SO-077150-101116-DJB-004	SO-077150-101216-DJB-011
Sample Date:	10/11/2016	10/11/2016	10/12/2016
Depth:	0.5-1.5 ft. bgs.	14-15 ft. bgs.	0.5-1.5 ft. bgs.

Parameters	Unit			
Metals-Continued				
Barium	mg/kg	43.9	26.7	12.6
Beryllium	mg/kg	0.314 J	0.464 J	0.228 J
Cadmium	mg/kg	0.602 U	0.649 U	0.562 U
Calcium	mg/kg	2100 J	1650 J	666 J
Chromium	mg/kg	11.1	3.45	2.45
Cobalt	mg/kg	1.09 J	2.32 J	0.899 J
Copper	mg/kg	3.00 J	1.82 J	5.19
Iron	mg/kg	14000	12400	4850
Lead	mg/kg	13.3	35.5	18.7
Magnesium	mg/kg	110	981	912
Manganese	mg/kg	6.21	138	27.1
Mercury	mg/kg	0.0143 J	0.127 U	0.00845 J
Nickel	mg/kg	1.08 J	0.528 J	0.643 J
Potassium	mg/kg	152	1200	1160
Selenium	mg/kg	0.602 U	0.649 U	0.562 U
Silver	mg/kg	1.20 U	1.30 U	1.12 U
Sodium	mg/kg	33.6 J	51.1 J	42.2 J
Thallium	mg/kg	1.20 U	2.37	0.250 J
Vanadium	mg/kg	21.9 J	17.7 J	7.39 J
Zinc	mg/kg	18.4	28.1	15.3

Table 2A

**Analytical Results Summary - Soil
Phase II Sampling Program
Blue Water Thermal Solutions LLC
Fountain Inn, South Carolina
October - November 2016**

Location ID:	B-6	B-7	B-7
Sample Name:	SO-077150-101216-DJB-012	SO-077150-101216-DJB-013	SO-077150-101216-DJB-014
Sample Date:	10/12/2016	10/12/2016	10/12/2016
Depth:	8-9 ft. bgs.	0.5-1.5 ft. bgs.	9-10 ft. bgs.

Parameters	Unit			
Volatile Organic Compounds				
1,1,1,2-Tetrachloroethane	µg/kg	3.8 U	3.2 U	4.8 U
1,1,1-Trichloroethane	µg/kg	3.8 U	3.2 U	4.8 U
1,1,2-Trichloroethane	µg/kg	3.8 U	3.2 U	4.8 U
1,1-Dichloroethane	µg/kg	3.8 U	3.2 U	4.8 U
1,1-Dichloroethene	µg/kg	3.8 U	3.2 U	4.8 U
1,2,4-Trichlorobenzene	µg/kg	3.8 U	3.2 U	4.8 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/kg	3.8 U	3.2 U	4.8 U
1,2-Dibromoethane (Ethylene dibromide)	µg/kg	3.8 U	3.2 U	4.8 U
1,2-Dichlorobenzene	µg/kg	3.8 U	3.2 U	4.8 U
1,2-Dichloroethane	µg/kg	3.8 U	3.2 U	4.8 U
1,2-Dichloropropane	µg/kg	3.8 U	3.2 U	4.8 U
1,3-Dichloropropane	µg/kg	3.8 U	3.2 U	4.8 U
1,4-Dichlorobenzene	µg/kg	3.8 U	3.2 U	4.8 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/kg	7.5 U	6.5 U	9.7 U
2-Hexanone	µg/kg	7.5 U	6.5 U	9.7 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/kg	7.5 U	6.5 U	9.7 U
Acetone	µg/kg	7.5 U	6.5 U	9.7 U
Benzene	µg/kg	3.8 U	3.2 U	4.8 U
Bromoform	µg/kg	3.8 U	3.2 U	4.8 U
Bromomethane (Methyl bromide)	µg/kg	3.8 U	3.2 U	4.8 U
Carbon disulfide	µg/kg	7.5 U	6.5 U	9.7 U
Carbon tetrachloride	µg/kg	3.8 U	3.2 U	4.8 U
Chlorobenzene	µg/kg	3.8 U	3.2 U	4.8 U
Chlorobromomethane	µg/kg	3.8 U	3.2 U	4.8 U
Chloroethane	µg/kg	7.5 U	6.5 U	9.7 U
Chloroform (Trichloromethane)	µg/kg	3.8 U	3.2 U	4.8 U
Chloromethane (Methyl chloride)	µg/kg	7.5 U	6.5 U	9.7 U
cis-1,2-Dichloroethene	µg/kg	3.8 U	3.2 U	4.8 U
cis-1,3-Dichloropropene	µg/kg	3.8 U	3.2 U	4.8 U
Cyclohexane	µg/kg	3.8 U	3.2 U	4.8 U

Table 2A

**Analytical Results Summary - Soil
Phase II Sampling Program
Blue Water Thermal Solutions LLC
Fountain Inn, South Carolina
October - November 2016**

Location ID:	B-6	B-7	B-7
Sample Name:	SO-077150-101216-DJB-012	SO-077150-101216-DJB-013	SO-077150-101216-DJB-014
Sample Date:	10/12/2016	10/12/2016	10/12/2016
Depth:	8-9 ft. bgs.	0.5-1.5 ft. bgs.	9-10 ft. bgs.

Parameters	Unit			
Volatile Organic Compounds-Continued				
Dibromochloromethane	µg/kg	3.8 U	3.2 U	4.8 U
Dichlorodifluoromethane (CFC-12)	µg/kg	7.5 U	6.5 U	9.7 U
Ethylbenzene	µg/kg	3.8 U	3.2 U	4.8 U
Isopropyl benzene	µg/kg	3.8 U	3.2 U	4.8 U
Methyl acetate	µg/kg	3.8 U	3.2 U	4.8 U
Methyl cyclohexane	µg/kg	3.8 U	3.2 U	4.8 U
Methyl tert butyl ether (MTBE)	µg/kg	3.8 U	3.2 U	4.8 U
Methylene chloride	µg/kg	7.5 U	6.5 U	9.7 U
Styrene	µg/kg	3.8 U	3.2 U	4.8 U
Tetrachloroethene	µg/kg	3.8 U	3.2 U	4.8 U
Toluene	µg/kg	3.8 U	3.2 U	4.8 U
trans-1,2-Dichloroethene	µg/kg	3.8 U	3.2 U	4.8 U
trans-1,3-Dichloropropene	µg/kg	3.8 U	3.2 U	4.8 U
Trichloroethene	µg/kg	3.8 U	3.2 U	4.8 U
Trichlorofluoromethane (CFC-11)	µg/kg	3.8 U	3.2 U	4.8 U
Trifluorotrchloroethane (CFC-113)	µg/kg	7.5 U	6.5 U	9.7 U
Vinyl chloride	µg/kg	7.5 U	6.5 U	9.7 U
Xylenes (total)	µg/kg	3.8 U	3.2 U	4.8 U
Semi-volatile Organic Compounds				
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	µg/kg	420 U	390 U	410 U
2,4,5-Trichlorophenol	µg/kg	1100 U	990 U	1000 U
2,4,6-Trichlorophenol	µg/kg	420 U	390 U	410 U
2,4-Dichlorophenol	µg/kg	420 U	390 U	410 U
2,4-Dimethylphenol	µg/kg	420 U	390 U	410 U
2,4-Dinitrophenol	µg/kg	1100 U	990 U	1000 U
2,4-Dinitrotoluene	µg/kg	420 U	390 U	410 U
2,6-Dinitrotoluene	µg/kg	420 U	390 U	410 U
2-Chloronaphthalene	µg/kg	420 U	390 U	410 U
2-Chlorophenol	µg/kg	420 U	390 U	410 U

Table 2A

**Analytical Results Summary - Soil
Phase II Sampling Program
Blue Water Thermal Solutions LLC
Fountain Inn, South Carolina
October - November 2016**

	Location ID:	B-6	B-7	B-7
	Sample Name:	SO-077150-101216-DJB-012	SO-077150-101216-DJB-013	SO-077150-101216-DJB-014
	Sample Date:	10/12/2016	10/12/2016	10/12/2016
	Depth:	8-9 ft. bgs.	0.5-1.5 ft. bgs.	9-10 ft. bgs.
Parameters	Unit			
Semi-volatile Organic Compounds-Continued				
2-Methylnaphthalene	µg/kg	420 U	390 U	410 U
2-Methylphenol	µg/kg	420 U	390 U	410 U
2-Nitroaniline	µg/kg	1100 U	990 U	1000 U
2-Nitrophenol	µg/kg	420 U	390 U	410 U
3,3'-Dichlorobenzidine	µg/kg	420 U	390 U	410 U
3-Nitroaniline	µg/kg	1100 U	990 U	1000 U
4,6-Dinitro-2-methylphenol	µg/kg	1100 U	990 U	1000 U
4-Bromophenyl phenyl ether	µg/kg	420 U	390 U	410 U
4-Chloro-3-methylphenol	µg/kg	420 U	390 U	410 U
4-Chloroaniline	µg/kg	420 U	390 U	410 U
4-Chlorophenyl phenyl ether	µg/kg	420 U	390 U	410 U
4-Methylphenol	µg/kg	420 U	390 U	410 U
4-Nitroaniline	µg/kg	1100 U	990 U	1000 U
4-Nitrophenol	µg/kg	1100 U	990 U	1000 U
Acenaphthene	µg/kg	420 U	390 U	410 U
Acenaphthylene	µg/kg	420 U	390 U	410 U
Acetophenone	µg/kg	420 U	390 U	410 U
Anthracene	µg/kg	420 U	390 U	410 U
Atrazine	µg/kg	420 U	390 U	410 U
Benzaldehyde	µg/kg	420 U	390 U	410 U
Benzo(a)anthracene	µg/kg	420 U	390 U	410 U
Benzo(a)pyrene	µg/kg	420 U	390 U	410 U
Benzo(b)fluoranthene	µg/kg	420 U	390 U	410 U
Benzo(g,h,i)perylene	µg/kg	420 U	390 U	410 U
Benzo(k)fluoranthene	µg/kg	420 U	390 U	410 U
Biphenyl (1,1-Biphenyl)	µg/kg	420 U	390 U	410 U
bis(2-Chloroethoxy)methane	µg/kg	420 U	390 U	410 U
bis(2-Chloroethyl)ether	µg/kg	420 U	390 U	410 U
bis(2-Ethylhexyl)phthalate (DEHP)	µg/kg	420 U	390 U	410 U
Butyl benzylphthalate (BBP)	µg/kg	420 U	390 U	410 U

Table 2A

**Analytical Results Summary - Soil
Phase II Sampling Program
Blue Water Thermal Solutions LLC
Fountain Inn, South Carolina
October - November 2016**

Location ID:	B-6	B-7	B-7
Sample Name:	SO-077150-101216-DJB-012	SO-077150-101216-DJB-013	SO-077150-101216-DJB-014
Sample Date:	10/12/2016	10/12/2016	10/12/2016
Depth:	8-9 ft. bgs.	0.5-1.5 ft. bgs.	9-10 ft. bgs.

Parameters	Unit			
Semi-volatile Organic Compounds-Continued				
Caprolactam	µg/kg	420 U	390 U	410 U
Carbazole	µg/kg	420 U	390 U	410 U
Chrysene	µg/kg	420 U	390 U	410 U
Di-n-butylphthalate (DBP)	µg/kg	420 U	390 U	410 U
Di-n-octyl phthalate (DnOP)	µg/kg	420 U	390 U	410 U
Dibenz(a,h)anthracene	µg/kg	420 U	390 U	410 U
Dibenzofuran	µg/kg	420 U	390 U	410 U
Diethyl phthalate	µg/kg	420 U	390 U	410 U
Dimethyl phthalate	µg/kg	420 U	390 U	410 U
Fluoranthene	µg/kg	420 U	390 U	410 U
Fluorene	µg/kg	420 U	390 U	410 U
Hexachlorobenzene	µg/kg	420 U	390 U	410 U
Hexachlorobutadiene	µg/kg	420 U	390 U	410 U
Hexachlorocyclopentadiene	µg/kg	420 U	390 U	410 U
Hexachloroethane	µg/kg	420 U	390 U	410 U
Indeno(1,2,3-cd)pyrene	µg/kg	420 U	390 U	410 U
Isophorone	µg/kg	420 U	390 U	410 U
N-Nitrosodi-n-propylamine	µg/kg	420 U	390 U	410 U
N-Nitrosodiphenylamine	µg/kg	420 U	390 U	410 U
Naphthalene	µg/kg	420 U	390 U	410 U
Nitrobenzene	µg/kg	420 U	390 U	410 U
Pentachlorophenol	µg/kg	1100 U	990 U	1000 U
Phenanthrene	µg/kg	420 U	390 U	410 U
Phenol	µg/kg	420 U	390 U	410 U
Pyrene	µg/kg	420 U	390 U	410 U
Metals				
Aluminum	mg/kg	17000	4100	5170
Antimony	mg/kg	0.339 J	6.65 UJ	4.38 UJ
Arsenic	mg/kg	0.587 J	1.13 U	0.876 U

Table 2A

Analytical Results Summary - Soil
Phase II Sampling Program
Blue Water Thermal Solutions LLC
Fountain Inn, South Carolina
October - November 2016

Location ID:	B-6	B-7	B-7
Sample Name:	SO-077150-101216-DJB-012	SO-077150-101216-DJB-013	SO-077150-101216-DJB-014
Sample Date:	10/12/2016	10/12/2016	10/12/2016
Depth:	8-9 ft. bgs.	0.5-1.5 ft. bgs.	9-10 ft. bgs.

Parameters	Unit			
Metals-Continued				
Barium	mg/kg	25.7	4.91 J	4.97
Beryllium	mg/kg	0.417 J	0.147 J	0.177 J
Cadmium	mg/kg	0.607 U	0.565 U	0.438 U
Calcium	mg/kg	1910 J	1600 J	308 J
Chromium	mg/kg	2.82	3.54	0.995
Cobalt	mg/kg	9.06	0.813 J	0.368 J
Copper	mg/kg	15.0	0.650 J	0.651 J
Iron	mg/kg	14200	13300	2060
Lead	mg/kg	56.5	11.0	8.48
Magnesium	mg/kg	944	54.4 J	233
Manganese	mg/kg	369	2.19	8.29
Mercury	mg/kg	0.0232 J	0.112 U	0.125 U
Nickel	mg/kg	2.35 J	0.198 J	0.186 J
Potassium	mg/kg	1500	191	372
Selenium	mg/kg	0.607 U	0.565 U	0.438 U
Silver	mg/kg	1.21 U	1.13 U	0.876 U
Sodium	mg/kg	68.8 J	47.0 J	25.3 J
Thallium	mg/kg	1.21 U	1.13 U	0.290 J
Vanadium	mg/kg	11.5 J	1.09 J	1.63 J
Zinc	mg/kg	21.0	2.07 J	6.37

Table 2A

**Analytical Results Summary - Soil
Phase II Sampling Program
Blue Water Thermal Solutions LLC
Fountain Inn, South Carolina
October - November 2016**

Location ID:	B-8	B-8	MW-1D
Sample Name:	SO-077150-101216-DJB-015	SO-077150-101216-DJB-016	SO-077150-101116-DJB-001
Sample Date:	10/12/2016	10/12/2016	10/11/2016
Depth:	0.5-1.5 ft. bgs.	9-10 ft. bgs.	0.6-1.5 ft. bgs.

Parameters	Unit			
Volatile Organic Compounds				
1,1,1,2-Tetrachloroethane	µg/kg	3.6 U	3.2 U	3.8 U
1,1,1-Trichloroethane	µg/kg	3.6 U	3.2 U	3.8 U
1,1,2-Trichloroethane	µg/kg	3.6 U	3.2 U	3.8 U
1,1-Dichloroethane	µg/kg	3.6 U	3.2 U	3.8 U
1,1-Dichloroethene	µg/kg	3.6 U	3.2 U	3.8 U
1,2,4-Trichlorobenzene	µg/kg	3.6 U	3.2 U	3.8 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/kg	3.6 U	3.2 U	3.8 U
1,2-Dibromoethane (Ethylene dibromide)	µg/kg	3.6 U	3.2 U	3.8 U
1,2-Dichlorobenzene	µg/kg	3.6 U	3.2 U	3.8 U
1,2-Dichloroethane	µg/kg	3.6 U	3.2 U	3.8 U
1,2-Dichloropropane	µg/kg	3.6 U	3.2 U	3.8 U
1,3-Dichloropropane	µg/kg	3.6 U	3.2 U	3.8 U
1,4-Dichlorobenzene	µg/kg	3.6 U	3.2 U	3.8 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/kg	7.2 U	6.3 U	7.6 U
2-Hexanone	µg/kg	7.2 U	6.3 U	7.6 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/kg	7.2 U	6.3 U	7.6 U
Acetone	µg/kg	7.2 U	6.3 U	20
Benzene	µg/kg	3.6 U	3.2 U	3.8 U
Bromoform	µg/kg	3.6 U	3.2 U	3.8 U
Bromomethane (Methyl bromide)	µg/kg	3.6 U	3.2 U	3.8 U
Carbon disulfide	µg/kg	7.2 U	6.3 U	7.6 U
Carbon tetrachloride	µg/kg	3.6 U	3.2 U	3.8 U
Chlorobenzene	µg/kg	3.6 U	3.2 U	3.8 U
Chlorobromomethane	µg/kg	3.6 U	3.2 U	3.8 U
Chloroethane	µg/kg	7.2 U	6.3 U	7.6 U
Chloroform (Trichloromethane)	µg/kg	3.6 U	3.2 U	3.8 U
Chloromethane (Methyl chloride)	µg/kg	7.2 U	6.3 U	7.6 U
cis-1,2-Dichloroethene	µg/kg	3.6 U	3.2 U	3.8 U
cis-1,3-Dichloropropene	µg/kg	3.6 U	3.2 U	3.8 U
Cyclohexane	µg/kg	3.6 U	3.2 U	3.8 U

Table 2A

**Analytical Results Summary - Soil
Phase II Sampling Program
Blue Water Thermal Solutions LLC
Fountain Inn, South Carolina
October - November 2016**

Location ID:	B-8	B-8	MW-1D
Sample Name:	SO-077150-101216-DJB-015	SO-077150-101216-DJB-016	SO-077150-101116-DJB-001
Sample Date:	10/12/2016	10/12/2016	10/11/2016
Depth:	0.5-1.5 ft. bgs.	9-10 ft. bgs.	0.6-1.5 ft. bgs.

Parameters	Unit			
Volatile Organic Compounds-Continued				
Dibromochloromethane	µg/kg	3.6 U	3.2 U	3.8 U
Dichlorodifluoromethane (CFC-12)	µg/kg	7.2 U	6.3 U	7.6 U
Ethylbenzene	µg/kg	3.6 U	3.2 U	3.8 U
Isopropyl benzene	µg/kg	3.6 U	3.2 U	3.8 U
Methyl acetate	µg/kg	3.6 U	3.2 U	3.8 U
Methyl cyclohexane	µg/kg	3.6 U	3.2 U	3.8 U
Methyl tert butyl ether (MTBE)	µg/kg	3.6 U	3.2 U	3.8 U
Methylene chloride	µg/kg	7.2 U	6.3 U	7.6 U
Styrene	µg/kg	3.6 U	3.2 U	3.8 U
Tetrachloroethene	µg/kg	3.6 U	3.2 U	3.8 U
Toluene	µg/kg	3.6 U	3.2 U	3.8 U
trans-1,2-Dichloroethene	µg/kg	3.6 U	3.2 U	3.8 U
trans-1,3-Dichloropropene	µg/kg	3.6 U	3.2 U	3.8 U
Trichloroethene	µg/kg	3.6 U	3.2 U	3.8 U
Trichlorofluoromethane (CFC-11)	µg/kg	3.6 U	3.2 U	3.8 U
Trifluorotrchloroethane (CFC-113)	µg/kg	7.2 U	6.3 U	7.6 U
Vinyl chloride	µg/kg	7.2 U	6.3 U	7.6 U
Xylenes (total)	µg/kg	3.6 U	3.2 U	3.8 U
Semi-volatile Organic Compounds				
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	µg/kg	350 U	420 U	400 U
2,4,5-Trichlorophenol	µg/kg	890 U	1100 U	1000 U
2,4,6-Trichlorophenol	µg/kg	350 U	420 U	400 U
2,4-Dichlorophenol	µg/kg	350 U	420 U	400 U
2,4-Dimethylphenol	µg/kg	350 U	420 U	400 U
2,4-Dinitrophenol	µg/kg	890 U	1100 U	1000 U
2,4-Dinitrotoluene	µg/kg	350 U	420 U	400 U
2,6-Dinitrotoluene	µg/kg	350 U	420 U	400 U
2-Chloronaphthalene	µg/kg	350 U	420 U	400 U
2-Chlorophenol	µg/kg	350 U	420 U	400 U

Table 2A

**Analytical Results Summary - Soil
Phase II Sampling Program
Blue Water Thermal Solutions LLC
Fountain Inn, South Carolina
October - November 2016**

Location ID:	B-8	B-8	MW-1D
Sample Name:	SO-077150-101216-DJB-015	SO-077150-101216-DJB-016	SO-077150-101116-DJB-001
Sample Date:	10/12/2016	10/12/2016	10/11/2016
Depth:	0.5-1.5 ft. bgs.	9-10 ft. bgs.	0.6-1.5 ft. bgs.

Parameters	Unit			
Semi-volatile Organic Compounds-Continued				
2-Methylnaphthalene	µg/kg	350 U	420 U	400 U
2-Methylphenol	µg/kg	350 U	420 U	400 U
2-Nitroaniline	µg/kg	890 U	1100 U	1000 U
2-Nitrophenol	µg/kg	350 U	420 U	400 U
3,3'-Dichlorobenzidine	µg/kg	350 U	420 U	400 U
3-Nitroaniline	µg/kg	890 U	1100 U	1000 U
4,6-Dinitro-2-methylphenol	µg/kg	890 U	1100 U	1000 U
4-Bromophenyl phenyl ether	µg/kg	350 U	420 U	400 U
4-Chloro-3-methylphenol	µg/kg	350 U	420 U	400 U
4-Chloroaniline	µg/kg	350 U	420 U	400 U
4-Chlorophenyl phenyl ether	µg/kg	350 U	420 U	400 U
4-Methylphenol	µg/kg	350 U	420 U	400 U
4-Nitroaniline	µg/kg	890 U	1100 U	1000 U
4-Nitrophenol	µg/kg	890 U	1100 U	1000 U
Acenaphthene	µg/kg	350 U	420 U	400 U
Acenaphthylene	µg/kg	350 U	420 U	400 U
Acetophenone	µg/kg	350 U	420 U	400 U
Anthracene	µg/kg	350 U	420 U	400 U
Atrazine	µg/kg	350 U	420 U	400 U
Benzaldehyde	µg/kg	350 U	420 U	400 U
Benzo(a)anthracene	µg/kg	350 U	420 U	400 U
Benzo(a)pyrene	µg/kg	350 U	420 U	400 U
Benzo(b)fluoranthene	µg/kg	350 U	420 U	400 U
Benzo(g,h,i)perylene	µg/kg	350 U	420 U	400 U
Benzo(k)fluoranthene	µg/kg	350 U	420 U	400 U
Biphenyl (1,1-Biphenyl)	µg/kg	350 U	420 U	400 U
bis(2-Chloroethoxy)methane	µg/kg	350 U	420 U	400 U
bis(2-Chloroethyl)ether	µg/kg	350 U	420 U	400 U
bis(2-Ethylhexyl)phthalate (DEHP)	µg/kg	350 U	420 U	400 U
Butyl benzylphthalate (BBP)	µg/kg	350 U	420 U	400 U

Table 2A

**Analytical Results Summary - Soil
Phase II Sampling Program
Blue Water Thermal Solutions LLC
Fountain Inn, South Carolina
October - November 2016**

Location ID:	B-8	B-8	MW-1D
Sample Name:	SO-077150-101216-DJB-015	SO-077150-101216-DJB-016	SO-077150-101116-DJB-001
Sample Date:	10/12/2016	10/12/2016	10/11/2016
Depth:	0.5-1.5 ft. bgs.	9-10 ft. bgs.	0.6-1.5 ft. bgs.

Parameters	Unit			
Semi-volatile Organic Compounds-Continued				
Caprolactam	µg/kg	350 U	420 U	400 U
Carbazole	µg/kg	350 U	420 U	400 U
Chrysene	µg/kg	350 U	420 U	400 U
Di-n-butylphthalate (DBP)	µg/kg	350 U	420 U	400 U
Di-n-octyl phthalate (DnOP)	µg/kg	350 U	420 U	400 U
Dibenz(a,h)anthracene	µg/kg	350 U	420 U	400 U
Dibenzofuran	µg/kg	350 U	420 U	400 U
Diethyl phthalate	µg/kg	350 U	420 U	400 U
Dimethyl phthalate	µg/kg	350 U	420 U	400 U
Fluoranthene	µg/kg	350 U	420 U	400 U
Fluorene	µg/kg	350 U	420 U	400 U
Hexachlorobenzene	µg/kg	350 U	420 U	400 U
Hexachlorobutadiene	µg/kg	350 U	420 U	400 U
Hexachlorocyclopentadiene	µg/kg	350 U	420 U	400 U
Hexachloroethane	µg/kg	350 U	420 U	400 U
Indeno(1,2,3-cd)pyrene	µg/kg	350 U	420 U	400 U
Isophorone	µg/kg	350 U	420 U	400 U
N-Nitrosodi-n-propylamine	µg/kg	350 U	420 U	400 U
N-Nitrosodiphenylamine	µg/kg	350 U	420 U	400 U
Naphthalene	µg/kg	350 U	420 U	400 U
Nitrobenzene	µg/kg	350 U	420 U	400 U
Pentachlorophenol	µg/kg	890 U	1100 U	1000 U
Phenanthrene	µg/kg	350 U	420 U	400 U
Phenol	µg/kg	350 U	420 U	400 U
Pyrene	µg/kg	350 U	420 U	400 U
Metals				
Aluminum	mg/kg	4370	5540	16200
Antimony	mg/kg	4.17 UJ	5.99 UJ	0.349 J
Arsenic	mg/kg	0.833 U	0.231 J	0.655 J

**Analytical Results Summary - Soil
Phase II Sampling Program
Blue Water Thermal Solutions LLC
Fountain Inn, South Carolina
October - November 2016**

Location ID:	B-8	B-8	MW-1D
Sample Name:	SO-077150-101216-DJB-015	SO-077150-101216-DJB-016	SO-077150-101116-DJB-001
Sample Date:	10/12/2016	10/12/2016	10/11/2016
Depth:	0.5-1.5 ft. bgs.	9-10 ft. bgs.	0.6-1.5 ft. bgs.

Parameters	Unit			
Metals-Continued				
Barium	mg/kg	3.72 J	15.2	8.57
Beryllium	mg/kg	0.0277 J	0.333 J	0.273 J
Cadmium	mg/kg	0.417 U	0.599 U	0.588 U
Calcium	mg/kg	101 J	1150 J	1050 J
Chromium	mg/kg	2.81	1.10 J	5.59
Cobalt	mg/kg	0.0782 J	1.11 J	0.749 J
Copper	mg/kg	0.367 J	1.09 J	1.86 J
Iron	mg/kg	443	6640	6280
Lead	mg/kg	6.09	19.1	11.3
Magnesium	mg/kg	23.3 J	374	252
Manganese	mg/kg	1.48	66.7	16.0
Mercury	mg/kg	0.103 U	0.108 U	0.0104 J
Nickel	mg/kg	0.479 J	0.208 J	0.769 J
Potassium	mg/kg	114	539	545
Selenium	mg/kg	0.417 U	0.599 U	0.588 U
Silver	mg/kg	0.833 U	1.20 U	0.0257 J
Sodium	mg/kg	15.5 J	20.7 J	73.5 J
Thallium	mg/kg	0.245 J	1.20 U	1.18 U
Vanadium	mg/kg	1.74 J	2.11 J	8.49 J
Zinc	mg/kg	1.71	10.0	6.18

Table 2A

**Analytical Results Summary - Soil
Phase II Sampling Program
Blue Water Thermal Solutions LLC
Fountain Inn, South Carolina
October - November 2016**

Location ID:	MW-1D	MW-2 2016	MW-2 2016
Sample Name:	SO-077150-101116-DJB-002	SO-077150-101116-DJB-007	SO-077150-101116-DJB-008
Sample Date:	10/11/2016	10/11/2016	10/11/2016
Depth:	15-15.5 ft. bgs.	3-5 ft. bgs.	9-10 ft. bgs.

Parameters	Unit			
Volatile Organic Compounds				
1,1,1,2-Tetrachloroethane	µg/kg	3.9 U	5.5 U	5.1 U
1,1,1-Trichloroethane	µg/kg	3.9 U	5.5 U	5.1 U
1,1,2-Trichloroethane	µg/kg	3.9 U	5.5 U	5.1 U
1,1-Dichloroethane	µg/kg	3.9 U	5.5 U	5.1 U
1,1-Dichloroethene	µg/kg	3.9 U	5.5 U	5.1 U
1,2,4-Trichlorobenzene	µg/kg	3.9 U	5.5 U	5.1 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/kg	3.9 U	5.5 U	5.1 U
1,2-Dibromoethane (Ethylene dibromide)	µg/kg	3.9 U	5.5 U	5.1 U
1,2-Dichlorobenzene	µg/kg	3.9 U	5.5 U	5.1 U
1,2-Dichloroethane	µg/kg	3.9 U	5.5 U	5.1 U
1,2-Dichloropropane	µg/kg	3.9 U	5.5 U	5.1 U
1,3-Dichloropropane	µg/kg	3.9 U	5.5 U	5.1 U
1,4-Dichlorobenzene	µg/kg	3.9 U	5.5 U	5.1 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/kg	7.9 U	11 U	10 U
2-Hexanone	µg/kg	7.9 U	11 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/kg	7.9 U	11 U	10 U
Acetone	µg/kg	7.9 U	47	10 U
Benzene	µg/kg	3.9 U	5.5 U	5.1 U
Bromoform	µg/kg	3.9 U	5.5 U	5.1 U
Bromomethane (Methyl bromide)	µg/kg	3.9 U	5.5 U	5.1 U
Carbon disulfide	µg/kg	7.9 U	11 U	10 U
Carbon tetrachloride	µg/kg	3.9 U	5.5 U	5.1 U
Chlorobenzene	µg/kg	3.9 U	5.5 U	5.1 U
Chlorobromomethane	µg/kg	3.9 U	5.5 U	5.1 U
Chloroethane	µg/kg	7.9 U	11 U	10 U
Chloroform (Trichloromethane)	µg/kg	3.9 U	5.5 U	5.1 U
Chloromethane (Methyl chloride)	µg/kg	7.9 U	11 U	10 U
cis-1,2-Dichloroethene	µg/kg	3.9 U	5.5 U	5.1 U
cis-1,3-Dichloropropene	µg/kg	3.9 U	5.5 U	5.1 U
Cyclohexane	µg/kg	3.9 U	5.5 U	5.1 U

Table 2A

**Analytical Results Summary - Soil
Phase II Sampling Program
Blue Water Thermal Solutions LLC
Fountain Inn, South Carolina
October - November 2016**

Location ID:	MW-1D	MW-2 2016	MW-2 2016
Sample Name:	SO-077150-101116-DJB-002	SO-077150-101116-DJB-007	SO-077150-101116-DJB-008
Sample Date:	10/11/2016	10/11/2016	10/11/2016
Depth:	15-15.5 ft. bgs.	3-5 ft. bgs.	9-10 ft. bgs.

Parameters	Unit			
Volatile Organic Compounds-Continued				
Dibromochloromethane	µg/kg	3.9 U	5.5 U	5.1 U
Dichlorodifluoromethane (CFC-12)	µg/kg	7.9 U	11 U	10 U
Ethylbenzene	µg/kg	3.9 U	5.5 U	5.1 U
Isopropyl benzene	µg/kg	3.9 U	5.5 U	5.1 U
Methyl acetate	µg/kg	3.9 U	5.5 U	5.1 U
Methyl cyclohexane	µg/kg	3.9 U	5.5 U	5.1 U
Methyl tert butyl ether (MTBE)	µg/kg	3.9 U	5.5 U	5.1 U
Methylene chloride	µg/kg	7.9 U	11 U	10 U
Styrene	µg/kg	3.9 U	5.5 U	5.1 U
Tetrachloroethene	µg/kg	30	5.5 U	5.1 U
Toluene	µg/kg	3.9 U	5.5 U	5.1 U
trans-1,2-Dichloroethene	µg/kg	3.9 U	5.5 U	5.1 U
trans-1,3-Dichloropropene	µg/kg	3.9 U	5.5 U	5.1 U
Trichloroethene	µg/kg	3.9 U	5.5 U	5.1 U
Trichlorofluoromethane (CFC-11)	µg/kg	3.9 U	5.5 U	5.1 U
Trifluorotrchloroethane (CFC-113)	µg/kg	7.9 U	11 U	10 U
Vinyl chloride	µg/kg	7.9 U	11 U	10 U
Xylenes (total)	µg/kg	3.9 U	5.5 U	5.1 U
Semi-volatile Organic Compounds				
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	µg/kg	420 U	400 U	410 U
2,4,5-Trichlorophenol	µg/kg	1100 U	1000 U	1000 U
2,4,6-Trichlorophenol	µg/kg	420 U	400 U	410 U
2,4-Dichlorophenol	µg/kg	420 U	400 U	410 U
2,4-Dimethylphenol	µg/kg	420 U	400 U	410 U
2,4-Dinitrophenol	µg/kg	1100 U	1000 U	1000 U
2,4-Dinitrotoluene	µg/kg	420 U	400 U	410 U
2,6-Dinitrotoluene	µg/kg	420 U	400 U	410 U
2-Chloronaphthalene	µg/kg	420 U	400 U	410 U
2-Chlorophenol	µg/kg	420 U	400 U	410 U

**Analytical Results Summary - Soil
Phase II Sampling Program
Blue Water Thermal Solutions LLC
Fountain Inn, South Carolina
October - November 2016**

Location ID:	MW-1D	MW-2 2016	MW-2 2016
Sample Name:	SO-077150-101116-DJB-002	SO-077150-101116-DJB-007	SO-077150-101116-DJB-008
Sample Date:	10/11/2016	10/11/2016	10/11/2016
Depth:	15-15.5 ft. bgs.	3-5 ft. bgs.	9-10 ft. bgs.

Parameters	Unit			
Semi-volatile Organic Compounds-Continued				
2-Methylnaphthalene	µg/kg	420 U	400 U	410 U
2-Methylphenol	µg/kg	420 U	400 U	410 U
2-Nitroaniline	µg/kg	1100 U	1000 U	1000 U
2-Nitrophenol	µg/kg	420 U	400 U	410 U
3,3'-Dichlorobenzidine	µg/kg	420 U	400 U	410 U
3-Nitroaniline	µg/kg	1100 U	1000 U	1000 U
4,6-Dinitro-2-methylphenol	µg/kg	1100 U	1000 U	1000 U
4-Bromophenyl phenyl ether	µg/kg	420 U	400 U	410 U
4-Chloro-3-methylphenol	µg/kg	420 U	400 U	410 U
4-Chloroaniline	µg/kg	420 U	400 U	410 U
4-Chlorophenyl phenyl ether	µg/kg	420 U	400 U	410 U
4-Methylphenol	µg/kg	420 U	400 U	410 U
4-Nitroaniline	µg/kg	1100 U	1000 U	1000 U
4-Nitrophenol	µg/kg	1100 U	1000 U	1000 U
Acenaphthene	µg/kg	420 U	400 U	410 U
Acenaphthylene	µg/kg	420 U	400 U	410 U
Acetophenone	µg/kg	420 U	400 U	410 U
Anthracene	µg/kg	420 U	400 U	410 U
Atrazine	µg/kg	420 U	400 U	410 U
Benzaldehyde	µg/kg	420 U	400 U	410 U
Benzo(a)anthracene	µg/kg	420 U	400 U	410 U
Benzo(a)pyrene	µg/kg	420 U	400 U	410 U
Benzo(b)fluoranthene	µg/kg	420 U	400 U	410 U
Benzo(g,h,i)perylene	µg/kg	420 U	400 U	410 U
Benzo(k)fluoranthene	µg/kg	420 U	400 U	410 U
Biphenyl (1,1-Biphenyl)	µg/kg	420 U	400 U	410 U
bis(2-Chloroethoxy)methane	µg/kg	420 U	400 U	410 U
bis(2-Chloroethyl)ether	µg/kg	420 U	400 U	410 U
bis(2-Ethylhexyl)phthalate (DEHP)	µg/kg	420 U	400 U	410 U
Butyl benzylphthalate (BBP)	µg/kg	420 U	400 U	410 U

**Analytical Results Summary - Soil
Phase II Sampling Program
Blue Water Thermal Solutions LLC
Fountain Inn, South Carolina
October - November 2016**

Location ID:	MW-1D	MW-2 2016	MW-2 2016
Sample Name:	SO-077150-101116-DJB-002	SO-077150-101116-DJB-007	SO-077150-101116-DJB-008
Sample Date:	10/11/2016	10/11/2016	10/11/2016
Depth:	15-15.5 ft. bgs.	3-5 ft. bgs.	9-10 ft. bgs.

Parameters	Unit			
Semi-volatile Organic Compounds-Continued				
Caprolactam	µg/kg	420 U	400 U	410 U
Carbazole	µg/kg	420 U	400 U	410 U
Chrysene	µg/kg	420 U	400 U	410 U
Di-n-butylphthalate (DBP)	µg/kg	420 U	400 U	410 U
Di-n-octyl phthalate (DnOP)	µg/kg	420 U	400 U	410 U
Dibenz(a,h)anthracene	µg/kg	420 U	400 U	410 U
Dibenzofuran	µg/kg	420 U	400 U	410 U
Diethyl phthalate	µg/kg	420 U	400 U	410 U
Dimethyl phthalate	µg/kg	420 U	400 U	410 U
Fluoranthene	µg/kg	420 U	400 U	410 U
Fluorene	µg/kg	420 U	400 U	410 U
Hexachlorobenzene	µg/kg	420 U	400 U	410 U
Hexachlorobutadiene	µg/kg	420 U	400 U	410 U
Hexachlorocyclopentadiene	µg/kg	420 U	400 U	410 U
Hexachloroethane	µg/kg	420 U	400 U	410 U
Indeno(1,2,3-cd)pyrene	µg/kg	420 U	400 U	410 U
Isophorone	µg/kg	420 U	400 U	410 U
N-Nitrosodi-n-propylamine	µg/kg	420 U	400 U	410 U
N-Nitrosodiphenylamine	µg/kg	420 U	400 U	410 U
Naphthalene	µg/kg	420 U	400 U	410 U
Nitrobenzene	µg/kg	420 U	400 U	410 U
Pentachlorophenol	µg/kg	1100 U	1000 U	1000 U
Phenanthrene	µg/kg	420 U	400 U	410 U
Phenol	µg/kg	420 U	400 U	410 U
Pyrene	µg/kg	420 U	400 U	410 U
Metals				
Aluminum	mg/kg	9400	22400	8670
Antimony	mg/kg	6.34 UJ	0.805 J	4.72 UJ
Arsenic	mg/kg	1.27 U	1.65	0.990

**Analytical Results Summary - Soil
Phase II Sampling Program
Blue Water Thermal Solutions LLC
Fountain Inn, South Carolina
October - November 2016**

Location ID:	MW-1D	MW-2 2016	MW-2 2016
Sample Name:	SO-077150-101116-DJB-002	SO-077150-101116-DJB-007	SO-077150-101116-DJB-008
Sample Date:	10/11/2016	10/11/2016	10/11/2016
Depth:	15-15.5 ft. bgs.	3-5 ft. bgs.	9-10 ft. bgs.

Parameters	Unit			
Metals-Continued				
Barium	mg/kg	12.7	31.8	9.68
Beryllium	mg/kg	0.464 J	0.245 J	0.0820 J
Cadmium	mg/kg	0.634 U	0.563 U	0.472 U
Calcium	mg/kg	255 J	2460 J	1120 J
Chromium	mg/kg	1.72	15.0	7.35
Cobalt	mg/kg	1.99 J	2.06 J	0.877 J
Copper	mg/kg	0.574 J	5.56	1.65 J
Iron	mg/kg	1620	16600	7790
Lead	mg/kg	26.7	11.4	5.98
Magnesium	mg/kg	124	266	111
Manganese	mg/kg	205	26.8	12.0
Mercury	mg/kg	0.108 U	0.0126 J	0.0164 J
Nickel	mg/kg	0.296 J	2.86 J	0.816 J
Potassium	mg/kg	267	412	173
Selenium	mg/kg	0.634 U	0.563 U	0.472 U
Silver	mg/kg	1.27 U	1.13 U	0.944 U
Sodium	mg/kg	30.7 J	55.7 J	20.7 J
Thallium	mg/kg	1.27 U	1.13 U	0.944 U
Vanadium	mg/kg	0.456 J	31.8 J	13.7 J
Zinc	mg/kg	5.22	7.02	2.75

Table 2A

**Analytical Results Summary - Soil
Phase II Sampling Program
Blue Water Thermal Solutions LLC
Fountain Inn, South Carolina
October - November 2016**

Location ID:	MW-4 2016	MW-4 2016	MW-5 2016
Sample Name:	SO-077150-101216-DJB-021	SO-077150-101216-DJB-020	SO-077150-101116-DJB-005
Sample Date:	10/12/2016	10/12/2016	10/11/2016
Depth:	18-20 ft. bgs.	0-1.2 ft. bgs.	0.5-1.5 ft. bgs.

Parameters	Unit			
Volatile Organic Compounds				
1,1,1,2-Tetrachloroethane	µg/kg	3.6 U	4.1 U	4.4 U
1,1,1-Trichloroethane	µg/kg	3.6 U	4.1 U	4.4 U
1,1,2-Trichloroethane	µg/kg	3.6 U	4.1 U	4.4 U
1,1-Dichloroethane	µg/kg	3.6 U	4.1 U	4.4 U
1,1-Dichloroethene	µg/kg	3.6 U	4.1 U	4.4 U
1,2,4-Trichlorobenzene	µg/kg	3.6 U	4.1 U	4.4 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/kg	3.6 U	4.1 U	4.4 U
1,2-Dibromoethane (Ethylene dibromide)	µg/kg	3.6 U	4.1 U	4.4 U
1,2-Dichlorobenzene	µg/kg	3.6 U	4.1 U	4.4 U
1,2-Dichloroethane	µg/kg	3.6 U	4.1 U	4.4 U
1,2-Dichloropropane	µg/kg	3.6 U	4.1 U	4.4 U
1,3-Dichloropropane	µg/kg	3.6 U	4.1 U	4.4 U
1,4-Dichlorobenzene	µg/kg	3.6 U	4.1 U	4.4 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/kg	7.2 U	8.2 U	8.7 U
2-Hexanone	µg/kg	7.2 U	8.2 U	8.7 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/kg	7.2 U	8.2 U	8.7 U
Acetone	µg/kg	7.2 U	150	44
Benzene	µg/kg	3.6 U	4.1 U	4.4 U
Bromoform	µg/kg	3.6 U	4.1 U	4.4 U
Bromomethane (Methyl bromide)	µg/kg	3.6 U	4.1 U	4.4 U
Carbon disulfide	µg/kg	7.2 U	8.2 U	8.7 U
Carbon tetrachloride	µg/kg	3.6 U	4.1 U	4.4 U
Chlorobenzene	µg/kg	3.6 U	4.1 U	4.4 U
Chlorobromomethane	µg/kg	3.6 U	4.1 U	4.4 U
Chloroethane	µg/kg	7.2 U	8.2 U	8.7 U
Chloroform (Trichloromethane)	µg/kg	3.6 U	4.1 U	4.4 U
Chloromethane (Methyl chloride)	µg/kg	7.2 U	8.2 U	8.7 U
cis-1,2-Dichloroethene	µg/kg	3.6 U	4.1 U	4.4 U
cis-1,3-Dichloropropene	µg/kg	3.6 U	4.1 U	4.4 U
Cyclohexane	µg/kg	3.6 U	4.1 U	4.4 U

Table 2A

**Analytical Results Summary - Soil
Phase II Sampling Program
Blue Water Thermal Solutions LLC
Fountain Inn, South Carolina
October - November 2016**

Location ID:	MW-4 2016	MW-4 2016	MW-5 2016
Sample Name:	SO-077150-101216-DJB-021	SO-077150-101216-DJB-020	SO-077150-101116-DJB-005
Sample Date:	10/12/2016	10/12/2016	10/11/2016
Depth:	18-20 ft. bgs.	0-1.2 ft. bgs.	0.5-1.5 ft. bgs.

Parameters	Unit			
Volatile Organic Compounds-Continued				
Dibromochloromethane	µg/kg	3.6 U	4.1 U	4.4 U
Dichlorodifluoromethane (CFC-12)	µg/kg	7.2 U	8.2 U	8.7 U
Ethylbenzene	µg/kg	3.6 U	4.1 U	4.4 U
Isopropyl benzene	µg/kg	3.6 U	4.1 U	4.4 U
Methyl acetate	µg/kg	3.6 U	4.1 U	4.4 U
Methyl cyclohexane	µg/kg	3.6 U	4.1 U	4.4 U
Methyl tert butyl ether (MTBE)	µg/kg	3.6 U	4.1 U	4.4 U
Methylene chloride	µg/kg	7.2 U	8.2 U	8.7 U
Styrene	µg/kg	3.6 U	4.1 U	4.4 U
Tetrachloroethene	µg/kg	3.6 U	4.1 U	4.4 U
Toluene	µg/kg	3.6 U	4.1 U	4.4 U
trans-1,2-Dichloroethene	µg/kg	3.6 U	4.1 U	4.4 U
trans-1,3-Dichloropropene	µg/kg	3.6 U	4.1 U	4.4 U
Trichloroethene	µg/kg	3.6 U	4.1 U	4.4 U
Trichlorofluoromethane (CFC-11)	µg/kg	3.6 U	4.1 U	4.4 U
Trifluorotrchloroethane (CFC-113)	µg/kg	7.2 U	8.2 U	8.7 U
Vinyl chloride	µg/kg	7.2 U	8.2 U	8.7 U
Xylenes (total)	µg/kg	3.6 U	4.1 U	4.4 U
Semi-volatile Organic Compounds				
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	µg/kg	410 U	360 U	370 U
2,4,5-Trichlorophenol	µg/kg	1000 U	900 U	940 U
2,4,6-Trichlorophenol	µg/kg	410 U	360 U	370 U
2,4-Dichlorophenol	µg/kg	410 U	360 U	370 U
2,4-Dimethylphenol	µg/kg	410 U	360 U	370 U
2,4-Dinitrophenol	µg/kg	1000 U	900 U	940 U
2,4-Dinitrotoluene	µg/kg	410 U	360 U	370 U
2,6-Dinitrotoluene	µg/kg	410 U	360 U	370 U
2-Chloronaphthalene	µg/kg	410 U	360 U	370 U
2-Chlorophenol	µg/kg	410 U	360 U	370 U

**Analytical Results Summary - Soil
Phase II Sampling Program
Blue Water Thermal Solutions LLC
Fountain Inn, South Carolina
October - November 2016**

Location ID:	MW-4 2016	MW-4 2016	MW-5 2016
Sample Name:	SO-077150-101216-DJB-021	SO-077150-101216-DJB-020	SO-077150-101116-DJB-005
Sample Date:	10/12/2016	10/12/2016	10/11/2016
Depth:	18-20 ft. bgs.	0-1.2 ft. bgs.	0.5-1.5 ft. bgs.

Parameters	Unit			
Semi-volatile Organic Compounds-Continued				
2-Methylnaphthalene	µg/kg	410 U	360 U	370 U
2-Methylphenol	µg/kg	410 U	360 U	370 U
2-Nitroaniline	µg/kg	1000 U	900 U	940 U
2-Nitrophenol	µg/kg	410 U	360 U	370 U
3,3'-Dichlorobenzidine	µg/kg	410 U	360 U	370 U
3-Nitroaniline	µg/kg	1000 U	900 U	940 U
4,6-Dinitro-2-methylphenol	µg/kg	1000 U	900 U	940 U
4-Bromophenyl phenyl ether	µg/kg	410 U	360 U	370 U
4-Chloro-3-methylphenol	µg/kg	410 U	360 U	370 U
4-Chloroaniline	µg/kg	410 U	360 U	370 U
4-Chlorophenyl phenyl ether	µg/kg	410 U	360 U	370 U
4-Methylphenol	µg/kg	410 U	360 U	370 U
4-Nitroaniline	µg/kg	1000 U	900 U	940 U
4-Nitrophenol	µg/kg	1000 U	900 U	940 U
Acenaphthene	µg/kg	410 U	360 U	370 U
Acenaphthylene	µg/kg	410 U	360 U	370 U
Acetophenone	µg/kg	410 U	360 U	370 U
Anthracene	µg/kg	410 U	360 U	370 U
Atrazine	µg/kg	410 U	360 U	370 U
Benzaldehyde	µg/kg	410 U	360 U	370 U
Benzo(a)anthracene	µg/kg	410 U	360 U	370 U
Benzo(a)pyrene	µg/kg	410 U	360 U	370 U
Benzo(b)fluoranthene	µg/kg	410 U	360 U	370 U
Benzo(g,h,i)perylene	µg/kg	410 U	360 U	370 U
Benzo(k)fluoranthene	µg/kg	410 U	360 U	370 U
Biphenyl (1,1-Biphenyl)	µg/kg	410 U	360 U	370 U
bis(2-Chloroethoxy)methane	µg/kg	410 U	360 U	370 U
bis(2-Chloroethyl)ether	µg/kg	410 U	360 U	370 U
bis(2-Ethylhexyl)phthalate (DEHP)	µg/kg	410 U	360 U	370 U
Butyl benzylphthalate (BBP)	µg/kg	410 U	360 U	370 U

Table 2A

**Analytical Results Summary - Soil
Phase II Sampling Program
Blue Water Thermal Solutions LLC
Fountain Inn, South Carolina
October - November 2016**

Location ID:	MW-4 2016	MW-4 2016	MW-5 2016
Sample Name:	SO-077150-101216-DJB-021	SO-077150-101216-DJB-020	SO-077150-101116-DJB-005
Sample Date:	10/12/2016	10/12/2016	10/11/2016
Depth:	18-20 ft. bgs.	0-1.2 ft. bgs.	0.5-1.5 ft. bgs.

Parameters	Unit			
Semi-volatile Organic Compounds-Continued				
Caprolactam	µg/kg	410 U	360 U	370 U
Carbazole	µg/kg	410 U	360 U	370 U
Chrysene	µg/kg	410 U	360 U	370 U
Di-n-butylphthalate (DBP)	µg/kg	410 U	360 U	370 U
Di-n-octyl phthalate (DnOP)	µg/kg	410 U	360 U	370 U
Dibenz(a,h)anthracene	µg/kg	410 U	360 U	370 U
Dibenzofuran	µg/kg	410 U	360 U	370 U
Diethyl phthalate	µg/kg	410 U	360 U	370 U
Dimethyl phthalate	µg/kg	410 U	360 U	370 U
Fluoranthene	µg/kg	410 U	360 U	370 U
Fluorene	µg/kg	410 U	360 U	370 U
Hexachlorobenzene	µg/kg	410 U	360 U	370 U
Hexachlorobutadiene	µg/kg	410 U	360 U	370 U
Hexachlorocyclopentadiene	µg/kg	410 U	360 U	370 U
Hexachloroethane	µg/kg	410 U	360 U	370 U
Indeno(1,2,3-cd)pyrene	µg/kg	410 U	360 U	370 U
Isophorone	µg/kg	410 U	360 U	370 U
N-Nitrosodi-n-propylamine	µg/kg	410 U	360 U	370 U
N-Nitrosodiphenylamine	µg/kg	410 U	360 U	370 U
Naphthalene	µg/kg	410 U	360 U	370 U
Nitrobenzene	µg/kg	410 U	360 U	370 U
Pentachlorophenol	µg/kg	1000 U	900 U	940 U
Phenanthrene	µg/kg	410 U	360 U	370 U
Phenol	µg/kg	410 U	360 U	370 U
Pyrene	µg/kg	410 U	360 U	370 U
Metals				
Aluminum	mg/kg	3390	11700	14200
Antimony	mg/kg	5.89 U	0.397 J	5.26 UJ
Arsenic	mg/kg	1.18 U	1.00	1.01 J

**Analytical Results Summary - Soil
Phase II Sampling Program
Blue Water Thermal Solutions LLC
Fountain Inn, South Carolina
October - November 2016**

Location ID:	MW-4 2016	MW-4 2016	MW-5 2016
Sample Name:	SO-077150-101216-DJB-021	SO-077150-101216-DJB-020	SO-077150-101116-DJB-005
Sample Date:	10/12/2016	10/12/2016	10/11/2016
Depth:	18-20 ft. bgs.	0-1.2 ft. bgs.	0.5-1.5 ft. bgs.

Parameters	Unit			
Metals-Continued				
Barium	mg/kg	2.55 J	19.9	8.65
Beryllium	mg/kg	0.157 J	0.161 J	0.233 J
Cadmium	mg/kg	0.589 U	0.141 J	0.526 U
Calcium	mg/kg	186 J	1430 J	1570 J
Chromium	mg/kg	0.231 J	12.5	8.84
Cobalt	mg/kg	0.139 J	1.38 J	1.26 J
Copper	mg/kg	1.88 J	11.1	3.30
Iron	mg/kg	1330	9870	10400
Lead	mg/kg	2.14 J	26.8	18.1
Magnesium	mg/kg	22.5 J	156	178
Manganese	mg/kg	3.40 J	26.8	28.9
Mercury	mg/kg	0.119 U	0.0355 J	0.0137 J
Nickel	mg/kg	0.137 J	1.72 J	1.24 J
Potassium	mg/kg	214	208	270
Selenium	mg/kg	0.589 U	0.497 U	0.526 U
Silver	mg/kg	1.18 U	0.993 U	1.05 U
Sodium	mg/kg	12.5 J	22.5 J	22.2 J
Thallium	mg/kg	1.18 U	0.993 U	1.05 U
Vanadium	mg/kg	0.117 J	15.7 J	16.3 J
Zinc	mg/kg	2.06 J	40.9	7.00

Table 2A

**Analytical Results Summary - Soil
Phase II Sampling Program
Blue Water Thermal Solutions LLC
Fountain Inn, South Carolina
October - November 2016**

Location ID:	MW-5 2016	MW-3 2016	MW-3 2016
Sample Name:	SO-077150-101116-DJB-006	SO-077150-101216-DJB-010	SO-077150-101216-DJB-009
Sample Date:	10/11/2016	10/12/2016	10/12/2016
Depth:	14-15 ft. bgs.	10-13 ft. bgs.	0-2 ft. bgs.

Parameters	Unit			
Volatile Organic Compounds				
1,1,1,2-Tetrachloroethane	µg/kg	4.3 U	4.3 U	3.6 U
1,1,1-Trichloroethane	µg/kg	4.3 U	4.3 U	3.6 U
1,1,2-Trichloroethane	µg/kg	4.3 U	4.3 U	3.6 U
1,1-Dichloroethane	µg/kg	4.3 U	4.3 U	3.6 U
1,1-Dichloroethene	µg/kg	4.3 U	4.3 U	3.6 U
1,2,4-Trichlorobenzene	µg/kg	4.3 U	4.3 U	3.6 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/kg	4.3 U	4.3 U	3.6 U
1,2-Dibromoethane (Ethylene dibromide)	µg/kg	4.3 U	4.3 U	3.6 U
1,2-Dichlorobenzene	µg/kg	4.3 U	4.3 U	3.6 U
1,2-Dichloroethane	µg/kg	4.3 U	4.3 U	3.6 U
1,2-Dichloropropane	µg/kg	4.3 U	4.3 U	3.6 U
1,3-Dichloropropane	µg/kg	4.3 U	4.3 U	3.6 U
1,4-Dichlorobenzene	µg/kg	4.3 U	4.3 U	3.6 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/kg	8.5 U	8.6 U	7.2 U
2-Hexanone	µg/kg	8.5 U	8.6 U	7.2 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/kg	8.5 U	8.6 U	7.2 U
Acetone	µg/kg	8.5 U	16	19
Benzene	µg/kg	4.3 U	4.3 U	3.6 U
Bromoform	µg/kg	4.3 U	4.3 U	3.6 U
Bromomethane (Methyl bromide)	µg/kg	4.3 U	4.3 U	3.6 U
Carbon disulfide	µg/kg	8.5 U	8.6 U	7.2 U
Carbon tetrachloride	µg/kg	4.3 U	4.3 U	3.6 U
Chlorobenzene	µg/kg	4.3 U	4.3 U	3.6 U
Chlorobromomethane	µg/kg	4.3 U	4.3 U	3.6 U
Chloroethane	µg/kg	8.5 U	8.6 U	7.2 U
Chloroform (Trichloromethane)	µg/kg	4.3 U	4.3 U	3.6 U
Chloromethane (Methyl chloride)	µg/kg	8.5 U	8.6 U	7.2 U
cis-1,2-Dichloroethene	µg/kg	4.3 U	4.3 U	3.6 U
cis-1,3-Dichloropropene	µg/kg	4.3 U	4.3 U	3.6 U
Cyclohexane	µg/kg	4.3 U	4.3 U	3.6 U

Table 2A

**Analytical Results Summary - Soil
Phase II Sampling Program
Blue Water Thermal Solutions LLC
Fountain Inn, South Carolina
October - November 2016**

Location ID:	MW-5 2016	MW-3 2016	MW-3 2016
Sample Name:	SO-077150-101116-DJB-006	SO-077150-101216-DJB-010	SO-077150-101216-DJB-009
Sample Date:	10/11/2016	10/12/2016	10/12/2016
Depth:	14-15 ft. bgs.	10-13 ft. bgs.	0-2 ft. bgs.

Parameters	Unit			
Volatile Organic Compounds-Continued				
Dibromochloromethane	µg/kg	4.3 U	4.3 U	3.6 U
Dichlorodifluoromethane (CFC-12)	µg/kg	8.5 U	8.6 U	7.2 U
Ethylbenzene	µg/kg	4.3 U	4.3 U	3.6 U
Isopropyl benzene	µg/kg	4.3 U	4.3 U	3.6 U
Methyl acetate	µg/kg	4.3 U	4.3 U	3.6 U
Methyl cyclohexane	µg/kg	4.3 U	4.3 U	3.6 U
Methyl tert butyl ether (MTBE)	µg/kg	4.3 U	4.3 U	3.6 U
Methylene chloride	µg/kg	8.5 U	8.6 U	7.2 U
Styrene	µg/kg	4.3 U	4.3 U	3.6 U
Tetrachloroethene	µg/kg	2.4 J	4.3 U	3.6 U
Toluene	µg/kg	4.3 U	4.3 U	3.6 U
trans-1,2-Dichloroethene	µg/kg	4.3 U	4.3 U	3.6 U
trans-1,3-Dichloropropene	µg/kg	4.3 U	4.3 U	3.6 U
Trichloroethene	µg/kg	4.3 U	4.3 U	3.6 U
Trichlorofluoromethane (CFC-11)	µg/kg	4.3 U	4.3 U	3.6 U
Trifluorotrchloroethane (CFC-113)	µg/kg	8.5 U	8.6 U	7.2 U
Vinyl chloride	µg/kg	8.5 U	8.6 U	7.2 U
Xylenes (total)	µg/kg	4.3 U	4.3 U	3.6 U
Semi-volatile Organic Compounds				
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	µg/kg	450 U	410 U	360 U
2,4,5-Trichlorophenol	µg/kg	1100 U	1000 U	900 U
2,4,6-Trichlorophenol	µg/kg	450 U	410 U	360 U
2,4-Dichlorophenol	µg/kg	450 U	410 U	360 U
2,4-Dimethylphenol	µg/kg	450 U	410 U	360 U
2,4-Dinitrophenol	µg/kg	1100 U	1000 U	900 U
2,4-Dinitrotoluene	µg/kg	450 U	410 U	360 U
2,6-Dinitrotoluene	µg/kg	450 U	410 U	360 U
2-Chloronaphthalene	µg/kg	450 U	410 U	360 U
2-Chlorophenol	µg/kg	450 U	410 U	360 U

**Analytical Results Summary - Soil
Phase II Sampling Program
Blue Water Thermal Solutions LLC
Fountain Inn, South Carolina
October - November 2016**

Location ID:	MW-5 2016	MW-3 2016	MW-3 2016
Sample Name:	SO-077150-101116-DJB-006	SO-077150-101216-DJB-010	SO-077150-101216-DJB-009
Sample Date:	10/11/2016	10/12/2016	10/12/2016
Depth:	14-15 ft. bgs.	10-13 ft. bgs.	0-2 ft. bgs.

Parameters	Unit			
Semi-volatile Organic Compounds-Continued				
2-Methylnaphthalene	µg/kg	450 U	410 U	360 U
2-Methylphenol	µg/kg	450 U	410 U	360 U
2-Nitroaniline	µg/kg	1100 U	1000 U	900 U
2-Nitrophenol	µg/kg	450 U	410 U	360 U
3,3'-Dichlorobenzidine	µg/kg	450 U	410 U	360 U
3-Nitroaniline	µg/kg	1100 U	1000 U	900 U
4,6-Dinitro-2-methylphenol	µg/kg	1100 U	1000 U	900 U
4-Bromophenyl phenyl ether	µg/kg	450 U	410 U	360 U
4-Chloro-3-methylphenol	µg/kg	450 U	410 U	360 U
4-Chloroaniline	µg/kg	450 U	410 U	360 U
4-Chlorophenyl phenyl ether	µg/kg	450 U	410 U	360 U
4-Methylphenol	µg/kg	450 U	410 U	360 U
4-Nitroaniline	µg/kg	1100 U	1000 U	900 U
4-Nitrophenol	µg/kg	1100 U	1000 U	900 U
Acenaphthene	µg/kg	450 U	410 U	360 U
Acenaphthylene	µg/kg	450 U	410 U	360 U
Acetophenone	µg/kg	450 U	410 U	360 U
Anthracene	µg/kg	450 U	410 U	360 U
Atrazine	µg/kg	450 U	410 U	360 U
Benzaldehyde	µg/kg	450 U	410 U	360 U
Benzo(a)anthracene	µg/kg	450 U	410 U	360 U
Benzo(a)pyrene	µg/kg	450 U	410 U	360 U
Benzo(b)fluoranthene	µg/kg	450 U	410 U	360 U
Benzo(g,h,i)perylene	µg/kg	450 U	410 U	360 U
Benzo(k)fluoranthene	µg/kg	450 U	410 U	360 U
Biphenyl (1,1-Biphenyl)	µg/kg	450 U	410 U	360 U
bis(2-Chloroethoxy)methane	µg/kg	450 U	410 U	360 U
bis(2-Chloroethyl)ether	µg/kg	450 U	410 U	360 U
bis(2-Ethylhexyl)phthalate (DEHP)	µg/kg	450 U	410 U	360 U
Butyl benzylphthalate (BBP)	µg/kg	450 U	410 U	360 U

**Analytical Results Summary - Soil
Phase II Sampling Program
Blue Water Thermal Solutions LLC
Fountain Inn, South Carolina
October - November 2016**

Location ID:	MW-5 2016	MW-3 2016	MW-3 2016
Sample Name:	SO-077150-101116-DJB-006	SO-077150-101216-DJB-010	SO-077150-101216-DJB-009
Sample Date:	10/11/2016	10/12/2016	10/12/2016
Depth:	14-15 ft. bgs.	10-13 ft. bgs.	0-2 ft. bgs.

Parameters	Unit			
Semi-volatile Organic Compounds-Continued				
Caprolactam	µg/kg	450 U	410 U	360 U
Carbazole	µg/kg	450 U	410 U	360 U
Chrysene	µg/kg	450 U	410 U	360 U
Di-n-butylphthalate (DBP)	µg/kg	450 U	410 U	360 U
Di-n-octyl phthalate (DnOP)	µg/kg	450 U	410 U	360 U
Dibenz(a,h)anthracene	µg/kg	450 U	410 U	360 U
Dibenzofuran	µg/kg	450 U	410 U	360 U
Diethyl phthalate	µg/kg	450 U	410 U	360 U
Dimethyl phthalate	µg/kg	450 U	410 U	360 U
Fluoranthene	µg/kg	450 U	410 U	360 U
Fluorene	µg/kg	450 U	410 U	360 U
Hexachlorobenzene	µg/kg	450 U	410 U	360 U
Hexachlorobutadiene	µg/kg	450 U	410 U	360 U
Hexachlorocyclopentadiene	µg/kg	450 U	410 U	360 U
Hexachloroethane	µg/kg	450 U	410 U	360 U
Indeno(1,2,3-cd)pyrene	µg/kg	450 U	410 U	360 U
Isophorone	µg/kg	450 U	410 U	360 U
N-Nitrosodi-n-propylamine	µg/kg	450 U	410 U	360 U
N-Nitrosodiphenylamine	µg/kg	450 U	410 U	360 U
Naphthalene	µg/kg	450 U	410 U	360 U
Nitrobenzene	µg/kg	450 U	410 U	360 U
Pentachlorophenol	µg/kg	1100 U	1000 U	900 U
Phenanthrene	µg/kg	450 U	410 U	360 U
Phenol	µg/kg	450 U	410 U	360 U
Pyrene	µg/kg	450 U	410 U	360 U
Metals				
Aluminum	mg/kg	11200	6480	8090
Antimony	mg/kg	6.55 UJ	5.30 UJ	4.34 UJ
Arsenic	mg/kg	1.31 U	0.470 J	0.724 J

**Analytical Results Summary - Soil
Phase II Sampling Program
Blue Water Thermal Solutions LLC
Fountain Inn, South Carolina
October - November 2016**

Location ID:	MW-5 2016	MW-3 2016	MW-3 2016
Sample Name:	SO-077150-101116-DJB-006	SO-077150-101216-DJB-010	SO-077150-101216-DJB-009
Sample Date:	10/11/2016	10/12/2016	10/12/2016
Depth:	14-15 ft. bgs.	10-13 ft. bgs.	0-2 ft. bgs.

Parameters	Unit			
Metals-Continued				
Barium	mg/kg	1.98 J	4.44 J	182
Beryllium	mg/kg	0.450 J	0.744	0.0905 J
Cadmium	mg/kg	0.655 U	0.530 U	0.0192 J
Calcium	mg/kg	115 J	1370 J	769 J
Chromium	mg/kg	0.191 J	10.1	6.93
Cobalt	mg/kg	0.0999 J	0.898 J	0.735 J
Copper	mg/kg	0.464 J	1.22 J	1.34 J
Iron	mg/kg	511	10400	4410
Lead	mg/kg	10.8	20.6	6.84
Magnesium	mg/kg	104	108	94.2
Manganese	mg/kg	4.65	11.7	10.9
Mercury	mg/kg	0.117 U	0.117 U	0.0145 J
Nickel	mg/kg	0.132 J	0.597 J	1.08 J
Potassium	mg/kg	242	195	155
Selenium	mg/kg	0.655 U	0.530 U	0.434 U
Silver	mg/kg	1.31 U	1.06 U	0.868 U
Sodium	mg/kg	18.2 J	30.1 J	43.7 J
Thallium	mg/kg	0.335 J	1.06 U	0.868 U
Vanadium	mg/kg	0.0607 J	15.2 J	8.60 J
Zinc	mg/kg	3.84	4.81	3.78

Table 2A

**Analytical Results Summary - Soil
Phase II Sampling Program
Blue Water Thermal Solutions LLC
Fountain Inn, South Carolina
October - November 2016**

Location ID:	MW-6 2016	MW-6 2016	MW-6 2016
Sample Name:	SO-077150-101216-DJB-017	SO-077150-101216-DJB-018	SO-077150-101216-DJB-019
Sample Date:	10/12/2016	10/12/2016	10/12/2016
Depth:	0.5-1.5 ft. bgs.	0.5-1.5 ft. bgs. Duplicate	13-15 ft. bgs.

Parameters	Unit			
Volatile Organic Compounds				
1,1,1,2-Tetrachloroethane	µg/kg	4.3 U	4.1 U	4.4 U
1,1,1-Trichloroethane	µg/kg	4.3 U	4.1 U	4.4 U
1,1,2-Trichloroethane	µg/kg	4.3 U	4.1 U	4.4 U
1,1-Dichloroethane	µg/kg	4.3 U	4.1 U	4.4 U
1,1-Dichloroethene	µg/kg	4.3 U	4.1 U	4.4 U
1,2,4-Trichlorobenzene	µg/kg	4.3 U	4.1 U	4.4 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/kg	4.3 U	4.1 U	4.4 U
1,2-Dibromoethane (Ethylene dibromide)	µg/kg	4.3 U	4.1 U	4.4 U
1,2-Dichlorobenzene	µg/kg	4.3 U	4.1 U	4.4 U
1,2-Dichloroethane	µg/kg	4.3 U	4.1 U	4.4 U
1,2-Dichloropropane	µg/kg	4.3 U	4.1 U	4.4 U
1,3-Dichloropropane	µg/kg	4.3 U	4.1 U	4.4 U
1,4-Dichlorobenzene	µg/kg	4.3 U	4.1 U	4.4 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/kg	8.7 U	8.2 U	8.8 U
2-Hexanone	µg/kg	8.7 U	8.2 U	8.8 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/kg	8.7 U	8.2 U	8.8 U
Acetone	µg/kg	17	15	8.8 U
Benzene	µg/kg	4.3 U	4.1 U	4.4 U
Bromoform	µg/kg	4.3 U	4.1 U	4.4 U
Bromomethane (Methyl bromide)	µg/kg	4.3 U	4.1 U	4.4 U
Carbon disulfide	µg/kg	8.7 U	8.2 U	8.8 U
Carbon tetrachloride	µg/kg	4.3 U	4.1 U	4.4 U
Chlorobenzene	µg/kg	4.3 U	4.1 U	4.4 U
Chlorobromomethane	µg/kg	4.3 U	4.1 U	4.4 U
Chloroethane	µg/kg	8.7 U	8.2 U	8.8 U
Chloroform (Trichloromethane)	µg/kg	4.3 U	4.1 U	4.4 U
Chloromethane (Methyl chloride)	µg/kg	8.7 U	8.2 U	8.8 U
cis-1,2-Dichloroethene	µg/kg	4.3 U	4.1 U	4.4 U
cis-1,3-Dichloropropene	µg/kg	4.3 U	4.1 U	4.4 U
Cyclohexane	µg/kg	4.3 U	4.1 U	4.4 U

Table 2A

**Analytical Results Summary - Soil
Phase II Sampling Program
Blue Water Thermal Solutions LLC
Fountain Inn, South Carolina
October - November 2016**

Location ID:	MW-6 2016	MW-6 2016	MW-6 2016
Sample Name:	SO-077150-101216-DJB-017	SO-077150-101216-DJB-018	SO-077150-101216-DJB-019
Sample Date:	10/12/2016	10/12/2016	10/12/2016
Depth:	0.5-1.5 ft. bgs.	0.5-1.5 ft. bgs. Duplicate	13-15 ft. bgs.

Parameters	Unit			
Volatile Organic Compounds-Continued				
Dibromochloromethane	µg/kg	4.3 U	4.1 U	4.4 U
Dichlorodifluoromethane (CFC-12)	µg/kg	8.7 U	8.2 U	8.8 U
Ethylbenzene	µg/kg	4.3 U	4.1 U	4.4 U
Isopropyl benzene	µg/kg	4.3 U	4.1 U	4.4 U
Methyl acetate	µg/kg	4.3 U	4.1 U	4.4 U
Methyl cyclohexane	µg/kg	4.3 U	4.1 U	4.4 U
Methyl tert butyl ether (MTBE)	µg/kg	4.3 U	4.1 U	4.4 U
Methylene chloride	µg/kg	8.7 U	8.2 U	8.8 U
Styrene	µg/kg	4.3 U	4.1 U	4.4 U
Tetrachloroethene	µg/kg	4.3 U	4.1 U	4.4 U
Toluene	µg/kg	4.3 U	4.1 U	4.4 U
trans-1,2-Dichloroethene	µg/kg	4.3 U	4.1 U	4.4 U
trans-1,3-Dichloropropene	µg/kg	4.3 U	4.1 U	4.4 U
Trichloroethene	µg/kg	4.3 U	4.1 U	4.4 U
Trichlorofluoromethane (CFC-11)	µg/kg	4.3 U	4.1 U	4.4 U
Trifluorotrchloroethane (CFC-113)	µg/kg	8.7 U	8.2 U	8.8 U
Vinyl chloride	µg/kg	8.7 U	8.2 U	8.8 U
Xylenes (total)	µg/kg	4.3 U	4.1 U	4.4 U
Semi-volatile Organic Compounds				
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	µg/kg	380 U	380 U	410 U
2,4,5-Trichlorophenol	µg/kg	950 U	970 U	1000 U
2,4,6-Trichlorophenol	µg/kg	380 U	380 U	410 U
2,4-Dichlorophenol	µg/kg	380 U	380 U	410 U
2,4-Dimethylphenol	µg/kg	380 U	380 U	410 U
2,4-Dinitrophenol	µg/kg	950 U	970 U	1000 U
2,4-Dinitrotoluene	µg/kg	380 U	380 U	410 U
2,6-Dinitrotoluene	µg/kg	380 U	380 U	410 U
2-Chloronaphthalene	µg/kg	380 U	380 U	410 U
2-Chlorophenol	µg/kg	380 U	380 U	410 U

**Analytical Results Summary - Soil
Phase II Sampling Program
Blue Water Thermal Solutions LLC
Fountain Inn, South Carolina
October - November 2016**

Location ID:	MW-6 2016	MW-6 2016	MW-6 2016
Sample Name:	SO-077150-101216-DJB-017	SO-077150-101216-DJB-018	SO-077150-101216-DJB-019
Sample Date:	10/12/2016	10/12/2016	10/12/2016
Depth:	0.5-1.5 ft. bgs.	0.5-1.5 ft. bgs. Duplicate	13-15 ft. bgs.

Parameters	Unit			
Semi-volatile Organic Compounds-Continued				
2-Methylnaphthalene	µg/kg	380 U	380 U	410 U
2-Methylphenol	µg/kg	380 U	380 U	410 U
2-Nitroaniline	µg/kg	950 U	970 U	1000 U
2-Nitrophenol	µg/kg	380 U	380 U	410 U
3,3'-Dichlorobenzidine	µg/kg	380 U	380 U	410 U
3-Nitroaniline	µg/kg	950 U	970 U	1000 U
4,6-Dinitro-2-methylphenol	µg/kg	950 U	970 U	1000 U
4-Bromophenyl phenyl ether	µg/kg	380 U	380 U	410 U
4-Chloro-3-methylphenol	µg/kg	380 U	380 U	410 U
4-Chloroaniline	µg/kg	380 U	380 U	410 U
4-Chlorophenyl phenyl ether	µg/kg	380 U	380 U	410 U
4-Methylphenol	µg/kg	380 U	380 U	410 U
4-Nitroaniline	µg/kg	950 U	970 U	1000 U
4-Nitrophenol	µg/kg	950 U	970 U	1000 U
Acenaphthene	µg/kg	380 U	380 U	410 U
Acenaphthylene	µg/kg	380 U	380 U	410 U
Acetophenone	µg/kg	380 U	380 U	410 U
Anthracene	µg/kg	380 U	380 U	410 U
Atrazine	µg/kg	380 U	380 U	410 U
Benzaldehyde	µg/kg	380 U	380 U	410 U
Benzo(a)anthracene	µg/kg	380 U	380 U	410 U
Benzo(a)pyrene	µg/kg	380 U	380 U	410 U
Benzo(b)fluoranthene	µg/kg	380 U	380 U	410 U
Benzo(g,h,i)perylene	µg/kg	380 U	380 U	410 U
Benzo(k)fluoranthene	µg/kg	380 U	380 U	410 U
Biphenyl (1,1-Biphenyl)	µg/kg	380 U	380 U	410 U
bis(2-Chloroethoxy)methane	µg/kg	380 U	380 U	410 U
bis(2-Chloroethyl)ether	µg/kg	380 U	380 U	410 U
bis(2-Ethylhexyl)phthalate (DEHP)	µg/kg	380 U	380 U	410 U
Butyl benzylphthalate (BBP)	µg/kg	380 U	380 U	410 U

Table 2A

**Analytical Results Summary - Soil
Phase II Sampling Program
Blue Water Thermal Solutions LLC
Fountain Inn, South Carolina
October - November 2016**

Location ID:	MW-6 2016	MW-6 2016	MW-6 2016
Sample Name:	SO-077150-101216-DJB-017	SO-077150-101216-DJB-018	SO-077150-101216-DJB-019
Sample Date:	10/12/2016	10/12/2016	10/12/2016
Depth:	0.5-1.5 ft. bgs.	0.5-1.5 ft. bgs. Duplicate	13-15 ft. bgs.

Parameters	Unit			
Semi-volatile Organic Compounds-Continued				
Caprolactam	µg/kg	380 U	380 U	410 U
Carbazole	µg/kg	380 U	380 U	410 U
Chrysene	µg/kg	380 U	380 U	410 U
Di-n-butylphthalate (DBP)	µg/kg	380 U	380 U	410 U
Di-n-octyl phthalate (DnOP)	µg/kg	380 U	380 U	410 U
Dibenz(a,h)anthracene	µg/kg	380 U	380 U	410 U
Dibenzofuran	µg/kg	380 U	380 U	410 U
Diethyl phthalate	µg/kg	380 U	380 U	410 U
Dimethyl phthalate	µg/kg	380 U	380 U	410 U
Fluoranthene	µg/kg	380 U	380 U	410 U
Fluorene	µg/kg	380 U	380 U	410 U
Hexachlorobenzene	µg/kg	380 U	380 U	410 U
Hexachlorobutadiene	µg/kg	380 U	380 U	410 U
Hexachlorocyclopentadiene	µg/kg	380 U	380 U	410 U
Hexachloroethane	µg/kg	380 U	380 U	410 U
Indeno(1,2,3-cd)pyrene	µg/kg	380 U	380 U	410 U
Isophorone	µg/kg	380 U	380 U	410 U
N-Nitrosodi-n-propylamine	µg/kg	380 U	380 U	410 U
N-Nitrosodiphenylamine	µg/kg	380 U	380 U	410 U
Naphthalene	µg/kg	380 U	380 U	410 U
Nitrobenzene	µg/kg	380 U	380 U	410 U
Pentachlorophenol	µg/kg	950 U	970 U	1000 U
Phenanthrene	µg/kg	380 U	380 U	410 U
Phenol	µg/kg	380 U	380 U	410 U
Pyrene	µg/kg	380 U	380 U	410 U
Metals				
Aluminum	mg/kg	17000	19000	12200
Antimony	mg/kg	0.783 J	0.613 J	5.13 UJ
Arsenic	mg/kg	2.01	2.07	0.303 J

**Analytical Results Summary - Soil
Phase II Sampling Program
Blue Water Thermal Solutions LLC
Fountain Inn, South Carolina
October - November 2016**

Location ID:	MW-6 2016	MW-6 2016	MW-6 2016
Sample Name:	SO-077150-101216-DJB-017	SO-077150-101216-DJB-018	SO-077150-101216-DJB-019
Sample Date:	10/12/2016	10/12/2016	10/12/2016
Depth:	0.5-1.5 ft. bgs.	0.5-1.5 ft. bgs. Duplicate	13-15 ft. bgs.

Parameters	Unit			
Metals-Continued				
Barium	mg/kg	10.1	9.08	9.45
Beryllium	mg/kg	0.147 J	0.160 J	0.198 J
Cadmium	mg/kg	0.549 U	0.429 U	0.513 U
Calcium	mg/kg	1980 J	2240 J	665 J
Chromium	mg/kg	13.2	13.9	6.33
Cobalt	mg/kg	1.33 J	1.36 J	0.637 J
Copper	mg/kg	2.69 J	2.71	1.14 J
Iron	mg/kg	14600	15700	5420
Lead	mg/kg	9.17	8.70	13.1
Magnesium	mg/kg	127	135	224
Manganese	mg/kg	12.2	8.39	9.20
Mercury	mg/kg	0.0596 J	0.0547 J	0.0325 J
Nickel	mg/kg	1.21 J	1.37 J	1.09 J
Potassium	mg/kg	217	258	383
Selenium	mg/kg	0.549 U	0.429 U	0.513 U
Silver	mg/kg	1.10 U	0.857 U	1.03 U
Sodium	mg/kg	23.6 J	20.8 J	21.1 J
Thallium	mg/kg	1.10 U	0.857 U	1.03 U
Vanadium	mg/kg	22.3 J	24.4 J	9.66 J
Zinc	mg/kg	5.87	5.01	5.87

Notes:

- U - Not detected at the associated reporting limit
- J - Estimated concentration
- UJ - Not detected; associated reporting limit is estimated
- ft. bgs. - Feet below ground surface

Table 2B

Analytical Results Summary - Groundwater
 Phase II Sampling Program
 Blue Water Thermal Solutions LLC
 Fountain Inn, South Carolina
 October - November 2016

Location ID:	MW-1D 2016	MW-1S 2016	MW-2 2016	MW-3 2016
Sample Name:	GW-077150-110716-TBM-102	GW-077150-110716-TBM-101	GW-077150-110816-TBM-104	GW-077150-110716-TBM-103
Sample Date:	11/07/2016	11/07/2016	11/08/2016	11/07/2016

Parameters	Unit				
Volatile Organic Compounds					
1,1,1,2-Tetrachloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1,1-Trichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
2-Hexanone	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Acetone	µg/L	30	5.0 U	5.0 U	5.0 U
Benzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	µg/L	1.9	1.0 U	1.0 U	1.0 U
Carbon tetrachloride	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	µg/L	1.2	2.1	1.0 U	1.0 U
Chloromethane (Methyl chloride)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	µg/L	1.0 U	2.3	1.0 U	1.0 U
cis-1,3-Dichloropropene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U

**Analytical Results Summary - Groundwater
Phase II Sampling Program
Blue Water Thermal Solutions LLC
Fountain Inn, South Carolina
October - November 2016**

Location ID:	MW-1D 2016	MW-1S 2016	MW-2 2016	MW-3 2016
Sample Name:	GW-077150-110716-TBM-102	GW-077150-110716-TBM-101	GW-077150-110816-TBM-104	GW-077150-110716-TBM-103
Sample Date:	11/07/2016	11/07/2016	11/08/2016	11/07/2016

Parameters	Unit				
Volatile Organic Compounds-Continued					
Methyl acetate	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Methyl cyclohexane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Methyl tert butyl ether (MTBE)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
Styrene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	1.0 U	3100	1.0 U	1.0 U
Toluene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	µg/L	1.0 U	82	1.0 U	1.0 U
Trichlorofluoromethane (CFC-11)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrchloroethane (CFC-113)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Semi-volatile Organic Compounds					
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	µg/L	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol	µg/L	25 U	25 U	25 U	25 U
2,4,6-Trichlorophenol	µg/L	10 U	10 U	10 U	10 U
2,4-Dichlorophenol	µg/L	10 UJ	10 UJ	10 UJ	10 UJ
2,4-Dimethylphenol	µg/L	10 UJ	10 UJ	10 UJ	10 UJ
2,4-Dinitrophenol	µg/L	25 U	25 U	25 U	25 U
2,4-Dinitrotoluene	µg/L	10 U	10 U	10 U	10 U
2,6-Dinitrotoluene	µg/L	10 U	10 U	10 U	10 U
2-Chloronaphthalene	µg/L	10 U	10 U	10 U	10 U
2-Chlorophenol	µg/L	10 U	10 U	10 U	10 U
2-Methylnaphthalene	µg/L	10 U	10 U	10 U	10 U
2-Methylphenol	µg/L	10 UJ	10 UJ	10 UJ	10 UJ
2-Nitroaniline	µg/L	25 U	25 U	25 U	25 U
2-Nitrophenol	µg/L	10 U	10 U	10 U	10 U
3,3'-Dichlorobenzidine	µg/L	10 U	10 U	R	10 U
3-Nitroaniline	µg/L	25 U	25 U	25 U	25 U
4,6-Dinitro-2-methylphenol	µg/L	25 U	25 U	25 U	25 U
4-Bromophenyl phenyl ether	µg/L	10 U	10 U	10 U	10 U
4-Chloro-3-methylphenol	µg/L	10 U	10 U	10 U	10 U

**Analytical Results Summary - Groundwater
Phase II Sampling Program
Blue Water Thermal Solutions LLC
Fountain Inn, South Carolina
October - November 2016**

Location ID:	MW-1D 2016	MW-1S 2016	MW-2 2016	MW-3 2016
Sample Name:	GW-077150-110716-TBM-102	GW-077150-110716-TBM-101	GW-077150-110816-TBM-104	GW-077150-110716-TBM-103
Sample Date:	11/07/2016	11/07/2016	11/08/2016	11/07/2016

Parameters	Unit				
Semi-volatile Organic Compounds-Continued					
4-Chloroaniline	µg/L	10 U	10 U	10 U	10 U
4-Chlorophenyl phenyl ether	µg/L	10 U	10 U	10 U	10 U
4-Methylphenol	µg/L	10 U	10 U	10 U	10 U
4-Nitroaniline	µg/L	25 U	25 U	25 U	25 U
4-Nitrophenol	µg/L	25 U	25 U	25 U	25 U
Acenaphthene	µg/L	10 U	10 U	10 U	10 U
Acenaphthylene	µg/L	10 U	10 U	10 U	10 U
Acetophenone	µg/L	10 U	10 U	10 U	10 U
Anthracene	µg/L	10 U	10 U	10 U	10 U
Atrazine	µg/L	10 U	10 U	10 U	10 U
Benzaldehyde	µg/L	10 U	10 U	10 U	10 U
Benzo(a)anthracene	µg/L	10 U	10 U	10 U	10 U
Benzo(a)pyrene	µg/L	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	µg/L	10 U	10 U	10 U	10 U
Benzo(g,h,i)perylene	µg/L	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	µg/L	10 U	10 U	10 U	10 U
Biphenyl (1,1-Biphenyl)	µg/L	10 U	10 U	10 U	10 U
bis(2-Chloroethoxy)methane	µg/L	10 U	10 U	10 U	10 U
bis(2-Chloroethyl)ether	µg/L	10 U	10 U	10 U	10 U
bis(2-Ethylhexyl)phthalate (DEHP)	µg/L	10 U	10 U	10 U	10 U
Butyl benzylphthalate (BBP)	µg/L	10 U	10 U	10 U	10 U
Caprolactam	µg/L	10 U	10 U	10 U	10 U
Carbazole	µg/L	10 U	10 U	10 U	10 U
Chrysene	µg/L	10 U	10 U	10 U	10 U
Di-n-butylphthalate (DBP)	µg/L	10 U	10 U	10 U	10 U
Di-n-octyl phthalate (DnOP)	µg/L	10 U	10 U	10 U	10 U
Dibenz(a,h)anthracene	µg/L	10 U	10 U	10 U	10 U
Dibenzofuran	µg/L	10 U	10 U	10 U	10 U
Diethyl phthalate	µg/L	10 U	10 U	10 U	10 U
Dimethyl phthalate	µg/L	10 U	10 U	10 U	10 U
Fluoranthene	µg/L	10 U	10 U	10 U	10 U
Fluorene	µg/L	10 U	10 U	10 U	10 U
Hexachlorobenzene	µg/L	10 U	10 U	10 U	10 U
Hexachlorobutadiene	µg/L	10 UJ	10 UJ	10 UJ	10 UJ
Hexachlorocyclopentadiene	µg/L	10 U	10 U	10 U	10 U

**Analytical Results Summary - Groundwater
Phase II Sampling Program
Blue Water Thermal Solutions LLC
Fountain Inn, South Carolina
October - November 2016**

Location ID:	MW-1D 2016	MW-1S 2016	MW-2 2016	MW-3 2016
Sample Name:	GW-077150-110716-TBM-102	GW-077150-110716-TBM-101	GW-077150-110816-TBM-104	GW-077150-110716-TBM-103
Sample Date:	11/07/2016	11/07/2016	11/08/2016	11/07/2016

Parameters	Unit				
Semi-volatile Organic Compounds-Continued					
Hexachloroethane	µg/L	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)pyrene	µg/L	10 U	10 U	10 U	10 U
Isophorone	µg/L	10 U	10 U	10 U	10 U
N-Nitrosodi-n-propylamine	µg/L	10 U	10 U	10 U	10 U
N-Nitrosodiphenylamine	µg/L	10 U	10 U	10 U	10 U
Naphthalene	µg/L	10 U	10 U	10 U	10 U
Nitrobenzene	µg/L	10 U	10 U	10 U	10 U
Pentachlorophenol	µg/L	25 U	25 U	25 U	25 U
Phenanthrene	µg/L	10 U	10 U	10 U	10 U
Phenol	µg/L	10 U	10 U	10 U	10 U
Pyrene	µg/L	10 U	10 U	10 U	10 U
Metals					
Aluminum	µg/L	4090	211	202	200 U
Antimony	µg/L	56.9	20.0 U	20.0 U	20.0 U
Arsenic	µg/L	10.0 U	10.0 U	10.0 U	10.0 U
Barium	µg/L	20.0 U	250	63.5	117
Beryllium	µg/L	5.00 U	5.00 U	5.00 U	5.00 U
Cadmium	µg/L	5.00 U	5.00 U	5.00 U	5.00 U
Calcium	µg/L	62000	558	1540	1940
Chromium	µg/L	48.9	10.0 U	10.0 U	10.0 U
Cobalt	µg/L	20.0 U	20.0 U	20.0 U	20.0 U
Copper	µg/L	10.0 U	10.0 U	10.0 U	10.0 U
Iron	µg/L	100 U	100 U	152	433
Lead	µg/L	5.00 U	5.00 U	5.00 U	5.00 U
Magnesium	µg/L	100 U	1060	288	356
Manganese	µg/L	15.0 U	499	357	1600
Mercury	µg/L	0.200 U	0.200 U	0.200 U	0.200 U
Nickel	µg/L	54.7	20.0 U	20.0 U	20.0 U
Potassium	µg/L	11300	5130	1970	1820
Selenium	µg/L	62.1	10.0 U	10.0 U	10.0 U
Silver	µg/L	10.0 U	10.0 U	10.0 U	10.0 U
Sodium	µg/L	19700 J	8660 J	9790 J	2250 J

**Analytical Results Summary - Groundwater
 Phase II Sampling Program
 Blue Water Thermal Solutions LLC
 Fountain Inn, South Carolina
 October - November 2016**

Location ID:	MW-1D 2016	MW-1S 2016	MW-2 2016	MW-3 2016
Sample Name:	GW-077150-110716-TBM-102	GW-077150-110716-TBM-101	GW-077150-110816-TBM-104	GW-077150-110716-TBM-103
Sample Date:	11/07/2016	11/07/2016	11/08/2016	11/07/2016

Parameters

Unit

Metals-Continued

Thallium	µg/L	10.0 U	10.0 U	10.0 U	10.0 U
Vanadium	µg/L	11.7	10.0 U	10.0 U	10.0 U
Zinc	µg/L	20.0 U	20.0 U	20.0 U	20.0 U

Table 2B

Analytical Results Summary - Groundwater
 Phase II Sampling Program
 Blue Water Thermal Solutions LLC
 Fountain Inn, South Carolina
 October - November 2016

Location ID:	MW-4 2016	MW-5 2016	MW-6 2016	MW-6 2016
Sample Name:	GW-077150-110816-TBM-107	GW-077150-110816-TBM-108	GW-077150-110816-TBM-105	GW-077150-110816-TBM-106
Sample Date:	11/08/2016	11/08/2016	11/08/2016	11/08/2016 Duplicate

Parameters	Unit				
Volatile Organic Compounds					
1,1,1,2-Tetrachloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1,1-Trichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	µg/L	1.0 U	1.0 U	9.1	9.2
1,1-Dichloroethene	µg/L	1.0 U	1.0 U	33	33
1,2,4-Trichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
2-Hexanone	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Acetone	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Benzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Carbon tetrachloride	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U

**Analytical Results Summary - Groundwater
Phase II Sampling Program
Blue Water Thermal Solutions LLC
Fountain Inn, South Carolina
October - November 2016**

Location ID:	MW-4 2016	MW-5 2016	MW-6 2016	MW-6 2016
Sample Name:	GW-077150-110816-TBM-107	GW-077150-110816-TBM-108	GW-077150-110816-TBM-105	GW-077150-110816-TBM-106
Sample Date:	11/08/2016	11/08/2016	11/08/2016	11/08/2016 Duplicate

Parameters	Unit				
Volatile Organic Compounds-Continued					
Methyl acetate	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Methyl cyclohexane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Methyl tert butyl ether (MTBE)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
Styrene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	1.0 U	53	1.0 U	1.0 U
Toluene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane (CFC-11)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (CFC-113)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Semi-volatile Organic Compounds					
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	µg/L	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol	µg/L	25 U	25 U	25 U	25 U
2,4,6-Trichlorophenol	µg/L	10 U	10 U	10 U	10 U
2,4-Dichlorophenol	µg/L	10 UJ	10 UJ	10 UJ	10 UJ
2,4-Dimethylphenol	µg/L	10 UJ	10 UJ	10 UJ	10 UJ
2,4-Dinitrophenol	µg/L	25 U	25 U	25 U	25 U
2,4-Dinitrotoluene	µg/L	10 U	10 U	10 U	10 U
2,6-Dinitrotoluene	µg/L	10 U	10 U	10 U	10 U
2-Chloronaphthalene	µg/L	10 U	10 U	10 U	10 U
2-Chlorophenol	µg/L	10 U	10 U	10 U	10 U
2-Methylnaphthalene	µg/L	10 U	10 U	10 U	10 U
2-Methylphenol	µg/L	10 UJ	10 UJ	10 UJ	10 UJ
2-Nitroaniline	µg/L	25 U	25 U	25 U	25 U
2-Nitrophenol	µg/L	10 U	10 U	10 U	10 U
3,3'-Dichlorobenzidine	µg/L	10 U	10 U	10 U	10 U
3-Nitroaniline	µg/L	25 U	25 U	25 U	25 U
4,6-Dinitro-2-methylphenol	µg/L	25 U	25 U	25 U	25 U
4-Bromophenyl phenyl ether	µg/L	10 U	10 U	10 U	10 U
4-Chloro-3-methylphenol	µg/L	10 U	10 U	10 U	10 U

Analytical Results Summary - Groundwater
 Phase II Sampling Program
 Blue Water Thermal Solutions LLC
 Fountain Inn, South Carolina
 October - November 2016

Location ID:	MW-4 2016	MW-5 2016	MW-6 2016	MW-6 2016
Sample Name:	GW-077150-110816-TBM-107	GW-077150-110816-TBM-108	GW-077150-110816-TBM-105	GW-077150-110816-TBM-106
Sample Date:	11/08/2016	11/08/2016	11/08/2016	11/08/2016 Duplicate

Parameters	Unit	MW-4 2016	MW-5 2016	MW-6 2016	MW-6 2016
Semi-volatile Organic Compounds-Continued					
4-Chloroaniline	µg/L	10 U	10 U	10 U	10 U
4-Chlorophenyl phenyl ether	µg/L	10 U	10 U	10 U	10 U
4-Methylphenol	µg/L	10 U	10 U	10 U	10 U
4-Nitroaniline	µg/L	25 U	25 U	25 U	25 U
4-Nitrophenol	µg/L	25 U	25 U	25 U	25 U
Acenaphthene	µg/L	10 U	10 U	10 U	10 U
Acenaphthylene	µg/L	10 U	10 U	10 U	10 U
Acetophenone	µg/L	10 U	10 U	10 U	10 U
Anthracene	µg/L	10 U	10 U	10 U	10 U
Atrazine	µg/L	10 U	10 U	10 U	10 U
Benzaldehyde	µg/L	10 U	10 U	10 U	10 U
Benzo(a)anthracene	µg/L	10 U	10 U	10 U	10 U
Benzo(a)pyrene	µg/L	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	µg/L	10 U	10 U	10 U	10 U
Benzo(g,h,i)perylene	µg/L	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	µg/L	10 U	10 U	10 U	10 U
Biphenyl (1,1-Biphenyl)	µg/L	10 U	10 U	10 U	10 U
bis(2-Chloroethoxy)methane	µg/L	10 U	10 U	10 U	10 U
bis(2-Chloroethyl)ether	µg/L	10 U	10 U	10 U	10 U
bis(2-Ethylhexyl)phthalate (DEHP)	µg/L	10 U	10 U	10 U	10 U
Butyl benzylphthalate (BBP)	µg/L	10 U	10 U	10 U	10 U
Caprolactam	µg/L	10 U	10 U	10 U	10 U
Carbazole	µg/L	10 U	10 U	10 U	10 U
Chrysene	µg/L	10 U	10 U	10 U	10 U
Di-n-butylphthalate (DBP)	µg/L	10 U	10 U	10 U	10 U
Di-n-octyl phthalate (DnOP)	µg/L	10 U	10 U	10 U	10 U
Dibenz(a,h)anthracene	µg/L	10 U	10 U	10 U	10 U
Dibenzofuran	µg/L	10 U	10 U	10 U	10 U
Diethyl phthalate	µg/L	10 U	10 U	10 U	10 U
Dimethyl phthalate	µg/L	10 U	10 U	10 U	10 U
Fluoranthene	µg/L	10 U	10 U	10 U	10 U
Fluorene	µg/L	10 U	10 U	10 U	10 U
Hexachlorobenzene	µg/L	10 U	10 U	10 U	10 U
Hexachlorobutadiene	µg/L	10 UJ	10 UJ	10 UJ	10 UJ
Hexachlorocyclopentadiene	µg/L	10 U	10 U	10 U	10 U

**Analytical Results Summary - Groundwater
Phase II Sampling Program
Blue Water Thermal Solutions LLC
Fountain Inn, South Carolina
October - November 2016**

Location ID:	MW-4 2016	MW-5 2016	MW-6 2016	MW-6 2016
Sample Name:	GW-077150-110816-TBM-107	GW-077150-110816-TBM-108	GW-077150-110816-TBM-105	GW-077150-110816-TBM-106
Sample Date:	11/08/2016	11/08/2016	11/08/2016	11/08/2016 Duplicate

Parameters	Unit				
Semi-volatile Organic Compounds-Continued					
Hexachloroethane	µg/L	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)pyrene	µg/L	10 U	10 U	10 U	10 U
Isophorone	µg/L	10 U	10 U	10 U	10 U
N-Nitrosodi-n-propylamine	µg/L	10 U	10 U	10 U	10 U
N-Nitrosodiphenylamine	µg/L	10 U	10 U	10 U	10 U
Naphthalene	µg/L	10 U	10 U	10 U	10 U
Nitrobenzene	µg/L	10 U	10 U	10 U	10 U
Pentachlorophenol	µg/L	25 U	25 U	25 U	25 U
Phenanthrene	µg/L	10 U	10 U	10 U	10 U
Phenol	µg/L	10 U	10 U	10 U	10 U
Pyrene	µg/L	10 U	10 U	10 U	10 U
Metals					
Aluminum	µg/L	754	273	374	365
Antimony	µg/L	20.0 U	20.0 U	20.0 U	20.0 U
Arsenic	µg/L	10.0 U	10.0 U	10.0 U	10.0 U
Barium	µg/L	30.2	63.4	137	136
Beryllium	µg/L	5.00 U	5.00 U	5.00 U	5.00 U
Cadmium	µg/L	5.00 U	5.00 U	5.00 U	5.00 U
Calcium	µg/L	4640	631	761	766
Chromium	µg/L	10.0 U	10.0 U	10.0 U	10.0 U
Cobalt	µg/L	20.0 U	20.0 U	20.0 U	20.0 U
Copper	µg/L	10.0 U	10.0 U	10.0 U	10.0 U
Iron	µg/L	100 U	100 U	100 U	100 U
Lead	µg/L	5.00 U	5.00 U	5.00 U	5.00 U
Magnesium	µg/L	389	620	1810	1790
Manganese	µg/L	79.9	145	240	241
Mercury	µg/L	0.200 U	0.200 U	0.200 U	0.200 U
Nickel	µg/L	20.0 U	20.0 U	20.0 U	20.0 U
Potassium	µg/L	25400	2550	5600	5620
Selenium	µg/L	10.0 U	10.0 U	10.0 U	10.0 U
Silver	µg/L	10.0 U	10.0 U	10.0 U	10.0 U
Sodium	µg/L	9160 J	1220 J	52400 J	51600 J

**Analytical Results Summary - Groundwater
Phase II Sampling Program
Blue Water Thermal Solutions LLC
Fountain Inn, South Carolina
October - November 2016**

Location ID:	MW-4 2016	MW-5 2016	MW-6 2016	MW-6 2016
Sample Name:	GW-077150-110816-TBM-107	GW-077150-110816-TBM-108	GW-077150-110816-TBM-105	GW-077150-110816-TBM-106
Sample Date:	11/08/2016	11/08/2016	11/08/2016	11/08/2016 Duplicate

Parameters	Unit				
Metals-Continued					
Thallium	µg/L	10.0 U	10.0 U	10.0 U	10.0 U
Vanadium	µg/L	10.0 U	10.0 U	10.0 U	10.0 U
Zinc	µg/L	20.0 U	20.0 U	20.0 U	20.0 U

Notes:

- U - Not detected at the associated reporting limit
- J - Estimated concentration
- UJ - Not detected; associated reporting limit is estimated
- R - Rejected

Table 3

**Analytical Methods
Phase II Sampling Program
Blue Water Thermal Solutions LLC
Fountain Inn, South Carolina
October - November 2016**

Parameter	Method	Matrix	Holding Time	
			Collection to Extraction (Days)	Collection or Extraction to Analysis (Days)
VOCs	SW-846 8260B	Soil	-	14
	SW-846 8260B	Water	-	14
SVOCs	SW-846 8270D	Soil	14	40
	SW-846 8270D	Water	7	40
Metals	SW-846 6010C	Soil	-	180
	SW-846 6010C	Water	-	180
Mercury	SW-846 7471B	Soil	-	28
	SW-846 7470A	Water	-	28

Notes:

- VOCs - Volatile Organic Compounds
- SVOCs - Semi-volatile Organic Compounds
- - Not applicable

Method References:

- SW-846 - "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, 1986, with subsequent revisions

Table 4

Qualified Sample Results Due to Outlying Laboratory Control Sample Results
Phase II Sampling Program
Blue Water Thermal Solutions LLC
Fountain Inn, South Carolina
October - November 2016

Parameter	Analyte	LCS Date (mm/dd/yyyy)	LCS % Recovery	Control Limits % Recovery	Associated Sample ID	Qualified Results	Units
SVOCs	2,4-Dichlorophenol	11/09/2016	66	70-130	GW-077150-110716-TBM-101	10 UJ	µg/L
					GW-077150-110716-TBM-102	10 UJ	µg/L
					GW-077150-110716-TBM-103	10 UJ	µg/L
					GW-077150-110816-TBM-104	10 UJ	µg/L
					GW-077150-110816-TBM-105	10 UJ	µg/L
					GW-077150-110816-TBM-106	10 UJ	µg/L
					GW-077150-110816-TBM-107	10 UJ	µg/L
					GW-077150-110816-TBM-108	10 UJ	µg/L
SVOCs	2,4-Dimethylphenol	11/09/2016	61	70-130	GW-077150-110716-TBM-101	10 UJ	µg/L
					GW-077150-110716-TBM-102	10 UJ	µg/L
					GW-077150-110716-TBM-103	10 UJ	µg/L
					GW-077150-110816-TBM-104	10 UJ	µg/L
					GW-077150-110816-TBM-105	10 UJ	µg/L
					GW-077150-110816-TBM-106	10 UJ	µg/L
					GW-077150-110816-TBM-107	10 UJ	µg/L
					GW-077150-110816-TBM-108	10 UJ	µg/L
SVOCs	2-Methylphenol	11/09/2016	62	70-130	GW-077150-110716-TBM-101	10 UJ	µg/L
					GW-077150-110716-TBM-102	10 UJ	µg/L
					GW-077150-110716-TBM-103	10 UJ	µg/L
					GW-077150-110816-TBM-104	10 UJ	µg/L
					GW-077150-110816-TBM-105	10 UJ	µg/L
					GW-077150-110816-TBM-106	10 UJ	µg/L
					GW-077150-110816-TBM-107	10 UJ	µg/L
					GW-077150-110816-TBM-108	10 UJ	µg/L
SVOCs	Hexachlorobutadiene	11/09/2016	53	70-130	GW-077150-110716-TBM-101	10 UJ	µg/L
					GW-077150-110716-TBM-102	10 UJ	µg/L
					GW-077150-110716-TBM-103	10 UJ	µg/L
					GW-077150-110816-TBM-104	10 UJ	µg/L
					GW-077150-110816-TBM-105	10 UJ	µg/L
					GW-077150-110816-TBM-106	10 UJ	µg/L
					GW-077150-110816-TBM-107	10 UJ	µg/L
					GW-077150-110816-TBM-108	10 UJ	µg/L

Notes:

SVOCs - Semi-volatile Organic Compounds

LCS - Laboratory Control Sample

UJ - Not detected; associated reporting limit is estimated

Table 5

**Qualified Sample Results Due to Outlying MS/MSD Results
Phase II Sampling Program
Blue Water Thermal Solutions LLC
Fountain Inn, South Carolina
October - November 2016**

Parameter	Sample ID	Analyte	MS % Recovery	MSD % Recovery	RPD (percent)	Control Limits		Qualified Result	Units
						% Recovery	RPD		
Metals	SO-077150-101116-DJB-001	Antimony	55	53	4	75-125	35	0.349 J	mg/kg
	SO-077150-101116-DJB-002							6.34 UJ	mg/kg
	SO-077150-101116-DJB-003							0.514 J	mg/kg
	SO-077150-101116-DJB-004							6.49 UJ	mg/kg
	SO-077150-101116-DJB-005							5.26 UJ	mg/kg
	SO-077150-101116-DJB-006							6.55 UJ	mg/kg
	SO-077150-101116-DJB-007							0.805 J	mg/kg
	SO-077150-101116-DJB-008							4.72 UJ	mg/kg
	SO-077150-101216-DJB-009							4.34 UJ	mg/kg
	SO-077150-101216-DJB-010							5.3 UJ	mg/kg
	SO-077150-101216-DJB-011							5.62 UJ	mg/kg
	SO-077150-101216-DJB-012							0.339 J	mg/kg
	SO-077150-101216-DJB-013							5.65 UJ	mg/kg
	SO-077150-101216-DJB-014							4.38 UJ	mg/kg
	SO-077150-101216-DJB-015							4.17 UJ	mg/kg
	SO-077150-101216-DJB-016							5.99 UJ	mg/kg
	SO-077150-101216-DJB-017							0.783 J	mg/kg
	SO-077150-101216-DJB-018							0.613 J	mg/kg
	SO-077150-101216-DJB-019							5.13 UJ	mg/kg
	SO-077150-101216-DJB-020							0.397 J	mg/kg
Metals	SO-077150-101116-DJB-001	Calcium	71	220	46	75-125	35	1050 J	mg/kg
	SO-077150-101116-DJB-002							255 J	mg/kg
	SO-077150-101116-DJB-003							2100 J	mg/kg
	SO-077150-101116-DJB-004							1650 J	mg/kg
	SO-077150-101116-DJB-005							1570 J	mg/kg
	SO-077150-101116-DJB-006							115 J	mg/kg
	SO-077150-101116-DJB-007							2460 J	mg/kg
	SO-077150-101116-DJB-008							1120 J	mg/kg
	SO-077150-101216-DJB-009							769 J	mg/kg
	SO-077150-101216-DJB-010							1370 J	mg/kg
	SO-077150-101216-DJB-011							666 J	mg/kg

Table 5

**Qualified Sample Results Due to Outlying MS/MSD Results
Phase II Sampling Program
Blue Water Thermal Solutions LLC
Fountain Inn, South Carolina
October - November 2016**

Parameter	Sample ID	Analyte	MS % Recovery	MSD % Recovery	RPD (percent)	Control Limits		Qualified Result	Units
						% Recovery	RPD		
Metals (Continued)	SO-077150-101216-DJB-012	Calcium	71	220	46	75-125	35	1910 J	mg/kg
	SO-077150-101216-DJB-013							1600 J	mg/kg
	SO-077150-101216-DJB-014							308 J	mg/kg
	SO-077150-101216-DJB-015							101 J	mg/kg
	SO-077150-101216-DJB-016							1150 J	mg/kg
	SO-077150-101216-DJB-017							1980 J	mg/kg
	SO-077150-101216-DJB-018							2240 J	mg/kg
	SO-077150-101216-DJB-019							665 J	mg/kg
	SO-077150-101216-DJB-020							1430 J	mg/kg
	Metals							SO-077150-101116-DJB-001	Vanadium
SO-077150-101116-DJB-002		0.456 J	mg/kg						
SO-077150-101116-DJB-003		21.9 J	mg/kg						
SO-077150-101116-DJB-004		17.7 J	mg/kg						
SO-077150-101116-DJB-005		16.3 J	mg/kg						
SO-077150-101116-DJB-006		0.0607 J	mg/kg						
SO-077150-101116-DJB-007		31.8 J	mg/kg						
SO-077150-101116-DJB-008		13.7 J	mg/kg						
SO-077150-101216-DJB-009		8.60 J	mg/kg						
SO-077150-101216-DJB-010		15.2 J	mg/kg						
SO-077150-101216-DJB-011		7.39 J	mg/kg						
SO-077150-101216-DJB-012		11.5 J	mg/kg						
SO-077150-101216-DJB-013		1.09 J	mg/kg						
SO-077150-101216-DJB-014		1.63 J	mg/kg						
SO-077150-101216-DJB-015		1.74 J	mg/kg						
SO-077150-101216-DJB-016		2.11 J	mg/kg						
SO-077150-101216-DJB-017		22.3 J	mg/kg						
SO-077150-101216-DJB-018		24.4 J	mg/kg						
SO-077150-101216-DJB-019		9.66 J	mg/kg						
SO-077150-101216-DJB-020		15.7 J	mg/kg						

Table 5

**Qualified Sample Results Due to Outlying MS/MSD Results
Phase II Sampling Program
Blue Water Thermal Solutions LLC
Fountain Inn, South Carolina
October - November 2016**

Parameter	Sample ID	Analyte	MS % Recovery	MSD % Recovery	RPD (percent)	Control Limits		Qualified Result	Units
						% Recovery	RPD		
Metals	SO-077150-101216-DJB-021	Calcium	170	117	30	75-125	35	186 J	mg/kg
Metals	SO-077150-101216-DJB-021	Lead	139	97	36	75-125	35	2.14 J	mg/kg
Metals	SO-077150-101216-DJB-021	Manganese	210	106	64	75-125	35	3.40 J	mg/kg
Metals	GW-077150-110716-TBM-101	Sodium	132	141	4	75-125	35	8660 J	mg/L
	GW-077150-110716-TBM-102							19700 J	mg/L
	GW-077150-110716-TBM-103							2250 J	mg/L
	GW-077150-110816-TBM-104							9790 J	mg/L
	GW-077150-110816-TBM-105							52400 J	mg/L
	GW-077150-110816-TBM-106							51600 J	mg/L
	GW-077150-110816-TBM-107							9160 J	mg/L
	GW-077150-110816-TBM-108							1220 J	mg/L
SVOCs	GW-077150-110816-TBM-104	3,3'-Dichlorobenzidine	0	0	0	20-120	35	R	µg/L

Notes:

- MS - Matrix Spike
- MSD - Matrix Spike Duplicate
- RPD - Relative Percent Difference
- J - Estimated concentration
- UJ - Not detected; associated reporting limit is estimated
- R - Rejected



ANALYTICAL ENVIRONMENTAL SERVICES, INC.

October 27, 2016

Terefe Mazengia
GHD Services, Inc.
3075 Breckenridge Blvd., Suite 470
Duluth GA 30096

TEL: (770) 441-0027
FAX: (770) 441-2050

RE: Bluewater Thermal Solutions

Dear Terefe Mazengia:

Order No: 1610C64

Analytical Environmental Services, Inc. received 22 samples on 10/15/2016 11:15:00 AM for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative. AES' certifications are as follows:

-South Carolina Certification number 98016003 for Clean Water Act and for Solid and Hazardous Waste, effective until 6/30/17.

These results relate only to the items tested. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

Sincerely,

Chris Pafford
Project Manager



COMPANY: GHD			ADDRESS: 3075 Breckinridge Blvd. Suite 470 Duluth, GA			ANALYSIS REQUESTED										Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.		No # of Containers					
PHONE: 770-441-0027			FAX: 770-441-2050			TCL VOCs	TCL SVOCs	TAL Metals															
SAMPLED BY: David Brytownski			SIGNATURE: <i>[Signature]</i>			PRESERVATION (See codes)										REMARKS							
#	SAMPLE ID	DATE	TIME	Grab	Composite	Matrix (See codes)																	
1	50-077150-10116-DJB-001	10/11/16	11:00	G		SO	X	X	X														
2	50-077150-10116-DJB-002		11:15	G			X	X	X														
3	50-077150-10116-DJB-003		13:30	G			X	X	X														
4	50-077150-10116-DJB-004		13:45	G			X	X	X														
5	50-077150-10116-DJB-005	10/11/16	15:30	G		SO	X	X	X														
6	50-077150-10116-DJB-006		15:50	G			X	X	X														
7	50-077150-10116-DJB-007		16:30	G			X	X	X														
8	50-077150-10116-DJB-008	10/11/16	17:00	G		SO	X	X	X														
9	50-077150-101216-DJB-009	10/12/16	9:15	G		SO	X	X	X														
10	50-077150-101216-DJB-010		9:40	G			X	X	X														
11	50-077150-101216-DJB-011		10:00	G			X	X	X														
12	50-077150-101216-DJB-012		10:15	G			X	X	X														
13	50-077150-101216-DJB-013		11:30	G			X	X	X														
14	50-077150-101216-DJB-014	10/12/16	12:00	G		SO	X	X	X														
RELINQUISHED BY: 1: <i>[Signature]</i> 10/15/16 11:15			DATE/TIME:			RECEIVED BY: 1: Pars Masouadi 10/15/16			DATE/TIME:			PROJECT INFORMATION										RECEIPT	
2:						2:			11:15			PROJECT NAME: Bluewater Thermal Solutions										Total # of Containers: 69	
3:						3:						PROJECT #: 077150-001										Turnaround Time Request <input checked="" type="checkbox"/> Standard 5 Business Days <input type="checkbox"/> 2 Business Day Rush <input type="checkbox"/> Next Business Day Rush <input type="checkbox"/> Same Day Rush (auth req.) <input type="checkbox"/> Other	
												SITE ADDRESS: 100 Huntsbridge Road Fountain Inn, SC											
												SEND REPORT TO: see S50W										STATE PROGRAM (if any): E-mail? Fax? DATA PACKAGE: I <input type="checkbox"/> II <input type="checkbox"/> III <input type="checkbox"/> IV <input type="checkbox"/>	
SPECIAL INSTRUCTIONS/COMMENTS: 0.2°			SHIPMENT METHOD: OUT 1 1 VIA: IN CLIENT VIA: CLIENT FedEx UPS MAIL COURIER GREYHOUND OTHER									INVOICE TO: (IF DIFFERENT FROM ABOVE)											
												QUOTE #:										PO#:	

SAMPLES RECEIVED AFTER 3PM OR SATURDAY ARE CONSIDERED AS RECEIVED ON THE NEXT BUSINESS DAY. IF NO TAT IS MARKED ON COC AES WILL PROCEED AS STANDARD TAT.
 SAMPLES ARE DISPOSED OF 30 DAYS AFTER COMPLETION OF REPORT UNLESS OTHER ARRANGEMENTS ARE MADE.



ANALYTICAL ENVIRONMENTAL SERVICES, INC

3080 Presidential Drive, Atlanta GA 30340-3704

AES TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 1610C64

Date: 10/15/16 Page 2 of 2

COMPANY:		ADDRESS:					ANALYSIS REQUESTED										Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.		No # of Containers																			
GHD		3075 Breckinridge Blvd. Suite 470 Duluth, GA					TCL VOCs	TCL SVOCs	TAL Metals											REMARKS																		
PHONE: 770-441-0027		FAX: 770-441-2850								PRESERVATION (See codes)																												
SAMPLED BY: David Brytownski		SIGNATURE: [Signature]					#	SAMPLE ID					SAMPLED		Grab	Composite	Matrix (See codes)											REMARKS										
		DATE	TIME																																			
1	SO-077150-101216-DJB-015	10/12/16	12:15	G				50	X	X	X																										SSOW #	4
2	SO-077150-101216-DJB-016	↓	12:35	G				50	X	X	X																										077150-001	4
3	SO-077150-101216-DJB-017	↓	14:00	G				50	X	X	X																											4
4	SO-077150-101216-DJB-018	10/12/16	14:00	G				50	X	X	X																											4
5	SO-077150-101216-DJB-019	↓	14:45	G				50	X	X	X																											4
6	SO-077150-101216-DJB-020	↓	16:10	G				50	X	X	X																											4
7	SO-077150-101216-DJB-021	10/12/16	16:40	G				50	X	X	X																											5
8	Trip Blank							W	X																													2
9																																						
10																																						
11																																						
12																																						
13																																						
14																																						

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME	PROJECT INFORMATION			RECEIPT				
1: [Signature]	10/15/16 11:15	1: Paris Masada	10/15/16	PROJECT NAME:	Bluewater Thermal Solutions			Total # of Containers	30		
2:		2:	11:15	PROJECT #:	077150-001			<input checked="" type="checkbox"/> Turnaround Time Request <input type="checkbox"/> Standard 5 Business Days <input type="checkbox"/> 2 Business Day Rush <input type="checkbox"/> Next Business Day Rush <input type="checkbox"/> Same Day Rush (auth req.) <input type="checkbox"/> Other _____			
3:		3:		SITE ADDRESS:	100 Hunts Bridge Road Fountain Inn, SC			STATE PROGRAM (if any): _____			
SPECIAL INSTRUCTIONS/COMMENTS:				SHIPMENT METHOD			INVOICE TO:		E-mail? Y/N; Fax? Y/N		
0.2°				OUT / / VIA: IN / / VIA: CLIENT FedEx UPS MAIL COURIER GREYHOUND OTHER _____			SEND REPORT TO: see SSOW			DATA PACKAGE: I II III IV	
							INVOICE TO: (IF DIFFERENT FROM ABOVE)			QUOTE #: _____ PO#: _____	

SAMPLES RECEIVED AFTER 3PM OR ON SATURDAY ARE CONSIDERED RECEIVED THE NEXT BUSINESS DAY. IF TURNAROUND TIME IS NOT INDICATED, AES WILL PROCEED WITH STANDARD TAT OF SAMPLES.
 SAMPLES ARE DISPOSED 30 DAYS AFTER REPORT COMPLETION UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify) WW = Waste Water
 PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client
Page 3 of 138

Client: GHD Services, Inc.
Project: Bluewater Thermal Solutions
Lab ID: 1610C64

Case Narrative

Volatile Organic Compounds Analysis by Method 8260B:

LCS-231390 recovery for 1,1,1,2-Tetrachloroethane, & 2,2-Dichloropropane was outside control limits biased high. Target analyte was not detected in the analytical samples and data is reportable with high bias.

Percent recovery for the internal standard compound 1,4-Dichlorobenzene-d4 on samples 1610C64-001A, -003A, & -012 A was outside control limits biased low due to suspected matrix interference. All other internal standard recoveries were within control limits.

Semi-Volatile Organics Analysis by Method 8270D:

LCS-231129 recovery for Bis(2-ethylhexyl)phthalate, dibenz(a,h)anthracene was outside control limits biased high. Target analyte was not detected in the analytical samples and data is reportable with high bias.

Analytical Environmental Services, Inc

Date: 27-Oct-16

Client: GHD Services, Inc.	Client Sample ID: SO-077150-101116-DJB-001
Project Name: Bluewater Thermal Solutions	Collection Date: 10/11/2016 11:00:00 AM
Lab ID: 1610C64-001	Matrix: Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B			(SW5035)						
Dichlorodifluoromethane	BRL		1.1	7.6	ug/Kg-dry	231323	1	10/21/2016 11:13	MD
Chloromethane	BRL		1.4	7.6	ug/Kg-dry	231323	1	10/21/2016 11:13	MD
Vinyl chloride	BRL		1.6	7.6	ug/Kg-dry	231323	1	10/21/2016 11:13	MD
Bromomethane	BRL		1.7	3.8	ug/Kg-dry	231323	1	10/21/2016 11:13	MD
Chloroethane	BRL		2.0	7.6	ug/Kg-dry	231323	1	10/21/2016 11:13	MD
Trichlorofluoromethane	BRL		1.8	3.8	ug/Kg-dry	231323	1	10/21/2016 11:13	MD
1,1-Dichloroethene	BRL		0.75	3.8	ug/Kg-dry	231323	1	10/21/2016 11:13	MD
Acetone	20		3.8	7.6	ug/Kg-dry	231323	1	10/21/2016 11:13	MD
Freon-113	BRL		0.99	7.6	ug/Kg-dry	231323	1	10/21/2016 11:13	MD
Carbon disulfide	BRL		2.1	7.6	ug/Kg-dry	231323	1	10/21/2016 11:13	MD
Methyl acetate	BRL		2.0	3.8	ug/Kg-dry	231323	1	10/21/2016 11:13	MD
Methylene chloride	BRL		3.8	7.6	ug/Kg-dry	231323	1	10/21/2016 11:13	MD
Methyl tert-butyl ether	BRL		0.86	3.8	ug/Kg-dry	231323	1	10/21/2016 11:13	MD
trans-1,2-Dichloroethene	BRL		1.3	3.8	ug/Kg-dry	231323	1	10/21/2016 11:13	MD
1,1-Dichloroethane	BRL		1.1	3.8	ug/Kg-dry	231323	1	10/21/2016 11:13	MD
cis-1,2-Dichloroethene	BRL		1.4	3.8	ug/Kg-dry	231323	1	10/21/2016 11:13	MD
2-Butanone	BRL		4.7	7.6	ug/Kg-dry	231323	1	10/21/2016 11:13	MD
Bromochloromethane	BRL		1.3	3.8	ug/Kg-dry	231323	1	10/21/2016 11:13	MD
Chloroform	BRL		0.92	3.8	ug/Kg-dry	231323	1	10/21/2016 11:13	MD
1,1,1-Trichloroethane	BRL		1.00	3.8	ug/Kg-dry	231323	1	10/21/2016 11:13	MD
Cyclohexane	BRL		0.84	3.8	ug/Kg-dry	231323	1	10/21/2016 11:13	MD
Carbon tetrachloride	BRL		1.0	3.8	ug/Kg-dry	231323	1	10/21/2016 11:13	MD
Benzene	BRL		0.45	3.8	ug/Kg-dry	231323	1	10/21/2016 11:13	MD
1,2-Dichloroethane	BRL		1.2	3.8	ug/Kg-dry	231323	1	10/21/2016 11:13	MD
Trichloroethene	BRL		1.0	3.8	ug/Kg-dry	231323	1	10/21/2016 11:13	MD
Methylcyclohexane	BRL		1.2	3.8	ug/Kg-dry	231323	1	10/21/2016 11:13	MD
1,2-Dichloropropane	BRL		1.1	3.8	ug/Kg-dry	231323	1	10/21/2016 11:13	MD
cis-1,3-Dichloropropene	BRL		1.4	3.8	ug/Kg-dry	231323	1	10/21/2016 11:13	MD
4-Methyl-2-pentanone	BRL		2.0	7.6	ug/Kg-dry	231323	1	10/21/2016 11:13	MD
Toluene	BRL		0.40	3.8	ug/Kg-dry	231323	1	10/21/2016 11:13	MD
trans-1,3-Dichloropropene	BRL		0.94	3.8	ug/Kg-dry	231323	1	10/21/2016 11:13	MD
1,1,2-Trichloroethane	BRL		1.2	3.8	ug/Kg-dry	231323	1	10/21/2016 11:13	MD
2-Hexanone	BRL		2.9	7.6	ug/Kg-dry	231323	1	10/21/2016 11:13	MD
Tetrachloroethene	BRL		1.1	3.8	ug/Kg-dry	231323	1	10/21/2016 11:13	MD
1,3-Dichloropropane	BRL		1.3	3.8	ug/Kg-dry	231323	1	10/21/2016 11:13	MD
Dibromochloromethane	BRL		1.0	3.8	ug/Kg-dry	231323	1	10/21/2016 11:13	MD
1,2-Dibromoethane	BRL		1.2	3.8	ug/Kg-dry	231323	1	10/21/2016 11:13	MD
Chlorobenzene	BRL		1.1	3.8	ug/Kg-dry	231323	1	10/21/2016 11:13	MD
1,1,1,2-Tetrachloroethane	BRL		1.1	3.8	ug/Kg-dry	231323	1	10/21/2016 11:13	MD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Client: GHD Services, Inc.	Client Sample ID: SO-077150-101116-DJB-001
Project Name: Bluewater Thermal Solutions	Collection Date: 10/11/2016 11:00:00 AM
Lab ID: 1610C64-001	Matrix: Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5035)					
Ethylbenzene	BRL		0.38	3.8	ug/Kg-dry	231323	1	10/21/2016 11:13	MD
Styrene	BRL		1.00	3.8	ug/Kg-dry	231323	1	10/21/2016 11:13	MD
Bromoform	BRL		1.0	3.8	ug/Kg-dry	231323	1	10/21/2016 11:13	MD
Isopropylbenzene	BRL		1.1	3.8	ug/Kg-dry	231323	1	10/21/2016 11:13	MD
1,4-Dichlorobenzene	BRL		1.4	3.8	ug/Kg-dry	231323	1	10/21/2016 11:13	MD
1,2-Dichlorobenzene	BRL		1.2	3.8	ug/Kg-dry	231323	1	10/21/2016 11:13	MD
1,2-Dibromo-3-chloropropane	BRL		1.6	3.8	ug/Kg-dry	231323	1	10/21/2016 11:13	MD
1,2,4-Trichlorobenzene	BRL		1.5	3.8	ug/Kg-dry	231323	1	10/21/2016 11:13	MD
Xylenes, Total	BRL		1.1	3.8	ug/Kg-dry	231323	1	10/21/2016 11:13	MD
Surr: 4-Bromofluorobenzene	73.4		0	70-128	%REC	231323	1	10/21/2016 11:13	MD
Surr: Dibromofluoromethane	101		0	78.2-128	%REC	231323	1	10/21/2016 11:13	MD
Surr: Toluene-d8	87.5		0	76.5-116	%REC	231323	1	10/21/2016 11:13	MD
TOTAL MERCURY SW7471B				(SW7471B)					
Mercury	0.0104	J	0.00499	0.113	mg/Kg-dry	231461	1	10/21/2016 11:59	JR
TCL-SEMIVOLATILE ORGANICS SW8270D				(SW3550C)					
1,1'-Biphenyl	BRL		42	400	ug/Kg-dry	231129	1	10/18/2016 17:04	YH
2,4,5-Trichlorophenol	BRL		130	1000	ug/Kg-dry	231129	1	10/18/2016 17:04	YH
2,4,6-Trichlorophenol	BRL		28	400	ug/Kg-dry	231129	1	10/18/2016 17:04	YH
2,4-Dichlorophenol	BRL		140	400	ug/Kg-dry	231129	1	10/18/2016 17:04	YH
2,4-Dimethylphenol	BRL		44	400	ug/Kg-dry	231129	1	10/18/2016 17:04	YH
2,4-Dinitrophenol	BRL		170	1000	ug/Kg-dry	231129	1	10/18/2016 17:04	YH
2,4-Dinitrotoluene	BRL		41	400	ug/Kg-dry	231129	1	10/18/2016 17:04	YH
2,6-Dinitrotoluene	BRL		79	400	ug/Kg-dry	231129	1	10/18/2016 17:04	YH
2-Chloronaphthalene	BRL		56	400	ug/Kg-dry	231129	1	10/18/2016 17:04	YH
2-Chlorophenol	BRL		47	400	ug/Kg-dry	231129	1	10/18/2016 17:04	YH
2-Methylnaphthalene	BRL		42	400	ug/Kg-dry	231129	1	10/18/2016 17:04	YH
2-Methylphenol	BRL		66	400	ug/Kg-dry	231129	1	10/18/2016 17:04	YH
2-Nitroaniline	BRL		54	1000	ug/Kg-dry	231129	1	10/18/2016 17:04	YH
2-Nitrophenol	BRL		91	400	ug/Kg-dry	231129	1	10/18/2016 17:04	YH
3,3'-Dichlorobenzidine	BRL		55	400	ug/Kg-dry	231129	1	10/18/2016 17:04	YH
3-Nitroaniline	BRL		85	1000	ug/Kg-dry	231129	1	10/18/2016 17:04	YH
4,6-Dinitro-2-methylphenol	BRL		71	1000	ug/Kg-dry	231129	1	10/18/2016 17:04	YH
4-Bromophenyl phenyl ether	BRL		110	400	ug/Kg-dry	231129	1	10/18/2016 17:04	YH
4-Chloro-3-methylphenol	BRL		85	400	ug/Kg-dry	231129	1	10/18/2016 17:04	YH
4-Chloroaniline	BRL		130	400	ug/Kg-dry	231129	1	10/18/2016 17:04	YH
4-Chlorophenyl phenyl ether	BRL		49	400	ug/Kg-dry	231129	1	10/18/2016 17:04	YH
4-Methylphenol	BRL		190	400	ug/Kg-dry	231129	1	10/18/2016 17:04	YH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 27-Oct-16

Client:	GHD Services, Inc.	Client Sample ID:	SO-077150-101116-DJB-001
Project Name:	Bluewater Thermal Solutions	Collection Date:	10/11/2016 11:00:00 AM
Lab ID:	1610C64-001	Matrix:	Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D			(SW3550C)						
4-Nitroaniline	BRL		130	1000	ug/Kg-dry	231129	1	10/18/2016 17:04	YH
4-Nitrophenol	BRL		220	1000	ug/Kg-dry	231129	1	10/18/2016 17:04	YH
Acenaphthene	BRL		52	400	ug/Kg-dry	231129	1	10/18/2016 17:04	YH
Acenaphthylene	BRL		39	400	ug/Kg-dry	231129	1	10/18/2016 17:04	YH
Acetophenone	BRL		71	400	ug/Kg-dry	231129	1	10/18/2016 17:04	YH
Anthracene	BRL		33	400	ug/Kg-dry	231129	1	10/18/2016 17:04	YH
Atrazine	BRL		100	400	ug/Kg-dry	231129	1	10/18/2016 17:04	YH
Benz(a)anthracene	BRL		24	400	ug/Kg-dry	231129	1	10/18/2016 17:04	YH
Benzaldehyde	BRL		140	400	ug/Kg-dry	231129	1	10/18/2016 17:04	YH
Benzo(a)pyrene	BRL		30	400	ug/Kg-dry	231129	1	10/18/2016 17:04	YH
Benzo(b)fluoranthene	BRL		33	400	ug/Kg-dry	231129	1	10/18/2016 17:04	YH
Benzo(g,h,i)perylene	BRL		28	400	ug/Kg-dry	231129	1	10/18/2016 17:04	YH
Benzo(k)fluoranthene	BRL		45	400	ug/Kg-dry	231129	1	10/18/2016 17:04	YH
Bis(2-chloroethoxy)methane	BRL		45	400	ug/Kg-dry	231129	1	10/18/2016 17:04	YH
Bis(2-chloroethyl)ether	BRL		39	400	ug/Kg-dry	231129	1	10/18/2016 17:04	YH
Bis(2-chloroisopropyl)ether	BRL		44	400	ug/Kg-dry	231129	1	10/18/2016 17:04	YH
Bis(2-ethylhexyl)phthalate	BRL		34	400	ug/Kg-dry	231129	1	10/18/2016 17:04	YH
Butyl benzyl phthalate	BRL		46	400	ug/Kg-dry	231129	1	10/18/2016 17:04	YH
Caprolactam	BRL		140	400	ug/Kg-dry	231129	1	10/18/2016 17:04	YH
Carbazole	BRL		41	400	ug/Kg-dry	231129	1	10/18/2016 17:04	YH
Chrysene	BRL		38	400	ug/Kg-dry	231129	1	10/18/2016 17:04	YH
Di-n-butyl phthalate	BRL		36	400	ug/Kg-dry	231129	1	10/18/2016 17:04	YH
Di-n-octyl phthalate	BRL		24	400	ug/Kg-dry	231129	1	10/18/2016 17:04	YH
Dibenz(a,h)anthracene	BRL		46	400	ug/Kg-dry	231129	1	10/18/2016 17:04	YH
Dibenzofuran	BRL		55	400	ug/Kg-dry	231129	1	10/18/2016 17:04	YH
Diethyl phthalate	BRL		41	400	ug/Kg-dry	231129	1	10/18/2016 17:04	YH
Dimethyl phthalate	BRL		47	400	ug/Kg-dry	231129	1	10/18/2016 17:04	YH
Fluoranthene	BRL		22	400	ug/Kg-dry	231129	1	10/18/2016 17:04	YH
Fluorene	BRL		38	400	ug/Kg-dry	231129	1	10/18/2016 17:04	YH
Hexachlorobenzene	BRL		63	400	ug/Kg-dry	231129	1	10/18/2016 17:04	YH
Hexachlorobutadiene	BRL		71	400	ug/Kg-dry	231129	1	10/18/2016 17:04	YH
Hexachlorocyclopentadiene	BRL		56	400	ug/Kg-dry	231129	1	10/18/2016 17:04	YH
Hexachloroethane	BRL		43	400	ug/Kg-dry	231129	1	10/18/2016 17:04	YH
Indeno(1,2,3-cd)pyrene	BRL		33	400	ug/Kg-dry	231129	1	10/18/2016 17:04	YH
Isophorone	BRL		42	400	ug/Kg-dry	231129	1	10/18/2016 17:04	YH
N-Nitrosodi-n-propylamine	BRL		53	400	ug/Kg-dry	231129	1	10/18/2016 17:04	YH
N-Nitrosodiphenylamine	BRL		38	400	ug/Kg-dry	231129	1	10/18/2016 17:04	YH
Naphthalene	BRL		46	400	ug/Kg-dry	231129	1	10/18/2016 17:04	YH
Nitrobenzene	BRL		49	400	ug/Kg-dry	231129	1	10/18/2016 17:04	YH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 27-Oct-16

Client: GHD Services, Inc.	Client Sample ID: SO-077150-101116-DJB-001
Project Name: Bluewater Thermal Solutions	Collection Date: 10/11/2016 11:00:00 AM
Lab ID: 1610C64-001	Matrix: Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D (SW3550C)									
Pentachlorophenol	BRL		65	1000	ug/Kg-dry	231129	1	10/18/2016 17:04	YH
Phenanthrene	BRL		37	400	ug/Kg-dry	231129	1	10/18/2016 17:04	YH
Phenol	BRL		60	400	ug/Kg-dry	231129	1	10/18/2016 17:04	YH
Pyrene	BRL		12	400	ug/Kg-dry	231129	1	10/18/2016 17:04	YH
Surr: 2,4,6-Tribromophenol	82.6		0	42.4-130	%REC	231129	1	10/18/2016 17:04	YH
Surr: 2-Fluorobiphenyl	84.2		0	51.5-120	%REC	231129	1	10/18/2016 17:04	YH
Surr: 2-Fluorophenol	83.4		0	41.1-120	%REC	231129	1	10/18/2016 17:04	YH
Surr: 4-Terphenyl-d14	99.6		0	52.7-117	%REC	231129	1	10/18/2016 17:04	YH
Surr: Nitrobenzene-d5	92.7		0	41.4-120	%REC	231129	1	10/18/2016 17:04	YH
Surr: Phenol-d5	91.5		0	47.6-120	%REC	231129	1	10/18/2016 17:04	YH
METALS, TOTAL SW6010C (SW3050B)									
Aluminum	16200		4.19	23.5	mg/Kg-dry	231487	1	10/22/2016 18:59	IO
Antimony	0.349	J	0.323	5.88	mg/Kg-dry	231487	1	10/22/2016 18:59	IO
Arsenic	0.655	J	0.174	1.18	mg/Kg-dry	231487	1	10/22/2016 18:59	IO
Barium	8.57		0.0890	5.88	mg/Kg-dry	231487	1	10/22/2016 18:59	IO
Beryllium	0.273	J	0.0152	0.588	mg/Kg-dry	231487	1	10/22/2016 18:59	IO
Cadmium	BRL		0.0207	0.588	mg/Kg-dry	231487	1	10/22/2016 18:59	IO
Calcium	1050		0.816	58.8	mg/Kg-dry	231487	1	10/22/2016 18:59	IO
Chromium	5.59		0.0262	1.18	mg/Kg-dry	231487	1	10/22/2016 18:59	IO
Cobalt	0.749	J	0.0307	2.94	mg/Kg-dry	231487	1	10/22/2016 18:59	IO
Copper	1.86	J	0.100	2.94	mg/Kg-dry	231487	1	10/22/2016 18:59	IO
Iron	6280		6.71	58.8	mg/Kg-dry	231487	5	10/22/2016 23:13	IO
Lead	11.3		0.0916	0.588	mg/Kg-dry	231487	1	10/22/2016 18:59	IO
Magnesium	252		0.135	58.8	mg/Kg-dry	231487	1	10/22/2016 18:59	IO
Manganese	16.0		0.0162	1.76	mg/Kg-dry	231487	1	10/22/2016 18:59	IO
Nickel	0.769	J	0.0976	4.70	mg/Kg-dry	231487	1	10/22/2016 18:59	IO
Potassium	545		0.358	118	mg/Kg-dry	231487	1	10/22/2016 18:59	IO
Selenium	BRL		0.383	0.588	mg/Kg-dry	231487	1	10/24/2016 20:55	JL
Silver	0.0257	J	0.0255	1.18	mg/Kg-dry	231487	1	10/22/2016 18:59	IO
Sodium	73.5	J	0.271	118	mg/Kg-dry	231487	1	10/22/2016 18:59	IO
Thallium	BRL		0.218	1.18	mg/Kg-dry	231487	1	10/24/2016 20:55	JL
Vanadium	8.49		0.0340	5.88	mg/Kg-dry	231487	1	10/22/2016 18:59	IO
Zinc	6.18		0.185	2.35	mg/Kg-dry	231487	1	10/22/2016 18:59	IO
PERCENT MOISTURE D2216									
Percent Moisture	17.5		0	0	wt%	R327981	1	10/21/2016 09:00	BD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 27-Oct-16

Client: GHD Services, Inc.	Client Sample ID: SO-077150-101116-DJB-002
Project Name: Bluewater Thermal Solutions	Collection Date: 10/11/2016 11:15:00 AM
Lab ID: 1610C64-002	Matrix: Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5035)					
Dichlorodifluoromethane	BRL		1.2	7.9	ug/Kg-dry	231323	1	10/20/2016 23:16	MD
Chloromethane	BRL		1.5	7.9	ug/Kg-dry	231323	1	10/20/2016 23:16	MD
Vinyl chloride	BRL		1.7	7.9	ug/Kg-dry	231323	1	10/20/2016 23:16	MD
Bromomethane	BRL		1.8	3.9	ug/Kg-dry	231323	1	10/20/2016 23:16	MD
Chloroethane	BRL		2.1	7.9	ug/Kg-dry	231323	1	10/20/2016 23:16	MD
Trichlorofluoromethane	BRL		1.8	3.9	ug/Kg-dry	231323	1	10/20/2016 23:16	MD
1,1-Dichloroethene	BRL		0.78	3.9	ug/Kg-dry	231323	1	10/20/2016 23:16	MD
Acetone	BRL		4.0	7.9	ug/Kg-dry	231323	1	10/20/2016 23:16	MD
Freon-113	BRL		1.0	7.9	ug/Kg-dry	231323	1	10/20/2016 23:16	MD
Carbon disulfide	BRL		2.2	7.9	ug/Kg-dry	231323	1	10/20/2016 23:16	MD
Methyl acetate	BRL		2.0	3.9	ug/Kg-dry	231323	1	10/20/2016 23:16	MD
Methylene chloride	BRL		4.0	7.9	ug/Kg-dry	231323	1	10/20/2016 23:16	MD
Methyl tert-butyl ether	BRL		0.90	3.9	ug/Kg-dry	231323	1	10/20/2016 23:16	MD
trans-1,2-Dichloroethene	BRL		1.4	3.9	ug/Kg-dry	231323	1	10/20/2016 23:16	MD
1,1-Dichloroethane	BRL		1.1	3.9	ug/Kg-dry	231323	1	10/20/2016 23:16	MD
cis-1,2-Dichloroethene	BRL		1.4	3.9	ug/Kg-dry	231323	1	10/20/2016 23:16	MD
2-Butanone	BRL		4.9	7.9	ug/Kg-dry	231323	1	10/20/2016 23:16	MD
Bromochloromethane	BRL		1.4	3.9	ug/Kg-dry	231323	1	10/20/2016 23:16	MD
Chloroform	BRL		0.95	3.9	ug/Kg-dry	231323	1	10/20/2016 23:16	MD
1,1,1-Trichloroethane	BRL		1.0	3.9	ug/Kg-dry	231323	1	10/20/2016 23:16	MD
Cyclohexane	BRL		0.88	3.9	ug/Kg-dry	231323	1	10/20/2016 23:16	MD
Carbon tetrachloride	BRL		1.1	3.9	ug/Kg-dry	231323	1	10/20/2016 23:16	MD
Benzene	BRL		0.47	3.9	ug/Kg-dry	231323	1	10/20/2016 23:16	MD
1,2-Dichloroethane	BRL		1.2	3.9	ug/Kg-dry	231323	1	10/20/2016 23:16	MD
Trichloroethene	BRL		1.1	3.9	ug/Kg-dry	231323	1	10/20/2016 23:16	MD
Methylcyclohexane	BRL		1.3	3.9	ug/Kg-dry	231323	1	10/20/2016 23:16	MD
1,2-Dichloropropane	BRL		1.2	3.9	ug/Kg-dry	231323	1	10/20/2016 23:16	MD
cis-1,3-Dichloropropene	BRL		1.4	3.9	ug/Kg-dry	231323	1	10/20/2016 23:16	MD
4-Methyl-2-pentanone	BRL		2.0	7.9	ug/Kg-dry	231323	1	10/20/2016 23:16	MD
Toluene	BRL		0.42	3.9	ug/Kg-dry	231323	1	10/20/2016 23:16	MD
trans-1,3-Dichloropropene	BRL		0.98	3.9	ug/Kg-dry	231323	1	10/20/2016 23:16	MD
1,1,2-Trichloroethane	BRL		1.2	3.9	ug/Kg-dry	231323	1	10/20/2016 23:16	MD
2-Hexanone	BRL		3.1	7.9	ug/Kg-dry	231323	1	10/20/2016 23:16	MD
Tetrachloroethene	30		1.2	3.9	ug/Kg-dry	231323	1	10/20/2016 23:16	MD
1,3-Dichloropropane	BRL		1.3	3.9	ug/Kg-dry	231323	1	10/20/2016 23:16	MD
Dibromochloromethane	BRL		1.1	3.9	ug/Kg-dry	231323	1	10/20/2016 23:16	MD
1,2-Dibromoethane	BRL		1.2	3.9	ug/Kg-dry	231323	1	10/20/2016 23:16	MD
Chlorobenzene	BRL		1.2	3.9	ug/Kg-dry	231323	1	10/20/2016 23:16	MD
1,1,1,2-Tetrachloroethane	BRL		1.2	3.9	ug/Kg-dry	231323	1	10/20/2016 23:16	MD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Client: GHD Services, Inc.	Client Sample ID: SO-077150-101116-DJB-002
Project Name: Bluewater Thermal Solutions	Collection Date: 10/11/2016 11:15:00 AM
Lab ID: 1610C64-002	Matrix: Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5035)					
Ethylbenzene	BRL		0.40	3.9	ug/Kg-dry	231323	1	10/20/2016 23:16	MD
Styrene	BRL		1.0	3.9	ug/Kg-dry	231323	1	10/20/2016 23:16	MD
Bromoform	BRL		1.1	3.9	ug/Kg-dry	231323	1	10/20/2016 23:16	MD
Isopropylbenzene	BRL		1.1	3.9	ug/Kg-dry	231323	1	10/20/2016 23:16	MD
1,4-Dichlorobenzene	BRL		1.4	3.9	ug/Kg-dry	231323	1	10/20/2016 23:16	MD
1,2-Dichlorobenzene	BRL		1.3	3.9	ug/Kg-dry	231323	1	10/20/2016 23:16	MD
1,2-Dibromo-3-chloropropane	BRL		1.7	3.9	ug/Kg-dry	231323	1	10/20/2016 23:16	MD
1,2,4-Trichlorobenzene	BRL		1.6	3.9	ug/Kg-dry	231323	1	10/20/2016 23:16	MD
Xylenes, Total	BRL		1.1	3.9	ug/Kg-dry	231323	1	10/20/2016 23:16	MD
Surr: 4-Bromofluorobenzene	86.8		0	70-128	%REC	231323	1	10/20/2016 23:16	MD
Surr: Dibromofluoromethane	95.6		0	78.2-128	%REC	231323	1	10/20/2016 23:16	MD
Surr: Toluene-d8	97.4		0	76.5-116	%REC	231323	1	10/20/2016 23:16	MD
TOTAL MERCURY SW7471B				(SW7471B)					
Mercury	BRL		0.00476	0.108	mg/Kg-dry	231461	1	10/21/2016 12:01	JR
TCL-SEMIVOLATILE ORGANICS SW8270D				(SW3550C)					
1,1'-Biphenyl	BRL		44	420	ug/Kg-dry	231129	1	10/18/2016 17:34	YH
2,4,5-Trichlorophenol	BRL		130	1100	ug/Kg-dry	231129	1	10/18/2016 17:34	YH
2,4,6-Trichlorophenol	BRL		29	420	ug/Kg-dry	231129	1	10/18/2016 17:34	YH
2,4-Dichlorophenol	BRL		140	420	ug/Kg-dry	231129	1	10/18/2016 17:34	YH
2,4-Dimethylphenol	BRL		46	420	ug/Kg-dry	231129	1	10/18/2016 17:34	YH
2,4-Dinitrophenol	BRL		180	1100	ug/Kg-dry	231129	1	10/18/2016 17:34	YH
2,4-Dinitrotoluene	BRL		43	420	ug/Kg-dry	231129	1	10/18/2016 17:34	YH
2,6-Dinitrotoluene	BRL		83	420	ug/Kg-dry	231129	1	10/18/2016 17:34	YH
2-Chloronaphthalene	BRL		59	420	ug/Kg-dry	231129	1	10/18/2016 17:34	YH
2-Chlorophenol	BRL		50	420	ug/Kg-dry	231129	1	10/18/2016 17:34	YH
2-Methylnaphthalene	BRL		44	420	ug/Kg-dry	231129	1	10/18/2016 17:34	YH
2-Methylphenol	BRL		69	420	ug/Kg-dry	231129	1	10/18/2016 17:34	YH
2-Nitroaniline	BRL		57	1100	ug/Kg-dry	231129	1	10/18/2016 17:34	YH
2-Nitrophenol	BRL		96	420	ug/Kg-dry	231129	1	10/18/2016 17:34	YH
3,3'-Dichlorobenzidine	BRL		58	420	ug/Kg-dry	231129	1	10/18/2016 17:34	YH
3-Nitroaniline	BRL		89	1100	ug/Kg-dry	231129	1	10/18/2016 17:34	YH
4,6-Dinitro-2-methylphenol	BRL		74	1100	ug/Kg-dry	231129	1	10/18/2016 17:34	YH
4-Bromophenyl phenyl ether	BRL		120	420	ug/Kg-dry	231129	1	10/18/2016 17:34	YH
4-Chloro-3-methylphenol	BRL		89	420	ug/Kg-dry	231129	1	10/18/2016 17:34	YH
4-Chloroaniline	BRL		140	420	ug/Kg-dry	231129	1	10/18/2016 17:34	YH
4-Chlorophenyl phenyl ether	BRL		51	420	ug/Kg-dry	231129	1	10/18/2016 17:34	YH
4-Methylphenol	BRL		200	420	ug/Kg-dry	231129	1	10/18/2016 17:34	YH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 27-Oct-16

Table with client information: Client: GHD Services, Inc., Project Name: Bluewater Thermal Solutions, Lab ID: 1610C64-002, Client Sample ID: SO-077150-101116-DJB-002, Collection Date: 10/11/2016 11:15:00 AM, Matrix: Soil.

Main data table with columns: Analyses, Result, Qual, MDL, Reporting Limit, Units, BatchID, DF, Date Analyzed, Analyst. Lists various organic compounds and their detection results.

Qualifiers: * Value exceeds maximum contaminant level; BRL Not detected at MDL; H Holding times for preparation or analysis exceeded; N Analyte not NELAC certified; B Analyte detected in the associated method blank; NC Not confirmed; E Estimated value above quantitation range; S Spike Recovery outside limits due to matrix; J Estimated value detected below Reporting Limit; > Greater than Result value; < Less than Result value; Narr See case narrative.

Analytical Environmental Services, Inc

Date: 27-Oct-16

Client: GHD Services, Inc.	Client Sample ID: SO-077150-101116-DJB-002
Project Name: Bluewater Thermal Solutions	Collection Date: 10/11/2016 11:15:00 AM
Lab ID: 1610C64-002	Matrix: Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D (SW3550C)									
Pentachlorophenol	BRL		68	1100	ug/Kg-dry	231129	1	10/18/2016 17:34	YH
Phenanthrene	BRL		39	420	ug/Kg-dry	231129	1	10/18/2016 17:34	YH
Phenol	BRL		63	420	ug/Kg-dry	231129	1	10/18/2016 17:34	YH
Pyrene	BRL		12	420	ug/Kg-dry	231129	1	10/18/2016 17:34	YH
Surr: 2,4,6-Tribromophenol	85.4		0	42.4-130	%REC	231129	1	10/18/2016 17:34	YH
Surr: 2-Fluorobiphenyl	82.7		0	51.5-120	%REC	231129	1	10/18/2016 17:34	YH
Surr: 2-Fluorophenol	85.1		0	41.1-120	%REC	231129	1	10/18/2016 17:34	YH
Surr: 4-Terphenyl-d14	104		0	52.7-117	%REC	231129	1	10/18/2016 17:34	YH
Surr: Nitrobenzene-d5	88.3		0	41.4-120	%REC	231129	1	10/18/2016 17:34	YH
Surr: Phenol-d5	91.2		0	47.6-120	%REC	231129	1	10/18/2016 17:34	YH
METALS, TOTAL SW6010C (SW3050B)									
Aluminum	9400		4.51	25.4	mg/Kg-dry	231487	1	10/22/2016 19:47	IO
Antimony	BRL		0.348	6.34	mg/Kg-dry	231487	1	10/22/2016 19:47	IO
Arsenic	BRL		0.188	1.27	mg/Kg-dry	231487	1	10/22/2016 19:47	IO
Barium	12.7		0.0960	6.34	mg/Kg-dry	231487	1	10/22/2016 19:47	IO
Beryllium	0.464	J	0.0164	0.634	mg/Kg-dry	231487	1	10/22/2016 19:47	IO
Cadmium	BRL		0.0223	0.634	mg/Kg-dry	231487	1	10/22/2016 19:47	IO
Calcium	255		0.880	63.4	mg/Kg-dry	231487	1	10/22/2016 19:47	IO
Chromium	1.72		0.0283	1.27	mg/Kg-dry	231487	1	10/22/2016 19:47	IO
Cobalt	1.99	J	0.0331	3.17	mg/Kg-dry	231487	1	10/22/2016 19:47	IO
Copper	0.574	J	0.108	3.17	mg/Kg-dry	231487	1	10/22/2016 19:47	IO
Iron	1620		1.45	12.7	mg/Kg-dry	231487	1	10/22/2016 19:47	IO
Lead	26.7		0.0987	0.634	mg/Kg-dry	231487	1	10/22/2016 19:47	IO
Magnesium	124		0.146	63.4	mg/Kg-dry	231487	1	10/22/2016 19:47	IO
Manganese	205		0.0175	1.90	mg/Kg-dry	231487	1	10/22/2016 19:47	IO
Nickel	0.296	J	0.105	5.07	mg/Kg-dry	231487	1	10/22/2016 19:47	IO
Potassium	267		0.386	127	mg/Kg-dry	231487	1	10/22/2016 19:47	IO
Selenium	BRL		0.413	0.634	mg/Kg-dry	231487	1	10/24/2016 20:58	JL
Silver	BRL		0.0275	1.27	mg/Kg-dry	231487	1	10/22/2016 19:47	IO
Sodium	30.7	J	0.292	127	mg/Kg-dry	231487	1	10/22/2016 19:47	IO
Thallium	BRL		0.235	1.27	mg/Kg-dry	231487	1	10/24/2016 20:58	JL
Vanadium	0.456	J	0.0366	6.34	mg/Kg-dry	231487	1	10/22/2016 19:47	IO
Zinc	5.22		0.199	2.54	mg/Kg-dry	231487	1	10/22/2016 19:47	IO
PERCENT MOISTURE D2216									
Percent Moisture	21.2		0	0	wt%	R327981	1	10/21/2016 09:00	BD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 27-Oct-16

Client: GHD Services, Inc.	Client Sample ID: SO-077150-101116-DJB-003
Project Name: Bluewater Thermal Solutions	Collection Date: 10/11/2016 1:30:00 PM
Lab ID: 1610C64-003	Matrix: Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5035)					
Dichlorodifluoromethane	BRL		1.6	11	ug/Kg-dry	231323	1	10/20/2016 23:39	MD
Chloromethane	BRL		2.0	11	ug/Kg-dry	231323	1	10/20/2016 23:39	MD
Vinyl chloride	BRL		2.3	11	ug/Kg-dry	231323	1	10/20/2016 23:39	MD
Bromomethane	BRL		2.4	5.3	ug/Kg-dry	231323	1	10/20/2016 23:39	MD
Chloroethane	BRL		2.9	11	ug/Kg-dry	231323	1	10/20/2016 23:39	MD
Trichlorofluoromethane	BRL		2.5	5.3	ug/Kg-dry	231323	1	10/20/2016 23:39	MD
1,1-Dichloroethene	BRL		1.1	5.3	ug/Kg-dry	231323	1	10/20/2016 23:39	MD
Acetone	220		5.4	11	ug/Kg-dry	231323	1	10/20/2016 23:39	MD
Freon-113	BRL		1.4	11	ug/Kg-dry	231323	1	10/20/2016 23:39	MD
Carbon disulfide	BRL		2.9	11	ug/Kg-dry	231323	1	10/20/2016 23:39	MD
Methyl acetate	BRL		2.8	5.3	ug/Kg-dry	231323	1	10/20/2016 23:39	MD
Methylene chloride	BRL		5.4	11	ug/Kg-dry	231323	1	10/20/2016 23:39	MD
Methyl tert-butyl ether	BRL		1.2	5.3	ug/Kg-dry	231323	1	10/20/2016 23:39	MD
trans-1,2-Dichloroethene	BRL		1.9	5.3	ug/Kg-dry	231323	1	10/20/2016 23:39	MD
1,1-Dichloroethane	BRL		1.5	5.3	ug/Kg-dry	231323	1	10/20/2016 23:39	MD
cis-1,2-Dichloroethene	BRL		2.0	5.3	ug/Kg-dry	231323	1	10/20/2016 23:39	MD
2-Butanone	38		6.7	11	ug/Kg-dry	231323	1	10/20/2016 23:39	MD
Bromochloromethane	BRL		1.9	5.3	ug/Kg-dry	231323	1	10/20/2016 23:39	MD
Chloroform	BRL		1.3	5.3	ug/Kg-dry	231323	1	10/20/2016 23:39	MD
1,1,1-Trichloroethane	BRL		1.4	5.3	ug/Kg-dry	231323	1	10/20/2016 23:39	MD
Cyclohexane	BRL		1.2	5.3	ug/Kg-dry	231323	1	10/20/2016 23:39	MD
Carbon tetrachloride	BRL		1.4	5.3	ug/Kg-dry	231323	1	10/20/2016 23:39	MD
Benzene	BRL		0.64	5.3	ug/Kg-dry	231323	1	10/20/2016 23:39	MD
1,2-Dichloroethane	BRL		1.6	5.3	ug/Kg-dry	231323	1	10/20/2016 23:39	MD
Trichloroethene	BRL		1.5	5.3	ug/Kg-dry	231323	1	10/20/2016 23:39	MD
Methylcyclohexane	BRL		1.7	5.3	ug/Kg-dry	231323	1	10/20/2016 23:39	MD
1,2-Dichloropropane	BRL		1.6	5.3	ug/Kg-dry	231323	1	10/20/2016 23:39	MD
cis-1,3-Dichloropropene	BRL		1.9	5.3	ug/Kg-dry	231323	1	10/20/2016 23:39	MD
4-Methyl-2-pentanone	BRL		2.8	11	ug/Kg-dry	231323	1	10/20/2016 23:39	MD
Toluene	BRL		0.57	5.3	ug/Kg-dry	231323	1	10/20/2016 23:39	MD
trans-1,3-Dichloropropene	BRL		1.3	5.3	ug/Kg-dry	231323	1	10/20/2016 23:39	MD
1,1,2-Trichloroethane	BRL		1.6	5.3	ug/Kg-dry	231323	1	10/20/2016 23:39	MD
2-Hexanone	BRL		4.1	11	ug/Kg-dry	231323	1	10/20/2016 23:39	MD
Tetrachloroethene	BRL		1.6	5.3	ug/Kg-dry	231323	1	10/20/2016 23:39	MD
1,3-Dichloropropane	BRL		1.8	5.3	ug/Kg-dry	231323	1	10/20/2016 23:39	MD
Dibromochloromethane	BRL		1.4	5.3	ug/Kg-dry	231323	1	10/20/2016 23:39	MD
1,2-Dibromoethane	BRL		1.7	5.3	ug/Kg-dry	231323	1	10/20/2016 23:39	MD
Chlorobenzene	BRL		1.6	5.3	ug/Kg-dry	231323	1	10/20/2016 23:39	MD
1,1,1,2-Tetrachloroethane	BRL		1.6	5.3	ug/Kg-dry	231323	1	10/20/2016 23:39	MD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 27-Oct-16

Client: GHD Services, Inc.	Client Sample ID: SO-077150-101116-DJB-003
Project Name: Bluewater Thermal Solutions	Collection Date: 10/11/2016 1:30:00 PM
Lab ID: 1610C64-003	Matrix: Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5035)					
Ethylbenzene	BRL		0.54	5.3	ug/Kg-dry	231323	1	10/20/2016 23:39	MD
Styrene	BRL		1.4	5.3	ug/Kg-dry	231323	1	10/20/2016 23:39	MD
Bromoform	BRL		1.5	5.3	ug/Kg-dry	231323	1	10/20/2016 23:39	MD
Isopropylbenzene	BRL		1.5	5.3	ug/Kg-dry	231323	1	10/20/2016 23:39	MD
1,4-Dichlorobenzene	BRL		1.9	5.3	ug/Kg-dry	231323	1	10/20/2016 23:39	MD
1,2-Dichlorobenzene	BRL		1.7	5.3	ug/Kg-dry	231323	1	10/20/2016 23:39	MD
1,2-Dibromo-3-chloropropane	BRL		2.3	5.3	ug/Kg-dry	231323	1	10/20/2016 23:39	MD
1,2,4-Trichlorobenzene	BRL		2.1	5.3	ug/Kg-dry	231323	1	10/20/2016 23:39	MD
Xylenes, Total	BRL		1.5	5.3	ug/Kg-dry	231323	1	10/20/2016 23:39	MD
Surr: 4-Bromofluorobenzene	82.4		0	70-128	%REC	231323	1	10/20/2016 23:39	MD
Surr: Dibromofluoromethane	100		0	78.2-128	%REC	231323	1	10/20/2016 23:39	MD
Surr: Toluene-d8	91.8		0	76.5-116	%REC	231323	1	10/20/2016 23:39	MD
TOTAL MERCURY SW7471B				(SW7471B)					
Mercury	0.0143	J	0.00533	0.121	mg/Kg-dry	231461	1	10/21/2016 12:03	JR
TCL-SEMIVOLATILE ORGANICS SW8270D				(SW3550C)					
1,1'-Biphenyl	BRL		47	450	ug/Kg-dry	231129	1	10/18/2016 17:58	YH
2,4,5-Trichlorophenol	BRL		140	1100	ug/Kg-dry	231129	1	10/18/2016 17:58	YH
2,4,6-Trichlorophenol	BRL		31	450	ug/Kg-dry	231129	1	10/18/2016 17:58	YH
2,4-Dichlorophenol	BRL		150	450	ug/Kg-dry	231129	1	10/18/2016 17:58	YH
2,4-Dimethylphenol	BRL		50	450	ug/Kg-dry	231129	1	10/18/2016 17:58	YH
2,4-Dinitrophenol	BRL		190	1100	ug/Kg-dry	231129	1	10/18/2016 17:58	YH
2,4-Dinitrotoluene	BRL		47	450	ug/Kg-dry	231129	1	10/18/2016 17:58	YH
2,6-Dinitrotoluene	BRL		89	450	ug/Kg-dry	231129	1	10/18/2016 17:58	YH
2-Chloronaphthalene	BRL		64	450	ug/Kg-dry	231129	1	10/18/2016 17:58	YH
2-Chlorophenol	BRL		54	450	ug/Kg-dry	231129	1	10/18/2016 17:58	YH
2-Methylnaphthalene	BRL		48	450	ug/Kg-dry	231129	1	10/18/2016 17:58	YH
2-Methylphenol	BRL		75	450	ug/Kg-dry	231129	1	10/18/2016 17:58	YH
2-Nitroaniline	BRL		62	1100	ug/Kg-dry	231129	1	10/18/2016 17:58	YH
2-Nitrophenol	BRL		100	450	ug/Kg-dry	231129	1	10/18/2016 17:58	YH
3,3'-Dichlorobenzidine	BRL		62	450	ug/Kg-dry	231129	1	10/18/2016 17:58	YH
3-Nitroaniline	BRL		96	1100	ug/Kg-dry	231129	1	10/18/2016 17:58	YH
4,6-Dinitro-2-methylphenol	BRL		80	1100	ug/Kg-dry	231129	1	10/18/2016 17:58	YH
4-Bromophenyl phenyl ether	BRL		120	450	ug/Kg-dry	231129	1	10/18/2016 17:58	YH
4-Chloro-3-methylphenol	BRL		96	450	ug/Kg-dry	231129	1	10/18/2016 17:58	YH
4-Chloroaniline	BRL		150	450	ug/Kg-dry	231129	1	10/18/2016 17:58	YH
4-Chlorophenyl phenyl ether	BRL		55	450	ug/Kg-dry	231129	1	10/18/2016 17:58	YH
4-Methylphenol	BRL		220	450	ug/Kg-dry	231129	1	10/18/2016 17:58	YH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 27-Oct-16

Client: GHD Services, Inc.	Client Sample ID: SO-077150-101116-DJB-003
Project Name: Bluewater Thermal Solutions	Collection Date: 10/11/2016 1:30:00 PM
Lab ID: 1610C64-003	Matrix: Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D									

Qualifiers: * Value exceeds maximum contaminant level
 BRL Not detected at MDL
 H Holding times for preparation or analysis exceeded
 N Analyte not NELAC certified
 B Analyte detected in the associated method blank
 NC Not confirmed
 E Estimated value above quantitation range
 S Spike Recovery outside limits due to matrix
 J Estimated value detected below Reporting Limit
 > Greater than Result value
 < Less than Result value
 Narr See case narrative

Analytical Environmental Services, Inc

Date: 27-Oct-16

Client: GHD Services, Inc.	Client Sample ID: SO-077150-101116-DJB-003
Project Name: Bluewater Thermal Solutions	Collection Date: 10/11/2016 1:30:00 PM
Lab ID: 1610C64-003	Matrix: Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D (SW3550C)									
Pentachlorophenol	BRL		73	1100	ug/Kg-dry	231129	1	10/18/2016 17:58	YH
Phenanthrene	BRL		42	450	ug/Kg-dry	231129	1	10/18/2016 17:58	YH
Phenol	BRL		68	450	ug/Kg-dry	231129	1	10/18/2016 17:58	YH
Pyrene	BRL		13	450	ug/Kg-dry	231129	1	10/18/2016 17:58	YH
Surr: 2,4,6-Tribromophenol	69.2		0	42.4-130	%REC	231129	1	10/18/2016 17:58	YH
Surr: 2-Fluorobiphenyl	67.9		0	51.5-120	%REC	231129	1	10/18/2016 17:58	YH
Surr: 2-Fluorophenol	69.7		0	41.1-120	%REC	231129	1	10/18/2016 17:58	YH
Surr: 4-Terphenyl-d14	88.6		0	52.7-117	%REC	231129	1	10/18/2016 17:58	YH
Surr: Nitrobenzene-d5	73.4		0	41.4-120	%REC	231129	1	10/18/2016 17:58	YH
Surr: Phenol-d5	76.1		0	47.6-120	%REC	231129	1	10/18/2016 17:58	YH
METALS, TOTAL SW6010C (SW3050B)									
Aluminum	18800		4.29	24.1	mg/Kg-dry	231487	1	10/22/2016 19:52	IO
Antimony	0.514	J	0.330	6.02	mg/Kg-dry	231487	1	10/22/2016 19:52	IO
Arsenic	1.99		0.178	1.20	mg/Kg-dry	231487	1	10/22/2016 19:52	IO
Barium	43.9		0.0911	6.02	mg/Kg-dry	231487	1	10/22/2016 19:52	IO
Beryllium	0.314	J	0.0155	0.602	mg/Kg-dry	231487	1	10/22/2016 19:52	IO
Cadmium	BRL		0.0212	0.602	mg/Kg-dry	231487	1	10/22/2016 19:52	IO
Calcium	2100		0.836	60.2	mg/Kg-dry	231487	1	10/22/2016 19:52	IO
Chromium	11.1		0.0268	1.20	mg/Kg-dry	231487	1	10/22/2016 19:52	IO
Cobalt	1.09	J	0.0314	3.01	mg/Kg-dry	231487	1	10/22/2016 19:52	IO
Copper	3.00	J	0.103	3.01	mg/Kg-dry	231487	1	10/22/2016 19:52	IO
Iron	14000		6.88	60.2	mg/Kg-dry	231487	5	10/22/2016 23:28	IO
Lead	13.3		0.0938	0.602	mg/Kg-dry	231487	1	10/22/2016 19:52	IO
Magnesium	110		0.138	60.2	mg/Kg-dry	231487	1	10/22/2016 19:52	IO
Manganese	6.21		0.0166	1.81	mg/Kg-dry	231487	1	10/22/2016 19:52	IO
Nickel	1.08	J	0.0999	4.82	mg/Kg-dry	231487	1	10/22/2016 19:52	IO
Potassium	152		0.367	120	mg/Kg-dry	231487	1	10/22/2016 19:52	IO
Selenium	BRL		0.392	0.602	mg/Kg-dry	231487	1	10/24/2016 21:08	JL
Silver	BRL		0.0261	1.20	mg/Kg-dry	231487	1	10/22/2016 19:52	IO
Sodium	33.6	J	0.277	120	mg/Kg-dry	231487	1	10/22/2016 19:52	IO
Thallium	BRL		0.223	1.20	mg/Kg-dry	231487	1	10/24/2016 21:08	JL
Vanadium	21.9		0.0348	6.02	mg/Kg-dry	231487	1	10/22/2016 19:52	IO
Zinc	18.4		0.189	2.41	mg/Kg-dry	231487	1	10/22/2016 19:52	IO
PERCENT MOISTURE D2216									
Percent Moisture	27.1		0	0	wt%	R327981	1	10/21/2016 09:00	BD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 27-Oct-16

Client: GHD Services, Inc.	Client Sample ID: SO-077150-101116-DJB-004
Project Name: Bluewater Thermal Solutions	Collection Date: 10/11/2016 1:45:00 PM
Lab ID: 1610C64-004	Matrix: Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5035)									
Dichlorodifluoromethane	BRL		1.6	10	ug/Kg-dry	231323	1	10/21/2016 14:46	MD
Chloromethane	BRL		1.9	10	ug/Kg-dry	231323	1	10/21/2016 14:46	MD
Vinyl chloride	BRL		2.2	10	ug/Kg-dry	231323	1	10/21/2016 14:46	MD
Bromomethane	BRL		2.3	5.2	ug/Kg-dry	231323	1	10/21/2016 14:46	MD
Chloroethane	BRL		2.8	10	ug/Kg-dry	231323	1	10/21/2016 14:46	MD
Trichlorofluoromethane	BRL		2.5	5.2	ug/Kg-dry	231323	1	10/21/2016 14:46	MD
1,1-Dichloroethene	BRL		1.0	5.2	ug/Kg-dry	231323	1	10/21/2016 14:46	MD
Acetone	8.2	J	5.3	10	ug/Kg-dry	231323	1	10/21/2016 14:46	MD
Freon-113	BRL		1.4	10	ug/Kg-dry	231323	1	10/21/2016 14:46	MD
Carbon disulfide	BRL		2.9	10	ug/Kg-dry	231323	1	10/21/2016 14:46	MD
Methyl acetate	BRL		2.7	5.2	ug/Kg-dry	231323	1	10/21/2016 14:46	MD
Methylene chloride	BRL		5.3	10	ug/Kg-dry	231323	1	10/21/2016 14:46	MD
Methyl tert-butyl ether	BRL		1.2	5.2	ug/Kg-dry	231323	1	10/21/2016 14:46	MD
trans-1,2-Dichloroethene	BRL		1.8	5.2	ug/Kg-dry	231323	1	10/21/2016 14:46	MD
1,1-Dichloroethane	BRL		1.5	5.2	ug/Kg-dry	231323	1	10/21/2016 14:46	MD
cis-1,2-Dichloroethene	BRL		1.9	5.2	ug/Kg-dry	231323	1	10/21/2016 14:46	MD
2-Butanone	BRL		6.5	10	ug/Kg-dry	231323	1	10/21/2016 14:46	MD
Bromochloromethane	BRL		1.8	5.2	ug/Kg-dry	231323	1	10/21/2016 14:46	MD
Chloroform	BRL		1.3	5.2	ug/Kg-dry	231323	1	10/21/2016 14:46	MD
1,1,1-Trichloroethane	BRL		1.4	5.2	ug/Kg-dry	231323	1	10/21/2016 14:46	MD
Cyclohexane	BRL		1.2	5.2	ug/Kg-dry	231323	1	10/21/2016 14:46	MD
Carbon tetrachloride	BRL		1.4	5.2	ug/Kg-dry	231323	1	10/21/2016 14:46	MD
Benzene	BRL		0.62	5.2	ug/Kg-dry	231323	1	10/21/2016 14:46	MD
1,2-Dichloroethane	BRL		1.6	5.2	ug/Kg-dry	231323	1	10/21/2016 14:46	MD
Trichloroethene	BRL		1.4	5.2	ug/Kg-dry	231323	1	10/21/2016 14:46	MD
Methylcyclohexane	BRL		1.7	5.2	ug/Kg-dry	231323	1	10/21/2016 14:46	MD
1,2-Dichloropropane	BRL		1.5	5.2	ug/Kg-dry	231323	1	10/21/2016 14:46	MD
cis-1,3-Dichloropropene	BRL		1.9	5.2	ug/Kg-dry	231323	1	10/21/2016 14:46	MD
4-Methyl-2-pentanone	BRL		2.7	10	ug/Kg-dry	231323	1	10/21/2016 14:46	MD
Toluene	BRL		0.56	5.2	ug/Kg-dry	231323	1	10/21/2016 14:46	MD
trans-1,3-Dichloropropene	BRL		1.3	5.2	ug/Kg-dry	231323	1	10/21/2016 14:46	MD
1,1,2-Trichloroethane	BRL		1.6	5.2	ug/Kg-dry	231323	1	10/21/2016 14:46	MD
2-Hexanone	BRL		4.0	10	ug/Kg-dry	231323	1	10/21/2016 14:46	MD
Tetrachloroethene	BRL		1.6	5.2	ug/Kg-dry	231323	1	10/21/2016 14:46	MD
1,3-Dichloropropane	BRL		1.8	5.2	ug/Kg-dry	231323	1	10/21/2016 14:46	MD
Dibromochloromethane	BRL		1.4	5.2	ug/Kg-dry	231323	1	10/21/2016 14:46	MD
1,2-Dibromoethane	BRL		1.6	5.2	ug/Kg-dry	231323	1	10/21/2016 14:46	MD
Chlorobenzene	BRL		1.6	5.2	ug/Kg-dry	231323	1	10/21/2016 14:46	MD
1,1,1,2-Tetrachloroethane	BRL		1.5	5.2	ug/Kg-dry	231323	1	10/21/2016 14:46	MD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 27-Oct-16

Client: GHD Services, Inc.	Client Sample ID: SO-077150-101116-DJB-004
Project Name: Bluewater Thermal Solutions	Collection Date: 10/11/2016 1:45:00 PM
Lab ID: 1610C64-004	Matrix: Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5035)					
Ethylbenzene	BRL		0.53	5.2	ug/Kg-dry	231323	1	10/21/2016 14:46	MD
Styrene	BRL		1.4	5.2	ug/Kg-dry	231323	1	10/21/2016 14:46	MD
Bromoform	BRL		1.4	5.2	ug/Kg-dry	231323	1	10/21/2016 14:46	MD
Isopropylbenzene	BRL		1.5	5.2	ug/Kg-dry	231323	1	10/21/2016 14:46	MD
1,4-Dichlorobenzene	BRL		1.9	5.2	ug/Kg-dry	231323	1	10/21/2016 14:46	MD
1,2-Dichlorobenzene	BRL		1.7	5.2	ug/Kg-dry	231323	1	10/21/2016 14:46	MD
1,2-Dibromo-3-chloropropane	BRL		2.2	5.2	ug/Kg-dry	231323	1	10/21/2016 14:46	MD
1,2,4-Trichlorobenzene	BRL		2.1	5.2	ug/Kg-dry	231323	1	10/21/2016 14:46	MD
Xylenes, Total	BRL		1.5	5.2	ug/Kg-dry	231323	1	10/21/2016 14:46	MD
Surr: 4-Bromofluorobenzene	89.4		0	70-128	%REC	231323	1	10/21/2016 14:46	MD
Surr: Dibromofluoromethane	87.6		0	78.2-128	%REC	231323	1	10/21/2016 14:46	MD
Surr: Toluene-d8	92.6		0	76.5-116	%REC	231323	1	10/21/2016 14:46	MD
TOTAL MERCURY SW7471B				(SW7471B)					
Mercury	BRL		0.00560	0.127	mg/Kg-dry	231461	1	10/21/2016 12:10	JR
TCL-SEMIVOLATILE ORGANICS SW8270D				(SW3550C)					
1,1'-Biphenyl	BRL		46	440	ug/Kg-dry	231129	1	10/18/2016 18:24	YH
2,4,5-Trichlorophenol	BRL		140	1100	ug/Kg-dry	231129	1	10/18/2016 18:24	YH
2,4,6-Trichlorophenol	BRL		30	440	ug/Kg-dry	231129	1	10/18/2016 18:24	YH
2,4-Dichlorophenol	BRL		150	440	ug/Kg-dry	231129	1	10/18/2016 18:24	YH
2,4-Dimethylphenol	BRL		48	440	ug/Kg-dry	231129	1	10/18/2016 18:24	YH
2,4-Dinitrophenol	BRL		190	1100	ug/Kg-dry	231129	1	10/18/2016 18:24	YH
2,4-Dinitrotoluene	BRL		46	440	ug/Kg-dry	231129	1	10/18/2016 18:24	YH
2,6-Dinitrotoluene	BRL		87	440	ug/Kg-dry	231129	1	10/18/2016 18:24	YH
2-Chloronaphthalene	BRL		62	440	ug/Kg-dry	231129	1	10/18/2016 18:24	YH
2-Chlorophenol	BRL		52	440	ug/Kg-dry	231129	1	10/18/2016 18:24	YH
2-Methylnaphthalene	BRL		47	440	ug/Kg-dry	231129	1	10/18/2016 18:24	YH
2-Methylphenol	BRL		72	440	ug/Kg-dry	231129	1	10/18/2016 18:24	YH
2-Nitroaniline	BRL		60	1100	ug/Kg-dry	231129	1	10/18/2016 18:24	YH
2-Nitrophenol	BRL		100	440	ug/Kg-dry	231129	1	10/18/2016 18:24	YH
3,3'-Dichlorobenzidine	BRL		61	440	ug/Kg-dry	231129	1	10/18/2016 18:24	YH
3-Nitroaniline	BRL		94	1100	ug/Kg-dry	231129	1	10/18/2016 18:24	YH
4,6-Dinitro-2-methylphenol	BRL		78	1100	ug/Kg-dry	231129	1	10/18/2016 18:24	YH
4-Bromophenyl phenyl ether	BRL		120	440	ug/Kg-dry	231129	1	10/18/2016 18:24	YH
4-Chloro-3-methylphenol	BRL		93	440	ug/Kg-dry	231129	1	10/18/2016 18:24	YH
4-Chloroaniline	BRL		150	440	ug/Kg-dry	231129	1	10/18/2016 18:24	YH
4-Chlorophenyl phenyl ether	BRL		53	440	ug/Kg-dry	231129	1	10/18/2016 18:24	YH
4-Methylphenol	BRL		210	440	ug/Kg-dry	231129	1	10/18/2016 18:24	YH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 27-Oct-16

Client: GHD Services, Inc.	Client Sample ID: SO-077150-101116-DJB-004
Project Name: Bluewater Thermal Solutions	Collection Date: 10/11/2016 1:45:00 PM
Lab ID: 1610C64-004	Matrix: Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D (SW3550C)									
Pentachlorophenol	BRL		71	1100	ug/Kg-dry	231129	1	10/18/2016 18:24	YH
Phenanthrene	BRL		41	440	ug/Kg-dry	231129	1	10/18/2016 18:24	YH
Phenol	BRL		66	440	ug/Kg-dry	231129	1	10/18/2016 18:24	YH
Pyrene	BRL		13	440	ug/Kg-dry	231129	1	10/18/2016 18:24	YH
Surr: 2,4,6-Tribromophenol	68		0	42.4-130	%REC	231129	1	10/18/2016 18:24	YH
Surr: 2-Fluorobiphenyl	68.1		0	51.5-120	%REC	231129	1	10/18/2016 18:24	YH
Surr: 2-Fluorophenol	69.1		0	41.1-120	%REC	231129	1	10/18/2016 18:24	YH
Surr: 4-Terphenyl-d14	86.1		0	52.7-117	%REC	231129	1	10/18/2016 18:24	YH
Surr: Nitrobenzene-d5	70.9		0	41.4-120	%REC	231129	1	10/18/2016 18:24	YH
Surr: Phenol-d5	75		0	47.6-120	%REC	231129	1	10/18/2016 18:24	YH
METALS, TOTAL SW6010C (SW3050B)									
Aluminum	9850		4.62	26.0	mg/Kg-dry	231487	1	10/22/2016 19:56	IO
Antimony	BRL		0.356	6.49	mg/Kg-dry	231487	1	10/22/2016 19:56	IO
Arsenic	BRL		0.192	1.30	mg/Kg-dry	231487	1	10/22/2016 19:56	IO
Barium	26.7		0.0983	6.49	mg/Kg-dry	231487	1	10/22/2016 19:56	IO
Beryllium	0.464	J	0.0168	0.649	mg/Kg-dry	231487	1	10/22/2016 19:56	IO
Cadmium	BRL		0.0229	0.649	mg/Kg-dry	231487	1	10/22/2016 19:56	IO
Calcium	1650		0.902	64.9	mg/Kg-dry	231487	1	10/22/2016 19:56	IO
Chromium	3.45		0.0290	1.30	mg/Kg-dry	231487	1	10/22/2016 19:56	IO
Cobalt	2.32	J	0.0339	3.25	mg/Kg-dry	231487	1	10/22/2016 19:56	IO
Copper	1.82	J	0.111	3.25	mg/Kg-dry	231487	1	10/22/2016 19:56	IO
Iron	12400		7.42	64.9	mg/Kg-dry	231487	5	10/22/2016 23:31	IO
Lead	35.5		0.101	0.649	mg/Kg-dry	231487	1	10/22/2016 19:56	IO
Magnesium	981		0.149	64.9	mg/Kg-dry	231487	1	10/22/2016 19:56	IO
Manganese	138		0.0179	1.95	mg/Kg-dry	231487	1	10/22/2016 19:56	IO
Nickel	0.528	J	0.108	5.19	mg/Kg-dry	231487	1	10/22/2016 19:56	IO
Potassium	1200		0.396	130	mg/Kg-dry	231487	1	10/22/2016 19:56	IO
Selenium	BRL		0.423	0.649	mg/Kg-dry	231487	1	10/24/2016 21:11	JL
Silver	BRL		0.0282	1.30	mg/Kg-dry	231487	1	10/22/2016 19:56	IO
Sodium	51.1	J	0.299	130	mg/Kg-dry	231487	1	10/22/2016 19:56	IO
Thallium	2.37		0.241	1.30	mg/Kg-dry	231487	1	10/24/2016 21:11	JL
Vanadium	17.7		0.0375	6.49	mg/Kg-dry	231487	1	10/22/2016 19:56	IO
Zinc	28.1		0.204	2.60	mg/Kg-dry	231487	1	10/22/2016 19:56	IO
PERCENT MOISTURE D2216									
Percent Moisture	25.0		0	0	wt%	R327981	1	10/21/2016 09:00	BD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 27-Oct-16

Client: GHD Services, Inc.	Client Sample ID: SO-077150-101116-DJB-005
Project Name: Bluewater Thermal Solutions	Collection Date: 10/11/2016 3:30:00 PM
Lab ID: 1610C64-005	Matrix: Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5035)					
Dichlorodifluoromethane	BRL		1.3	8.7	ug/Kg-dry	231323	1	10/21/2016 00:27	MD
Chloromethane	BRL		1.6	8.7	ug/Kg-dry	231323	1	10/21/2016 00:27	MD
Vinyl chloride	BRL		1.9	8.7	ug/Kg-dry	231323	1	10/21/2016 00:27	MD
Bromomethane	BRL		2.0	4.4	ug/Kg-dry	231323	1	10/21/2016 00:27	MD
Chloroethane	BRL		2.4	8.7	ug/Kg-dry	231323	1	10/21/2016 00:27	MD
Trichlorofluoromethane	BRL		2.1	4.4	ug/Kg-dry	231323	1	10/21/2016 00:27	MD
1,1-Dichloroethene	BRL		0.86	4.4	ug/Kg-dry	231323	1	10/21/2016 00:27	MD
Acetone	44		4.4	8.7	ug/Kg-dry	231323	1	10/21/2016 00:27	MD
Freon-113	BRL		1.1	8.7	ug/Kg-dry	231323	1	10/21/2016 00:27	MD
Carbon disulfide	BRL		2.4	8.7	ug/Kg-dry	231323	1	10/21/2016 00:27	MD
Methyl acetate	BRL		2.3	4.4	ug/Kg-dry	231323	1	10/21/2016 00:27	MD
Methylene chloride	BRL		4.4	8.7	ug/Kg-dry	231323	1	10/21/2016 00:27	MD
Methyl tert-butyl ether	BRL		1.0	4.4	ug/Kg-dry	231323	1	10/21/2016 00:27	MD
trans-1,2-Dichloroethene	BRL		1.5	4.4	ug/Kg-dry	231323	1	10/21/2016 00:27	MD
1,1-Dichloroethane	BRL		1.2	4.4	ug/Kg-dry	231323	1	10/21/2016 00:27	MD
cis-1,2-Dichloroethene	BRL		1.6	4.4	ug/Kg-dry	231323	1	10/21/2016 00:27	MD
2-Butanone	BRL		5.4	8.7	ug/Kg-dry	231323	1	10/21/2016 00:27	MD
Bromochloromethane	BRL		1.5	4.4	ug/Kg-dry	231323	1	10/21/2016 00:27	MD
Chloroform	BRL		1.1	4.4	ug/Kg-dry	231323	1	10/21/2016 00:27	MD
1,1,1-Trichloroethane	BRL		1.2	4.4	ug/Kg-dry	231323	1	10/21/2016 00:27	MD
Cyclohexane	BRL		0.98	4.4	ug/Kg-dry	231323	1	10/21/2016 00:27	MD
Carbon tetrachloride	BRL		1.2	4.4	ug/Kg-dry	231323	1	10/21/2016 00:27	MD
Benzene	BRL		0.52	4.4	ug/Kg-dry	231323	1	10/21/2016 00:27	MD
1,2-Dichloroethane	BRL		1.3	4.4	ug/Kg-dry	231323	1	10/21/2016 00:27	MD
Trichloroethene	BRL		1.2	4.4	ug/Kg-dry	231323	1	10/21/2016 00:27	MD
Methylcyclohexane	BRL		1.4	4.4	ug/Kg-dry	231323	1	10/21/2016 00:27	MD
1,2-Dichloropropane	BRL		1.3	4.4	ug/Kg-dry	231323	1	10/21/2016 00:27	MD
cis-1,3-Dichloropropene	BRL		1.6	4.4	ug/Kg-dry	231323	1	10/21/2016 00:27	MD
4-Methyl-2-pentanone	BRL		2.3	8.7	ug/Kg-dry	231323	1	10/21/2016 00:27	MD
Toluene	BRL		0.47	4.4	ug/Kg-dry	231323	1	10/21/2016 00:27	MD
trans-1,3-Dichloropropene	BRL		1.1	4.4	ug/Kg-dry	231323	1	10/21/2016 00:27	MD
1,1,2-Trichloroethane	BRL		1.3	4.4	ug/Kg-dry	231323	1	10/21/2016 00:27	MD
2-Hexanone	BRL		3.4	8.7	ug/Kg-dry	231323	1	10/21/2016 00:27	MD
Tetrachloroethene	BRL		1.3	4.4	ug/Kg-dry	231323	1	10/21/2016 00:27	MD
1,3-Dichloropropane	BRL		1.5	4.4	ug/Kg-dry	231323	1	10/21/2016 00:27	MD
Dibromochloromethane	BRL		1.2	4.4	ug/Kg-dry	231323	1	10/21/2016 00:27	MD
1,2-Dibromoethane	BRL		1.4	4.4	ug/Kg-dry	231323	1	10/21/2016 00:27	MD
Chlorobenzene	BRL		1.3	4.4	ug/Kg-dry	231323	1	10/21/2016 00:27	MD
1,1,1,2-Tetrachloroethane	BRL		1.3	4.4	ug/Kg-dry	231323	1	10/21/2016 00:27	MD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Client: GHD Services, Inc.	Client Sample ID: SO-077150-101116-DJB-005
Project Name: Bluewater Thermal Solutions	Collection Date: 10/11/2016 3:30:00 PM
Lab ID: 1610C64-005	Matrix: Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5035)					
Ethylbenzene	BRL		0.44	4.4	ug/Kg-dry	231323	1	10/21/2016 00:27	MD
Styrene	BRL		1.2	4.4	ug/Kg-dry	231323	1	10/21/2016 00:27	MD
Bromoform	BRL		1.2	4.4	ug/Kg-dry	231323	1	10/21/2016 00:27	MD
Isopropylbenzene	BRL		1.2	4.4	ug/Kg-dry	231323	1	10/21/2016 00:27	MD
1,4-Dichlorobenzene	BRL		1.6	4.4	ug/Kg-dry	231323	1	10/21/2016 00:27	MD
1,2-Dichlorobenzene	BRL		1.4	4.4	ug/Kg-dry	231323	1	10/21/2016 00:27	MD
1,2-Dibromo-3-chloropropane	BRL		1.9	4.4	ug/Kg-dry	231323	1	10/21/2016 00:27	MD
1,2,4-Trichlorobenzene	BRL		1.7	4.4	ug/Kg-dry	231323	1	10/21/2016 00:27	MD
Xylenes, Total	BRL		1.2	4.4	ug/Kg-dry	231323	1	10/21/2016 00:27	MD
Surr: 4-Bromofluorobenzene	90		0	70-128	%REC	231323	1	10/21/2016 00:27	MD
Surr: Dibromofluoromethane	96.2		0	78.2-128	%REC	231323	1	10/21/2016 00:27	MD
Surr: Toluene-d8	98.6		0	76.5-116	%REC	231323	1	10/21/2016 00:27	MD
TOTAL MERCURY SW7471B				(SW7471B)					
Mercury	0.0137	J	0.00453	0.103	mg/Kg-dry	231461	1	10/21/2016 12:12	JR
TCL-SEMIVOLATILE ORGANICS SW8270D				(SW3550C)					
1,1'-Biphenyl	BRL		39	370	ug/Kg-dry	231129	1	10/18/2016 18:49	YH
2,4,5-Trichlorophenol	BRL		120	940	ug/Kg-dry	231129	1	10/18/2016 18:49	YH
2,4,6-Trichlorophenol	BRL		26	370	ug/Kg-dry	231129	1	10/18/2016 18:49	YH
2,4-Dichlorophenol	BRL		130	370	ug/Kg-dry	231129	1	10/18/2016 18:49	YH
2,4-Dimethylphenol	BRL		41	370	ug/Kg-dry	231129	1	10/18/2016 18:49	YH
2,4-Dinitrophenol	BRL		160	940	ug/Kg-dry	231129	1	10/18/2016 18:49	YH
2,4-Dinitrotoluene	BRL		39	370	ug/Kg-dry	231129	1	10/18/2016 18:49	YH
2,6-Dinitrotoluene	BRL		74	370	ug/Kg-dry	231129	1	10/18/2016 18:49	YH
2-Chloronaphthalene	BRL		52	370	ug/Kg-dry	231129	1	10/18/2016 18:49	YH
2-Chlorophenol	BRL		44	370	ug/Kg-dry	231129	1	10/18/2016 18:49	YH
2-Methylnaphthalene	BRL		40	370	ug/Kg-dry	231129	1	10/18/2016 18:49	YH
2-Methylphenol	BRL		61	370	ug/Kg-dry	231129	1	10/18/2016 18:49	YH
2-Nitroaniline	BRL		51	940	ug/Kg-dry	231129	1	10/18/2016 18:49	YH
2-Nitrophenol	BRL		85	370	ug/Kg-dry	231129	1	10/18/2016 18:49	YH
3,3'-Dichlorobenzidine	BRL		51	370	ug/Kg-dry	231129	1	10/18/2016 18:49	YH
3-Nitroaniline	BRL		79	940	ug/Kg-dry	231129	1	10/18/2016 18:49	YH
4,6-Dinitro-2-methylphenol	BRL		66	940	ug/Kg-dry	231129	1	10/18/2016 18:49	YH
4-Bromophenyl phenyl ether	BRL		100	370	ug/Kg-dry	231129	1	10/18/2016 18:49	YH
4-Chloro-3-methylphenol	BRL		79	370	ug/Kg-dry	231129	1	10/18/2016 18:49	YH
4-Chloroaniline	BRL		120	370	ug/Kg-dry	231129	1	10/18/2016 18:49	YH
4-Chlorophenyl phenyl ether	BRL		45	370	ug/Kg-dry	231129	1	10/18/2016 18:49	YH
4-Methylphenol	BRL		180	370	ug/Kg-dry	231129	1	10/18/2016 18:49	YH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Client: GHD Services, Inc.	Client Sample ID: SO-077150-101116-DJB-005
Project Name: Bluewater Thermal Solutions	Collection Date: 10/11/2016 3:30:00 PM
Lab ID: 1610C64-005	Matrix: Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D (SW3550C)									
4-Nitroaniline	BRL		120	940	ug/Kg-dry	231129	1	10/18/2016 18:49	YH
4-Nitrophenol	BRL		200	940	ug/Kg-dry	231129	1	10/18/2016 18:49	YH
Acenaphthene	BRL		49	370	ug/Kg-dry	231129	1	10/18/2016 18:49	YH
Acenaphthylene	BRL		36	370	ug/Kg-dry	231129	1	10/18/2016 18:49	YH
Acetophenone	BRL		66	370	ug/Kg-dry	231129	1	10/18/2016 18:49	YH
Anthracene	BRL		31	370	ug/Kg-dry	231129	1	10/18/2016 18:49	YH
Atrazine	BRL		97	370	ug/Kg-dry	231129	1	10/18/2016 18:49	YH
Benz(a)anthracene	BRL		22	370	ug/Kg-dry	231129	1	10/18/2016 18:49	YH
Benzaldehyde	BRL		130	370	ug/Kg-dry	231129	1	10/18/2016 18:49	YH
Benzo(a)pyrene	BRL		28	370	ug/Kg-dry	231129	1	10/18/2016 18:49	YH
Benzo(b)fluoranthene	BRL		31	370	ug/Kg-dry	231129	1	10/18/2016 18:49	YH
Benzo(g,h,i)perylene	BRL		26	370	ug/Kg-dry	231129	1	10/18/2016 18:49	YH
Benzo(k)fluoranthene	BRL		42	370	ug/Kg-dry	231129	1	10/18/2016 18:49	YH
Bis(2-chloroethoxy)methane	BRL		42	370	ug/Kg-dry	231129	1	10/18/2016 18:49	YH
Bis(2-chloroethyl)ether	BRL		36	370	ug/Kg-dry	231129	1	10/18/2016 18:49	YH
Bis(2-chloroisopropyl)ether	BRL		41	370	ug/Kg-dry	231129	1	10/18/2016 18:49	YH
Bis(2-ethylhexyl)phthalate	BRL		31	370	ug/Kg-dry	231129	1	10/18/2016 18:49	YH
Butyl benzyl phthalate	BRL		43	370	ug/Kg-dry	231129	1	10/18/2016 18:49	YH
Caprolactam	BRL		130	370	ug/Kg-dry	231129	1	10/18/2016 18:49	YH
Carbazole	BRL		39	370	ug/Kg-dry	231129	1	10/18/2016 18:49	YH
Chrysene	BRL		36	370	ug/Kg-dry	231129	1	10/18/2016 18:49	YH
Di-n-butyl phthalate	BRL		34	370	ug/Kg-dry	231129	1	10/18/2016 18:49	YH
Di-n-octyl phthalate	BRL		23	370	ug/Kg-dry	231129	1	10/18/2016 18:49	YH
Dibenz(a,h)anthracene	BRL		43	370	ug/Kg-dry	231129	1	10/18/2016 18:49	YH
Dibenzofuran	BRL		52	370	ug/Kg-dry	231129	1	10/18/2016 18:49	YH
Diethyl phthalate	BRL		38	370	ug/Kg-dry	231129	1	10/18/2016 18:49	YH
Dimethyl phthalate	BRL		44	370	ug/Kg-dry	231129	1	10/18/2016 18:49	YH
Fluoranthene	BRL		21	370	ug/Kg-dry	231129	1	10/18/2016 18:49	YH
Fluorene	BRL		35	370	ug/Kg-dry	231129	1	10/18/2016 18:49	YH
Hexachlorobenzene	BRL		59	370	ug/Kg-dry	231129	1	10/18/2016 18:49	YH
Hexachlorobutadiene	BRL		66	370	ug/Kg-dry	231129	1	10/18/2016 18:49	YH
Hexachlorocyclopentadiene	BRL		52	370	ug/Kg-dry	231129	1	10/18/2016 18:49	YH
Hexachloroethane	BRL		40	370	ug/Kg-dry	231129	1	10/18/2016 18:49	YH
Indeno(1,2,3-cd)pyrene	BRL		31	370	ug/Kg-dry	231129	1	10/18/2016 18:49	YH
Isophorone	BRL		39	370	ug/Kg-dry	231129	1	10/18/2016 18:49	YH
N-Nitrosodi-n-propylamine	BRL		49	370	ug/Kg-dry	231129	1	10/18/2016 18:49	YH
N-Nitrosodiphenylamine	BRL		36	370	ug/Kg-dry	231129	1	10/18/2016 18:49	YH
Naphthalene	BRL		43	370	ug/Kg-dry	231129	1	10/18/2016 18:49	YH
Nitrobenzene	BRL		46	370	ug/Kg-dry	231129	1	10/18/2016 18:49	YH

Qualifiers: * Value exceeds maximum contaminant level

BRL Not detected at MDL

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

NC Not confirmed

E Estimated value above quantitation range

S Spike Recovery outside limits due to matrix

J Estimated value detected below Reporting Limit

> Greater than Result value

< Less than Result value

Narr See case narrative

Analytical Environmental Services, Inc

Date: 27-Oct-16

Client: GHD Services, Inc.	Client Sample ID: SO-077150-101116-DJB-005
Project Name: Bluewater Thermal Solutions	Collection Date: 10/11/2016 3:30:00 PM
Lab ID: 1610C64-005	Matrix: Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D (SW3550C)									
Pentachlorophenol	BRL		60	940	ug/Kg-dry	231129	1	10/18/2016 18:49	YH
Phenanthrene	BRL		35	370	ug/Kg-dry	231129	1	10/18/2016 18:49	YH
Phenol	BRL		56	370	ug/Kg-dry	231129	1	10/18/2016 18:49	YH
Pyrene	BRL		11	370	ug/Kg-dry	231129	1	10/18/2016 18:49	YH
Surr: 2,4,6-Tribromophenol	85.9		0	42.4-130	%REC	231129	1	10/18/2016 18:49	YH
Surr: 2-Fluorobiphenyl	87.1		0	51.5-120	%REC	231129	1	10/18/2016 18:49	YH
Surr: 2-Fluorophenol	88.5		0	41.1-120	%REC	231129	1	10/18/2016 18:49	YH
Surr: 4-Terphenyl-d14	103		0	52.7-117	%REC	231129	1	10/18/2016 18:49	YH
Surr: Nitrobenzene-d5	91.8		0	41.4-120	%REC	231129	1	10/18/2016 18:49	YH
Surr: Phenol-d5	92.8		0	47.6-120	%REC	231129	1	10/18/2016 18:49	YH
METALS, TOTAL SW6010C (SW3050B)									
Aluminum	14200		3.74	21.0	mg/Kg-dry	231487	1	10/22/2016 20:00	IO
Antimony	BRL		0.289	5.26	mg/Kg-dry	231487	1	10/22/2016 20:00	IO
Arsenic	1.01	J	0.156	1.05	mg/Kg-dry	231487	1	10/22/2016 20:00	IO
Barium	8.65		0.0796	5.26	mg/Kg-dry	231487	1	10/22/2016 20:00	IO
Beryllium	0.233	J	0.0136	0.526	mg/Kg-dry	231487	1	10/22/2016 20:00	IO
Cadmium	BRL		0.0185	0.526	mg/Kg-dry	231487	1	10/22/2016 20:00	IO
Calcium	1570		0.731	52.6	mg/Kg-dry	231487	1	10/22/2016 20:00	IO
Chromium	8.84		0.0235	1.05	mg/Kg-dry	231487	1	10/22/2016 20:00	IO
Cobalt	1.26	J	0.0275	2.63	mg/Kg-dry	231487	1	10/22/2016 20:00	IO
Copper	3.30		0.0896	2.63	mg/Kg-dry	231487	1	10/22/2016 20:00	IO
Iron	10400		6.01	52.6	mg/Kg-dry	231487	5	10/22/2016 23:42	IO
Lead	18.1		0.0820	0.526	mg/Kg-dry	231487	1	10/22/2016 20:00	IO
Magnesium	178		0.121	52.6	mg/Kg-dry	231487	1	10/22/2016 20:00	IO
Manganese	28.9		0.0145	1.58	mg/Kg-dry	231487	1	10/22/2016 20:00	IO
Nickel	1.24	J	0.0873	4.21	mg/Kg-dry	231487	1	10/22/2016 20:00	IO
Potassium	270		0.320	105	mg/Kg-dry	231487	1	10/22/2016 20:00	IO
Selenium	BRL		0.343	0.526	mg/Kg-dry	231487	1	10/24/2016 21:14	JL
Silver	BRL		0.0228	1.05	mg/Kg-dry	231487	1	10/22/2016 20:00	IO
Sodium	22.2	J	0.242	105	mg/Kg-dry	231487	1	10/22/2016 20:00	IO
Thallium	BRL		0.195	1.05	mg/Kg-dry	231487	1	10/24/2016 21:14	JL
Vanadium	16.3		0.0304	5.26	mg/Kg-dry	231487	1	10/22/2016 20:00	IO
Zinc	7.00		0.165	2.10	mg/Kg-dry	231487	1	10/22/2016 20:00	IO
PERCENT MOISTURE D2216									
Percent Moisture	11.5		0	0	wt%	R327981	1	10/21/2016 09:00	BD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 27-Oct-16

Client: GHD Services, Inc.	Client Sample ID: SO-077150-101116-DJB-006
Project Name: Bluewater Thermal Solutions	Collection Date: 10/11/2016 3:50:00 PM
Lab ID: 1610C64-006	Matrix: Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5035)					
Dichlorodifluoromethane	BRL		1.3	8.5	ug/Kg-dry	231323	1	10/21/2016 00:50	MD
Chloromethane	BRL		1.6	8.5	ug/Kg-dry	231323	1	10/21/2016 00:50	MD
Vinyl chloride	BRL		1.8	8.5	ug/Kg-dry	231323	1	10/21/2016 00:50	MD
Bromomethane	BRL		1.9	4.3	ug/Kg-dry	231323	1	10/21/2016 00:50	MD
Chloroethane	BRL		2.3	8.5	ug/Kg-dry	231323	1	10/21/2016 00:50	MD
Trichlorofluoromethane	BRL		2.0	4.3	ug/Kg-dry	231323	1	10/21/2016 00:50	MD
1,1-Dichloroethene	BRL		0.84	4.3	ug/Kg-dry	231323	1	10/21/2016 00:50	MD
Acetone	BRL		4.3	8.5	ug/Kg-dry	231323	1	10/21/2016 00:50	MD
Freon-113	BRL		1.1	8.5	ug/Kg-dry	231323	1	10/21/2016 00:50	MD
Carbon disulfide	BRL		2.3	8.5	ug/Kg-dry	231323	1	10/21/2016 00:50	MD
Methyl acetate	BRL		2.2	4.3	ug/Kg-dry	231323	1	10/21/2016 00:50	MD
Methylene chloride	BRL		4.3	8.5	ug/Kg-dry	231323	1	10/21/2016 00:50	MD
Methyl tert-butyl ether	BRL		0.97	4.3	ug/Kg-dry	231323	1	10/21/2016 00:50	MD
trans-1,2-Dichloroethene	BRL		1.5	4.3	ug/Kg-dry	231323	1	10/21/2016 00:50	MD
1,1-Dichloroethane	BRL		1.2	4.3	ug/Kg-dry	231323	1	10/21/2016 00:50	MD
cis-1,2-Dichloroethene	BRL		1.6	4.3	ug/Kg-dry	231323	1	10/21/2016 00:50	MD
2-Butanone	BRL		5.3	8.5	ug/Kg-dry	231323	1	10/21/2016 00:50	MD
Bromochloromethane	BRL		1.5	4.3	ug/Kg-dry	231323	1	10/21/2016 00:50	MD
Chloroform	BRL		1.0	4.3	ug/Kg-dry	231323	1	10/21/2016 00:50	MD
1,1,1-Trichloroethane	BRL		1.1	4.3	ug/Kg-dry	231323	1	10/21/2016 00:50	MD
Cyclohexane	BRL		0.95	4.3	ug/Kg-dry	231323	1	10/21/2016 00:50	MD
Carbon tetrachloride	BRL		1.1	4.3	ug/Kg-dry	231323	1	10/21/2016 00:50	MD
Benzene	BRL		0.51	4.3	ug/Kg-dry	231323	1	10/21/2016 00:50	MD
1,2-Dichloroethane	BRL		1.3	4.3	ug/Kg-dry	231323	1	10/21/2016 00:50	MD
Trichloroethene	BRL		1.2	4.3	ug/Kg-dry	231323	1	10/21/2016 00:50	MD
Methylcyclohexane	BRL		1.4	4.3	ug/Kg-dry	231323	1	10/21/2016 00:50	MD
1,2-Dichloropropane	BRL		1.2	4.3	ug/Kg-dry	231323	1	10/21/2016 00:50	MD
cis-1,3-Dichloropropene	BRL		1.5	4.3	ug/Kg-dry	231323	1	10/21/2016 00:50	MD
4-Methyl-2-pentanone	BRL		2.2	8.5	ug/Kg-dry	231323	1	10/21/2016 00:50	MD
Toluene	BRL		0.45	4.3	ug/Kg-dry	231323	1	10/21/2016 00:50	MD
trans-1,3-Dichloropropene	BRL		1.1	4.3	ug/Kg-dry	231323	1	10/21/2016 00:50	MD
1,1,2-Trichloroethane	BRL		1.3	4.3	ug/Kg-dry	231323	1	10/21/2016 00:50	MD
2-Hexanone	BRL		3.3	8.5	ug/Kg-dry	231323	1	10/21/2016 00:50	MD
Tetrachloroethene	2.4	J	1.3	4.3	ug/Kg-dry	231323	1	10/21/2016 00:50	MD
1,3-Dichloropropane	BRL		1.4	4.3	ug/Kg-dry	231323	1	10/21/2016 00:50	MD
Dibromochloromethane	BRL		1.2	4.3	ug/Kg-dry	231323	1	10/21/2016 00:50	MD
1,2-Dibromoethane	BRL		1.3	4.3	ug/Kg-dry	231323	1	10/21/2016 00:50	MD
Chlorobenzene	BRL		1.3	4.3	ug/Kg-dry	231323	1	10/21/2016 00:50	MD
1,1,1,2-Tetrachloroethane	BRL		1.2	4.3	ug/Kg-dry	231323	1	10/21/2016 00:50	MD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 27-Oct-16

Client: GHD Services, Inc.	Client Sample ID: SO-077150-101116-DJB-006
Project Name: Bluewater Thermal Solutions	Collection Date: 10/11/2016 3:50:00 PM
Lab ID: 1610C64-006	Matrix: Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5035)					
Ethylbenzene	BRL		0.43	4.3	ug/Kg-dry	231323	1	10/21/2016 00:50	MD
Styrene	BRL		1.1	4.3	ug/Kg-dry	231323	1	10/21/2016 00:50	MD
Bromoform	BRL		1.2	4.3	ug/Kg-dry	231323	1	10/21/2016 00:50	MD
Isopropylbenzene	BRL		1.2	4.3	ug/Kg-dry	231323	1	10/21/2016 00:50	MD
1,4-Dichlorobenzene	BRL		1.5	4.3	ug/Kg-dry	231323	1	10/21/2016 00:50	MD
1,2-Dichlorobenzene	BRL		1.4	4.3	ug/Kg-dry	231323	1	10/21/2016 00:50	MD
1,2-Dibromo-3-chloropropane	BRL		1.8	4.3	ug/Kg-dry	231323	1	10/21/2016 00:50	MD
1,2,4-Trichlorobenzene	BRL		1.7	4.3	ug/Kg-dry	231323	1	10/21/2016 00:50	MD
Xylenes, Total	BRL		1.2	4.3	ug/Kg-dry	231323	1	10/21/2016 00:50	MD
Surr: 4-Bromofluorobenzene	91.2		0	70-128	%REC	231323	1	10/21/2016 00:50	MD
Surr: Dibromofluoromethane	97.3		0	78.2-128	%REC	231323	1	10/21/2016 00:50	MD
Surr: Toluene-d8	98.2		0	76.5-116	%REC	231323	1	10/21/2016 00:50	MD
TOTAL MERCURY SW7471B				(SW7471B)					
Mercury	BRL		0.00515	0.117	mg/Kg-dry	231461	1	10/21/2016 12:14	JR
TCL-SEMIVOLATILE ORGANICS SW8270D				(SW3550C)					
1,1'-Biphenyl	BRL		47	450	ug/Kg-dry	231129	1	10/18/2016 19:14	YH
2,4,5-Trichlorophenol	BRL		140	1100	ug/Kg-dry	231129	1	10/18/2016 19:14	YH
2,4,6-Trichlorophenol	BRL		31	450	ug/Kg-dry	231129	1	10/18/2016 19:14	YH
2,4-Dichlorophenol	BRL		150	450	ug/Kg-dry	231129	1	10/18/2016 19:14	YH
2,4-Dimethylphenol	BRL		50	450	ug/Kg-dry	231129	1	10/18/2016 19:14	YH
2,4-Dinitrophenol	BRL		190	1100	ug/Kg-dry	231129	1	10/18/2016 19:14	YH
2,4-Dinitrotoluene	BRL		47	450	ug/Kg-dry	231129	1	10/18/2016 19:14	YH
2,6-Dinitrotoluene	BRL		90	450	ug/Kg-dry	231129	1	10/18/2016 19:14	YH
2-Chloronaphthalene	BRL		64	450	ug/Kg-dry	231129	1	10/18/2016 19:14	YH
2-Chlorophenol	BRL		54	450	ug/Kg-dry	231129	1	10/18/2016 19:14	YH
2-Methylnaphthalene	BRL		48	450	ug/Kg-dry	231129	1	10/18/2016 19:14	YH
2-Methylphenol	BRL		75	450	ug/Kg-dry	231129	1	10/18/2016 19:14	YH
2-Nitroaniline	BRL		62	1100	ug/Kg-dry	231129	1	10/18/2016 19:14	YH
2-Nitrophenol	BRL		100	450	ug/Kg-dry	231129	1	10/18/2016 19:14	YH
3,3'-Dichlorobenzidine	BRL		63	450	ug/Kg-dry	231129	1	10/18/2016 19:14	YH
3-Nitroaniline	BRL		96	1100	ug/Kg-dry	231129	1	10/18/2016 19:14	YH
4,6-Dinitro-2-methylphenol	BRL		80	1100	ug/Kg-dry	231129	1	10/18/2016 19:14	YH
4-Bromophenyl phenyl ether	BRL		130	450	ug/Kg-dry	231129	1	10/18/2016 19:14	YH
4-Chloro-3-methylphenol	BRL		96	450	ug/Kg-dry	231129	1	10/18/2016 19:14	YH
4-Chloroaniline	BRL		150	450	ug/Kg-dry	231129	1	10/18/2016 19:14	YH
4-Chlorophenyl phenyl ether	BRL		55	450	ug/Kg-dry	231129	1	10/18/2016 19:14	YH
4-Methylphenol	BRL		220	450	ug/Kg-dry	231129	1	10/18/2016 19:14	YH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 27-Oct-16

Client: GHD Services, Inc.	Client Sample ID: SO-077150-101116-DJB-006
Project Name: Bluewater Thermal Solutions	Collection Date: 10/11/2016 3:50:00 PM
Lab ID: 1610C64-006	Matrix: Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS		SW8270D		(SW3550C)					
4-Nitroaniline	BRL		140	1100	ug/Kg-dry	231129	1	10/18/2016 19:14	YH
4-Nitrophenol	BRL		250	1100	ug/Kg-dry	231129	1	10/18/2016 19:14	YH
Acenaphthene	BRL		59	450	ug/Kg-dry	231129	1	10/18/2016 19:14	YH
Acenaphthylene	BRL		44	450	ug/Kg-dry	231129	1	10/18/2016 19:14	YH
Acetophenone	BRL		80	450	ug/Kg-dry	231129	1	10/18/2016 19:14	YH
Anthracene	BRL		37	450	ug/Kg-dry	231129	1	10/18/2016 19:14	YH
Atrazine	BRL		120	450	ug/Kg-dry	231129	1	10/18/2016 19:14	YH
Benz(a)anthracene	BRL		27	450	ug/Kg-dry	231129	1	10/18/2016 19:14	YH
Benzaldehyde	BRL		160	450	ug/Kg-dry	231129	1	10/18/2016 19:14	YH
Benzo(a)pyrene	BRL		35	450	ug/Kg-dry	231129	1	10/18/2016 19:14	YH
Benzo(b)fluoranthene	BRL		38	450	ug/Kg-dry	231129	1	10/18/2016 19:14	YH
Benzo(g,h,i)perylene	BRL		32	450	ug/Kg-dry	231129	1	10/18/2016 19:14	YH
Benzo(k)fluoranthene	BRL		51	450	ug/Kg-dry	231129	1	10/18/2016 19:14	YH
Bis(2-chloroethoxy)methane	BRL		51	450	ug/Kg-dry	231129	1	10/18/2016 19:14	YH
Bis(2-chloroethyl)ether	BRL		44	450	ug/Kg-dry	231129	1	10/18/2016 19:14	YH
Bis(2-chloroisopropyl)ether	BRL		50	450	ug/Kg-dry	231129	1	10/18/2016 19:14	YH
Bis(2-ethylhexyl)phthalate	BRL		38	450	ug/Kg-dry	231129	1	10/18/2016 19:14	YH
Butyl benzyl phthalate	BRL		52	450	ug/Kg-dry	231129	1	10/18/2016 19:14	YH
Caprolactam	BRL		160	450	ug/Kg-dry	231129	1	10/18/2016 19:14	YH
Carbazole	BRL		47	450	ug/Kg-dry	231129	1	10/18/2016 19:14	YH
Chrysene	BRL		43	450	ug/Kg-dry	231129	1	10/18/2016 19:14	YH
Di-n-butyl phthalate	BRL		41	450	ug/Kg-dry	231129	1	10/18/2016 19:14	YH
Di-n-octyl phthalate	BRL		28	450	ug/Kg-dry	231129	1	10/18/2016 19:14	YH
Dibenz(a,h)anthracene	BRL		52	450	ug/Kg-dry	231129	1	10/18/2016 19:14	YH
Dibenzofuran	BRL		63	450	ug/Kg-dry	231129	1	10/18/2016 19:14	YH
Diethyl phthalate	BRL		46	450	ug/Kg-dry	231129	1	10/18/2016 19:14	YH
Dimethyl phthalate	BRL		54	450	ug/Kg-dry	231129	1	10/18/2016 19:14	YH
Fluoranthene	BRL		25	450	ug/Kg-dry	231129	1	10/18/2016 19:14	YH
Fluorene	BRL		43	450	ug/Kg-dry	231129	1	10/18/2016 19:14	YH
Hexachlorobenzene	BRL		71	450	ug/Kg-dry	231129	1	10/18/2016 19:14	YH
Hexachlorobutadiene	BRL		80	450	ug/Kg-dry	231129	1	10/18/2016 19:14	YH
Hexachlorocyclopentadiene	BRL		63	450	ug/Kg-dry	231129	1	10/18/2016 19:14	YH
Hexachloroethane	BRL		49	450	ug/Kg-dry	231129	1	10/18/2016 19:14	YH
Indeno(1,2,3-cd)pyrene	BRL		38	450	ug/Kg-dry	231129	1	10/18/2016 19:14	YH
Isophorone	BRL		47	450	ug/Kg-dry	231129	1	10/18/2016 19:14	YH
N-Nitrosodi-n-propylamine	BRL		60	450	ug/Kg-dry	231129	1	10/18/2016 19:14	YH
N-Nitrosodiphenylamine	BRL		44	450	ug/Kg-dry	231129	1	10/18/2016 19:14	YH
Naphthalene	BRL		52	450	ug/Kg-dry	231129	1	10/18/2016 19:14	YH
Nitrobenzene	BRL		56	450	ug/Kg-dry	231129	1	10/18/2016 19:14	YH

Qualifiers:	* Value exceeds maximum contaminant level	E Estimated value above quantitation range
	BRL Not detected at MDL	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	J Estimated value detected below Reporting Limit
	N Analyte not NELAC certified	> Greater than Result value
	B Analyte detected in the associated method blank	< Less than Result value
	NC Not confirmed	Narr See case narrative

Analytical Environmental Services, Inc

Date: 27-Oct-16

Client: GHD Services, Inc.	Client Sample ID: SO-077150-101116-DJB-006
Project Name: Bluewater Thermal Solutions	Collection Date: 10/11/2016 3:50:00 PM
Lab ID: 1610C64-006	Matrix: Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D (SW3550C)									
Pentachlorophenol	BRL		73	1100	ug/Kg-dry	231129	1	10/18/2016 19:14	YH
Phenanthrene	BRL		42	450	ug/Kg-dry	231129	1	10/18/2016 19:14	YH
Phenol	BRL		68	450	ug/Kg-dry	231129	1	10/18/2016 19:14	YH
Pyrene	BRL		13	450	ug/Kg-dry	231129	1	10/18/2016 19:14	YH
Surr: 2,4,6-Tribromophenol	67.7		0	42.4-130	%REC	231129	1	10/18/2016 19:14	YH
Surr: 2-Fluorobiphenyl	69.7		0	51.5-120	%REC	231129	1	10/18/2016 19:14	YH
Surr: 2-Fluorophenol	73.2		0	41.1-120	%REC	231129	1	10/18/2016 19:14	YH
Surr: 4-Terphenyl-d14	89.4		0	52.7-117	%REC	231129	1	10/18/2016 19:14	YH
Surr: Nitrobenzene-d5	78.3		0	41.4-120	%REC	231129	1	10/18/2016 19:14	YH
Surr: Phenol-d5	78.7		0	47.6-120	%REC	231129	1	10/18/2016 19:14	YH
METALS, TOTAL SW6010C (SW3050B)									
Aluminum	11200		4.66	26.2	mg/Kg-dry	231487	1	10/22/2016 20:09	IO
Antimony	BRL		0.360	6.55	mg/Kg-dry	231487	1	10/22/2016 20:09	IO
Arsenic	BRL		0.194	1.31	mg/Kg-dry	231487	1	10/22/2016 20:09	IO
Barium	1.98	J	0.0992	6.55	mg/Kg-dry	231487	1	10/22/2016 20:09	IO
Beryllium	0.450	J	0.0169	0.655	mg/Kg-dry	231487	1	10/22/2016 20:09	IO
Cadmium	BRL		0.0231	0.655	mg/Kg-dry	231487	1	10/22/2016 20:09	IO
Calcium	115		0.910	65.5	mg/Kg-dry	231487	1	10/22/2016 20:09	IO
Chromium	0.191	J	0.0292	1.31	mg/Kg-dry	231487	1	10/22/2016 20:09	IO
Cobalt	0.0999	J	0.0342	3.28	mg/Kg-dry	231487	1	10/22/2016 20:09	IO
Copper	0.464	J	0.112	3.28	mg/Kg-dry	231487	1	10/22/2016 20:09	IO
Iron	511		1.50	13.1	mg/Kg-dry	231487	1	10/22/2016 20:09	IO
Lead	10.8		0.102	0.655	mg/Kg-dry	231487	1	10/22/2016 20:09	IO
Magnesium	104		0.151	65.5	mg/Kg-dry	231487	1	10/22/2016 20:09	IO
Manganese	4.65		0.0181	1.97	mg/Kg-dry	231487	1	10/22/2016 20:09	IO
Nickel	0.132	J	0.109	5.24	mg/Kg-dry	231487	1	10/22/2016 20:09	IO
Potassium	242		0.399	131	mg/Kg-dry	231487	1	10/22/2016 20:09	IO
Selenium	BRL		0.427	0.655	mg/Kg-dry	231487	1	10/24/2016 21:17	JL
Silver	BRL		0.0284	1.31	mg/Kg-dry	231487	1	10/22/2016 20:09	IO
Sodium	18.2	J	0.301	131	mg/Kg-dry	231487	1	10/22/2016 20:09	IO
Thallium	0.335	J	0.243	1.31	mg/Kg-dry	231487	1	10/24/2016 21:17	JL
Vanadium	0.0607	J	0.0379	6.55	mg/Kg-dry	231487	1	10/22/2016 20:09	IO
Zinc	3.84		0.206	2.62	mg/Kg-dry	231487	1	10/22/2016 20:09	IO
PERCENT MOISTURE D2216									
Percent Moisture	27.3		0	0	wt%	R327981	1	10/21/2016 09:00	BD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 27-Oct-16

Client: GHD Services, Inc.	Client Sample ID: SO-077150-101116-DJB-007
Project Name: Bluewater Thermal Solutions	Collection Date: 10/11/2016 4:30:00 PM
Lab ID: 1610C64-007	Matrix: Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5035)					
Dichlorodifluoromethane	BRL		1.6	11	ug/Kg-dry	231323	1	10/21/2016 01:14	MD
Chloromethane	BRL		2.0	11	ug/Kg-dry	231323	1	10/21/2016 01:14	MD
Vinyl chloride	BRL		2.3	11	ug/Kg-dry	231323	1	10/21/2016 01:14	MD
Bromomethane	BRL		2.4	5.5	ug/Kg-dry	231323	1	10/21/2016 01:14	MD
Chloroethane	BRL		3.0	11	ug/Kg-dry	231323	1	10/21/2016 01:14	MD
Trichlorofluoromethane	BRL		2.6	5.5	ug/Kg-dry	231323	1	10/21/2016 01:14	MD
1,1-Dichloroethene	BRL		1.1	5.5	ug/Kg-dry	231323	1	10/21/2016 01:14	MD
Acetone	47		5.5	11	ug/Kg-dry	231323	1	10/21/2016 01:14	MD
Freon-113	BRL		1.4	11	ug/Kg-dry	231323	1	10/21/2016 01:14	MD
Carbon disulfide	BRL		3.0	11	ug/Kg-dry	231323	1	10/21/2016 01:14	MD
Methyl acetate	BRL		2.8	5.5	ug/Kg-dry	231323	1	10/21/2016 01:14	MD
Methylene chloride	BRL		5.5	11	ug/Kg-dry	231323	1	10/21/2016 01:14	MD
Methyl tert-butyl ether	BRL		1.2	5.5	ug/Kg-dry	231323	1	10/21/2016 01:14	MD
trans-1,2-Dichloroethene	BRL		1.9	5.5	ug/Kg-dry	231323	1	10/21/2016 01:14	MD
1,1-Dichloroethane	BRL		1.5	5.5	ug/Kg-dry	231323	1	10/21/2016 01:14	MD
cis-1,2-Dichloroethene	BRL		2.0	5.5	ug/Kg-dry	231323	1	10/21/2016 01:14	MD
2-Butanone	BRL		6.8	11	ug/Kg-dry	231323	1	10/21/2016 01:14	MD
Bromochloromethane	BRL		1.9	5.5	ug/Kg-dry	231323	1	10/21/2016 01:14	MD
Chloroform	BRL		1.3	5.5	ug/Kg-dry	231323	1	10/21/2016 01:14	MD
1,1,1-Trichloroethane	BRL		1.4	5.5	ug/Kg-dry	231323	1	10/21/2016 01:14	MD
Cyclohexane	BRL		1.2	5.5	ug/Kg-dry	231323	1	10/21/2016 01:14	MD
Carbon tetrachloride	BRL		1.5	5.5	ug/Kg-dry	231323	1	10/21/2016 01:14	MD
Benzene	BRL		0.65	5.5	ug/Kg-dry	231323	1	10/21/2016 01:14	MD
1,2-Dichloroethane	BRL		1.7	5.5	ug/Kg-dry	231323	1	10/21/2016 01:14	MD
Trichloroethene	BRL		1.5	5.5	ug/Kg-dry	231323	1	10/21/2016 01:14	MD
Methylcyclohexane	BRL		1.8	5.5	ug/Kg-dry	231323	1	10/21/2016 01:14	MD
1,2-Dichloropropane	BRL		1.6	5.5	ug/Kg-dry	231323	1	10/21/2016 01:14	MD
cis-1,3-Dichloropropene	BRL		2.0	5.5	ug/Kg-dry	231323	1	10/21/2016 01:14	MD
4-Methyl-2-pentanone	BRL		2.8	11	ug/Kg-dry	231323	1	10/21/2016 01:14	MD
Toluene	BRL		0.58	5.5	ug/Kg-dry	231323	1	10/21/2016 01:14	MD
trans-1,3-Dichloropropene	BRL		1.4	5.5	ug/Kg-dry	231323	1	10/21/2016 01:14	MD
1,1,2-Trichloroethane	BRL		1.7	5.5	ug/Kg-dry	231323	1	10/21/2016 01:14	MD
2-Hexanone	BRL		4.2	11	ug/Kg-dry	231323	1	10/21/2016 01:14	MD
Tetrachloroethene	BRL		1.7	5.5	ug/Kg-dry	231323	1	10/21/2016 01:14	MD
1,3-Dichloropropane	BRL		1.8	5.5	ug/Kg-dry	231323	1	10/21/2016 01:14	MD
Dibromochloromethane	BRL		1.5	5.5	ug/Kg-dry	231323	1	10/21/2016 01:14	MD
1,2-Dibromoethane	BRL		1.7	5.5	ug/Kg-dry	231323	1	10/21/2016 01:14	MD
Chlorobenzene	BRL		1.6	5.5	ug/Kg-dry	231323	1	10/21/2016 01:14	MD
1,1,1,2-Tetrachloroethane	BRL		1.6	5.5	ug/Kg-dry	231323	1	10/21/2016 01:14	MD

Qualifiers:	* Value exceeds maximum contaminant level	E Estimated value above quantitation range
	BRL Not detected at MDL	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	J Estimated value detected below Reporting Limit
	N Analyte not NELAC certified	> Greater than Result value
	B Analyte detected in the associated method blank	< Less than Result value
	NC Not confirmed	Narr See case narrative

Client: GHD Services, Inc.	Client Sample ID: SO-077150-101116-DJB-007
Project Name: Bluewater Thermal Solutions	Collection Date: 10/11/2016 4:30:00 PM
Lab ID: 1610C64-007	Matrix: Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5035)					
Ethylbenzene	BRL		0.55	5.5	ug/Kg-dry	231323	1	10/21/2016 01:14	MD
Styrene	BRL		1.4	5.5	ug/Kg-dry	231323	1	10/21/2016 01:14	MD
Bromoform	BRL		1.5	5.5	ug/Kg-dry	231323	1	10/21/2016 01:14	MD
Isopropylbenzene	BRL		1.5	5.5	ug/Kg-dry	231323	1	10/21/2016 01:14	MD
1,4-Dichlorobenzene	BRL		2.0	5.5	ug/Kg-dry	231323	1	10/21/2016 01:14	MD
1,2-Dichlorobenzene	BRL		1.8	5.5	ug/Kg-dry	231323	1	10/21/2016 01:14	MD
1,2-Dibromo-3-chloropropane	BRL		2.3	5.5	ug/Kg-dry	231323	1	10/21/2016 01:14	MD
1,2,4-Trichlorobenzene	BRL		2.2	5.5	ug/Kg-dry	231323	1	10/21/2016 01:14	MD
Xylenes, Total	BRL		1.6	5.5	ug/Kg-dry	231323	1	10/21/2016 01:14	MD
Surr: 4-Bromofluorobenzene	88.9		0	70-128	%REC	231323	1	10/21/2016 01:14	MD
Surr: Dibromofluoromethane	99.6		0	78.2-128	%REC	231323	1	10/21/2016 01:14	MD
Surr: Toluene-d8	96.2		0	76.5-116	%REC	231323	1	10/21/2016 01:14	MD
TOTAL MERCURY SW7471B				(SW7471B)					
Mercury	0.0126	J	0.00453	0.103	mg/Kg-dry	231461	1	10/21/2016 12:16	JR
TCL-SEMIVOLATILE ORGANICS SW8270D				(SW3550C)					
1,1'-Biphenyl	BRL		42	400	ug/Kg-dry	231129	1	10/18/2016 19:41	YH
2,4,5-Trichlorophenol	BRL		130	1000	ug/Kg-dry	231129	1	10/18/2016 19:41	YH
2,4,6-Trichlorophenol	BRL		28	400	ug/Kg-dry	231129	1	10/18/2016 19:41	YH
2,4-Dichlorophenol	BRL		140	400	ug/Kg-dry	231129	1	10/18/2016 19:41	YH
2,4-Dimethylphenol	BRL		44	400	ug/Kg-dry	231129	1	10/18/2016 19:41	YH
2,4-Dinitrophenol	BRL		170	1000	ug/Kg-dry	231129	1	10/18/2016 19:41	YH
2,4-Dinitrotoluene	BRL		42	400	ug/Kg-dry	231129	1	10/18/2016 19:41	YH
2,6-Dinitrotoluene	BRL		80	400	ug/Kg-dry	231129	1	10/18/2016 19:41	YH
2-Chloronaphthalene	BRL		57	400	ug/Kg-dry	231129	1	10/18/2016 19:41	YH
2-Chlorophenol	BRL		48	400	ug/Kg-dry	231129	1	10/18/2016 19:41	YH
2-Methylnaphthalene	BRL		43	400	ug/Kg-dry	231129	1	10/18/2016 19:41	YH
2-Methylphenol	BRL		67	400	ug/Kg-dry	231129	1	10/18/2016 19:41	YH
2-Nitroaniline	BRL		55	1000	ug/Kg-dry	231129	1	10/18/2016 19:41	YH
2-Nitrophenol	BRL		93	400	ug/Kg-dry	231129	1	10/18/2016 19:41	YH
3,3'-Dichlorobenzidine	BRL		56	400	ug/Kg-dry	231129	1	10/18/2016 19:41	YH
3-Nitroaniline	BRL		86	1000	ug/Kg-dry	231129	1	10/18/2016 19:41	YH
4,6-Dinitro-2-methylphenol	BRL		71	1000	ug/Kg-dry	231129	1	10/18/2016 19:41	YH
4-Bromophenyl phenyl ether	BRL		110	400	ug/Kg-dry	231129	1	10/18/2016 19:41	YH
4-Chloro-3-methylphenol	BRL		86	400	ug/Kg-dry	231129	1	10/18/2016 19:41	YH
4-Chloroaniline	BRL		140	400	ug/Kg-dry	231129	1	10/18/2016 19:41	YH
4-Chlorophenyl phenyl ether	BRL		49	400	ug/Kg-dry	231129	1	10/18/2016 19:41	YH
4-Methylphenol	BRL		190	400	ug/Kg-dry	231129	1	10/18/2016 19:41	YH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 27-Oct-16

Client: GHD Services, Inc.	Client Sample ID: SO-077150-101116-DJB-007
Project Name: Bluewater Thermal Solutions	Collection Date: 10/11/2016 4:30:00 PM
Lab ID: 1610C64-007	Matrix: Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D									

Qualifiers: * Value exceeds maximum contaminant level
 BRL Not detected at MDL
 H Holding times for preparation or analysis exceeded
 N Analyte not NELAC certified
 B Analyte detected in the associated method blank
 NC Not confirmed

E Estimated value above quantitation range
 S Spike Recovery outside limits due to matrix
 J Estimated value detected below Reporting Limit
 > Greater than Result value
 < Less than Result value
 Narr See case narrative

Analytical Environmental Services, Inc

Date: 27-Oct-16

Client: GHD Services, Inc.	Client Sample ID: SO-077150-101116-DJB-007
Project Name: Bluewater Thermal Solutions	Collection Date: 10/11/2016 4:30:00 PM
Lab ID: 1610C64-007	Matrix: Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D (SW3550C)									
Pentachlorophenol	BRL		65	1000	ug/Kg-dry	231129	1	10/18/2016 19:41	YH
Phenanthrene	BRL		38	400	ug/Kg-dry	231129	1	10/18/2016 19:41	YH
Phenol	BRL		61	400	ug/Kg-dry	231129	1	10/18/2016 19:41	YH
Pyrene	BRL		12	400	ug/Kg-dry	231129	1	10/18/2016 19:41	YH
Surr: 2,4,6-Tribromophenol	51.4		0	42.4-130	%REC	231129	1	10/18/2016 19:41	YH
Surr: 2-Fluorobiphenyl	53.9		0	51.5-120	%REC	231129	1	10/18/2016 19:41	YH
Surr: 2-Fluorophenol	55.8		0	41.1-120	%REC	231129	1	10/18/2016 19:41	YH
Surr: 4-Terphenyl-d14	64.5		0	52.7-117	%REC	231129	1	10/18/2016 19:41	YH
Surr: Nitrobenzene-d5	57.2		0	41.4-120	%REC	231129	1	10/18/2016 19:41	YH
Surr: Phenol-d5	59.9		0	47.6-120	%REC	231129	1	10/18/2016 19:41	YH
METALS, TOTAL SW6010C (SW3050B)									
Aluminum	22400		4.00	22.5	mg/Kg-dry	231487	1	10/22/2016 20:31	IO
Antimony	0.805	J	0.309	5.63	mg/Kg-dry	231487	1	10/22/2016 20:31	IO
Arsenic	1.65		0.167	1.13	mg/Kg-dry	231487	1	10/22/2016 20:31	IO
Barium	31.8		0.0852	5.63	mg/Kg-dry	231487	1	10/22/2016 20:31	IO
Beryllium	0.245	J	0.0145	0.563	mg/Kg-dry	231487	1	10/22/2016 20:31	IO
Cadmium	BRL		0.0198	0.563	mg/Kg-dry	231487	1	10/22/2016 20:31	IO
Calcium	2460		0.781	56.3	mg/Kg-dry	231487	1	10/22/2016 20:31	IO
Chromium	15.0		0.0251	1.13	mg/Kg-dry	231487	1	10/22/2016 20:31	IO
Cobalt	2.06	J	0.0294	2.81	mg/Kg-dry	231487	1	10/22/2016 20:31	IO
Copper	5.56		0.0959	2.81	mg/Kg-dry	231487	1	10/22/2016 20:31	IO
Iron	16600		6.42	56.3	mg/Kg-dry	231487	5	10/22/2016 23:49	IO
Lead	11.4		0.0876	0.563	mg/Kg-dry	231487	1	10/22/2016 20:31	IO
Magnesium	266		0.129	56.3	mg/Kg-dry	231487	1	10/22/2016 20:31	IO
Manganese	26.8		0.0155	1.69	mg/Kg-dry	231487	1	10/22/2016 20:31	IO
Nickel	2.86	J	0.0934	4.50	mg/Kg-dry	231487	1	10/22/2016 20:31	IO
Potassium	412		0.343	113	mg/Kg-dry	231487	1	10/22/2016 20:31	IO
Selenium	BRL		0.366	0.563	mg/Kg-dry	231487	1	10/24/2016 21:21	JL
Silver	BRL		0.0244	1.13	mg/Kg-dry	231487	1	10/22/2016 20:31	IO
Sodium	55.7	J	0.259	113	mg/Kg-dry	231487	1	10/22/2016 20:31	IO
Thallium	BRL		0.209	1.13	mg/Kg-dry	231487	1	10/24/2016 21:21	JL
Vanadium	31.8		0.0325	5.63	mg/Kg-dry	231487	1	10/22/2016 20:31	IO
Zinc	7.02		0.177	2.25	mg/Kg-dry	231487	1	10/22/2016 20:31	IO
PERCENT MOISTURE D2216									
Percent Moisture	18.4		0	0	wt%	R327981	1	10/21/2016 09:00	BD

Qualifiers:	* Value exceeds maximum contaminant level	E Estimated value above quantitation range
	BRL Not detected at MDL	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	J Estimated value detected below Reporting Limit
	N Analyte not NELAC certified	> Greater than Result value
	B Analyte detected in the associated method blank	< Less than Result value
	NC Not confirmed	Narr See case narrative

Client: GHD Services, Inc.	Client Sample ID: SO-077150-101116-DJB-008
Project Name: Bluewater Thermal Solutions	Collection Date: 10/11/2016 5:00:00 PM
Lab ID: 1610C64-008	Matrix: Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5035)					
Dichlorodifluoromethane	BRL		1.5	10	ug/Kg-dry	231323	1	10/21/2016 01:38	MD
Chloromethane	BRL		1.9	10	ug/Kg-dry	231323	1	10/21/2016 01:38	MD
Vinyl chloride	BRL		2.2	10	ug/Kg-dry	231323	1	10/21/2016 01:38	MD
Bromomethane	BRL		2.3	5.1	ug/Kg-dry	231323	1	10/21/2016 01:38	MD
Chloroethane	BRL		2.8	10	ug/Kg-dry	231323	1	10/21/2016 01:38	MD
Trichlorofluoromethane	BRL		2.4	5.1	ug/Kg-dry	231323	1	10/21/2016 01:38	MD
1,1-Dichloroethene	BRL		1.0	5.1	ug/Kg-dry	231323	1	10/21/2016 01:38	MD
Acetone	BRL		5.2	10	ug/Kg-dry	231323	1	10/21/2016 01:38	MD
Freon-113	BRL		1.3	10	ug/Kg-dry	231323	1	10/21/2016 01:38	MD
Carbon disulfide	BRL		2.8	10	ug/Kg-dry	231323	1	10/21/2016 01:38	MD
Methyl acetate	BRL		2.7	5.1	ug/Kg-dry	231323	1	10/21/2016 01:38	MD
Methylene chloride	BRL		5.1	10	ug/Kg-dry	231323	1	10/21/2016 01:38	MD
Methyl tert-butyl ether	BRL		1.2	5.1	ug/Kg-dry	231323	1	10/21/2016 01:38	MD
trans-1,2-Dichloroethene	BRL		1.8	5.1	ug/Kg-dry	231323	1	10/21/2016 01:38	MD
1,1-Dichloroethane	BRL		1.4	5.1	ug/Kg-dry	231323	1	10/21/2016 01:38	MD
cis-1,2-Dichloroethene	BRL		1.9	5.1	ug/Kg-dry	231323	1	10/21/2016 01:38	MD
2-Butanone	BRL		6.4	10	ug/Kg-dry	231323	1	10/21/2016 01:38	MD
Bromochloromethane	BRL		1.8	5.1	ug/Kg-dry	231323	1	10/21/2016 01:38	MD
Chloroform	BRL		1.2	5.1	ug/Kg-dry	231323	1	10/21/2016 01:38	MD
1,1,1-Trichloroethane	BRL		1.3	5.1	ug/Kg-dry	231323	1	10/21/2016 01:38	MD
Cyclohexane	BRL		1.1	5.1	ug/Kg-dry	231323	1	10/21/2016 01:38	MD
Carbon tetrachloride	BRL		1.4	5.1	ug/Kg-dry	231323	1	10/21/2016 01:38	MD
Benzene	BRL		0.61	5.1	ug/Kg-dry	231323	1	10/21/2016 01:38	MD
1,2-Dichloroethane	BRL		1.6	5.1	ug/Kg-dry	231323	1	10/21/2016 01:38	MD
Trichloroethene	BRL		1.4	5.1	ug/Kg-dry	231323	1	10/21/2016 01:38	MD
Methylcyclohexane	BRL		1.6	5.1	ug/Kg-dry	231323	1	10/21/2016 01:38	MD
1,2-Dichloropropane	BRL		1.5	5.1	ug/Kg-dry	231323	1	10/21/2016 01:38	MD
cis-1,3-Dichloropropene	BRL		1.8	5.1	ug/Kg-dry	231323	1	10/21/2016 01:38	MD
4-Methyl-2-pentanone	BRL		2.6	10	ug/Kg-dry	231323	1	10/21/2016 01:38	MD
Toluene	BRL		0.54	5.1	ug/Kg-dry	231323	1	10/21/2016 01:38	MD
trans-1,3-Dichloropropene	BRL		1.3	5.1	ug/Kg-dry	231323	1	10/21/2016 01:38	MD
1,1,2-Trichloroethane	BRL		1.6	5.1	ug/Kg-dry	231323	1	10/21/2016 01:38	MD
2-Hexanone	BRL		3.9	10	ug/Kg-dry	231323	1	10/21/2016 01:38	MD
Tetrachloroethene	BRL		1.5	5.1	ug/Kg-dry	231323	1	10/21/2016 01:38	MD
1,3-Dichloropropane	BRL		1.7	5.1	ug/Kg-dry	231323	1	10/21/2016 01:38	MD
Dibromochloromethane	BRL		1.4	5.1	ug/Kg-dry	231323	1	10/21/2016 01:38	MD
1,2-Dibromoethane	BRL		1.6	5.1	ug/Kg-dry	231323	1	10/21/2016 01:38	MD
Chlorobenzene	BRL		1.5	5.1	ug/Kg-dry	231323	1	10/21/2016 01:38	MD
1,1,1,2-Tetrachloroethane	BRL		1.5	5.1	ug/Kg-dry	231323	1	10/21/2016 01:38	MD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 27-Oct-16

Client: GHD Services, Inc.	Client Sample ID: SO-077150-101116-DJB-008
Project Name: Bluewater Thermal Solutions	Collection Date: 10/11/2016 5:00:00 PM
Lab ID: 1610C64-008	Matrix: Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5035)					
Ethylbenzene	BRL		0.51	5.1	ug/Kg-dry	231323	1	10/21/2016 01:38	MD
Styrene	BRL		1.3	5.1	ug/Kg-dry	231323	1	10/21/2016 01:38	MD
Bromoform	BRL		1.4	5.1	ug/Kg-dry	231323	1	10/21/2016 01:38	MD
Isopropylbenzene	BRL		1.4	5.1	ug/Kg-dry	231323	1	10/21/2016 01:38	MD
1,4-Dichlorobenzene	BRL		1.8	5.1	ug/Kg-dry	231323	1	10/21/2016 01:38	MD
1,2-Dichlorobenzene	BRL		1.7	5.1	ug/Kg-dry	231323	1	10/21/2016 01:38	MD
1,2-Dibromo-3-chloropropane	BRL		2.2	5.1	ug/Kg-dry	231323	1	10/21/2016 01:38	MD
1,2,4-Trichlorobenzene	BRL		2.0	5.1	ug/Kg-dry	231323	1	10/21/2016 01:38	MD
Xylenes, Total	BRL		1.5	5.1	ug/Kg-dry	231323	1	10/21/2016 01:38	MD
Surr: 4-Bromofluorobenzene	87.1		0	70-128	%REC	231323	1	10/21/2016 01:38	MD
Surr: Dibromofluoromethane	101		0	78.2-128	%REC	231323	1	10/21/2016 01:38	MD
Surr: Toluene-d8	96.6		0	76.5-116	%REC	231323	1	10/21/2016 01:38	MD
TOTAL MERCURY SW7471B				(SW7471B)					
Mercury	0.0164	J	0.00537	0.122	mg/Kg-dry	231461	1	10/21/2016 12:19	JR
TCL-SEMIVOLATILE ORGANICS SW8270D				(SW3550C)					
1,1'-Biphenyl	BRL		42	410	ug/Kg-dry	231129	1	10/18/2016 20:06	YH
2,4,5-Trichlorophenol	BRL		130	1000	ug/Kg-dry	231129	1	10/18/2016 20:06	YH
2,4,6-Trichlorophenol	BRL		28	410	ug/Kg-dry	231129	1	10/18/2016 20:06	YH
2,4-Dichlorophenol	BRL		140	410	ug/Kg-dry	231129	1	10/18/2016 20:06	YH
2,4-Dimethylphenol	BRL		44	410	ug/Kg-dry	231129	1	10/18/2016 20:06	YH
2,4-Dinitrophenol	BRL		170	1000	ug/Kg-dry	231129	1	10/18/2016 20:06	YH
2,4-Dinitrotoluene	BRL		42	410	ug/Kg-dry	231129	1	10/18/2016 20:06	YH
2,6-Dinitrotoluene	BRL		80	410	ug/Kg-dry	231129	1	10/18/2016 20:06	YH
2-Chloronaphthalene	BRL		57	410	ug/Kg-dry	231129	1	10/18/2016 20:06	YH
2-Chlorophenol	BRL		48	410	ug/Kg-dry	231129	1	10/18/2016 20:06	YH
2-Methylnaphthalene	BRL		43	410	ug/Kg-dry	231129	1	10/18/2016 20:06	YH
2-Methylphenol	BRL		67	410	ug/Kg-dry	231129	1	10/18/2016 20:06	YH
2-Nitroaniline	BRL		55	1000	ug/Kg-dry	231129	1	10/18/2016 20:06	YH
2-Nitrophenol	BRL		93	410	ug/Kg-dry	231129	1	10/18/2016 20:06	YH
3,3'-Dichlorobenzidine	BRL		56	410	ug/Kg-dry	231129	1	10/18/2016 20:06	YH
3-Nitroaniline	BRL		86	1000	ug/Kg-dry	231129	1	10/18/2016 20:06	YH
4,6-Dinitro-2-methylphenol	BRL		72	1000	ug/Kg-dry	231129	1	10/18/2016 20:06	YH
4-Bromophenyl phenyl ether	BRL		110	410	ug/Kg-dry	231129	1	10/18/2016 20:06	YH
4-Chloro-3-methylphenol	BRL		86	410	ug/Kg-dry	231129	1	10/18/2016 20:06	YH
4-Chloroaniline	BRL		140	410	ug/Kg-dry	231129	1	10/18/2016 20:06	YH
4-Chlorophenyl phenyl ether	BRL		49	410	ug/Kg-dry	231129	1	10/18/2016 20:06	YH
4-Methylphenol	BRL		190	410	ug/Kg-dry	231129	1	10/18/2016 20:06	YH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Client: GHD Services, Inc.	Client Sample ID: SO-077150-101116-DJB-008
Project Name: Bluewater Thermal Solutions	Collection Date: 10/11/2016 5:00:00 PM
Lab ID: 1610C64-008	Matrix: Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D (SW3550C)									
Pentachlorophenol	BRL		66	1000	ug/Kg-dry	231129	1	10/18/2016 20:06	YH
Phenanthrene	BRL		38	410	ug/Kg-dry	231129	1	10/18/2016 20:06	YH
Phenol	BRL		61	410	ug/Kg-dry	231129	1	10/18/2016 20:06	YH
Pyrene	BRL		12	410	ug/Kg-dry	231129	1	10/18/2016 20:06	YH
Surr: 2,4,6-Tribromophenol	77.5		0	42.4-130	%REC	231129	1	10/18/2016 20:06	YH
Surr: 2-Fluorobiphenyl	77.8		0	51.5-120	%REC	231129	1	10/18/2016 20:06	YH
Surr: 2-Fluorophenol	80.4		0	41.1-120	%REC	231129	1	10/18/2016 20:06	YH
Surr: 4-Terphenyl-d14	97.4		0	52.7-117	%REC	231129	1	10/18/2016 20:06	YH
Surr: Nitrobenzene-d5	84.5		0	41.4-120	%REC	231129	1	10/18/2016 20:06	YH
Surr: Phenol-d5	87.2		0	47.6-120	%REC	231129	1	10/18/2016 20:06	YH
METALS, TOTAL SW6010C (SW3050B)									
Aluminum	8670		3.36	18.9	mg/Kg-dry	231487	1	10/22/2016 20:42	IO
Antimony	BRL		0.259	4.72	mg/Kg-dry	231487	1	10/22/2016 20:42	IO
Arsenic	0.990		0.140	0.944	mg/Kg-dry	231487	1	10/25/2016 13:45	IO
Barium	9.68		0.0714	4.72	mg/Kg-dry	231487	1	10/22/2016 20:42	IO
Beryllium	0.0820	J	0.0122	0.472	mg/Kg-dry	231487	1	10/22/2016 20:42	IO
Cadmium	BRL		0.0166	0.472	mg/Kg-dry	231487	1	10/22/2016 20:42	IO
Calcium	1120		0.655	47.2	mg/Kg-dry	231487	1	10/22/2016 20:42	IO
Chromium	7.35		0.0210	0.944	mg/Kg-dry	231487	1	10/22/2016 20:42	IO
Cobalt	0.877	J	0.0246	2.36	mg/Kg-dry	231487	1	10/22/2016 20:42	IO
Copper	1.65	J	0.0804	2.36	mg/Kg-dry	231487	1	10/22/2016 20:42	IO
Iron	7790		5.39	47.2	mg/Kg-dry	231487	5	10/22/2016 23:52	IO
Lead	5.98		0.0735	0.472	mg/Kg-dry	231487	1	10/22/2016 20:42	IO
Magnesium	111		0.109	47.2	mg/Kg-dry	231487	1	10/22/2016 20:42	IO
Manganese	12.0		0.0130	1.42	mg/Kg-dry	231487	1	10/22/2016 20:42	IO
Nickel	0.816	J	0.0783	3.77	mg/Kg-dry	231487	1	10/22/2016 20:42	IO
Potassium	173		0.287	94.4	mg/Kg-dry	231487	1	10/22/2016 20:42	IO
Selenium	BRL		0.307	0.472	mg/Kg-dry	231487	1	10/24/2016 21:24	JL
Silver	BRL		0.0205	0.944	mg/Kg-dry	231487	1	10/22/2016 20:42	IO
Sodium	20.7	J	0.217	94.4	mg/Kg-dry	231487	1	10/22/2016 20:42	IO
Thallium	BRL		0.175	0.944	mg/Kg-dry	231487	1	10/24/2016 21:24	JL
Vanadium	13.7		0.0273	4.72	mg/Kg-dry	231487	1	10/22/2016 20:42	IO
Zinc	2.75		0.148	1.89	mg/Kg-dry	231487	1	10/22/2016 20:42	IO
PERCENT MOISTURE D2216									
Percent Moisture	18.9		0	0	wt%	R327981	1	10/21/2016 09:00	BD

Qualifiers:	* Value exceeds maximum contaminant level	E Estimated value above quantitation range
	BRL Not detected at MDL	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	J Estimated value detected below Reporting Limit
	N Analyte not NELAC certified	> Greater than Result value
	B Analyte detected in the associated method blank	< Less than Result value
	NC Not confirmed	Narr See case narrative

Analytical Environmental Services, Inc

Date: 27-Oct-16

Client: GHD Services, Inc.	Client Sample ID: SO-077150-101216-DJB-009
Project Name: Bluewater Thermal Solutions	Collection Date: 10/12/2016 9:15:00 AM
Lab ID: 1610C64-009	Matrix: Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5035)					
Dichlorodifluoromethane	BRL		1.1	7.2	ug/Kg-dry	231323	1	10/21/2016 02:02	MD
Chloromethane	BRL		1.3	7.2	ug/Kg-dry	231323	1	10/21/2016 02:02	MD
Vinyl chloride	BRL		1.5	7.2	ug/Kg-dry	231323	1	10/21/2016 02:02	MD
Bromomethane	BRL		1.6	3.6	ug/Kg-dry	231323	1	10/21/2016 02:02	MD
Chloroethane	BRL		1.9	7.2	ug/Kg-dry	231323	1	10/21/2016 02:02	MD
Trichlorofluoromethane	BRL		1.7	3.6	ug/Kg-dry	231323	1	10/21/2016 02:02	MD
1,1-Dichloroethene	BRL		0.71	3.6	ug/Kg-dry	231323	1	10/21/2016 02:02	MD
Acetone	19		3.6	7.2	ug/Kg-dry	231323	1	10/21/2016 02:02	MD
Freon-113	BRL		0.94	7.2	ug/Kg-dry	231323	1	10/21/2016 02:02	MD
Carbon disulfide	BRL		2.0	7.2	ug/Kg-dry	231323	1	10/21/2016 02:02	MD
Methyl acetate	BRL		1.9	3.6	ug/Kg-dry	231323	1	10/21/2016 02:02	MD
Methylene chloride	BRL		3.6	7.2	ug/Kg-dry	231323	1	10/21/2016 02:02	MD
Methyl tert-butyl ether	BRL		0.82	3.6	ug/Kg-dry	231323	1	10/21/2016 02:02	MD
trans-1,2-Dichloroethene	BRL		1.2	3.6	ug/Kg-dry	231323	1	10/21/2016 02:02	MD
1,1-Dichloroethane	BRL		1.0	3.6	ug/Kg-dry	231323	1	10/21/2016 02:02	MD
cis-1,2-Dichloroethene	BRL		1.3	3.6	ug/Kg-dry	231323	1	10/21/2016 02:02	MD
2-Butanone	BRL		4.5	7.2	ug/Kg-dry	231323	1	10/21/2016 02:02	MD
Bromochloromethane	BRL		1.3	3.6	ug/Kg-dry	231323	1	10/21/2016 02:02	MD
Chloroform	BRL		0.87	3.6	ug/Kg-dry	231323	1	10/21/2016 02:02	MD
1,1,1-Trichloroethane	BRL		0.95	3.6	ug/Kg-dry	231323	1	10/21/2016 02:02	MD
Cyclohexane	BRL		0.80	3.6	ug/Kg-dry	231323	1	10/21/2016 02:02	MD
Carbon tetrachloride	BRL		0.96	3.6	ug/Kg-dry	231323	1	10/21/2016 02:02	MD
Benzene	BRL		0.43	3.6	ug/Kg-dry	231323	1	10/21/2016 02:02	MD
1,2-Dichloroethane	BRL		1.1	3.6	ug/Kg-dry	231323	1	10/21/2016 02:02	MD
Trichloroethene	BRL		0.99	3.6	ug/Kg-dry	231323	1	10/21/2016 02:02	MD
Methylcyclohexane	BRL		1.2	3.6	ug/Kg-dry	231323	1	10/21/2016 02:02	MD
1,2-Dichloropropane	BRL		1.0	3.6	ug/Kg-dry	231323	1	10/21/2016 02:02	MD
cis-1,3-Dichloropropene	BRL		1.3	3.6	ug/Kg-dry	231323	1	10/21/2016 02:02	MD
4-Methyl-2-pentanone	BRL		1.9	7.2	ug/Kg-dry	231323	1	10/21/2016 02:02	MD
Toluene	BRL		0.38	3.6	ug/Kg-dry	231323	1	10/21/2016 02:02	MD
trans-1,3-Dichloropropene	BRL		0.89	3.6	ug/Kg-dry	231323	1	10/21/2016 02:02	MD
1,1,2-Trichloroethane	BRL		1.1	3.6	ug/Kg-dry	231323	1	10/21/2016 02:02	MD
2-Hexanone	BRL		2.8	7.2	ug/Kg-dry	231323	1	10/21/2016 02:02	MD
Tetrachloroethene	BRL		1.1	3.6	ug/Kg-dry	231323	1	10/21/2016 02:02	MD
1,3-Dichloropropane	BRL		1.2	3.6	ug/Kg-dry	231323	1	10/21/2016 02:02	MD
Dibromochloromethane	BRL		0.97	3.6	ug/Kg-dry	231323	1	10/21/2016 02:02	MD
1,2-Dibromoethane	BRL		1.1	3.6	ug/Kg-dry	231323	1	10/21/2016 02:02	MD
Chlorobenzene	BRL		1.1	3.6	ug/Kg-dry	231323	1	10/21/2016 02:02	MD
1,1,1,2-Tetrachloroethane	BRL		1.0	3.6	ug/Kg-dry	231323	1	10/21/2016 02:02	MD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 27-Oct-16

Client: GHD Services, Inc.	Client Sample ID: SO-077150-101216-DJB-009
Project Name: Bluewater Thermal Solutions	Collection Date: 10/12/2016 9:15:00 AM
Lab ID: 1610C64-009	Matrix: Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5035)					
Ethylbenzene	BRL		0.36	3.6	ug/Kg-dry	231323	1	10/21/2016 02:02	MD
Styrene	BRL		0.94	3.6	ug/Kg-dry	231323	1	10/21/2016 02:02	MD
Bromoform	BRL		0.97	3.6	ug/Kg-dry	231323	1	10/21/2016 02:02	MD
Isopropylbenzene	BRL		1.0	3.6	ug/Kg-dry	231323	1	10/21/2016 02:02	MD
1,4-Dichlorobenzene	BRL		1.3	3.6	ug/Kg-dry	231323	1	10/21/2016 02:02	MD
1,2-Dichlorobenzene	BRL		1.2	3.6	ug/Kg-dry	231323	1	10/21/2016 02:02	MD
1,2-Dibromo-3-chloropropane	BRL		1.5	3.6	ug/Kg-dry	231323	1	10/21/2016 02:02	MD
1,2,4-Trichlorobenzene	BRL		1.4	3.6	ug/Kg-dry	231323	1	10/21/2016 02:02	MD
Xylenes, Total	BRL		1.0	3.6	ug/Kg-dry	231323	1	10/21/2016 02:02	MD
Surr: 4-Bromofluorobenzene	85.8		0	70-128	%REC	231323	1	10/21/2016 02:02	MD
Surr: Dibromofluoromethane	96.3		0	78.2-128	%REC	231323	1	10/21/2016 02:02	MD
Surr: Toluene-d8	97.9		0	76.5-116	%REC	231323	1	10/21/2016 02:02	MD
TOTAL MERCURY SW7471B				(SW7471B)					
Mercury	0.0145	J	0.00466	0.106	mg/Kg-dry	231461	1	10/21/2016 12:21	JR
TCL-SEMIVOLATILE ORGANICS SW8270D				(SW3550C)					
1,1'-Biphenyl	BRL		37	360	ug/Kg-dry	231129	1	10/18/2016 23:14	YH
2,4,5-Trichlorophenol	BRL		110	900	ug/Kg-dry	231129	1	10/18/2016 23:14	YH
2,4,6-Trichlorophenol	BRL		25	360	ug/Kg-dry	231129	1	10/18/2016 23:14	YH
2,4-Dichlorophenol	BRL		120	360	ug/Kg-dry	231129	1	10/18/2016 23:14	YH
2,4-Dimethylphenol	BRL		39	360	ug/Kg-dry	231129	1	10/18/2016 23:14	YH
2,4-Dinitrophenol	BRL		150	900	ug/Kg-dry	231129	1	10/18/2016 23:14	YH
2,4-Dinitrotoluene	BRL		37	360	ug/Kg-dry	231129	1	10/18/2016 23:14	YH
2,6-Dinitrotoluene	BRL		71	360	ug/Kg-dry	231129	1	10/18/2016 23:14	YH
2-Chloronaphthalene	BRL		50	360	ug/Kg-dry	231129	1	10/18/2016 23:14	YH
2-Chlorophenol	BRL		42	360	ug/Kg-dry	231129	1	10/18/2016 23:14	YH
2-Methylnaphthalene	BRL		38	360	ug/Kg-dry	231129	1	10/18/2016 23:14	YH
2-Methylphenol	BRL		59	360	ug/Kg-dry	231129	1	10/18/2016 23:14	YH
2-Nitroaniline	BRL		49	900	ug/Kg-dry	231129	1	10/18/2016 23:14	YH
2-Nitrophenol	BRL		82	360	ug/Kg-dry	231129	1	10/18/2016 23:14	YH
3,3'-Dichlorobenzidine	BRL		49	360	ug/Kg-dry	231129	1	10/18/2016 23:14	YH
3-Nitroaniline	BRL		76	900	ug/Kg-dry	231129	1	10/18/2016 23:14	YH
4,6-Dinitro-2-methylphenol	BRL		63	900	ug/Kg-dry	231129	1	10/18/2016 23:14	YH
4-Bromophenyl phenyl ether	BRL		99	360	ug/Kg-dry	231129	1	10/18/2016 23:14	YH
4-Chloro-3-methylphenol	BRL		76	360	ug/Kg-dry	231129	1	10/18/2016 23:14	YH
4-Chloroaniline	BRL		120	360	ug/Kg-dry	231129	1	10/18/2016 23:14	YH
4-Chlorophenyl phenyl ether	BRL		43	360	ug/Kg-dry	231129	1	10/18/2016 23:14	YH
4-Methylphenol	BRL		170	360	ug/Kg-dry	231129	1	10/18/2016 23:14	YH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 27-Oct-16

Client: GHD Services, Inc.	Client Sample ID: SO-077150-101216-DJB-009
Project Name: Bluewater Thermal Solutions	Collection Date: 10/12/2016 9:15:00 AM
Lab ID: 1610C64-009	Matrix: Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS									
SW8270D									
				(SW3550C)					
4-Nitroaniline	BRL		110	900	ug/Kg-dry	231129	1	10/18/2016 23:14	YH
4-Nitrophenol	BRL		190	900	ug/Kg-dry	231129	1	10/18/2016 23:14	YH
Acenaphthene	BRL		47	360	ug/Kg-dry	231129	1	10/18/2016 23:14	YH
Acenaphthylene	BRL		35	360	ug/Kg-dry	231129	1	10/18/2016 23:14	YH
Acetophenone	BRL		63	360	ug/Kg-dry	231129	1	10/18/2016 23:14	YH
Anthracene	BRL		29	360	ug/Kg-dry	231129	1	10/18/2016 23:14	YH
Atrazine	BRL		93	360	ug/Kg-dry	231129	1	10/18/2016 23:14	YH
Benz(a)anthracene	BRL		21	360	ug/Kg-dry	231129	1	10/18/2016 23:14	YH
Benzaldehyde	BRL		130	360	ug/Kg-dry	231129	1	10/18/2016 23:14	YH
Benzo(a)pyrene	BRL		27	360	ug/Kg-dry	231129	1	10/18/2016 23:14	YH
Benzo(b)fluoranthene	BRL		30	360	ug/Kg-dry	231129	1	10/18/2016 23:14	YH
Benzo(g,h,i)perylene	BRL		25	360	ug/Kg-dry	231129	1	10/18/2016 23:14	YH
Benzo(k)fluoranthene	BRL		40	360	ug/Kg-dry	231129	1	10/18/2016 23:14	YH
Bis(2-chloroethoxy)methane	BRL		41	360	ug/Kg-dry	231129	1	10/18/2016 23:14	YH
Bis(2-chloroethyl)ether	BRL		35	360	ug/Kg-dry	231129	1	10/18/2016 23:14	YH
Bis(2-chloroisopropyl)ether	BRL		40	360	ug/Kg-dry	231129	1	10/18/2016 23:14	YH
Bis(2-ethylhexyl)phthalate	BRL		30	360	ug/Kg-dry	231129	1	10/18/2016 23:14	YH
Butyl benzyl phthalate	BRL		41	360	ug/Kg-dry	231129	1	10/18/2016 23:14	YH
Caprolactam	BRL		130	360	ug/Kg-dry	231129	1	10/18/2016 23:14	YH
Carbazole	BRL		37	360	ug/Kg-dry	231129	1	10/18/2016 23:14	YH
Chrysene	BRL		34	360	ug/Kg-dry	231129	1	10/18/2016 23:14	YH
Di-n-butyl phthalate	BRL		33	360	ug/Kg-dry	231129	1	10/18/2016 23:14	YH
Di-n-octyl phthalate	BRL		22	360	ug/Kg-dry	231129	1	10/18/2016 23:14	YH
Dibenz(a,h)anthracene	BRL		41	360	ug/Kg-dry	231129	1	10/18/2016 23:14	YH
Dibenzofuran	BRL		50	360	ug/Kg-dry	231129	1	10/18/2016 23:14	YH
Diethyl phthalate	BRL		36	360	ug/Kg-dry	231129	1	10/18/2016 23:14	YH
Dimethyl phthalate	BRL		43	360	ug/Kg-dry	231129	1	10/18/2016 23:14	YH
Fluoranthene	BRL		20	360	ug/Kg-dry	231129	1	10/18/2016 23:14	YH
Fluorene	BRL		34	360	ug/Kg-dry	231129	1	10/18/2016 23:14	YH
Hexachlorobenzene	BRL		56	360	ug/Kg-dry	231129	1	10/18/2016 23:14	YH
Hexachlorobutadiene	BRL		64	360	ug/Kg-dry	231129	1	10/18/2016 23:14	YH
Hexachlorocyclopentadiene	BRL		50	360	ug/Kg-dry	231129	1	10/18/2016 23:14	YH
Hexachloroethane	BRL		38	360	ug/Kg-dry	231129	1	10/18/2016 23:14	YH
Indeno(1,2,3-cd)pyrene	BRL		30	360	ug/Kg-dry	231129	1	10/18/2016 23:14	YH
Isophorone	BRL		37	360	ug/Kg-dry	231129	1	10/18/2016 23:14	YH
N-Nitrosodi-n-propylamine	BRL		48	360	ug/Kg-dry	231129	1	10/18/2016 23:14	YH
N-Nitrosodiphenylamine	BRL		34	360	ug/Kg-dry	231129	1	10/18/2016 23:14	YH
Naphthalene	BRL		41	360	ug/Kg-dry	231129	1	10/18/2016 23:14	YH
Nitrobenzene	BRL		44	360	ug/Kg-dry	231129	1	10/18/2016 23:14	YH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 27-Oct-16

Client: GHD Services, Inc.	Client Sample ID: SO-077150-101216-DJB-009
Project Name: Bluewater Thermal Solutions	Collection Date: 10/12/2016 9:15:00 AM
Lab ID: 1610C64-009	Matrix: Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D (SW3550C)									
Pentachlorophenol	BRL		58	900	ug/Kg-dry	231129	1	10/18/2016 23:14	YH
Phenanthrene	BRL		34	360	ug/Kg-dry	231129	1	10/18/2016 23:14	YH
Phenol	BRL		54	360	ug/Kg-dry	231129	1	10/18/2016 23:14	YH
Pyrene	BRL		10	360	ug/Kg-dry	231129	1	10/18/2016 23:14	YH
Surr: 2,4,6-Tribromophenol	97.3		0	42.4-130	%REC	231129	1	10/18/2016 23:14	YH
Surr: 2-Fluorobiphenyl	77.5		0	51.5-120	%REC	231129	1	10/18/2016 23:14	YH
Surr: 2-Fluorophenol	79.2		0	41.1-120	%REC	231129	1	10/18/2016 23:14	YH
Surr: 4-Terphenyl-d14	89.4		0	52.7-117	%REC	231129	1	10/18/2016 23:14	YH
Surr: Nitrobenzene-d5	72.9		0	41.4-120	%REC	231129	1	10/18/2016 23:14	YH
Surr: Phenol-d5	80.6		0	47.6-120	%REC	231129	1	10/18/2016 23:14	YH
METALS, TOTAL SW6010C (SW3050B)									
Aluminum	8090		3.09	17.4	mg/Kg-dry	231487	1	10/22/2016 20:45	IO
Antimony	BRL		0.238	4.34	mg/Kg-dry	231487	1	10/22/2016 20:45	IO
Arsenic	0.724	J	0.128	0.868	mg/Kg-dry	231487	1	10/22/2016 20:45	IO
Barium	182		0.0657	4.34	mg/Kg-dry	231487	1	10/22/2016 20:45	IO
Beryllium	0.0905	J	0.0112	0.434	mg/Kg-dry	231487	1	10/22/2016 20:45	IO
Cadmium	0.0192	J	0.0153	0.434	mg/Kg-dry	231487	1	10/22/2016 20:45	IO
Calcium	769		0.603	43.4	mg/Kg-dry	231487	1	10/22/2016 20:45	IO
Chromium	6.93		0.0194	0.868	mg/Kg-dry	231487	1	10/22/2016 20:45	IO
Cobalt	0.735	J	0.0227	2.17	mg/Kg-dry	231487	1	10/22/2016 20:45	IO
Copper	1.34	J	0.0740	2.17	mg/Kg-dry	231487	1	10/22/2016 20:45	IO
Iron	4410		4.96	43.4	mg/Kg-dry	231487	5	10/22/2016 23:56	IO
Lead	6.84		0.0676	0.434	mg/Kg-dry	231487	1	10/22/2016 20:45	IO
Magnesium	94.2		0.0998	43.4	mg/Kg-dry	231487	1	10/22/2016 20:45	IO
Manganese	10.9		0.0120	1.30	mg/Kg-dry	231487	1	10/22/2016 20:45	IO
Nickel	1.08	J	0.0721	3.47	mg/Kg-dry	231487	1	10/22/2016 20:45	IO
Potassium	155		0.264	86.8	mg/Kg-dry	231487	1	10/22/2016 20:45	IO
Selenium	BRL		0.283	0.434	mg/Kg-dry	231487	1	10/24/2016 21:27	JL
Silver	BRL		0.0188	0.868	mg/Kg-dry	231487	1	10/22/2016 20:45	IO
Sodium	43.7	J	0.200	86.8	mg/Kg-dry	231487	1	10/22/2016 20:45	IO
Thallium	BRL		0.161	0.868	mg/Kg-dry	231487	1	10/24/2016 21:27	JL
Vanadium	8.60		0.0251	4.34	mg/Kg-dry	231487	1	10/22/2016 20:45	IO
Zinc	3.78		0.136	1.74	mg/Kg-dry	231487	1	10/22/2016 20:45	IO
PERCENT MOISTURE D2216									
Percent Moisture	7.91		0	0	wt%	R327981	1	10/21/2016 09:00	BD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Client: GHD Services, Inc.	Client Sample ID: SO-077150-101216-DJB-010
Project Name: Bluewater Thermal Solutions	Collection Date: 10/12/2016 9:40:00 AM
Lab ID: 1610C64-010	Matrix: Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5035)					
Dichlorodifluoromethane	BRL		1.3	8.6	ug/Kg-dry	231323	1	10/21/2016 11:37	MD
Chloromethane	BRL		1.6	8.6	ug/Kg-dry	231323	1	10/21/2016 11:37	MD
Vinyl chloride	BRL		1.8	8.6	ug/Kg-dry	231323	1	10/21/2016 11:37	MD
Bromomethane	BRL		1.9	4.3	ug/Kg-dry	231323	1	10/21/2016 11:37	MD
Chloroethane	BRL		2.3	8.6	ug/Kg-dry	231323	1	10/21/2016 11:37	MD
Trichlorofluoromethane	BRL		2.0	4.3	ug/Kg-dry	231323	1	10/21/2016 11:37	MD
1,1-Dichloroethene	BRL		0.84	4.3	ug/Kg-dry	231323	1	10/21/2016 11:37	MD
Acetone	16		4.3	8.6	ug/Kg-dry	231323	1	10/21/2016 11:37	MD
Freon-113	BRL		1.1	8.6	ug/Kg-dry	231323	1	10/21/2016 11:37	MD
Carbon disulfide	BRL		2.3	8.6	ug/Kg-dry	231323	1	10/21/2016 11:37	MD
Methyl acetate	BRL		2.2	4.3	ug/Kg-dry	231323	1	10/21/2016 11:37	MD
Methylene chloride	BRL		4.3	8.6	ug/Kg-dry	231323	1	10/21/2016 11:37	MD
Methyl tert-butyl ether	BRL		0.98	4.3	ug/Kg-dry	231323	1	10/21/2016 11:37	MD
trans-1,2-Dichloroethene	BRL		1.5	4.3	ug/Kg-dry	231323	1	10/21/2016 11:37	MD
1,1-Dichloroethane	BRL		1.2	4.3	ug/Kg-dry	231323	1	10/21/2016 11:37	MD
cis-1,2-Dichloroethene	BRL		1.6	4.3	ug/Kg-dry	231323	1	10/21/2016 11:37	MD
2-Butanone	BRL		5.3	8.6	ug/Kg-dry	231323	1	10/21/2016 11:37	MD
Bromochloromethane	BRL		1.5	4.3	ug/Kg-dry	231323	1	10/21/2016 11:37	MD
Chloroform	BRL		1.0	4.3	ug/Kg-dry	231323	1	10/21/2016 11:37	MD
1,1,1-Trichloroethane	BRL		1.1	4.3	ug/Kg-dry	231323	1	10/21/2016 11:37	MD
Cyclohexane	BRL		0.95	4.3	ug/Kg-dry	231323	1	10/21/2016 11:37	MD
Carbon tetrachloride	BRL		1.1	4.3	ug/Kg-dry	231323	1	10/21/2016 11:37	MD
Benzene	BRL		0.51	4.3	ug/Kg-dry	231323	1	10/21/2016 11:37	MD
1,2-Dichloroethane	BRL		1.3	4.3	ug/Kg-dry	231323	1	10/21/2016 11:37	MD
Trichloroethene	BRL		1.2	4.3	ug/Kg-dry	231323	1	10/21/2016 11:37	MD
Methylcyclohexane	BRL		1.4	4.3	ug/Kg-dry	231323	1	10/21/2016 11:37	MD
1,2-Dichloropropane	BRL		1.2	4.3	ug/Kg-dry	231323	1	10/21/2016 11:37	MD
cis-1,3-Dichloropropene	BRL		1.5	4.3	ug/Kg-dry	231323	1	10/21/2016 11:37	MD
4-Methyl-2-pentanone	BRL		2.2	8.6	ug/Kg-dry	231323	1	10/21/2016 11:37	MD
Toluene	BRL		0.45	4.3	ug/Kg-dry	231323	1	10/21/2016 11:37	MD
trans-1,3-Dichloropropene	BRL		1.1	4.3	ug/Kg-dry	231323	1	10/21/2016 11:37	MD
1,1,2-Trichloroethane	BRL		1.3	4.3	ug/Kg-dry	231323	1	10/21/2016 11:37	MD
2-Hexanone	BRL		3.3	8.6	ug/Kg-dry	231323	1	10/21/2016 11:37	MD
Tetrachloroethene	BRL		1.3	4.3	ug/Kg-dry	231323	1	10/21/2016 11:37	MD
1,3-Dichloropropane	BRL		1.4	4.3	ug/Kg-dry	231323	1	10/21/2016 11:37	MD
Dibromochloromethane	BRL		1.2	4.3	ug/Kg-dry	231323	1	10/21/2016 11:37	MD
1,2-Dibromoethane	BRL		1.3	4.3	ug/Kg-dry	231323	1	10/21/2016 11:37	MD
Chlorobenzene	BRL		1.3	4.3	ug/Kg-dry	231323	1	10/21/2016 11:37	MD
1,1,1,2-Tetrachloroethane	BRL		1.2	4.3	ug/Kg-dry	231323	1	10/21/2016 11:37	MD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 27-Oct-16

Client: GHD Services, Inc.	Client Sample ID: SO-077150-101216-DJB-010
Project Name: Bluewater Thermal Solutions	Collection Date: 10/12/2016 9:40:00 AM
Lab ID: 1610C64-010	Matrix: Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5035)					
Ethylbenzene	BRL		0.43	4.3	ug/Kg-dry	231323	1	10/21/2016 11:37	MD
Styrene	BRL		1.1	4.3	ug/Kg-dry	231323	1	10/21/2016 11:37	MD
Bromoform	BRL		1.2	4.3	ug/Kg-dry	231323	1	10/21/2016 11:37	MD
Isopropylbenzene	BRL		1.2	4.3	ug/Kg-dry	231323	1	10/21/2016 11:37	MD
1,4-Dichlorobenzene	BRL		1.5	4.3	ug/Kg-dry	231323	1	10/21/2016 11:37	MD
1,2-Dichlorobenzene	BRL		1.4	4.3	ug/Kg-dry	231323	1	10/21/2016 11:37	MD
1,2-Dibromo-3-chloropropane	BRL		1.8	4.3	ug/Kg-dry	231323	1	10/21/2016 11:37	MD
1,2,4-Trichlorobenzene	BRL		1.7	4.3	ug/Kg-dry	231323	1	10/21/2016 11:37	MD
Xylenes, Total	BRL		1.2	4.3	ug/Kg-dry	231323	1	10/21/2016 11:37	MD
Surr: 4-Bromofluorobenzene	89.4		0	70-128	%REC	231323	1	10/21/2016 11:37	MD
Surr: Dibromofluoromethane	101		0	78.2-128	%REC	231323	1	10/21/2016 11:37	MD
Surr: Toluene-d8	100		0	76.5-116	%REC	231323	1	10/21/2016 11:37	MD
TOTAL MERCURY SW7471B				(SW7471B)					
Mercury	BRL		0.00516	0.117	mg/Kg-dry	231461	1	10/21/2016 12:23	JR
TCL-SEMIVOLATILE ORGANICS SW8270D				(SW3550C)					
1,1'-Biphenyl	BRL		42	410	ug/Kg-dry	231129	1	10/18/2016 23:41	YH
2,4,5-Trichlorophenol	BRL		130	1000	ug/Kg-dry	231129	1	10/18/2016 23:41	YH
2,4,6-Trichlorophenol	BRL		28	410	ug/Kg-dry	231129	1	10/18/2016 23:41	YH
2,4-Dichlorophenol	BRL		140	410	ug/Kg-dry	231129	1	10/18/2016 23:41	YH
2,4-Dimethylphenol	BRL		44	410	ug/Kg-dry	231129	1	10/18/2016 23:41	YH
2,4-Dinitrophenol	BRL		170	1000	ug/Kg-dry	231129	1	10/18/2016 23:41	YH
2,4-Dinitrotoluene	BRL		42	410	ug/Kg-dry	231129	1	10/18/2016 23:41	YH
2,6-Dinitrotoluene	BRL		80	410	ug/Kg-dry	231129	1	10/18/2016 23:41	YH
2-Chloronaphthalene	BRL		57	410	ug/Kg-dry	231129	1	10/18/2016 23:41	YH
2-Chlorophenol	BRL		48	410	ug/Kg-dry	231129	1	10/18/2016 23:41	YH
2-Methylnaphthalene	BRL		43	410	ug/Kg-dry	231129	1	10/18/2016 23:41	YH
2-Methylphenol	BRL		67	410	ug/Kg-dry	231129	1	10/18/2016 23:41	YH
2-Nitroaniline	BRL		55	1000	ug/Kg-dry	231129	1	10/18/2016 23:41	YH
2-Nitrophenol	BRL		93	410	ug/Kg-dry	231129	1	10/18/2016 23:41	YH
3,3'-Dichlorobenzidine	BRL		56	410	ug/Kg-dry	231129	1	10/18/2016 23:41	YH
3-Nitroaniline	BRL		86	1000	ug/Kg-dry	231129	1	10/18/2016 23:41	YH
4,6-Dinitro-2-methylphenol	BRL		71	1000	ug/Kg-dry	231129	1	10/18/2016 23:41	YH
4-Bromophenyl phenyl ether	BRL		110	410	ug/Kg-dry	231129	1	10/18/2016 23:41	YH
4-Chloro-3-methylphenol	BRL		86	410	ug/Kg-dry	231129	1	10/18/2016 23:41	YH
4-Chloroaniline	BRL		140	410	ug/Kg-dry	231129	1	10/18/2016 23:41	YH
4-Chlorophenyl phenyl ether	BRL		49	410	ug/Kg-dry	231129	1	10/18/2016 23:41	YH
4-Methylphenol	BRL		190	410	ug/Kg-dry	231129	1	10/18/2016 23:41	YH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 27-Oct-16

Client: GHD Services, Inc.	Client Sample ID: SO-077150-101216-DJB-010
Project Name: Bluewater Thermal Solutions	Collection Date: 10/12/2016 9:40:00 AM
Lab ID: 1610C64-010	Matrix: Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS		SW8270D		(SW3550C)					
4-Nitroaniline	BRL		130	1000	ug/Kg-dry	231129	1	10/18/2016 23:41	YH
4-Nitrophenol	BRL		220	1000	ug/Kg-dry	231129	1	10/18/2016 23:41	YH
Acenaphthene	BRL		53	410	ug/Kg-dry	231129	1	10/18/2016 23:41	YH
Acenaphthylene	BRL		40	410	ug/Kg-dry	231129	1	10/18/2016 23:41	YH
Acetophenone	BRL		72	410	ug/Kg-dry	231129	1	10/18/2016 23:41	YH
Anthracene	BRL		33	410	ug/Kg-dry	231129	1	10/18/2016 23:41	YH
Atrazine	BRL		110	410	ug/Kg-dry	231129	1	10/18/2016 23:41	YH
Benz(a)anthracene	BRL		24	410	ug/Kg-dry	231129	1	10/18/2016 23:41	YH
Benzaldehyde	BRL		140	410	ug/Kg-dry	231129	1	10/18/2016 23:41	YH
Benzo(a)pyrene	BRL		31	410	ug/Kg-dry	231129	1	10/18/2016 23:41	YH
Benzo(b)fluoranthene	BRL		34	410	ug/Kg-dry	231129	1	10/18/2016 23:41	YH
Benzo(g,h,i)perylene	BRL		28	410	ug/Kg-dry	231129	1	10/18/2016 23:41	YH
Benzo(k)fluoranthene	BRL		46	410	ug/Kg-dry	231129	1	10/18/2016 23:41	YH
Bis(2-chloroethoxy)methane	BRL		46	410	ug/Kg-dry	231129	1	10/18/2016 23:41	YH
Bis(2-chloroethyl)ether	BRL		39	410	ug/Kg-dry	231129	1	10/18/2016 23:41	YH
Bis(2-chloroisopropyl)ether	BRL		45	410	ug/Kg-dry	231129	1	10/18/2016 23:41	YH
Bis(2-ethylhexyl)phthalate	BRL		34	410	ug/Kg-dry	231129	1	10/18/2016 23:41	YH
Butyl benzyl phthalate	BRL		46	410	ug/Kg-dry	231129	1	10/18/2016 23:41	YH
Caprolactam	BRL		150	410	ug/Kg-dry	231129	1	10/18/2016 23:41	YH
Carbazole	BRL		42	410	ug/Kg-dry	231129	1	10/18/2016 23:41	YH
Chrysene	BRL		39	410	ug/Kg-dry	231129	1	10/18/2016 23:41	YH
Di-n-butyl phthalate	BRL		37	410	ug/Kg-dry	231129	1	10/18/2016 23:41	YH
Di-n-octyl phthalate	BRL		25	410	ug/Kg-dry	231129	1	10/18/2016 23:41	YH
Dibenz(a,h)anthracene	BRL		46	410	ug/Kg-dry	231129	1	10/18/2016 23:41	YH
Dibenzofuran	BRL		56	410	ug/Kg-dry	231129	1	10/18/2016 23:41	YH
Diethyl phthalate	BRL		41	410	ug/Kg-dry	231129	1	10/18/2016 23:41	YH
Dimethyl phthalate	BRL		48	410	ug/Kg-dry	231129	1	10/18/2016 23:41	YH
Fluoranthene	BRL		23	410	ug/Kg-dry	231129	1	10/18/2016 23:41	YH
Fluorene	BRL		39	410	ug/Kg-dry	231129	1	10/18/2016 23:41	YH
Hexachlorobenzene	BRL		64	410	ug/Kg-dry	231129	1	10/18/2016 23:41	YH
Hexachlorobutadiene	BRL		72	410	ug/Kg-dry	231129	1	10/18/2016 23:41	YH
Hexachlorocyclopentadiene	BRL		56	410	ug/Kg-dry	231129	1	10/18/2016 23:41	YH
Hexachloroethane	BRL		43	410	ug/Kg-dry	231129	1	10/18/2016 23:41	YH
Indeno(1,2,3-cd)pyrene	BRL		34	410	ug/Kg-dry	231129	1	10/18/2016 23:41	YH
Isophorone	BRL		42	410	ug/Kg-dry	231129	1	10/18/2016 23:41	YH
N-Nitrosodi-n-propylamine	BRL		54	410	ug/Kg-dry	231129	1	10/18/2016 23:41	YH
N-Nitrosodiphenylamine	BRL		39	410	ug/Kg-dry	231129	1	10/18/2016 23:41	YH
Naphthalene	BRL		47	410	ug/Kg-dry	231129	1	10/18/2016 23:41	YH
Nitrobenzene	BRL		50	410	ug/Kg-dry	231129	1	10/18/2016 23:41	YH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 27-Oct-16

Client: GHD Services, Inc.	Client Sample ID: SO-077150-101216-DJB-010
Project Name: Bluewater Thermal Solutions	Collection Date: 10/12/2016 9:40:00 AM
Lab ID: 1610C64-010	Matrix: Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D (SW3550C)									
Pentachlorophenol	BRL		66	1000	ug/Kg-dry	231129	1	10/18/2016 23:41	YH
Phenanthrene	BRL		38	410	ug/Kg-dry	231129	1	10/18/2016 23:41	YH
Phenol	BRL		61	410	ug/Kg-dry	231129	1	10/18/2016 23:41	YH
Pyrene	BRL		12	410	ug/Kg-dry	231129	1	10/18/2016 23:41	YH
Surr: 2,4,6-Tribromophenol	103		0	42.4-130	%REC	231129	1	10/18/2016 23:41	YH
Surr: 2-Fluorobiphenyl	85.4		0	51.5-120	%REC	231129	1	10/18/2016 23:41	YH
Surr: 2-Fluorophenol	85.7		0	41.1-120	%REC	231129	1	10/18/2016 23:41	YH
Surr: 4-Terphenyl-d14	95.3		0	52.7-117	%REC	231129	1	10/18/2016 23:41	YH
Surr: Nitrobenzene-d5	81		0	41.4-120	%REC	231129	1	10/18/2016 23:41	YH
Surr: Phenol-d5	86		0	47.6-120	%REC	231129	1	10/18/2016 23:41	YH
METALS, TOTAL SW6010C (SW3050B)									
Aluminum	6480		3.77	21.2	mg/Kg-dry	231487	1	10/22/2016 20:49	IO
Antimony	BRL		0.291	5.30	mg/Kg-dry	231487	1	10/22/2016 20:49	IO
Arsenic	0.470	J	0.157	1.06	mg/Kg-dry	231487	1	10/22/2016 20:49	IO
Barium	4.44	J	0.0803	5.30	mg/Kg-dry	231487	1	10/22/2016 20:49	IO
Beryllium	0.744		0.0137	0.530	mg/Kg-dry	231487	1	10/22/2016 20:49	IO
Cadmium	BRL		0.0187	0.530	mg/Kg-dry	231487	1	10/22/2016 20:49	IO
Calcium	1370		0.736	53.0	mg/Kg-dry	231487	1	10/22/2016 20:49	IO
Chromium	10.1		0.0236	1.06	mg/Kg-dry	231487	1	10/22/2016 20:49	IO
Cobalt	0.898	J	0.0277	2.65	mg/Kg-dry	231487	1	10/22/2016 20:49	IO
Copper	1.22	J	0.0903	2.65	mg/Kg-dry	231487	1	10/22/2016 20:49	IO
Iron	10400		6.05	53.0	mg/Kg-dry	231487	5	10/23/2016 00:00	IO
Lead	20.6		0.0826	0.530	mg/Kg-dry	231487	1	10/22/2016 20:49	IO
Magnesium	108		0.122	53.0	mg/Kg-dry	231487	1	10/22/2016 20:49	IO
Manganese	11.7		0.0146	1.59	mg/Kg-dry	231487	1	10/22/2016 20:49	IO
Nickel	0.597	J	0.0880	4.24	mg/Kg-dry	231487	1	10/22/2016 20:49	IO
Potassium	195		0.323	106	mg/Kg-dry	231487	1	10/22/2016 20:49	IO
Selenium	BRL		0.345	0.530	mg/Kg-dry	231487	1	10/24/2016 21:31	JL
Silver	BRL		0.0230	1.06	mg/Kg-dry	231487	1	10/22/2016 20:49	IO
Sodium	30.1	J	0.244	106	mg/Kg-dry	231487	1	10/22/2016 20:49	IO
Thallium	BRL		0.197	1.06	mg/Kg-dry	231487	1	10/24/2016 21:31	JL
Vanadium	15.2		0.0306	5.30	mg/Kg-dry	231487	1	10/22/2016 20:49	IO
Zinc	4.81		0.167	2.12	mg/Kg-dry	231487	1	10/22/2016 20:49	IO
PERCENT MOISTURE D2216									
Percent Moisture	18.6		0	0	wt%	R327981	1	10/21/2016 09:00	BD

Qualifiers:	* Value exceeds maximum contaminant level	E Estimated value above quantitation range
	BRL Not detected at MDL	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	J Estimated value detected below Reporting Limit
	N Analyte not NELAC certified	> Greater than Result value
	B Analyte detected in the associated method blank	< Less than Result value
	NC Not confirmed	Narr See case narrative

Analytical Environmental Services, Inc

Date: 27-Oct-16

Client: GHD Services, Inc.	Client Sample ID: SO-077150-101216-DJB-011
Project Name: Bluewater Thermal Solutions	Collection Date: 10/12/2016 10:00:00 AM
Lab ID: 1610C64-011	Matrix: Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5035)					
Dichlorodifluoromethane	BRL		1.3	8.6	ug/Kg-dry	231323	1	10/21/2016 02:49	MD
Chloromethane	BRL		1.6	8.6	ug/Kg-dry	231323	1	10/21/2016 02:49	MD
Vinyl chloride	BRL		1.8	8.6	ug/Kg-dry	231323	1	10/21/2016 02:49	MD
Bromomethane	BRL		1.9	4.3	ug/Kg-dry	231323	1	10/21/2016 02:49	MD
Chloroethane	BRL		2.3	8.6	ug/Kg-dry	231323	1	10/21/2016 02:49	MD
Trichlorofluoromethane	BRL		2.0	4.3	ug/Kg-dry	231323	1	10/21/2016 02:49	MD
1,1-Dichloroethene	BRL		0.84	4.3	ug/Kg-dry	231323	1	10/21/2016 02:49	MD
Acetone	BRL		4.3	8.6	ug/Kg-dry	231323	1	10/21/2016 02:49	MD
Freon-113	BRL		1.1	8.6	ug/Kg-dry	231323	1	10/21/2016 02:49	MD
Carbon disulfide	BRL		2.4	8.6	ug/Kg-dry	231323	1	10/21/2016 02:49	MD
Methyl acetate	BRL		2.2	4.3	ug/Kg-dry	231323	1	10/21/2016 02:49	MD
Methylene chloride	BRL		4.3	8.6	ug/Kg-dry	231323	1	10/21/2016 02:49	MD
Methyl tert-butyl ether	BRL		0.98	4.3	ug/Kg-dry	231323	1	10/21/2016 02:49	MD
trans-1,2-Dichloroethene	BRL		1.5	4.3	ug/Kg-dry	231323	1	10/21/2016 02:49	MD
1,1-Dichloroethane	BRL		1.2	4.3	ug/Kg-dry	231323	1	10/21/2016 02:49	MD
cis-1,2-Dichloroethene	BRL		1.6	4.3	ug/Kg-dry	231323	1	10/21/2016 02:49	MD
2-Butanone	BRL		5.3	8.6	ug/Kg-dry	231323	1	10/21/2016 02:49	MD
Bromochloromethane	BRL		1.5	4.3	ug/Kg-dry	231323	1	10/21/2016 02:49	MD
Chloroform	BRL		1.0	4.3	ug/Kg-dry	231323	1	10/21/2016 02:49	MD
1,1,1-Trichloroethane	BRL		1.1	4.3	ug/Kg-dry	231323	1	10/21/2016 02:49	MD
Cyclohexane	BRL		0.96	4.3	ug/Kg-dry	231323	1	10/21/2016 02:49	MD
Carbon tetrachloride	BRL		1.1	4.3	ug/Kg-dry	231323	1	10/21/2016 02:49	MD
Benzene	BRL		0.51	4.3	ug/Kg-dry	231323	1	10/21/2016 02:49	MD
1,2-Dichloroethane	BRL		1.3	4.3	ug/Kg-dry	231323	1	10/21/2016 02:49	MD
Trichloroethene	BRL		1.2	4.3	ug/Kg-dry	231323	1	10/21/2016 02:49	MD
Methylcyclohexane	BRL		1.4	4.3	ug/Kg-dry	231323	1	10/21/2016 02:49	MD
1,2-Dichloropropane	BRL		1.3	4.3	ug/Kg-dry	231323	1	10/21/2016 02:49	MD
cis-1,3-Dichloropropene	BRL		1.5	4.3	ug/Kg-dry	231323	1	10/21/2016 02:49	MD
4-Methyl-2-pentanone	BRL		2.2	8.6	ug/Kg-dry	231323	1	10/21/2016 02:49	MD
Toluene	BRL		0.46	4.3	ug/Kg-dry	231323	1	10/21/2016 02:49	MD
trans-1,3-Dichloropropene	BRL		1.1	4.3	ug/Kg-dry	231323	1	10/21/2016 02:49	MD
1,1,2-Trichloroethane	BRL		1.3	4.3	ug/Kg-dry	231323	1	10/21/2016 02:49	MD
2-Hexanone	BRL		3.3	8.6	ug/Kg-dry	231323	1	10/21/2016 02:49	MD
Tetrachloroethene	BRL		1.3	4.3	ug/Kg-dry	231323	1	10/21/2016 02:49	MD
1,3-Dichloropropane	BRL		1.4	4.3	ug/Kg-dry	231323	1	10/21/2016 02:49	MD
Dibromochloromethane	BRL		1.2	4.3	ug/Kg-dry	231323	1	10/21/2016 02:49	MD
1,2-Dibromoethane	BRL		1.3	4.3	ug/Kg-dry	231323	1	10/21/2016 02:49	MD
Chlorobenzene	BRL		1.3	4.3	ug/Kg-dry	231323	1	10/21/2016 02:49	MD
1,1,1,2-Tetrachloroethane	BRL		1.2	4.3	ug/Kg-dry	231323	1	10/21/2016 02:49	MD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 27-Oct-16

Client: GHD Services, Inc.	Client Sample ID: SO-077150-101216-DJB-011
Project Name: Bluewater Thermal Solutions	Collection Date: 10/12/2016 10:00:00 AM
Lab ID: 1610C64-011	Matrix: Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5035)					
Ethylbenzene	BRL		0.43	4.3	ug/Kg-dry	231323	1	10/21/2016 02:49	MD
Styrene	BRL		1.1	4.3	ug/Kg-dry	231323	1	10/21/2016 02:49	MD
Bromoform	BRL		1.2	4.3	ug/Kg-dry	231323	1	10/21/2016 02:49	MD
Isopropylbenzene	BRL		1.2	4.3	ug/Kg-dry	231323	1	10/21/2016 02:49	MD
1,4-Dichlorobenzene	BRL		1.5	4.3	ug/Kg-dry	231323	1	10/21/2016 02:49	MD
1,2-Dichlorobenzene	BRL		1.4	4.3	ug/Kg-dry	231323	1	10/21/2016 02:49	MD
1,2-Dibromo-3-chloropropane	BRL		1.8	4.3	ug/Kg-dry	231323	1	10/21/2016 02:49	MD
1,2,4-Trichlorobenzene	BRL		1.7	4.3	ug/Kg-dry	231323	1	10/21/2016 02:49	MD
Xylenes, Total	BRL		1.2	4.3	ug/Kg-dry	231323	1	10/21/2016 02:49	MD
Surr: 4-Bromofluorobenzene	88		0	70-128	%REC	231323	1	10/21/2016 02:49	MD
Surr: Dibromofluoromethane	96.8		0	78.2-128	%REC	231323	1	10/21/2016 02:49	MD
Surr: Toluene-d8	97.5		0	76.5-116	%REC	231323	1	10/21/2016 02:49	MD
TOTAL MERCURY SW7471B				(SW7471B)					
Mercury	0.00845	J	0.00495	0.113	mg/Kg-dry	231461	1	10/21/2016 12:25	JR
TCL-SEMIVOLATILE ORGANICS SW8270D				(SW3550C)					
1,1'-Biphenyl	BRL		43	420	ug/Kg-dry	231129	1	10/19/2016 00:06	YH
2,4,5-Trichlorophenol	BRL		130	1000	ug/Kg-dry	231129	1	10/19/2016 00:06	YH
2,4,6-Trichlorophenol	BRL		29	420	ug/Kg-dry	231129	1	10/19/2016 00:06	YH
2,4-Dichlorophenol	BRL		140	420	ug/Kg-dry	231129	1	10/19/2016 00:06	YH
2,4-Dimethylphenol	BRL		45	420	ug/Kg-dry	231129	1	10/19/2016 00:06	YH
2,4-Dinitrophenol	BRL		180	1000	ug/Kg-dry	231129	1	10/19/2016 00:06	YH
2,4-Dinitrotoluene	BRL		43	420	ug/Kg-dry	231129	1	10/19/2016 00:06	YH
2,6-Dinitrotoluene	BRL		82	420	ug/Kg-dry	231129	1	10/19/2016 00:06	YH
2-Chloronaphthalene	BRL		58	420	ug/Kg-dry	231129	1	10/19/2016 00:06	YH
2-Chlorophenol	BRL		49	420	ug/Kg-dry	231129	1	10/19/2016 00:06	YH
2-Methylnaphthalene	BRL		44	420	ug/Kg-dry	231129	1	10/19/2016 00:06	YH
2-Methylphenol	BRL		68	420	ug/Kg-dry	231129	1	10/19/2016 00:06	YH
2-Nitroaniline	BRL		57	1000	ug/Kg-dry	231129	1	10/19/2016 00:06	YH
2-Nitrophenol	BRL		95	420	ug/Kg-dry	231129	1	10/19/2016 00:06	YH
3,3'-Dichlorobenzidine	BRL		57	420	ug/Kg-dry	231129	1	10/19/2016 00:06	YH
3-Nitroaniline	BRL		88	1000	ug/Kg-dry	231129	1	10/19/2016 00:06	YH
4,6-Dinitro-2-methylphenol	BRL		73	1000	ug/Kg-dry	231129	1	10/19/2016 00:06	YH
4-Bromophenyl phenyl ether	BRL		110	420	ug/Kg-dry	231129	1	10/19/2016 00:06	YH
4-Chloro-3-methylphenol	BRL		88	420	ug/Kg-dry	231129	1	10/19/2016 00:06	YH
4-Chloroaniline	BRL		140	420	ug/Kg-dry	231129	1	10/19/2016 00:06	YH
4-Chlorophenyl phenyl ether	BRL		50	420	ug/Kg-dry	231129	1	10/19/2016 00:06	YH
4-Methylphenol	BRL		200	420	ug/Kg-dry	231129	1	10/19/2016 00:06	YH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 27-Oct-16

Client: GHD Services, Inc.	Client Sample ID: SO-077150-101216-DJB-011
Project Name: Bluewater Thermal Solutions	Collection Date: 10/12/2016 10:00:00 AM
Lab ID: 1610C64-011	Matrix: Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D (SW3550C)									
Pentachlorophenol	BRL		67	1000	ug/Kg-dry	231129	1	10/19/2016 00:06	YH
Phenanthrene	BRL		39	420	ug/Kg-dry	231129	1	10/19/2016 00:06	YH
Phenol	BRL		62	420	ug/Kg-dry	231129	1	10/19/2016 00:06	YH
Pyrene	BRL		12	420	ug/Kg-dry	231129	1	10/19/2016 00:06	YH
Surr: 2,4,6-Tribromophenol	99.5		0	42.4-130	%REC	231129	1	10/19/2016 00:06	YH
Surr: 2-Fluorobiphenyl	77.2		0	51.5-120	%REC	231129	1	10/19/2016 00:06	YH
Surr: 2-Fluorophenol	76		0	41.1-120	%REC	231129	1	10/19/2016 00:06	YH
Surr: 4-Terphenyl-d14	91.4		0	52.7-117	%REC	231129	1	10/19/2016 00:06	YH
Surr: Nitrobenzene-d5	71.6		0	41.4-120	%REC	231129	1	10/19/2016 00:06	YH
Surr: Phenol-d5	77.6		0	47.6-120	%REC	231129	1	10/19/2016 00:06	YH
METALS, TOTAL SW6010C (SW3050B)									
Aluminum	9680		4.00	22.5	mg/Kg-dry	231487	1	10/22/2016 20:53	IO
Antimony	BRL		0.308	5.62	mg/Kg-dry	231487	1	10/22/2016 20:53	IO
Arsenic	BRL		0.166	1.12	mg/Kg-dry	231487	1	10/22/2016 20:53	IO
Barium	12.6		0.0851	5.62	mg/Kg-dry	231487	1	10/22/2016 20:53	IO
Beryllium	0.228	J	0.0145	0.562	mg/Kg-dry	231487	1	10/22/2016 20:53	IO
Cadmium	BRL		0.0198	0.562	mg/Kg-dry	231487	1	10/22/2016 20:53	IO
Calcium	666		0.780	56.2	mg/Kg-dry	231487	1	10/22/2016 20:53	IO
Chromium	2.45		0.0251	1.12	mg/Kg-dry	231487	1	10/22/2016 20:53	IO
Cobalt	0.899	J	0.0293	2.81	mg/Kg-dry	231487	1	10/22/2016 20:53	IO
Copper	5.19		0.0957	2.81	mg/Kg-dry	231487	1	10/22/2016 20:53	IO
Iron	4850		6.42	56.2	mg/Kg-dry	231487	5	10/23/2016 00:03	IO
Lead	18.7		0.0875	0.562	mg/Kg-dry	231487	1	10/22/2016 20:53	IO
Magnesium	912		0.129	56.2	mg/Kg-dry	231487	1	10/22/2016 20:53	IO
Manganese	27.1		0.0155	1.69	mg/Kg-dry	231487	1	10/22/2016 20:53	IO
Nickel	0.643	J	0.0933	4.49	mg/Kg-dry	231487	1	10/22/2016 20:53	IO
Potassium	1160		0.342	112	mg/Kg-dry	231487	1	10/22/2016 20:53	IO
Selenium	BRL		0.366	0.562	mg/Kg-dry	231487	1	10/24/2016 21:34	JL
Silver	BRL		0.0244	1.12	mg/Kg-dry	231487	1	10/22/2016 20:53	IO
Sodium	42.2	J	0.259	112	mg/Kg-dry	231487	1	10/22/2016 20:53	IO
Thallium	0.250	J	0.208	1.12	mg/Kg-dry	231487	1	10/24/2016 21:34	JL
Vanadium	7.39		0.0325	5.62	mg/Kg-dry	231487	1	10/22/2016 20:53	IO
Zinc	15.3		0.177	2.25	mg/Kg-dry	231487	1	10/22/2016 20:53	IO
PERCENT MOISTURE D2216									
Percent Moisture	20.5		0	0	wt%	R327981	1	10/21/2016 09:00	BD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 27-Oct-16

Client: GHD Services, Inc.	Client Sample ID: SO-077150-101216-DJB-012
Project Name: Bluewater Thermal Solutions	Collection Date: 10/12/2016 10:15:00 AM
Lab ID: 1610C64-012	Matrix: Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5035)					
Dichlorodifluoromethane	BRL		1.1	7.5	ug/Kg-dry	231323	1	10/21/2016 03:12	MD
Chloromethane	BRL		1.4	7.5	ug/Kg-dry	231323	1	10/21/2016 03:12	MD
Vinyl chloride	BRL		1.6	7.5	ug/Kg-dry	231323	1	10/21/2016 03:12	MD
Bromomethane	BRL		1.7	3.8	ug/Kg-dry	231323	1	10/21/2016 03:12	MD
Chloroethane	BRL		2.0	7.5	ug/Kg-dry	231323	1	10/21/2016 03:12	MD
Trichlorofluoromethane	BRL		1.8	3.8	ug/Kg-dry	231323	1	10/21/2016 03:12	MD
1,1-Dichloroethene	BRL		0.74	3.8	ug/Kg-dry	231323	1	10/21/2016 03:12	MD
Acetone	BRL		3.8	7.5	ug/Kg-dry	231323	1	10/21/2016 03:12	MD
Freon-113	BRL		0.98	7.5	ug/Kg-dry	231323	1	10/21/2016 03:12	MD
Carbon disulfide	BRL		2.1	7.5	ug/Kg-dry	231323	1	10/21/2016 03:12	MD
Methyl acetate	BRL		1.9	3.8	ug/Kg-dry	231323	1	10/21/2016 03:12	MD
Methylene chloride	BRL		3.8	7.5	ug/Kg-dry	231323	1	10/21/2016 03:12	MD
Methyl tert-butyl ether	BRL		0.86	3.8	ug/Kg-dry	231323	1	10/21/2016 03:12	MD
trans-1,2-Dichloroethene	BRL		1.3	3.8	ug/Kg-dry	231323	1	10/21/2016 03:12	MD
1,1-Dichloroethane	BRL		1.1	3.8	ug/Kg-dry	231323	1	10/21/2016 03:12	MD
cis-1,2-Dichloroethene	BRL		1.4	3.8	ug/Kg-dry	231323	1	10/21/2016 03:12	MD
2-Butanone	BRL		4.7	7.5	ug/Kg-dry	231323	1	10/21/2016 03:12	MD
Bromochloromethane	BRL		1.3	3.8	ug/Kg-dry	231323	1	10/21/2016 03:12	MD
Chloroform	BRL		0.91	3.8	ug/Kg-dry	231323	1	10/21/2016 03:12	MD
1,1,1-Trichloroethane	BRL		0.99	3.8	ug/Kg-dry	231323	1	10/21/2016 03:12	MD
Cyclohexane	BRL		0.84	3.8	ug/Kg-dry	231323	1	10/21/2016 03:12	MD
Carbon tetrachloride	BRL		1.0	3.8	ug/Kg-dry	231323	1	10/21/2016 03:12	MD
Benzene	BRL		0.45	3.8	ug/Kg-dry	231323	1	10/21/2016 03:12	MD
1,2-Dichloroethane	BRL		1.2	3.8	ug/Kg-dry	231323	1	10/21/2016 03:12	MD
Trichloroethene	BRL		1.0	3.8	ug/Kg-dry	231323	1	10/21/2016 03:12	MD
Methylcyclohexane	BRL		1.2	3.8	ug/Kg-dry	231323	1	10/21/2016 03:12	MD
1,2-Dichloropropane	BRL		1.1	3.8	ug/Kg-dry	231323	1	10/21/2016 03:12	MD
cis-1,3-Dichloropropene	BRL		1.3	3.8	ug/Kg-dry	231323	1	10/21/2016 03:12	MD
4-Methyl-2-pentanone	BRL		1.9	7.5	ug/Kg-dry	231323	1	10/21/2016 03:12	MD
Toluene	BRL		0.40	3.8	ug/Kg-dry	231323	1	10/21/2016 03:12	MD
trans-1,3-Dichloropropene	BRL		0.93	3.8	ug/Kg-dry	231323	1	10/21/2016 03:12	MD
1,1,2-Trichloroethane	BRL		1.2	3.8	ug/Kg-dry	231323	1	10/21/2016 03:12	MD
2-Hexanone	BRL		2.9	7.5	ug/Kg-dry	231323	1	10/21/2016 03:12	MD
Tetrachloroethene	BRL		1.1	3.8	ug/Kg-dry	231323	1	10/21/2016 03:12	MD
1,3-Dichloropropane	BRL		1.3	3.8	ug/Kg-dry	231323	1	10/21/2016 03:12	MD
Dibromochloromethane	BRL		1.0	3.8	ug/Kg-dry	231323	1	10/21/2016 03:12	MD
1,2-Dibromoethane	BRL		1.2	3.8	ug/Kg-dry	231323	1	10/21/2016 03:12	MD
Chlorobenzene	BRL		1.1	3.8	ug/Kg-dry	231323	1	10/21/2016 03:12	MD
1,1,1,2-Tetrachloroethane	BRL		1.1	3.8	ug/Kg-dry	231323	1	10/21/2016 03:12	MD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 27-Oct-16

Client: GHD Services, Inc.	Client Sample ID: SO-077150-101216-DJB-012
Project Name: Bluewater Thermal Solutions	Collection Date: 10/12/2016 10:15:00 AM
Lab ID: 1610C64-012	Matrix: Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5035)					
Ethylbenzene	BRL		0.38	3.8	ug/Kg-dry	231323	1	10/21/2016 03:12	MD
Styrene	BRL		0.99	3.8	ug/Kg-dry	231323	1	10/21/2016 03:12	MD
Bromoform	BRL		1.0	3.8	ug/Kg-dry	231323	1	10/21/2016 03:12	MD
Isopropylbenzene	BRL		1.1	3.8	ug/Kg-dry	231323	1	10/21/2016 03:12	MD
1,4-Dichlorobenzene	BRL		1.3	3.8	ug/Kg-dry	231323	1	10/21/2016 03:12	MD
1,2-Dichlorobenzene	BRL		1.2	3.8	ug/Kg-dry	231323	1	10/21/2016 03:12	MD
1,2-Dibromo-3-chloropropane	BRL		1.6	3.8	ug/Kg-dry	231323	1	10/21/2016 03:12	MD
1,2,4-Trichlorobenzene	BRL		1.5	3.8	ug/Kg-dry	231323	1	10/21/2016 03:12	MD
Xylenes, Total	BRL		1.1	3.8	ug/Kg-dry	231323	1	10/21/2016 03:12	MD
Surr: 4-Bromofluorobenzene	83.2		0	70-128	%REC	231323	1	10/21/2016 03:12	MD
Surr: Dibromofluoromethane	98.7		0	78.2-128	%REC	231323	1	10/21/2016 03:12	MD
Surr: Toluene-d8	100		0	76.5-116	%REC	231323	1	10/21/2016 03:12	MD
TOTAL MERCURY SW7471B				(SW7471B)					
Mercury	0.0232	J	0.00510	0.116	mg/Kg-dry	231461	1	10/21/2016 12:27	JR
TCL-SEMIVOLATILE ORGANICS SW8270D				(SW3550C)					
1,1'-Biphenyl	BRL		44	420	ug/Kg-dry	231129	1	10/19/2016 00:32	YH
2,4,5-Trichlorophenol	BRL		130	1100	ug/Kg-dry	231129	1	10/19/2016 00:32	YH
2,4,6-Trichlorophenol	BRL		29	420	ug/Kg-dry	231129	1	10/19/2016 00:32	YH
2,4-Dichlorophenol	BRL		140	420	ug/Kg-dry	231129	1	10/19/2016 00:32	YH
2,4-Dimethylphenol	BRL		46	420	ug/Kg-dry	231129	1	10/19/2016 00:32	YH
2,4-Dinitrophenol	BRL		180	1100	ug/Kg-dry	231129	1	10/19/2016 00:32	YH
2,4-Dinitrotoluene	BRL		44	420	ug/Kg-dry	231129	1	10/19/2016 00:32	YH
2,6-Dinitrotoluene	BRL		84	420	ug/Kg-dry	231129	1	10/19/2016 00:32	YH
2-Chloronaphthalene	BRL		60	420	ug/Kg-dry	231129	1	10/19/2016 00:32	YH
2-Chlorophenol	BRL		50	420	ug/Kg-dry	231129	1	10/19/2016 00:32	YH
2-Methylnaphthalene	BRL		45	420	ug/Kg-dry	231129	1	10/19/2016 00:32	YH
2-Methylphenol	BRL		70	420	ug/Kg-dry	231129	1	10/19/2016 00:32	YH
2-Nitroaniline	BRL		58	1100	ug/Kg-dry	231129	1	10/19/2016 00:32	YH
2-Nitrophenol	BRL		97	420	ug/Kg-dry	231129	1	10/19/2016 00:32	YH
3,3'-Dichlorobenzidine	BRL		58	420	ug/Kg-dry	231129	1	10/19/2016 00:32	YH
3-Nitroaniline	BRL		90	1100	ug/Kg-dry	231129	1	10/19/2016 00:32	YH
4,6-Dinitro-2-methylphenol	BRL		75	1100	ug/Kg-dry	231129	1	10/19/2016 00:32	YH
4-Bromophenyl phenyl ether	BRL		120	420	ug/Kg-dry	231129	1	10/19/2016 00:32	YH
4-Chloro-3-methylphenol	BRL		90	420	ug/Kg-dry	231129	1	10/19/2016 00:32	YH
4-Chloroaniline	BRL		140	420	ug/Kg-dry	231129	1	10/19/2016 00:32	YH
4-Chlorophenyl phenyl ether	BRL		51	420	ug/Kg-dry	231129	1	10/19/2016 00:32	YH
4-Methylphenol	BRL		200	420	ug/Kg-dry	231129	1	10/19/2016 00:32	YH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Client:	GHD Services, Inc.	Client Sample ID:	SO-077150-101216-DJB-012
Project Name:	Bluewater Thermal Solutions	Collection Date:	10/12/2016 10:15:00 AM
Lab ID:	1610C64-012	Matrix:	Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS									
			SW8270D						
				(SW3550C)					
4-Nitroaniline	BRL		130	1100	ug/Kg-dry	231129	1	10/19/2016 00:32	YH
4-Nitrophenol	BRL		230	1100	ug/Kg-dry	231129	1	10/19/2016 00:32	YH
Acenaphthene	BRL		55	420	ug/Kg-dry	231129	1	10/19/2016 00:32	YH
Acenaphthylene	BRL		41	420	ug/Kg-dry	231129	1	10/19/2016 00:32	YH
Acetophenone	BRL		75	420	ug/Kg-dry	231129	1	10/19/2016 00:32	YH
Anthracene	BRL		35	420	ug/Kg-dry	231129	1	10/19/2016 00:32	YH
Atrazine	BRL		110	420	ug/Kg-dry	231129	1	10/19/2016 00:32	YH
Benz(a)anthracene	BRL		25	420	ug/Kg-dry	231129	1	10/19/2016 00:32	YH
Benzaldehyde	BRL		150	420	ug/Kg-dry	231129	1	10/19/2016 00:32	YH
Benzo(a)pyrene	BRL		32	420	ug/Kg-dry	231129	1	10/19/2016 00:32	YH
Benzo(b)fluoranthene	BRL		35	420	ug/Kg-dry	231129	1	10/19/2016 00:32	YH
Benzo(g,h,i)perylene	BRL		30	420	ug/Kg-dry	231129	1	10/19/2016 00:32	YH
Benzo(k)fluoranthene	BRL		48	420	ug/Kg-dry	231129	1	10/19/2016 00:32	YH
Bis(2-chloroethoxy)methane	BRL		48	420	ug/Kg-dry	231129	1	10/19/2016 00:32	YH
Bis(2-chloroethyl)ether	BRL		41	420	ug/Kg-dry	231129	1	10/19/2016 00:32	YH
Bis(2-chloroisopropyl)ether	BRL		47	420	ug/Kg-dry	231129	1	10/19/2016 00:32	YH
Bis(2-ethylhexyl)phthalate	BRL		36	420	ug/Kg-dry	231129	1	10/19/2016 00:32	YH
Butyl benzyl phthalate	BRL		48	420	ug/Kg-dry	231129	1	10/19/2016 00:32	YH
Caprolactam	BRL		150	420	ug/Kg-dry	231129	1	10/19/2016 00:32	YH
Carbazole	BRL		44	420	ug/Kg-dry	231129	1	10/19/2016 00:32	YH
Chrysene	BRL		40	420	ug/Kg-dry	231129	1	10/19/2016 00:32	YH
Di-n-butyl phthalate	BRL		39	420	ug/Kg-dry	231129	1	10/19/2016 00:32	YH
Di-n-octyl phthalate	BRL		26	420	ug/Kg-dry	231129	1	10/19/2016 00:32	YH
Dibenz(a,h)anthracene	BRL		48	420	ug/Kg-dry	231129	1	10/19/2016 00:32	YH
Dibenzofuran	BRL		59	420	ug/Kg-dry	231129	1	10/19/2016 00:32	YH
Diethyl phthalate	BRL		43	420	ug/Kg-dry	231129	1	10/19/2016 00:32	YH
Dimethyl phthalate	BRL		50	420	ug/Kg-dry	231129	1	10/19/2016 00:32	YH
Fluoranthene	BRL		24	420	ug/Kg-dry	231129	1	10/19/2016 00:32	YH
Fluorene	BRL		40	420	ug/Kg-dry	231129	1	10/19/2016 00:32	YH
Hexachlorobenzene	BRL		67	420	ug/Kg-dry	231129	1	10/19/2016 00:32	YH
Hexachlorobutadiene	BRL		75	420	ug/Kg-dry	231129	1	10/19/2016 00:32	YH
Hexachlorocyclopentadiene	BRL		59	420	ug/Kg-dry	231129	1	10/19/2016 00:32	YH
Hexachloroethane	BRL		45	420	ug/Kg-dry	231129	1	10/19/2016 00:32	YH
Indeno(1,2,3-cd)pyrene	BRL		35	420	ug/Kg-dry	231129	1	10/19/2016 00:32	YH
Isophorone	BRL		44	420	ug/Kg-dry	231129	1	10/19/2016 00:32	YH
N-Nitrosodi-n-propylamine	BRL		56	420	ug/Kg-dry	231129	1	10/19/2016 00:32	YH
N-Nitrosodiphenylamine	BRL		41	420	ug/Kg-dry	231129	1	10/19/2016 00:32	YH
Naphthalene	BRL		49	420	ug/Kg-dry	231129	1	10/19/2016 00:32	YH
Nitrobenzene	BRL		52	420	ug/Kg-dry	231129	1	10/19/2016 00:32	YH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Client: GHD Services, Inc.	Client Sample ID: SO-077150-101216-DJB-012
Project Name: Bluewater Thermal Solutions	Collection Date: 10/12/2016 10:15:00 AM
Lab ID: 1610C64-012	Matrix: Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D (SW3550C)									
Pentachlorophenol	BRL		69	1100	ug/Kg-dry	231129	1	10/19/2016 00:32	YH
Phenanthrene	BRL		40	420	ug/Kg-dry	231129	1	10/19/2016 00:32	YH
Phenol	BRL		63	420	ug/Kg-dry	231129	1	10/19/2016 00:32	YH
Pyrene	BRL		12	420	ug/Kg-dry	231129	1	10/19/2016 00:32	YH
Surr: 2,4,6-Tribromophenol	96.5		0	42.4-130	%REC	231129	1	10/19/2016 00:32	YH
Surr: 2-Fluorobiphenyl	80.6		0	51.5-120	%REC	231129	1	10/19/2016 00:32	YH
Surr: 2-Fluorophenol	70.8		0	41.1-120	%REC	231129	1	10/19/2016 00:32	YH
Surr: 4-Terphenyl-d14	87.8		0	52.7-117	%REC	231129	1	10/19/2016 00:32	YH
Surr: Nitrobenzene-d5	73.3		0	41.4-120	%REC	231129	1	10/19/2016 00:32	YH
Surr: Phenol-d5	74.9		0	47.6-120	%REC	231129	1	10/19/2016 00:32	YH
METALS, TOTAL SW6010C (SW3050B)									
Aluminum	17000		4.32	24.3	mg/Kg-dry	231487	1	10/22/2016 20:57	IO
Antimony	0.339	J	0.333	6.07	mg/Kg-dry	231487	1	10/22/2016 20:57	IO
Arsenic	0.587	J	0.180	1.21	mg/Kg-dry	231487	1	10/22/2016 20:57	IO
Barium	25.7		0.0918	6.07	mg/Kg-dry	231487	1	10/22/2016 20:57	IO
Beryllium	0.417	J	0.0156	0.607	mg/Kg-dry	231487	1	10/22/2016 20:57	IO
Cadmium	BRL		0.0214	0.607	mg/Kg-dry	231487	1	10/22/2016 20:57	IO
Calcium	1910		0.842	60.7	mg/Kg-dry	231487	1	10/22/2016 20:57	IO
Chromium	2.82		0.0271	1.21	mg/Kg-dry	231487	1	10/22/2016 20:57	IO
Cobalt	9.06		0.0317	3.03	mg/Kg-dry	231487	1	10/22/2016 20:57	IO
Copper	15.0		0.103	3.03	mg/Kg-dry	231487	1	10/22/2016 20:57	IO
Iron	14200		6.93	60.7	mg/Kg-dry	231487	5	10/23/2016 00:07	IO
Lead	56.5		0.0945	0.607	mg/Kg-dry	231487	1	10/22/2016 20:57	IO
Magnesium	944		0.140	60.7	mg/Kg-dry	231487	1	10/22/2016 20:57	IO
Manganese	369		0.0167	1.82	mg/Kg-dry	231487	1	10/22/2016 20:57	IO
Nickel	2.35	J	0.101	4.85	mg/Kg-dry	231487	1	10/22/2016 20:57	IO
Potassium	1500		0.370	121	mg/Kg-dry	231487	1	10/22/2016 20:57	IO
Selenium	BRL		0.395	0.607	mg/Kg-dry	231487	1	10/24/2016 21:37	JL
Silver	BRL		0.0263	1.21	mg/Kg-dry	231487	1	10/22/2016 20:57	IO
Sodium	68.8	J	0.279	121	mg/Kg-dry	231487	1	10/22/2016 20:57	IO
Thallium	BRL		0.225	1.21	mg/Kg-dry	231487	1	10/24/2016 21:37	JL
Vanadium	11.5		0.0351	6.07	mg/Kg-dry	231487	1	10/22/2016 20:57	IO
Zinc	21.0		0.191	2.43	mg/Kg-dry	231487	1	10/22/2016 20:57	IO
PERCENT MOISTURE D2216									
Percent Moisture	22.1		0	0	wt%	R327981	1	10/21/2016 09:00	BD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 27-Oct-16

Client: GHD Services, Inc.	Client Sample ID: SO-077150-101216-DJB-013
Project Name: Bluewater Thermal Solutions	Collection Date: 10/12/2016 11:30:00 AM
Lab ID: 1610C64-013	Matrix: Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5035)					
Dichlorodifluoromethane	BRL		0.97	6.5	ug/Kg-dry	231323	1	10/21/2016 12:00	MD
Chloromethane	BRL		1.2	6.5	ug/Kg-dry	231323	1	10/21/2016 12:00	MD
Vinyl chloride	BRL		1.4	6.5	ug/Kg-dry	231323	1	10/21/2016 12:00	MD
Bromomethane	BRL		1.4	3.2	ug/Kg-dry	231323	1	10/21/2016 12:00	MD
Chloroethane	BRL		1.8	6.5	ug/Kg-dry	231323	1	10/21/2016 12:00	MD
Trichlorofluoromethane	BRL		1.5	3.2	ug/Kg-dry	231323	1	10/21/2016 12:00	MD
1,1-Dichloroethene	BRL		0.64	3.2	ug/Kg-dry	231323	1	10/21/2016 12:00	MD
Acetone	BRL		3.3	6.5	ug/Kg-dry	231323	1	10/21/2016 12:00	MD
Freon-113	BRL		0.85	6.5	ug/Kg-dry	231323	1	10/21/2016 12:00	MD
Carbon disulfide	BRL		1.8	6.5	ug/Kg-dry	231323	1	10/21/2016 12:00	MD
Methyl acetate	BRL		1.7	3.2	ug/Kg-dry	231323	1	10/21/2016 12:00	MD
Methylene chloride	BRL		3.3	6.5	ug/Kg-dry	231323	1	10/21/2016 12:00	MD
Methyl tert-butyl ether	BRL		0.74	3.2	ug/Kg-dry	231323	1	10/21/2016 12:00	MD
trans-1,2-Dichloroethene	BRL		1.1	3.2	ug/Kg-dry	231323	1	10/21/2016 12:00	MD
1,1-Dichloroethane	BRL		0.91	3.2	ug/Kg-dry	231323	1	10/21/2016 12:00	MD
cis-1,2-Dichloroethene	BRL		1.2	3.2	ug/Kg-dry	231323	1	10/21/2016 12:00	MD
2-Butanone	BRL		4.0	6.5	ug/Kg-dry	231323	1	10/21/2016 12:00	MD
Bromochloromethane	BRL		1.1	3.2	ug/Kg-dry	231323	1	10/21/2016 12:00	MD
Chloroform	BRL		0.79	3.2	ug/Kg-dry	231323	1	10/21/2016 12:00	MD
1,1,1-Trichloroethane	BRL		0.86	3.2	ug/Kg-dry	231323	1	10/21/2016 12:00	MD
Cyclohexane	BRL		0.72	3.2	ug/Kg-dry	231323	1	10/21/2016 12:00	MD
Carbon tetrachloride	BRL		0.87	3.2	ug/Kg-dry	231323	1	10/21/2016 12:00	MD
Benzene	BRL		0.39	3.2	ug/Kg-dry	231323	1	10/21/2016 12:00	MD
1,2-Dichloroethane	BRL		1.0	3.2	ug/Kg-dry	231323	1	10/21/2016 12:00	MD
Trichloroethene	BRL		0.90	3.2	ug/Kg-dry	231323	1	10/21/2016 12:00	MD
Methylcyclohexane	BRL		1.0	3.2	ug/Kg-dry	231323	1	10/21/2016 12:00	MD
1,2-Dichloropropane	BRL		0.95	3.2	ug/Kg-dry	231323	1	10/21/2016 12:00	MD
cis-1,3-Dichloropropene	BRL		1.2	3.2	ug/Kg-dry	231323	1	10/21/2016 12:00	MD
4-Methyl-2-pentanone	BRL		1.7	6.5	ug/Kg-dry	231323	1	10/21/2016 12:00	MD
Toluene	BRL		0.35	3.2	ug/Kg-dry	231323	1	10/21/2016 12:00	MD
trans-1,3-Dichloropropene	BRL		0.80	3.2	ug/Kg-dry	231323	1	10/21/2016 12:00	MD
1,1,2-Trichloroethane	BRL		1.00	3.2	ug/Kg-dry	231323	1	10/21/2016 12:00	MD
2-Hexanone	BRL		2.5	6.5	ug/Kg-dry	231323	1	10/21/2016 12:00	MD
Tetrachloroethene	BRL		0.98	3.2	ug/Kg-dry	231323	1	10/21/2016 12:00	MD
1,3-Dichloropropane	BRL		1.1	3.2	ug/Kg-dry	231323	1	10/21/2016 12:00	MD
Dibromochloromethane	BRL		0.88	3.2	ug/Kg-dry	231323	1	10/21/2016 12:00	MD
1,2-Dibromoethane	BRL		1.0	3.2	ug/Kg-dry	231323	1	10/21/2016 12:00	MD
Chlorobenzene	BRL		0.97	3.2	ug/Kg-dry	231323	1	10/21/2016 12:00	MD
1,1,1,2-Tetrachloroethane	BRL		0.95	3.2	ug/Kg-dry	231323	1	10/21/2016 12:00	MD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 27-Oct-16

Client: GHD Services, Inc.	Client Sample ID: SO-077150-101216-DJB-013
Project Name: Bluewater Thermal Solutions	Collection Date: 10/12/2016 11:30:00 AM
Lab ID: 1610C64-013	Matrix: Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5035)					
Ethylbenzene	BRL		0.33	3.2	ug/Kg-dry	231323	1	10/21/2016 12:00	MD
Styrene	BRL		0.85	3.2	ug/Kg-dry	231323	1	10/21/2016 12:00	MD
Bromoform	BRL		0.88	3.2	ug/Kg-dry	231323	1	10/21/2016 12:00	MD
Isopropylbenzene	BRL		0.92	3.2	ug/Kg-dry	231323	1	10/21/2016 12:00	MD
1,4-Dichlorobenzene	BRL		1.2	3.2	ug/Kg-dry	231323	1	10/21/2016 12:00	MD
1,2-Dichlorobenzene	BRL		1.1	3.2	ug/Kg-dry	231323	1	10/21/2016 12:00	MD
1,2-Dibromo-3-chloropropane	BRL		1.4	3.2	ug/Kg-dry	231323	1	10/21/2016 12:00	MD
1,2,4-Trichlorobenzene	BRL		1.3	3.2	ug/Kg-dry	231323	1	10/21/2016 12:00	MD
Xylenes, Total	BRL		0.93	3.2	ug/Kg-dry	231323	1	10/21/2016 12:00	MD
Surr: 4-Bromofluorobenzene	89.5		0	70-128	%REC	231323	1	10/21/2016 12:00	MD
Surr: Dibromofluoromethane	99.5		0	78.2-128	%REC	231323	1	10/21/2016 12:00	MD
Surr: Toluene-d8	98.9		0	76.5-116	%REC	231323	1	10/21/2016 12:00	MD
TOTAL MERCURY SW7471B				(SW7471B)					
Mercury	BRL		0.00493	0.112	mg/Kg-dry	231461	1	10/21/2016 12:30	JR
TCL-SEMIVOLATILE ORGANICS SW8270D				(SW3550C)					
1,1'-Biphenyl	BRL		41	390	ug/Kg-dry	231129	1	10/19/2016 14:51	YH
2,4,5-Trichlorophenol	BRL		130	990	ug/Kg-dry	231129	1	10/19/2016 14:51	YH
2,4,6-Trichlorophenol	BRL		27	390	ug/Kg-dry	231129	1	10/19/2016 14:51	YH
2,4-Dichlorophenol	BRL		130	390	ug/Kg-dry	231129	1	10/19/2016 14:51	YH
2,4-Dimethylphenol	BRL		43	390	ug/Kg-dry	231129	1	10/19/2016 14:51	YH
2,4-Dinitrophenol	BRL		170	990	ug/Kg-dry	231129	1	10/19/2016 14:51	YH
2,4-Dinitrotoluene	BRL		41	390	ug/Kg-dry	231129	1	10/19/2016 14:51	YH
2,6-Dinitrotoluene	BRL		78	390	ug/Kg-dry	231129	1	10/19/2016 14:51	YH
2-Chloronaphthalene	BRL		55	390	ug/Kg-dry	231129	1	10/19/2016 14:51	YH
2-Chlorophenol	BRL		47	390	ug/Kg-dry	231129	1	10/19/2016 14:51	YH
2-Methylnaphthalene	BRL		42	390	ug/Kg-dry	231129	1	10/19/2016 14:51	YH
2-Methylphenol	BRL		65	390	ug/Kg-dry	231129	1	10/19/2016 14:51	YH
2-Nitroaniline	BRL		54	990	ug/Kg-dry	231129	1	10/19/2016 14:51	YH
2-Nitrophenol	BRL		90	390	ug/Kg-dry	231129	1	10/19/2016 14:51	YH
3,3'-Dichlorobenzidine	BRL		54	390	ug/Kg-dry	231129	1	10/19/2016 14:51	YH
3-Nitroaniline	BRL		84	990	ug/Kg-dry	231129	1	10/19/2016 14:51	YH
4,6-Dinitro-2-methylphenol	BRL		70	990	ug/Kg-dry	231129	1	10/19/2016 14:51	YH
4-Bromophenyl phenyl ether	BRL		110	390	ug/Kg-dry	231129	1	10/19/2016 14:51	YH
4-Chloro-3-methylphenol	BRL		84	390	ug/Kg-dry	231129	1	10/19/2016 14:51	YH
4-Chloroaniline	BRL		130	390	ug/Kg-dry	231129	1	10/19/2016 14:51	YH
4-Chlorophenyl phenyl ether	BRL		48	390	ug/Kg-dry	231129	1	10/19/2016 14:51	YH
4-Methylphenol	BRL		190	390	ug/Kg-dry	231129	1	10/19/2016 14:51	YH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 27-Oct-16

Client: GHD Services, Inc.	Client Sample ID: SO-077150-101216-DJB-013
Project Name: Bluewater Thermal Solutions	Collection Date: 10/12/2016 11:30:00 AM
Lab ID: 1610C64-013	Matrix: Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS		SW8270D		(SW3550C)					
4-Nitroaniline	BRL		130	990	ug/Kg-dry	231129	1	10/19/2016 14:51	YH
4-Nitrophenol	BRL		210	990	ug/Kg-dry	231129	1	10/19/2016 14:51	YH
Acenaphthene	BRL		51	390	ug/Kg-dry	231129	1	10/19/2016 14:51	YH
Acenaphthylene	BRL		39	390	ug/Kg-dry	231129	1	10/19/2016 14:51	YH
Acetophenone	BRL		70	390	ug/Kg-dry	231129	1	10/19/2016 14:51	YH
Anthracene	BRL		32	390	ug/Kg-dry	231129	1	10/19/2016 14:51	YH
Atrazine	BRL		100	390	ug/Kg-dry	231129	1	10/19/2016 14:51	YH
Benz(a)anthracene	BRL		23	390	ug/Kg-dry	231129	1	10/19/2016 14:51	YH
Benzaldehyde	BRL		140	390	ug/Kg-dry	231129	1	10/19/2016 14:51	YH
Benzo(a)pyrene	BRL		30	390	ug/Kg-dry	231129	1	10/19/2016 14:51	YH
Benzo(b)fluoranthene	BRL		33	390	ug/Kg-dry	231129	1	10/19/2016 14:51	YH
Benzo(g,h,i)perylene	BRL		28	390	ug/Kg-dry	231129	1	10/19/2016 14:51	YH
Benzo(k)fluoranthene	BRL		45	390	ug/Kg-dry	231129	1	10/19/2016 14:51	YH
Bis(2-chloroethoxy)methane	BRL		45	390	ug/Kg-dry	231129	1	10/19/2016 14:51	YH
Bis(2-chloroethyl)ether	BRL		38	390	ug/Kg-dry	231129	1	10/19/2016 14:51	YH
Bis(2-chloroisopropyl)ether	BRL		44	390	ug/Kg-dry	231129	1	10/19/2016 14:51	YH
Bis(2-ethylhexyl)phthalate	BRL		33	390	ug/Kg-dry	231129	1	10/19/2016 14:51	YH
Butyl benzyl phthalate	BRL		45	390	ug/Kg-dry	231129	1	10/19/2016 14:51	YH
Caprolactam	BRL		140	390	ug/Kg-dry	231129	1	10/19/2016 14:51	YH
Carbazole	BRL		41	390	ug/Kg-dry	231129	1	10/19/2016 14:51	YH
Chrysene	BRL		38	390	ug/Kg-dry	231129	1	10/19/2016 14:51	YH
Di-n-butyl phthalate	BRL		36	390	ug/Kg-dry	231129	1	10/19/2016 14:51	YH
Di-n-octyl phthalate	BRL		24	390	ug/Kg-dry	231129	1	10/19/2016 14:51	YH
Dibenz(a,h)anthracene	BRL		45	390	ug/Kg-dry	231129	1	10/19/2016 14:51	YH
Dibenzofuran	BRL		55	390	ug/Kg-dry	231129	1	10/19/2016 14:51	YH
Diethyl phthalate	BRL		40	390	ug/Kg-dry	231129	1	10/19/2016 14:51	YH
Dimethyl phthalate	BRL		47	390	ug/Kg-dry	231129	1	10/19/2016 14:51	YH
Fluoranthene	BRL		22	390	ug/Kg-dry	231129	1	10/19/2016 14:51	YH
Fluorene	BRL		38	390	ug/Kg-dry	231129	1	10/19/2016 14:51	YH
Hexachlorobenzene	BRL		62	390	ug/Kg-dry	231129	1	10/19/2016 14:51	YH
Hexachlorobutadiene	BRL		70	390	ug/Kg-dry	231129	1	10/19/2016 14:51	YH
Hexachlorocyclopentadiene	BRL		55	390	ug/Kg-dry	231129	1	10/19/2016 14:51	YH
Hexachloroethane	BRL		42	390	ug/Kg-dry	231129	1	10/19/2016 14:51	YH
Indeno(1,2,3-cd)pyrene	BRL		33	390	ug/Kg-dry	231129	1	10/19/2016 14:51	YH
Isophorone	BRL		41	390	ug/Kg-dry	231129	1	10/19/2016 14:51	YH
N-Nitrosodi-n-propylamine	BRL		52	390	ug/Kg-dry	231129	1	10/19/2016 14:51	YH
N-Nitrosodiphenylamine	BRL		38	390	ug/Kg-dry	231129	1	10/19/2016 14:51	YH
Naphthalene	BRL		45	390	ug/Kg-dry	231129	1	10/19/2016 14:51	YH
Nitrobenzene	BRL		49	390	ug/Kg-dry	231129	1	10/19/2016 14:51	YH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 27-Oct-16

Client: GHD Services, Inc.	Client Sample ID: SO-077150-101216-DJB-013
Project Name: Bluewater Thermal Solutions	Collection Date: 10/12/2016 11:30:00 AM
Lab ID: 1610C64-013	Matrix: Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D (SW3550C)									
Pentachlorophenol	BRL		64	990	ug/Kg-dry	231129	1	10/19/2016 14:51	YH
Phenanthrene	BRL		37	390	ug/Kg-dry	231129	1	10/19/2016 14:51	YH
Phenol	BRL		59	390	ug/Kg-dry	231129	1	10/19/2016 14:51	YH
Pyrene	BRL		12	390	ug/Kg-dry	231129	1	10/19/2016 14:51	YH
Surr: 2,4,6-Tribromophenol	76.1		0	42.4-130	%REC	231129	1	10/19/2016 14:51	YH
Surr: 2-Fluorobiphenyl	77.2		0	51.5-120	%REC	231129	1	10/19/2016 14:51	YH
Surr: 2-Fluorophenol	78.1		0	41.1-120	%REC	231129	1	10/19/2016 14:51	YH
Surr: 4-Terphenyl-d14	98.7		0	52.7-117	%REC	231129	1	10/19/2016 14:51	YH
Surr: Nitrobenzene-d5	87.5		0	41.4-120	%REC	231129	1	10/19/2016 14:51	YH
Surr: Phenol-d5	84.7		0	47.6-120	%REC	231129	1	10/19/2016 14:51	YH
METALS, TOTAL SW6010C (SW3050B)									
Aluminum	4100		4.02	22.6	mg/Kg-dry	231487	1	10/22/2016 21:00	IO
Antimony	BRL		0.310	5.65	mg/Kg-dry	231487	1	10/22/2016 21:00	IO
Arsenic	BRL		0.167	1.13	mg/Kg-dry	231487	1	10/22/2016 21:00	IO
Barium	4.91	J	0.0856	5.65	mg/Kg-dry	231487	1	10/22/2016 21:00	IO
Beryllium	0.147	J	0.0146	0.565	mg/Kg-dry	231487	1	10/22/2016 21:00	IO
Cadmium	BRL		0.0199	0.565	mg/Kg-dry	231487	1	10/22/2016 21:00	IO
Calcium	1600		0.785	56.5	mg/Kg-dry	231487	1	10/22/2016 21:00	IO
Chromium	3.54		0.0252	1.13	mg/Kg-dry	231487	1	10/22/2016 21:00	IO
Cobalt	0.813	J	0.0295	2.83	mg/Kg-dry	231487	1	10/22/2016 21:00	IO
Copper	0.650	J	0.0963	2.83	mg/Kg-dry	231487	1	10/22/2016 21:00	IO
Iron	13300		6.46	56.5	mg/Kg-dry	231487	5	10/23/2016 00:11	IO
Lead	11.0		0.0881	0.565	mg/Kg-dry	231487	1	10/22/2016 21:00	IO
Magnesium	54.4	J	0.130	56.5	mg/Kg-dry	231487	1	10/22/2016 21:00	IO
Manganese	2.19		0.0156	1.70	mg/Kg-dry	231487	1	10/22/2016 21:00	IO
Nickel	0.198	J	0.0939	4.52	mg/Kg-dry	231487	1	10/22/2016 21:00	IO
Potassium	191		0.344	113	mg/Kg-dry	231487	1	10/22/2016 21:00	IO
Selenium	BRL		0.368	0.565	mg/Kg-dry	231487	1	10/24/2016 21:47	JL
Silver	BRL		0.0245	1.13	mg/Kg-dry	231487	1	10/22/2016 21:00	IO
Sodium	47.0	J	0.260	113	mg/Kg-dry	231487	1	10/22/2016 21:00	IO
Thallium	BRL		0.210	1.13	mg/Kg-dry	231487	1	10/24/2016 21:47	JL
Vanadium	1.09	J	0.0327	5.65	mg/Kg-dry	231487	1	10/22/2016 21:00	IO
Zinc	2.07	J	0.178	2.26	mg/Kg-dry	231487	1	10/22/2016 21:00	IO
PERCENT MOISTURE D2216									
Percent Moisture	16.4		0	0	wt%	R327981	1	10/21/2016 09:00	BD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 27-Oct-16

Client: GHD Services, Inc.	Client Sample ID: SO-077150-101216-DJB-014
Project Name: Bluewater Thermal Solutions	Collection Date: 10/12/2016 12:00:00 PM
Lab ID: 1610C64-014	Matrix: Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5035)					
Dichlorodifluoromethane	BRL		1.4	9.7	ug/Kg-dry	231323	1	10/21/2016 12:24	MD
Chloromethane	BRL		1.8	9.7	ug/Kg-dry	231323	1	10/21/2016 12:24	MD
Vinyl chloride	BRL		2.1	9.7	ug/Kg-dry	231323	1	10/21/2016 12:24	MD
Bromomethane	BRL		2.2	4.8	ug/Kg-dry	231323	1	10/21/2016 12:24	MD
Chloroethane	BRL		2.6	9.7	ug/Kg-dry	231323	1	10/21/2016 12:24	MD
Trichlorofluoromethane	BRL		2.3	4.8	ug/Kg-dry	231323	1	10/21/2016 12:24	MD
1,1-Dichloroethene	BRL		0.95	4.8	ug/Kg-dry	231323	1	10/21/2016 12:24	MD
Acetone	BRL		4.9	9.7	ug/Kg-dry	231323	1	10/21/2016 12:24	MD
Freon-113	BRL		1.3	9.7	ug/Kg-dry	231323	1	10/21/2016 12:24	MD
Carbon disulfide	BRL		2.7	9.7	ug/Kg-dry	231323	1	10/21/2016 12:24	MD
Methyl acetate	BRL		2.5	4.8	ug/Kg-dry	231323	1	10/21/2016 12:24	MD
Methylene chloride	BRL		4.9	9.7	ug/Kg-dry	231323	1	10/21/2016 12:24	MD
Methyl tert-butyl ether	BRL		1.1	4.8	ug/Kg-dry	231323	1	10/21/2016 12:24	MD
trans-1,2-Dichloroethene	BRL		1.7	4.8	ug/Kg-dry	231323	1	10/21/2016 12:24	MD
1,1-Dichloroethane	BRL		1.4	4.8	ug/Kg-dry	231323	1	10/21/2016 12:24	MD
cis-1,2-Dichloroethene	BRL		1.8	4.8	ug/Kg-dry	231323	1	10/21/2016 12:24	MD
2-Butanone	BRL		6.0	9.7	ug/Kg-dry	231323	1	10/21/2016 12:24	MD
Bromochloromethane	BRL		1.7	4.8	ug/Kg-dry	231323	1	10/21/2016 12:24	MD
Chloroform	BRL		1.2	4.8	ug/Kg-dry	231323	1	10/21/2016 12:24	MD
1,1,1-Trichloroethane	BRL		1.3	4.8	ug/Kg-dry	231323	1	10/21/2016 12:24	MD
Cyclohexane	BRL		1.1	4.8	ug/Kg-dry	231323	1	10/21/2016 12:24	MD
Carbon tetrachloride	BRL		1.3	4.8	ug/Kg-dry	231323	1	10/21/2016 12:24	MD
Benzene	BRL		0.58	4.8	ug/Kg-dry	231323	1	10/21/2016 12:24	MD
1,2-Dichloroethane	BRL		1.5	4.8	ug/Kg-dry	231323	1	10/21/2016 12:24	MD
Trichloroethene	BRL		1.3	4.8	ug/Kg-dry	231323	1	10/21/2016 12:24	MD
Methylcyclohexane	BRL		1.6	4.8	ug/Kg-dry	231323	1	10/21/2016 12:24	MD
1,2-Dichloropropane	BRL		1.4	4.8	ug/Kg-dry	231323	1	10/21/2016 12:24	MD
cis-1,3-Dichloropropene	BRL		1.7	4.8	ug/Kg-dry	231323	1	10/21/2016 12:24	MD
4-Methyl-2-pentanone	BRL		2.5	9.7	ug/Kg-dry	231323	1	10/21/2016 12:24	MD
Toluene	BRL		0.51	4.8	ug/Kg-dry	231323	1	10/21/2016 12:24	MD
trans-1,3-Dichloropropene	BRL		1.2	4.8	ug/Kg-dry	231323	1	10/21/2016 12:24	MD
1,1,2-Trichloroethane	BRL		1.5	4.8	ug/Kg-dry	231323	1	10/21/2016 12:24	MD
2-Hexanone	BRL		3.7	9.7	ug/Kg-dry	231323	1	10/21/2016 12:24	MD
Tetrachloroethene	BRL		1.5	4.8	ug/Kg-dry	231323	1	10/21/2016 12:24	MD
1,3-Dichloropropane	BRL		1.6	4.8	ug/Kg-dry	231323	1	10/21/2016 12:24	MD
Dibromochloromethane	BRL		1.3	4.8	ug/Kg-dry	231323	1	10/21/2016 12:24	MD
1,2-Dibromoethane	BRL		1.5	4.8	ug/Kg-dry	231323	1	10/21/2016 12:24	MD
Chlorobenzene	BRL		1.4	4.8	ug/Kg-dry	231323	1	10/21/2016 12:24	MD
1,1,1,2-Tetrachloroethane	BRL		1.4	4.8	ug/Kg-dry	231323	1	10/21/2016 12:24	MD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Client: GHD Services, Inc.	Client Sample ID: SO-077150-101216-DJB-014
Project Name: Bluewater Thermal Solutions	Collection Date: 10/12/2016 12:00:00 PM
Lab ID: 1610C64-014	Matrix: Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5035)					
Ethylbenzene	BRL		0.49	4.8	ug/Kg-dry	231323	1	10/21/2016 12:24	MD
Styrene	BRL		1.3	4.8	ug/Kg-dry	231323	1	10/21/2016 12:24	MD
Bromoform	BRL		1.3	4.8	ug/Kg-dry	231323	1	10/21/2016 12:24	MD
Isopropylbenzene	BRL		1.4	4.8	ug/Kg-dry	231323	1	10/21/2016 12:24	MD
1,4-Dichlorobenzene	BRL		1.7	4.8	ug/Kg-dry	231323	1	10/21/2016 12:24	MD
1,2-Dichlorobenzene	BRL		1.6	4.8	ug/Kg-dry	231323	1	10/21/2016 12:24	MD
1,2-Dibromo-3-chloropropane	BRL		2.1	4.8	ug/Kg-dry	231323	1	10/21/2016 12:24	MD
1,2,4-Trichlorobenzene	BRL		1.9	4.8	ug/Kg-dry	231323	1	10/21/2016 12:24	MD
Xylenes, Total	BRL		1.4	4.8	ug/Kg-dry	231323	1	10/21/2016 12:24	MD
Surr: 4-Bromofluorobenzene	88.8		0	70-128	%REC	231323	1	10/21/2016 12:24	MD
Surr: Dibromofluoromethane	101		0	78.2-128	%REC	231323	1	10/21/2016 12:24	MD
Surr: Toluene-d8	100		0	76.5-116	%REC	231323	1	10/21/2016 12:24	MD
TOTAL MERCURY SW7471B				(SW7471B)					
Mercury	BRL		0.00549	0.125	mg/Kg-dry	231461	1	10/21/2016 12:36	JR
TCL-SEMIVOLATILE ORGANICS SW8270D				(SW3550C)					
1,1'-Biphenyl	BRL		43	410	ug/Kg-dry	231129	1	10/19/2016 13:32	YH
2,4,5-Trichlorophenol	BRL		130	1000	ug/Kg-dry	231129	1	10/19/2016 13:32	YH
2,4,6-Trichlorophenol	BRL		29	410	ug/Kg-dry	231129	1	10/19/2016 13:32	YH
2,4-Dichlorophenol	BRL		140	410	ug/Kg-dry	231129	1	10/19/2016 13:32	YH
2,4-Dimethylphenol	BRL		45	410	ug/Kg-dry	231129	1	10/19/2016 13:32	YH
2,4-Dinitrophenol	BRL		180	1000	ug/Kg-dry	231129	1	10/19/2016 13:32	YH
2,4-Dinitrotoluene	BRL		43	410	ug/Kg-dry	231129	1	10/19/2016 13:32	YH
2,6-Dinitrotoluene	BRL		82	410	ug/Kg-dry	231129	1	10/19/2016 13:32	YH
2-Chloronaphthalene	BRL		58	410	ug/Kg-dry	231129	1	10/19/2016 13:32	YH
2-Chlorophenol	BRL		49	410	ug/Kg-dry	231129	1	10/19/2016 13:32	YH
2-Methylnaphthalene	BRL		44	410	ug/Kg-dry	231129	1	10/19/2016 13:32	YH
2-Methylphenol	BRL		68	410	ug/Kg-dry	231129	1	10/19/2016 13:32	YH
2-Nitroaniline	BRL		56	1000	ug/Kg-dry	231129	1	10/19/2016 13:32	YH
2-Nitrophenol	BRL		95	410	ug/Kg-dry	231129	1	10/19/2016 13:32	YH
3,3'-Dichlorobenzidine	BRL		57	410	ug/Kg-dry	231129	1	10/19/2016 13:32	YH
3-Nitroaniline	BRL		88	1000	ug/Kg-dry	231129	1	10/19/2016 13:32	YH
4,6-Dinitro-2-methylphenol	BRL		73	1000	ug/Kg-dry	231129	1	10/19/2016 13:32	YH
4-Bromophenyl phenyl ether	BRL		110	410	ug/Kg-dry	231129	1	10/19/2016 13:32	YH
4-Chloro-3-methylphenol	BRL		88	410	ug/Kg-dry	231129	1	10/19/2016 13:32	YH
4-Chloroaniline	BRL		140	410	ug/Kg-dry	231129	1	10/19/2016 13:32	YH
4-Chlorophenyl phenyl ether	BRL		50	410	ug/Kg-dry	231129	1	10/19/2016 13:32	YH
4-Methylphenol	BRL		200	410	ug/Kg-dry	231129	1	10/19/2016 13:32	YH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Client: GHD Services, Inc.	Client Sample ID: SO-077150-101216-DJB-014
Project Name: Bluewater Thermal Solutions	Collection Date: 10/12/2016 12:00:00 PM
Lab ID: 1610C64-014	Matrix: Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D (SW3550C)									
Pentachlorophenol	BRL		67	1000	ug/Kg-dry	231129	1	10/19/2016 13:32	YH
Phenanthrene	BRL		39	410	ug/Kg-dry	231129	1	10/19/2016 13:32	YH
Phenol	BRL		62	410	ug/Kg-dry	231129	1	10/19/2016 13:32	YH
Pyrene	BRL		12	410	ug/Kg-dry	231129	1	10/19/2016 13:32	YH
Surr: 2,4,6-Tribromophenol	82.3		0	42.4-130	%REC	231129	1	10/19/2016 13:32	YH
Surr: 2-Fluorobiphenyl	70.1		0	51.5-120	%REC	231129	1	10/19/2016 13:32	YH
Surr: 2-Fluorophenol	65.3		0	41.1-120	%REC	231129	1	10/19/2016 13:32	YH
Surr: 4-Terphenyl-d14	87		0	52.7-117	%REC	231129	1	10/19/2016 13:32	YH
Surr: Nitrobenzene-d5	62.2		0	41.4-120	%REC	231129	1	10/19/2016 13:32	YH
Surr: Phenol-d5	65.8		0	47.6-120	%REC	231129	1	10/19/2016 13:32	YH
METALS, TOTAL SW6010C (SW3050B)									
Aluminum	5170		3.12	17.5	mg/Kg-dry	231487	1	10/22/2016 21:04	IO
Antimony	BRL		0.240	4.38	mg/Kg-dry	231487	1	10/22/2016 21:04	IO
Arsenic	BRL		0.130	0.876	mg/Kg-dry	231487	1	10/22/2016 21:04	IO
Barium	4.97		0.0663	4.38	mg/Kg-dry	231487	1	10/22/2016 21:04	IO
Beryllium	0.177	J	0.0113	0.438	mg/Kg-dry	231487	1	10/22/2016 21:04	IO
Cadmium	BRL		0.0154	0.438	mg/Kg-dry	231487	1	10/22/2016 21:04	IO
Calcium	308		0.608	43.8	mg/Kg-dry	231487	1	10/22/2016 21:04	IO
Chromium	0.995		0.0195	0.876	mg/Kg-dry	231487	1	10/22/2016 21:04	IO
Cobalt	0.368	J	0.0229	2.19	mg/Kg-dry	231487	1	10/22/2016 21:04	IO
Copper	0.651	J	0.0746	2.19	mg/Kg-dry	231487	1	10/22/2016 21:04	IO
Iron	2060		1.00	8.76	mg/Kg-dry	231487	1	10/22/2016 21:04	IO
Lead	8.48		0.0683	0.438	mg/Kg-dry	231487	1	10/22/2016 21:04	IO
Magnesium	233		0.101	43.8	mg/Kg-dry	231487	1	10/22/2016 21:04	IO
Manganese	8.29		0.0121	1.31	mg/Kg-dry	231487	1	10/22/2016 21:04	IO
Nickel	0.186	J	0.0727	3.50	mg/Kg-dry	231487	1	10/22/2016 21:04	IO
Potassium	372		0.267	87.6	mg/Kg-dry	231487	1	10/22/2016 21:04	IO
Selenium	BRL		0.285	0.438	mg/Kg-dry	231487	1	10/24/2016 21:50	JL
Silver	BRL		0.0190	0.876	mg/Kg-dry	231487	1	10/22/2016 21:04	IO
Sodium	25.3	J	0.202	87.6	mg/Kg-dry	231487	1	10/22/2016 21:04	IO
Thallium	0.290	J	0.162	0.876	mg/Kg-dry	231487	1	10/24/2016 21:50	JL
Vanadium	1.63	J	0.0253	4.38	mg/Kg-dry	231487	1	10/22/2016 21:04	IO
Zinc	6.37		0.138	1.75	mg/Kg-dry	231487	1	10/22/2016 21:04	IO
PERCENT MOISTURE D2216									
Percent Moisture	20.2		0	0	wt%	R327981	1	10/21/2016 09:00	BD

Qualifiers:	* Value exceeds maximum contaminant level	E Estimated value above quantitation range
	BRL Not detected at MDL	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	J Estimated value detected below Reporting Limit
	N Analyte not NELAC certified	> Greater than Result value
	B Analyte detected in the associated method blank	< Less than Result value
	NC Not confirmed	Narr See case narrative

Client: GHD Services, Inc.	Client Sample ID: SO-077150-101216-DJB-015
Project Name: Bluewater Thermal Solutions	Collection Date: 10/12/2016 12:15:00 PM
Lab ID: 1610C64-015	Matrix: Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5035)					
Dichlorodifluoromethane	BRL		1.1	7.2	ug/Kg-dry	231323	1	10/21/2016 13:35	MD
Chloromethane	BRL		1.3	7.2	ug/Kg-dry	231323	1	10/21/2016 13:35	MD
Vinyl chloride	BRL		1.5	7.2	ug/Kg-dry	231323	1	10/21/2016 13:35	MD
Bromomethane	BRL		1.6	3.6	ug/Kg-dry	231323	1	10/21/2016 13:35	MD
Chloroethane	BRL		2.0	7.2	ug/Kg-dry	231323	1	10/21/2016 13:35	MD
Trichlorofluoromethane	BRL		1.7	3.6	ug/Kg-dry	231323	1	10/21/2016 13:35	MD
1,1-Dichloroethene	BRL		0.71	3.6	ug/Kg-dry	231323	1	10/21/2016 13:35	MD
Acetone	BRL		3.7	7.2	ug/Kg-dry	231323	1	10/21/2016 13:35	MD
Freon-113	BRL		0.94	7.2	ug/Kg-dry	231323	1	10/21/2016 13:35	MD
Carbon disulfide	BRL		2.0	7.2	ug/Kg-dry	231323	1	10/21/2016 13:35	MD
Methyl acetate	BRL		1.9	3.6	ug/Kg-dry	231323	1	10/21/2016 13:35	MD
Methylene chloride	BRL		3.6	7.2	ug/Kg-dry	231323	1	10/21/2016 13:35	MD
Methyl tert-butyl ether	BRL		0.83	3.6	ug/Kg-dry	231323	1	10/21/2016 13:35	MD
trans-1,2-Dichloroethene	BRL		1.3	3.6	ug/Kg-dry	231323	1	10/21/2016 13:35	MD
1,1-Dichloroethane	BRL		1.0	3.6	ug/Kg-dry	231323	1	10/21/2016 13:35	MD
cis-1,2-Dichloroethene	BRL		1.3	3.6	ug/Kg-dry	231323	1	10/21/2016 13:35	MD
2-Butanone	BRL		4.5	7.2	ug/Kg-dry	231323	1	10/21/2016 13:35	MD
Bromochloromethane	BRL		1.3	3.6	ug/Kg-dry	231323	1	10/21/2016 13:35	MD
Chloroform	BRL		0.88	3.6	ug/Kg-dry	231323	1	10/21/2016 13:35	MD
1,1,1-Trichloroethane	BRL		0.96	3.6	ug/Kg-dry	231323	1	10/21/2016 13:35	MD
Cyclohexane	BRL		0.81	3.6	ug/Kg-dry	231323	1	10/21/2016 13:35	MD
Carbon tetrachloride	BRL		0.97	3.6	ug/Kg-dry	231323	1	10/21/2016 13:35	MD
Benzene	BRL		0.43	3.6	ug/Kg-dry	231323	1	10/21/2016 13:35	MD
1,2-Dichloroethane	BRL		1.1	3.6	ug/Kg-dry	231323	1	10/21/2016 13:35	MD
Trichloroethene	BRL		1.0	3.6	ug/Kg-dry	231323	1	10/21/2016 13:35	MD
Methylcyclohexane	BRL		1.2	3.6	ug/Kg-dry	231323	1	10/21/2016 13:35	MD
1,2-Dichloropropane	BRL		1.1	3.6	ug/Kg-dry	231323	1	10/21/2016 13:35	MD
cis-1,3-Dichloropropene	BRL		1.3	3.6	ug/Kg-dry	231323	1	10/21/2016 13:35	MD
4-Methyl-2-pentanone	BRL		1.9	7.2	ug/Kg-dry	231323	1	10/21/2016 13:35	MD
Toluene	BRL		0.39	3.6	ug/Kg-dry	231323	1	10/21/2016 13:35	MD
trans-1,3-Dichloropropene	BRL		0.90	3.6	ug/Kg-dry	231323	1	10/21/2016 13:35	MD
1,1,2-Trichloroethane	BRL		1.1	3.6	ug/Kg-dry	231323	1	10/21/2016 13:35	MD
2-Hexanone	BRL		2.8	7.2	ug/Kg-dry	231323	1	10/21/2016 13:35	MD
Tetrachloroethene	BRL		1.1	3.6	ug/Kg-dry	231323	1	10/21/2016 13:35	MD
1,3-Dichloropropane	BRL		1.2	3.6	ug/Kg-dry	231323	1	10/21/2016 13:35	MD
Dibromochloromethane	BRL		0.98	3.6	ug/Kg-dry	231323	1	10/21/2016 13:35	MD
1,2-Dibromoethane	BRL		1.1	3.6	ug/Kg-dry	231323	1	10/21/2016 13:35	MD
Chlorobenzene	BRL		1.1	3.6	ug/Kg-dry	231323	1	10/21/2016 13:35	MD
1,1,1,2-Tetrachloroethane	BRL		1.1	3.6	ug/Kg-dry	231323	1	10/21/2016 13:35	MD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Client: GHD Services, Inc.	Client Sample ID: SO-077150-101216-DJB-015
Project Name: Bluewater Thermal Solutions	Collection Date: 10/12/2016 12:15:00 PM
Lab ID: 1610C64-015	Matrix: Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5035)					
Ethylbenzene	BRL		0.36	3.6	ug/Kg-dry	231323	1	10/21/2016 13:35	MD
Styrene	BRL		0.95	3.6	ug/Kg-dry	231323	1	10/21/2016 13:35	MD
Bromoform	BRL		0.98	3.6	ug/Kg-dry	231323	1	10/21/2016 13:35	MD
Isopropylbenzene	BRL		1.0	3.6	ug/Kg-dry	231323	1	10/21/2016 13:35	MD
1,4-Dichlorobenzene	BRL		1.3	3.6	ug/Kg-dry	231323	1	10/21/2016 13:35	MD
1,2-Dichlorobenzene	BRL		1.2	3.6	ug/Kg-dry	231323	1	10/21/2016 13:35	MD
1,2-Dibromo-3-chloropropane	BRL		1.5	3.6	ug/Kg-dry	231323	1	10/21/2016 13:35	MD
1,2,4-Trichlorobenzene	BRL		1.4	3.6	ug/Kg-dry	231323	1	10/21/2016 13:35	MD
Xylenes, Total	BRL		1.0	3.6	ug/Kg-dry	231323	1	10/21/2016 13:35	MD
Surr: 4-Bromofluorobenzene	97.8		0	70-128	%REC	231323	1	10/21/2016 13:35	MD
Surr: Dibromofluoromethane	96.4		0	78.2-128	%REC	231323	1	10/21/2016 13:35	MD
Surr: Toluene-d8	94.2		0	76.5-116	%REC	231323	1	10/21/2016 13:35	MD
TOTAL MERCURY SW7471B				(SW7471B)					
Mercury	BRL		0.00455	0.103	mg/Kg-dry	231461	1	10/21/2016 12:38	JR
TCL-SEMIVOLATILE ORGANICS SW8270D				(SW3550C)					
1,1'-Biphenyl	BRL		37	350	ug/Kg-dry	231129	1	10/19/2016 14:00	YH
2,4,5-Trichlorophenol	BRL		110	890	ug/Kg-dry	231129	1	10/19/2016 14:00	YH
2,4,6-Trichlorophenol	BRL		24	350	ug/Kg-dry	231129	1	10/19/2016 14:00	YH
2,4-Dichlorophenol	BRL		120	350	ug/Kg-dry	231129	1	10/19/2016 14:00	YH
2,4-Dimethylphenol	BRL		39	350	ug/Kg-dry	231129	1	10/19/2016 14:00	YH
2,4-Dinitrophenol	BRL		150	890	ug/Kg-dry	231129	1	10/19/2016 14:00	YH
2,4-Dinitrotoluene	BRL		37	350	ug/Kg-dry	231129	1	10/19/2016 14:00	YH
2,6-Dinitrotoluene	BRL		70	350	ug/Kg-dry	231129	1	10/19/2016 14:00	YH
2-Chloronaphthalene	BRL		50	350	ug/Kg-dry	231129	1	10/19/2016 14:00	YH
2-Chlorophenol	BRL		42	350	ug/Kg-dry	231129	1	10/19/2016 14:00	YH
2-Methylnaphthalene	BRL		37	350	ug/Kg-dry	231129	1	10/19/2016 14:00	YH
2-Methylphenol	BRL		58	350	ug/Kg-dry	231129	1	10/19/2016 14:00	YH
2-Nitroaniline	BRL		48	890	ug/Kg-dry	231129	1	10/19/2016 14:00	YH
2-Nitrophenol	BRL		81	350	ug/Kg-dry	231129	1	10/19/2016 14:00	YH
3,3'-Dichlorobenzidine	BRL		49	350	ug/Kg-dry	231129	1	10/19/2016 14:00	YH
3-Nitroaniline	BRL		75	890	ug/Kg-dry	231129	1	10/19/2016 14:00	YH
4,6-Dinitro-2-methylphenol	BRL		62	890	ug/Kg-dry	231129	1	10/19/2016 14:00	YH
4-Bromophenyl phenyl ether	BRL		97	350	ug/Kg-dry	231129	1	10/19/2016 14:00	YH
4-Chloro-3-methylphenol	BRL		75	350	ug/Kg-dry	231129	1	10/19/2016 14:00	YH
4-Chloroaniline	BRL		120	350	ug/Kg-dry	231129	1	10/19/2016 14:00	YH
4-Chlorophenyl phenyl ether	BRL		43	350	ug/Kg-dry	231129	1	10/19/2016 14:00	YH
4-Methylphenol	BRL		170	350	ug/Kg-dry	231129	1	10/19/2016 14:00	YH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 27-Oct-16

Client: GHD Services, Inc.	Client Sample ID: SO-077150-101216-DJB-015
Project Name: Bluewater Thermal Solutions	Collection Date: 10/12/2016 12:15:00 PM
Lab ID: 1610C64-015	Matrix: Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D				(SW3550C)					
4-Nitroaniline	BRL		110	890	ug/Kg-dry	231129	1	10/19/2016 14:00	YH
4-Nitrophenol	BRL		190	890	ug/Kg-dry	231129	1	10/19/2016 14:00	YH
Acenaphthene	BRL		46	350	ug/Kg-dry	231129	1	10/19/2016 14:00	YH
Acenaphthylene	BRL		35	350	ug/Kg-dry	231129	1	10/19/2016 14:00	YH
Acetophenone	BRL		62	350	ug/Kg-dry	231129	1	10/19/2016 14:00	YH
Anthracene	BRL		29	350	ug/Kg-dry	231129	1	10/19/2016 14:00	YH
Atrazine	BRL		92	350	ug/Kg-dry	231129	1	10/19/2016 14:00	YH
Benz(a)anthracene	BRL		21	350	ug/Kg-dry	231129	1	10/19/2016 14:00	YH
Benzaldehyde	BRL		120	350	ug/Kg-dry	231129	1	10/19/2016 14:00	YH
Benzo(a)pyrene	BRL		27	350	ug/Kg-dry	231129	1	10/19/2016 14:00	YH
Benzo(b)fluoranthene	BRL		30	350	ug/Kg-dry	231129	1	10/19/2016 14:00	YH
Benzo(g,h,i)perylene	BRL		25	350	ug/Kg-dry	231129	1	10/19/2016 14:00	YH
Benzo(k)fluoranthene	BRL		40	350	ug/Kg-dry	231129	1	10/19/2016 14:00	YH
Bis(2-chloroethoxy)methane	BRL		40	350	ug/Kg-dry	231129	1	10/19/2016 14:00	YH
Bis(2-chloroethyl)ether	BRL		34	350	ug/Kg-dry	231129	1	10/19/2016 14:00	YH
Bis(2-chloroisopropyl)ether	BRL		39	350	ug/Kg-dry	231129	1	10/19/2016 14:00	YH
Bis(2-ethylhexyl)phthalate	BRL		30	350	ug/Kg-dry	231129	1	10/19/2016 14:00	YH
Butyl benzyl phthalate	BRL		40	350	ug/Kg-dry	231129	1	10/19/2016 14:00	YH
Caprolactam	BRL		130	350	ug/Kg-dry	231129	1	10/19/2016 14:00	YH
Carbazole	BRL		37	350	ug/Kg-dry	231129	1	10/19/2016 14:00	YH
Chrysene	BRL		34	350	ug/Kg-dry	231129	1	10/19/2016 14:00	YH
Di-n-butyl phthalate	BRL		32	350	ug/Kg-dry	231129	1	10/19/2016 14:00	YH
Di-n-octyl phthalate	BRL		21	350	ug/Kg-dry	231129	1	10/19/2016 14:00	YH
Dibenz(a,h)anthracene	BRL		40	350	ug/Kg-dry	231129	1	10/19/2016 14:00	YH
Dibenzofuran	BRL		49	350	ug/Kg-dry	231129	1	10/19/2016 14:00	YH
Diethyl phthalate	BRL		36	350	ug/Kg-dry	231129	1	10/19/2016 14:00	YH
Dimethyl phthalate	BRL		42	350	ug/Kg-dry	231129	1	10/19/2016 14:00	YH
Fluoranthene	BRL		20	350	ug/Kg-dry	231129	1	10/19/2016 14:00	YH
Fluorene	BRL		34	350	ug/Kg-dry	231129	1	10/19/2016 14:00	YH
Hexachlorobenzene	BRL		55	350	ug/Kg-dry	231129	1	10/19/2016 14:00	YH
Hexachlorobutadiene	BRL		63	350	ug/Kg-dry	231129	1	10/19/2016 14:00	YH
Hexachlorocyclopentadiene	BRL		49	350	ug/Kg-dry	231129	1	10/19/2016 14:00	YH
Hexachloroethane	BRL		38	350	ug/Kg-dry	231129	1	10/19/2016 14:00	YH
Indeno(1,2,3-cd)pyrene	BRL		30	350	ug/Kg-dry	231129	1	10/19/2016 14:00	YH
Isophorone	BRL		37	350	ug/Kg-dry	231129	1	10/19/2016 14:00	YH
N-Nitrosodi-n-propylamine	BRL		47	350	ug/Kg-dry	231129	1	10/19/2016 14:00	YH
N-Nitrosodiphenylamine	BRL		34	350	ug/Kg-dry	231129	1	10/19/2016 14:00	YH
Naphthalene	BRL		41	350	ug/Kg-dry	231129	1	10/19/2016 14:00	YH
Nitrobenzene	BRL		44	350	ug/Kg-dry	231129	1	10/19/2016 14:00	YH

Qualifiers:	* Value exceeds maximum contaminant level	E Estimated value above quantitation range
	BRL Not detected at MDL	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	J Estimated value detected below Reporting Limit
	N Analyte not NELAC certified	> Greater than Result value
	B Analyte detected in the associated method blank	< Less than Result value
	NC Not confirmed	Narr See case narrative

Analytical Environmental Services, Inc

Date: 27-Oct-16

Client: GHD Services, Inc.	Client Sample ID: SO-077150-101216-DJB-015
Project Name: Bluewater Thermal Solutions	Collection Date: 10/12/2016 12:15:00 PM
Lab ID: 1610C64-015	Matrix: Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D (SW3550C)									
Pentachlorophenol	BRL		57	890	ug/Kg-dry	231129	1	10/19/2016 14:00	YH
Phenanthrene	BRL		33	350	ug/Kg-dry	231129	1	10/19/2016 14:00	YH
Phenol	BRL		53	350	ug/Kg-dry	231129	1	10/19/2016 14:00	YH
Pyrene	BRL		10	350	ug/Kg-dry	231129	1	10/19/2016 14:00	YH
Surr: 2,4,6-Tribromophenol	99.7		0	42.4-130	%REC	231129	1	10/19/2016 14:00	YH
Surr: 2-Fluorobiphenyl	91.3		0	51.5-120	%REC	231129	1	10/19/2016 14:00	YH
Surr: 2-Fluorophenol	81.9		0	41.1-120	%REC	231129	1	10/19/2016 14:00	YH
Surr: 4-Terphenyl-d14	106		0	52.7-117	%REC	231129	1	10/19/2016 14:00	YH
Surr: Nitrobenzene-d5	83.3		0	41.4-120	%REC	231129	1	10/19/2016 14:00	YH
Surr: Phenol-d5	82		0	47.6-120	%REC	231129	1	10/19/2016 14:00	YH
METALS, TOTAL SW6010C (SW3050B)									
Aluminum	4370		2.97	16.7	mg/Kg-dry	231487	1	10/22/2016 21:08	IO
Antimony	BRL		0.229	4.17	mg/Kg-dry	231487	1	10/22/2016 21:08	IO
Arsenic	BRL		0.123	0.833	mg/Kg-dry	231487	1	10/22/2016 21:08	IO
Barium	3.72	J	0.0631	4.17	mg/Kg-dry	231487	1	10/22/2016 21:08	IO
Beryllium	0.0277	J	0.0108	0.417	mg/Kg-dry	231487	1	10/22/2016 21:08	IO
Cadmium	BRL		0.0147	0.417	mg/Kg-dry	231487	1	10/22/2016 21:08	IO
Calcium	101		0.579	41.7	mg/Kg-dry	231487	1	10/22/2016 21:08	IO
Chromium	2.81		0.0186	0.833	mg/Kg-dry	231487	1	10/22/2016 21:08	IO
Cobalt	0.0782	J	0.0218	2.08	mg/Kg-dry	231487	1	10/22/2016 21:08	IO
Copper	0.367	J	0.0710	2.08	mg/Kg-dry	231487	1	10/22/2016 21:08	IO
Iron	443		0.952	8.33	mg/Kg-dry	231487	1	10/22/2016 21:08	IO
Lead	6.09		0.0649	0.417	mg/Kg-dry	231487	1	10/22/2016 21:08	IO
Magnesium	23.3	J	0.0958	41.7	mg/Kg-dry	231487	1	10/22/2016 21:08	IO
Manganese	1.48		0.0115	1.25	mg/Kg-dry	231487	1	10/22/2016 21:08	IO
Nickel	0.479	J	0.0692	3.33	mg/Kg-dry	231487	1	10/22/2016 21:08	IO
Potassium	114		0.254	83.3	mg/Kg-dry	231487	1	10/22/2016 21:08	IO
Selenium	BRL		0.271	0.417	mg/Kg-dry	231487	1	10/24/2016 21:53	JL
Silver	BRL		0.0181	0.833	mg/Kg-dry	231487	1	10/22/2016 21:08	IO
Sodium	15.5	J	0.192	83.3	mg/Kg-dry	231487	1	10/22/2016 21:08	IO
Thallium	0.245	J	0.155	0.833	mg/Kg-dry	231487	1	10/24/2016 21:53	JL
Vanadium	1.74	J	0.0241	4.17	mg/Kg-dry	231487	1	10/22/2016 21:08	IO
Zinc	1.71		0.131	1.67	mg/Kg-dry	231487	1	10/22/2016 21:08	IO
PERCENT MOISTURE D2216									
Percent Moisture	6.55		0	0	wt%	R327981	1	10/21/2016 09:00	BD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 27-Oct-16

Client: GHD Services, Inc.	Client Sample ID: SO-077150-101216-DJB-016
Project Name: Bluewater Thermal Solutions	Collection Date: 10/12/2016 12:35:00 PM
Lab ID: 1610C64-016	Matrix: Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5035)					
Dichlorodifluoromethane	BRL		0.94	6.3	ug/Kg-dry	231390	1	10/21/2016 13:59	MD
Chloromethane	BRL		1.2	6.3	ug/Kg-dry	231390	1	10/21/2016 13:59	MD
Vinyl chloride	BRL		1.3	6.3	ug/Kg-dry	231390	1	10/21/2016 13:59	MD
Bromomethane	BRL		1.4	3.2	ug/Kg-dry	231390	1	10/21/2016 13:59	MD
Chloroethane	BRL		1.7	6.3	ug/Kg-dry	231390	1	10/21/2016 13:59	MD
Trichlorofluoromethane	BRL		1.5	3.2	ug/Kg-dry	231390	1	10/21/2016 13:59	MD
1,1-Dichloroethene	BRL		0.62	3.2	ug/Kg-dry	231390	1	10/21/2016 13:59	MD
Acetone	BRL		3.2	6.3	ug/Kg-dry	231390	1	10/21/2016 13:59	MD
Freon-113	BRL		0.83	6.3	ug/Kg-dry	231390	1	10/21/2016 13:59	MD
Carbon disulfide	BRL		1.7	6.3	ug/Kg-dry	231390	1	10/21/2016 13:59	MD
Methyl acetate	BRL		1.6	3.2	ug/Kg-dry	231390	1	10/21/2016 13:59	MD
Methylene chloride	BRL		3.2	6.3	ug/Kg-dry	231390	1	10/21/2016 13:59	MD
Methyl tert-butyl ether	BRL		0.72	3.2	ug/Kg-dry	231390	1	10/21/2016 13:59	MD
trans-1,2-Dichloroethene	BRL		1.1	3.2	ug/Kg-dry	231390	1	10/21/2016 13:59	MD
1,1-Dichloroethane	BRL		0.89	3.2	ug/Kg-dry	231390	1	10/21/2016 13:59	MD
cis-1,2-Dichloroethene	BRL		1.2	3.2	ug/Kg-dry	231390	1	10/21/2016 13:59	MD
2-Butanone	BRL		3.9	6.3	ug/Kg-dry	231390	1	10/21/2016 13:59	MD
Bromochloromethane	BRL		1.1	3.2	ug/Kg-dry	231390	1	10/21/2016 13:59	MD
Chloroform	BRL		0.77	3.2	ug/Kg-dry	231390	1	10/21/2016 13:59	MD
1,1,1-Trichloroethane	BRL		0.84	3.2	ug/Kg-dry	231390	1	10/21/2016 13:59	MD
Cyclohexane	BRL		0.71	3.2	ug/Kg-dry	231390	1	10/21/2016 13:59	MD
Carbon tetrachloride	BRL		0.84	3.2	ug/Kg-dry	231390	1	10/21/2016 13:59	MD
Benzene	BRL		0.38	3.2	ug/Kg-dry	231390	1	10/21/2016 13:59	MD
1,2-Dichloroethane	BRL		0.98	3.2	ug/Kg-dry	231390	1	10/21/2016 13:59	MD
Trichloroethene	BRL		0.88	3.2	ug/Kg-dry	231390	1	10/21/2016 13:59	MD
Methylcyclohexane	BRL		1.0	3.2	ug/Kg-dry	231390	1	10/21/2016 13:59	MD
1,2-Dichloropropane	BRL		0.92	3.2	ug/Kg-dry	231390	1	10/21/2016 13:59	MD
cis-1,3-Dichloropropene	BRL		1.1	3.2	ug/Kg-dry	231390	1	10/21/2016 13:59	MD
4-Methyl-2-pentanone	BRL		1.6	6.3	ug/Kg-dry	231390	1	10/21/2016 13:59	MD
Toluene	BRL		0.34	3.2	ug/Kg-dry	231390	1	10/21/2016 13:59	MD
trans-1,3-Dichloropropene	BRL		0.78	3.2	ug/Kg-dry	231390	1	10/21/2016 13:59	MD
1,1,2-Trichloroethane	BRL		0.97	3.2	ug/Kg-dry	231390	1	10/21/2016 13:59	MD
2-Hexanone	BRL		2.4	6.3	ug/Kg-dry	231390	1	10/21/2016 13:59	MD
Tetrachloroethene	BRL		0.96	3.2	ug/Kg-dry	231390	1	10/21/2016 13:59	MD
1,3-Dichloropropane	BRL		1.1	3.2	ug/Kg-dry	231390	1	10/21/2016 13:59	MD
Dibromochloromethane	BRL		0.86	3.2	ug/Kg-dry	231390	1	10/21/2016 13:59	MD
1,2-Dibromoethane	BRL		0.99	3.2	ug/Kg-dry	231390	1	10/21/2016 13:59	MD
Chlorobenzene	BRL		0.95	3.2	ug/Kg-dry	231390	1	10/21/2016 13:59	MD
1,1,1,2-Tetrachloroethane	BRL		0.92	3.2	ug/Kg-dry	231390	1	10/21/2016 13:59	MD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Client: GHD Services, Inc.	Client Sample ID: SO-077150-101216-DJB-016
Project Name: Bluewater Thermal Solutions	Collection Date: 10/12/2016 12:35:00 PM
Lab ID: 1610C64-016	Matrix: Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5035)					
Ethylbenzene	BRL		0.32	3.2	ug/Kg-dry	231390	1	10/21/2016 13:59	MD
Styrene	BRL		0.83	3.2	ug/Kg-dry	231390	1	10/21/2016 13:59	MD
Bromoform	BRL		0.86	3.2	ug/Kg-dry	231390	1	10/21/2016 13:59	MD
Isopropylbenzene	BRL		0.89	3.2	ug/Kg-dry	231390	1	10/21/2016 13:59	MD
1,4-Dichlorobenzene	BRL		1.1	3.2	ug/Kg-dry	231390	1	10/21/2016 13:59	MD
1,2-Dichlorobenzene	BRL		1.0	3.2	ug/Kg-dry	231390	1	10/21/2016 13:59	MD
1,2-Dibromo-3-chloropropane	BRL		1.3	3.2	ug/Kg-dry	231390	1	10/21/2016 13:59	MD
1,2,4-Trichlorobenzene	BRL		1.3	3.2	ug/Kg-dry	231390	1	10/21/2016 13:59	MD
Xylenes, Total	BRL		0.90	3.2	ug/Kg-dry	231390	1	10/21/2016 13:59	MD
Surr: 4-Bromofluorobenzene	88.4		0	70-128	%REC	231390	1	10/21/2016 13:59	MD
Surr: Dibromofluoromethane	104		0	78.2-128	%REC	231390	1	10/21/2016 13:59	MD
Surr: Toluene-d8	94.9		0	76.5-116	%REC	231390	1	10/21/2016 13:59	MD
TOTAL MERCURY SW7471B				(SW7471B)					
Mercury	BRL		0.00475	0.108	mg/Kg-dry	231462	1	10/21/2016 13:07	JR
TCL-SEMIVOLATILE ORGANICS SW8270D				(SW3550C)					
1,1'-Biphenyl	BRL		44	420	ug/Kg-dry	231129	1	10/19/2016 14:29	YH
2,4,5-Trichlorophenol	BRL		130	1100	ug/Kg-dry	231129	1	10/19/2016 14:29	YH
2,4,6-Trichlorophenol	BRL		29	420	ug/Kg-dry	231129	1	10/19/2016 14:29	YH
2,4-Dichlorophenol	BRL		140	420	ug/Kg-dry	231129	1	10/19/2016 14:29	YH
2,4-Dimethylphenol	BRL		46	420	ug/Kg-dry	231129	1	10/19/2016 14:29	YH
2,4-Dinitrophenol	BRL		180	1100	ug/Kg-dry	231129	1	10/19/2016 14:29	YH
2,4-Dinitrotoluene	BRL		44	420	ug/Kg-dry	231129	1	10/19/2016 14:29	YH
2,6-Dinitrotoluene	BRL		83	420	ug/Kg-dry	231129	1	10/19/2016 14:29	YH
2-Chloronaphthalene	BRL		59	420	ug/Kg-dry	231129	1	10/19/2016 14:29	YH
2-Chlorophenol	BRL		50	420	ug/Kg-dry	231129	1	10/19/2016 14:29	YH
2-Methylnaphthalene	BRL		45	420	ug/Kg-dry	231129	1	10/19/2016 14:29	YH
2-Methylphenol	BRL		70	420	ug/Kg-dry	231129	1	10/19/2016 14:29	YH
2-Nitroaniline	BRL		57	1100	ug/Kg-dry	231129	1	10/19/2016 14:29	YH
2-Nitrophenol	BRL		97	420	ug/Kg-dry	231129	1	10/19/2016 14:29	YH
3,3'-Dichlorobenzidine	BRL		58	420	ug/Kg-dry	231129	1	10/19/2016 14:29	YH
3-Nitroaniline	BRL		90	1100	ug/Kg-dry	231129	1	10/19/2016 14:29	YH
4,6-Dinitro-2-methylphenol	BRL		74	1100	ug/Kg-dry	231129	1	10/19/2016 14:29	YH
4-Bromophenyl phenyl ether	BRL		120	420	ug/Kg-dry	231129	1	10/19/2016 14:29	YH
4-Chloro-3-methylphenol	BRL		89	420	ug/Kg-dry	231129	1	10/19/2016 14:29	YH
4-Chloroaniline	BRL		140	420	ug/Kg-dry	231129	1	10/19/2016 14:29	YH
4-Chlorophenyl phenyl ether	BRL		51	420	ug/Kg-dry	231129	1	10/19/2016 14:29	YH
4-Methylphenol	BRL		200	420	ug/Kg-dry	231129	1	10/19/2016 14:29	YH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 27-Oct-16

Client: GHD Services, Inc.	Client Sample ID: SO-077150-101216-DJB-016
Project Name: Bluewater Thermal Solutions	Collection Date: 10/12/2016 12:35:00 PM
Lab ID: 1610C64-016	Matrix: Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D (SW3550C)									
Pentachlorophenol	BRL		68	1100	ug/Kg-dry	231129	1	10/19/2016 14:29	YH
Phenanthrene	BRL		40	420	ug/Kg-dry	231129	1	10/19/2016 14:29	YH
Phenol	BRL		63	420	ug/Kg-dry	231129	1	10/19/2016 14:29	YH
Pyrene	BRL		12	420	ug/Kg-dry	231129	1	10/19/2016 14:29	YH
Surr: 2,4,6-Tribromophenol	83.5		0	42.4-130	%REC	231129	1	10/19/2016 14:29	YH
Surr: 2-Fluorobiphenyl	74.8		0	51.5-120	%REC	231129	1	10/19/2016 14:29	YH
Surr: 2-Fluorophenol	69.3		0	41.1-120	%REC	231129	1	10/19/2016 14:29	YH
Surr: 4-Terphenyl-d14	89.8		0	52.7-117	%REC	231129	1	10/19/2016 14:29	YH
Surr: Nitrobenzene-d5	64.8		0	41.4-120	%REC	231129	1	10/19/2016 14:29	YH
Surr: Phenol-d5	69.2		0	47.6-120	%REC	231129	1	10/19/2016 14:29	YH
METALS, TOTAL SW6010C (SW3050B)									
Aluminum	5540		4.26	24.0	mg/Kg-dry	231487	1	10/22/2016 21:11	IO
Antimony	BRL		0.329	5.99	mg/Kg-dry	231487	1	10/22/2016 21:11	IO
Arsenic	0.231	J	0.177	1.20	mg/Kg-dry	231487	1	10/22/2016 21:11	IO
Barium	15.2		0.0907	5.99	mg/Kg-dry	231487	1	10/22/2016 21:11	IO
Beryllium	0.333	J	0.0155	0.599	mg/Kg-dry	231487	1	10/22/2016 21:11	IO
Cadmium	BRL		0.0211	0.599	mg/Kg-dry	231487	1	10/22/2016 21:11	IO
Calcium	1150		0.832	59.9	mg/Kg-dry	231487	1	10/22/2016 21:11	IO
Chromium	1.10	J	0.0267	1.20	mg/Kg-dry	231487	1	10/22/2016 21:11	IO
Cobalt	1.11	J	0.0313	3.00	mg/Kg-dry	231487	1	10/22/2016 21:11	IO
Copper	1.09	J	0.102	3.00	mg/Kg-dry	231487	1	10/22/2016 21:11	IO
Iron	6640		6.84	59.9	mg/Kg-dry	231487	5	10/23/2016 00:28	IO
Lead	19.1		0.0933	0.599	mg/Kg-dry	231487	1	10/22/2016 21:11	IO
Magnesium	374		0.138	59.9	mg/Kg-dry	231487	1	10/22/2016 21:11	IO
Manganese	66.7		0.0165	1.80	mg/Kg-dry	231487	1	10/22/2016 21:11	IO
Nickel	0.208	J	0.0994	4.79	mg/Kg-dry	231487	1	10/22/2016 21:11	IO
Potassium	539		0.365	120	mg/Kg-dry	231487	1	10/22/2016 21:11	IO
Selenium	BRL		0.390	0.599	mg/Kg-dry	231487	1	10/24/2016 21:57	JL
Silver	BRL		0.0260	1.20	mg/Kg-dry	231487	1	10/22/2016 21:11	IO
Sodium	20.7	J	0.276	120	mg/Kg-dry	231487	1	10/22/2016 21:11	IO
Thallium	BRL		0.222	1.20	mg/Kg-dry	231487	1	10/24/2016 21:57	JL
Vanadium	2.11	J	0.0346	5.99	mg/Kg-dry	231487	1	10/22/2016 21:11	IO
Zinc	10.0		0.188	2.40	mg/Kg-dry	231487	1	10/22/2016 21:11	IO
PERCENT MOISTURE D2216									
Percent Moisture	21.8		0	0	wt%	R327981	1	10/21/2016 09:00	BD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 27-Oct-16

Client: GHD Services, Inc.	Client Sample ID: SO-077150-101216-DJB-017
Project Name: Bluewater Thermal Solutions	Collection Date: 10/12/2016 2:00:00 PM
Lab ID: 1610C64-017	Matrix: Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5035)					
Dichlorodifluoromethane	BRL		1.3	8.7	ug/Kg-dry	231390	1	10/21/2016 15:10	MD
Chloromethane	BRL		1.6	8.7	ug/Kg-dry	231390	1	10/21/2016 15:10	MD
Vinyl chloride	BRL		1.8	8.7	ug/Kg-dry	231390	1	10/21/2016 15:10	MD
Bromomethane	BRL		1.9	4.3	ug/Kg-dry	231390	1	10/21/2016 15:10	MD
Chloroethane	BRL		2.4	8.7	ug/Kg-dry	231390	1	10/21/2016 15:10	MD
Trichlorofluoromethane	BRL		2.0	4.3	ug/Kg-dry	231390	1	10/21/2016 15:10	MD
1,1-Dichloroethene	BRL		0.86	4.3	ug/Kg-dry	231390	1	10/21/2016 15:10	MD
Acetone	17		4.4	8.7	ug/Kg-dry	231390	1	10/21/2016 15:10	MD
Freon-113	BRL		1.1	8.7	ug/Kg-dry	231390	1	10/21/2016 15:10	MD
Carbon disulfide	BRL		2.4	8.7	ug/Kg-dry	231390	1	10/21/2016 15:10	MD
Methyl acetate	BRL		2.3	4.3	ug/Kg-dry	231390	1	10/21/2016 15:10	MD
Methylene chloride	BRL		4.4	8.7	ug/Kg-dry	231390	1	10/21/2016 15:10	MD
Methyl tert-butyl ether	BRL		0.99	4.3	ug/Kg-dry	231390	1	10/21/2016 15:10	MD
trans-1,2-Dichloroethene	BRL		1.5	4.3	ug/Kg-dry	231390	1	10/21/2016 15:10	MD
1,1-Dichloroethane	BRL		1.2	4.3	ug/Kg-dry	231390	1	10/21/2016 15:10	MD
cis-1,2-Dichloroethene	BRL		1.6	4.3	ug/Kg-dry	231390	1	10/21/2016 15:10	MD
2-Butanone	BRL		5.4	8.7	ug/Kg-dry	231390	1	10/21/2016 15:10	MD
Bromochloromethane	BRL		1.5	4.3	ug/Kg-dry	231390	1	10/21/2016 15:10	MD
Chloroform	BRL		1.1	4.3	ug/Kg-dry	231390	1	10/21/2016 15:10	MD
1,1,1-Trichloroethane	BRL		1.1	4.3	ug/Kg-dry	231390	1	10/21/2016 15:10	MD
Cyclohexane	BRL		0.97	4.3	ug/Kg-dry	231390	1	10/21/2016 15:10	MD
Carbon tetrachloride	BRL		1.2	4.3	ug/Kg-dry	231390	1	10/21/2016 15:10	MD
Benzene	BRL		0.52	4.3	ug/Kg-dry	231390	1	10/21/2016 15:10	MD
1,2-Dichloroethane	BRL		1.3	4.3	ug/Kg-dry	231390	1	10/21/2016 15:10	MD
Trichloroethene	BRL		1.2	4.3	ug/Kg-dry	231390	1	10/21/2016 15:10	MD
Methylcyclohexane	BRL		1.4	4.3	ug/Kg-dry	231390	1	10/21/2016 15:10	MD
1,2-Dichloropropane	BRL		1.3	4.3	ug/Kg-dry	231390	1	10/21/2016 15:10	MD
cis-1,3-Dichloropropene	BRL		1.6	4.3	ug/Kg-dry	231390	1	10/21/2016 15:10	MD
4-Methyl-2-pentanone	BRL		2.3	8.7	ug/Kg-dry	231390	1	10/21/2016 15:10	MD
Toluene	BRL		0.46	4.3	ug/Kg-dry	231390	1	10/21/2016 15:10	MD
trans-1,3-Dichloropropene	BRL		1.1	4.3	ug/Kg-dry	231390	1	10/21/2016 15:10	MD
1,1,2-Trichloroethane	BRL		1.3	4.3	ug/Kg-dry	231390	1	10/21/2016 15:10	MD
2-Hexanone	BRL		3.4	8.7	ug/Kg-dry	231390	1	10/21/2016 15:10	MD
Tetrachloroethene	BRL		1.3	4.3	ug/Kg-dry	231390	1	10/21/2016 15:10	MD
1,3-Dichloropropane	BRL		1.5	4.3	ug/Kg-dry	231390	1	10/21/2016 15:10	MD
Dibromochloromethane	BRL		1.2	4.3	ug/Kg-dry	231390	1	10/21/2016 15:10	MD
1,2-Dibromoethane	BRL		1.4	4.3	ug/Kg-dry	231390	1	10/21/2016 15:10	MD
Chlorobenzene	BRL		1.3	4.3	ug/Kg-dry	231390	1	10/21/2016 15:10	MD
1,1,1,2-Tetrachloroethane	BRL		1.3	4.3	ug/Kg-dry	231390	1	10/21/2016 15:10	MD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Client: GHD Services, Inc.	Client Sample ID: SO-077150-101216-DJB-017
Project Name: Bluewater Thermal Solutions	Collection Date: 10/12/2016 2:00:00 PM
Lab ID: 1610C64-017	Matrix: Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5035)					
Ethylbenzene	BRL		0.44	4.3	ug/Kg-dry	231390	1	10/21/2016 15:10	MD
Styrene	BRL		1.1	4.3	ug/Kg-dry	231390	1	10/21/2016 15:10	MD
Bromoform	BRL		1.2	4.3	ug/Kg-dry	231390	1	10/21/2016 15:10	MD
Isopropylbenzene	BRL		1.2	4.3	ug/Kg-dry	231390	1	10/21/2016 15:10	MD
1,4-Dichlorobenzene	BRL		1.6	4.3	ug/Kg-dry	231390	1	10/21/2016 15:10	MD
1,2-Dichlorobenzene	BRL		1.4	4.3	ug/Kg-dry	231390	1	10/21/2016 15:10	MD
1,2-Dibromo-3-chloropropane	BRL		1.8	4.3	ug/Kg-dry	231390	1	10/21/2016 15:10	MD
1,2,4-Trichlorobenzene	BRL		1.7	4.3	ug/Kg-dry	231390	1	10/21/2016 15:10	MD
Xylenes, Total	BRL		1.2	4.3	ug/Kg-dry	231390	1	10/21/2016 15:10	MD
Surr: 4-Bromofluorobenzene	86.1		0	70-128	%REC	231390	1	10/21/2016 15:10	MD
Surr: Dibromofluoromethane	90.6		0	78.2-128	%REC	231390	1	10/21/2016 15:10	MD
Surr: Toluene-d8	92		0	76.5-116	%REC	231390	1	10/21/2016 15:10	MD
TOTAL MERCURY SW7471B				(SW7471B)					
Mercury	0.0596	J	0.00497	0.113	mg/Kg-dry	231462	1	10/21/2016 13:09	JR
TCL-SEMIVOLATILE ORGANICS SW8270D				(SW3550C)					
1,1'-Biphenyl	BRL		39	380	ug/Kg-dry	231129	1	10/19/2016 14:58	YH
2,4,5-Trichlorophenol	BRL		120	950	ug/Kg-dry	231129	1	10/19/2016 14:58	YH
2,4,6-Trichlorophenol	BRL		26	380	ug/Kg-dry	231129	1	10/19/2016 14:58	YH
2,4-Dichlorophenol	BRL		130	380	ug/Kg-dry	231129	1	10/19/2016 14:58	YH
2,4-Dimethylphenol	BRL		41	380	ug/Kg-dry	231129	1	10/19/2016 14:58	YH
2,4-Dinitrophenol	BRL		160	950	ug/Kg-dry	231129	1	10/19/2016 14:58	YH
2,4-Dinitrotoluene	BRL		39	380	ug/Kg-dry	231129	1	10/19/2016 14:58	YH
2,6-Dinitrotoluene	BRL		74	380	ug/Kg-dry	231129	1	10/19/2016 14:58	YH
2-Chloronaphthalene	BRL		53	380	ug/Kg-dry	231129	1	10/19/2016 14:58	YH
2-Chlorophenol	BRL		45	380	ug/Kg-dry	231129	1	10/19/2016 14:58	YH
2-Methylnaphthalene	BRL		40	380	ug/Kg-dry	231129	1	10/19/2016 14:58	YH
2-Methylphenol	BRL		62	380	ug/Kg-dry	231129	1	10/19/2016 14:58	YH
2-Nitroaniline	BRL		51	950	ug/Kg-dry	231129	1	10/19/2016 14:58	YH
2-Nitrophenol	BRL		86	380	ug/Kg-dry	231129	1	10/19/2016 14:58	YH
3,3'-Dichlorobenzidine	BRL		52	380	ug/Kg-dry	231129	1	10/19/2016 14:58	YH
3-Nitroaniline	BRL		80	950	ug/Kg-dry	231129	1	10/19/2016 14:58	YH
4,6-Dinitro-2-methylphenol	BRL		66	950	ug/Kg-dry	231129	1	10/19/2016 14:58	YH
4-Bromophenyl phenyl ether	BRL		100	380	ug/Kg-dry	231129	1	10/19/2016 14:58	YH
4-Chloro-3-methylphenol	BRL		80	380	ug/Kg-dry	231129	1	10/19/2016 14:58	YH
4-Chloroaniline	BRL		130	380	ug/Kg-dry	231129	1	10/19/2016 14:58	YH
4-Chlorophenyl phenyl ether	BRL		46	380	ug/Kg-dry	231129	1	10/19/2016 14:58	YH
4-Methylphenol	BRL		180	380	ug/Kg-dry	231129	1	10/19/2016 14:58	YH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 27-Oct-16

Client: GHD Services, Inc.	Client Sample ID: SO-077150-101216-DJB-017
Project Name: Bluewater Thermal Solutions	Collection Date: 10/12/2016 2:00:00 PM
Lab ID: 1610C64-017	Matrix: Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D (SW3550C)									
Pentachlorophenol	BRL		61	950	ug/Kg-dry	231129	1	10/19/2016 14:58	YH
Phenanthrene	BRL		35	380	ug/Kg-dry	231129	1	10/19/2016 14:58	YH
Phenol	BRL		56	380	ug/Kg-dry	231129	1	10/19/2016 14:58	YH
Pyrene	BRL		11	380	ug/Kg-dry	231129	1	10/19/2016 14:58	YH
Surr: 2,4,6-Tribromophenol	98.1		0	42.4-130	%REC	231129	1	10/19/2016 14:58	YH
Surr: 2-Fluorobiphenyl	90.4		0	51.5-120	%REC	231129	1	10/19/2016 14:58	YH
Surr: 2-Fluorophenol	82.3		0	41.1-120	%REC	231129	1	10/19/2016 14:58	YH
Surr: 4-Terphenyl-d14	100		0	52.7-117	%REC	231129	1	10/19/2016 14:58	YH
Surr: Nitrobenzene-d5	80.8		0	41.4-120	%REC	231129	1	10/19/2016 14:58	YH
Surr: Phenol-d5	83.3		0	47.6-120	%REC	231129	1	10/19/2016 14:58	YH
METALS, TOTAL SW6010C (SW3050B)									
Aluminum	17000		3.90	21.9	mg/Kg-dry	231487	1	10/22/2016 21:15	IO
Antimony	0.783	J	0.301	5.49	mg/Kg-dry	231487	1	10/22/2016 21:15	IO
Arsenic	2.01		0.162	1.10	mg/Kg-dry	231487	1	10/22/2016 21:15	IO
Barium	10.1		0.0831	5.49	mg/Kg-dry	231487	1	10/22/2016 21:15	IO
Beryllium	0.147	J	0.0142	0.549	mg/Kg-dry	231487	1	10/22/2016 21:15	IO
Cadmium	BRL		0.0193	0.549	mg/Kg-dry	231487	1	10/22/2016 21:15	IO
Calcium	1980		0.762	54.9	mg/Kg-dry	231487	1	10/22/2016 21:15	IO
Chromium	13.2		0.0245	1.10	mg/Kg-dry	231487	1	10/22/2016 21:15	IO
Cobalt	1.33	J	0.0286	2.74	mg/Kg-dry	231487	1	10/22/2016 21:15	IO
Copper	2.69	J	0.0935	2.74	mg/Kg-dry	231487	1	10/22/2016 21:15	IO
Iron	14600		12.5	110	mg/Kg-dry	231487	10	10/23/2016 00:32	IO
Lead	9.17		0.0855	0.549	mg/Kg-dry	231487	1	10/22/2016 21:15	IO
Magnesium	127		0.126	54.9	mg/Kg-dry	231487	1	10/22/2016 21:15	IO
Manganese	12.2		0.0151	1.65	mg/Kg-dry	231487	1	10/22/2016 21:15	IO
Nickel	1.21	J	0.0911	4.39	mg/Kg-dry	231487	1	10/22/2016 21:15	IO
Potassium	217		0.334	110	mg/Kg-dry	231487	1	10/22/2016 21:15	IO
Selenium	BRL		0.357	0.549	mg/Kg-dry	231487	1	10/24/2016 22:00	JL
Silver	BRL		0.0238	1.10	mg/Kg-dry	231487	1	10/22/2016 21:15	IO
Sodium	23.6	J	0.252	110	mg/Kg-dry	231487	1	10/22/2016 21:15	IO
Thallium	BRL		0.203	1.10	mg/Kg-dry	231487	1	10/24/2016 22:00	JL
Vanadium	22.3		0.0317	5.49	mg/Kg-dry	231487	1	10/22/2016 21:15	IO
Zinc	5.87		0.172	2.19	mg/Kg-dry	231487	1	10/22/2016 21:15	IO
PERCENT MOISTURE D2216									
Percent Moisture	12.3		0	0	wt%	R327981	1	10/21/2016 09:00	BD

Qualifiers:	* Value exceeds maximum contaminant level	E Estimated value above quantitation range
	BRL Not detected at MDL	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	J Estimated value detected below Reporting Limit
	N Analyte not NELAC certified	> Greater than Result value
	B Analyte detected in the associated method blank	< Less than Result value
	NC Not confirmed	Narr See case narrative

Analytical Environmental Services, Inc

Date: 27-Oct-16

Client: GHD Services, Inc.	Client Sample ID: SO-077150-101216-DJB-018
Project Name: Bluewater Thermal Solutions	Collection Date: 10/12/2016 2:10:00 PM
Lab ID: 1610C64-018	Matrix: Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5035)					
Dichlorodifluoromethane	BRL		1.2	8.2	ug/Kg-dry	231390	1	10/21/2016 15:34	MD
Chloromethane	BRL		1.5	8.2	ug/Kg-dry	231390	1	10/21/2016 15:34	MD
Vinyl chloride	BRL		1.7	8.2	ug/Kg-dry	231390	1	10/21/2016 15:34	MD
Bromomethane	BRL		1.8	4.1	ug/Kg-dry	231390	1	10/21/2016 15:34	MD
Chloroethane	BRL		2.2	8.2	ug/Kg-dry	231390	1	10/21/2016 15:34	MD
Trichlorofluoromethane	BRL		1.9	4.1	ug/Kg-dry	231390	1	10/21/2016 15:34	MD
1,1-Dichloroethene	BRL		0.81	4.1	ug/Kg-dry	231390	1	10/21/2016 15:34	MD
Acetone	15		4.2	8.2	ug/Kg-dry	231390	1	10/21/2016 15:34	MD
Freon-113	BRL		1.1	8.2	ug/Kg-dry	231390	1	10/21/2016 15:34	MD
Carbon disulfide	BRL		2.3	8.2	ug/Kg-dry	231390	1	10/21/2016 15:34	MD
Methyl acetate	BRL		2.1	4.1	ug/Kg-dry	231390	1	10/21/2016 15:34	MD
Methylene chloride	BRL		4.1	8.2	ug/Kg-dry	231390	1	10/21/2016 15:34	MD
Methyl tert-butyl ether	BRL		0.94	4.1	ug/Kg-dry	231390	1	10/21/2016 15:34	MD
trans-1,2-Dichloroethene	BRL		1.4	4.1	ug/Kg-dry	231390	1	10/21/2016 15:34	MD
1,1-Dichloroethane	BRL		1.2	4.1	ug/Kg-dry	231390	1	10/21/2016 15:34	MD
cis-1,2-Dichloroethene	BRL		1.5	4.1	ug/Kg-dry	231390	1	10/21/2016 15:34	MD
2-Butanone	BRL		5.1	8.2	ug/Kg-dry	231390	1	10/21/2016 15:34	MD
Bromochloromethane	BRL		1.5	4.1	ug/Kg-dry	231390	1	10/21/2016 15:34	MD
Chloroform	BRL		1.00	4.1	ug/Kg-dry	231390	1	10/21/2016 15:34	MD
1,1,1-Trichloroethane	BRL		1.1	4.1	ug/Kg-dry	231390	1	10/21/2016 15:34	MD
Cyclohexane	BRL		0.92	4.1	ug/Kg-dry	231390	1	10/21/2016 15:34	MD
Carbon tetrachloride	BRL		1.1	4.1	ug/Kg-dry	231390	1	10/21/2016 15:34	MD
Benzene	BRL		0.49	4.1	ug/Kg-dry	231390	1	10/21/2016 15:34	MD
1,2-Dichloroethane	BRL		1.3	4.1	ug/Kg-dry	231390	1	10/21/2016 15:34	MD
Trichloroethene	BRL		1.1	4.1	ug/Kg-dry	231390	1	10/21/2016 15:34	MD
Methylcyclohexane	BRL		1.3	4.1	ug/Kg-dry	231390	1	10/21/2016 15:34	MD
1,2-Dichloropropane	BRL		1.2	4.1	ug/Kg-dry	231390	1	10/21/2016 15:34	MD
cis-1,3-Dichloropropene	BRL		1.5	4.1	ug/Kg-dry	231390	1	10/21/2016 15:34	MD
4-Methyl-2-pentanone	BRL		2.1	8.2	ug/Kg-dry	231390	1	10/21/2016 15:34	MD
Toluene	BRL		0.44	4.1	ug/Kg-dry	231390	1	10/21/2016 15:34	MD
trans-1,3-Dichloropropene	BRL		1.0	4.1	ug/Kg-dry	231390	1	10/21/2016 15:34	MD
1,1,2-Trichloroethane	BRL		1.3	4.1	ug/Kg-dry	231390	1	10/21/2016 15:34	MD
2-Hexanone	BRL		3.2	8.2	ug/Kg-dry	231390	1	10/21/2016 15:34	MD
Tetrachloroethene	BRL		1.2	4.1	ug/Kg-dry	231390	1	10/21/2016 15:34	MD
1,3-Dichloropropane	BRL		1.4	4.1	ug/Kg-dry	231390	1	10/21/2016 15:34	MD
Dibromochloromethane	BRL		1.1	4.1	ug/Kg-dry	231390	1	10/21/2016 15:34	MD
1,2-Dibromoethane	BRL		1.3	4.1	ug/Kg-dry	231390	1	10/21/2016 15:34	MD
Chlorobenzene	BRL		1.2	4.1	ug/Kg-dry	231390	1	10/21/2016 15:34	MD
1,1,1,2-Tetrachloroethane	BRL		1.2	4.1	ug/Kg-dry	231390	1	10/21/2016 15:34	MD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 27-Oct-16

Client: GHD Services, Inc.	Client Sample ID: SO-077150-101216-DJB-018
Project Name: Bluewater Thermal Solutions	Collection Date: 10/12/2016 2:10:00 PM
Lab ID: 1610C64-018	Matrix: Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5035)					
Ethylbenzene	BRL		0.41	4.1	ug/Kg-dry	231390	1	10/21/2016 15:34	MD
Styrene	BRL		1.1	4.1	ug/Kg-dry	231390	1	10/21/2016 15:34	MD
Bromoform	BRL		1.1	4.1	ug/Kg-dry	231390	1	10/21/2016 15:34	MD
Isopropylbenzene	BRL		1.2	4.1	ug/Kg-dry	231390	1	10/21/2016 15:34	MD
1,4-Dichlorobenzene	BRL		1.5	4.1	ug/Kg-dry	231390	1	10/21/2016 15:34	MD
1,2-Dichlorobenzene	BRL		1.3	4.1	ug/Kg-dry	231390	1	10/21/2016 15:34	MD
1,2-Dibromo-3-chloropropane	BRL		1.8	4.1	ug/Kg-dry	231390	1	10/21/2016 15:34	MD
1,2,4-Trichlorobenzene	BRL		1.6	4.1	ug/Kg-dry	231390	1	10/21/2016 15:34	MD
Xylenes, Total	BRL		1.2	4.1	ug/Kg-dry	231390	1	10/21/2016 15:34	MD
Surr: 4-Bromofluorobenzene	91.2		0	70-128	%REC	231390	1	10/21/2016 15:34	MD
Surr: Dibromofluoromethane	94.1		0	78.2-128	%REC	231390	1	10/21/2016 15:34	MD
Surr: Toluene-d8	93.1		0	76.5-116	%REC	231390	1	10/21/2016 15:34	MD
TOTAL MERCURY SW7471B				(SW7471B)					
Mercury	0.0547	J	0.00478	0.109	mg/Kg-dry	231462	1	10/21/2016 13:11	JR
TCL-SEMIVOLATILE ORGANICS SW8270D				(SW3550C)					
1,1'-Biphenyl	BRL		40	380	ug/Kg-dry	231341	1	10/20/2016 12:54	YH
2,4,5-Trichlorophenol	BRL		120	970	ug/Kg-dry	231341	1	10/20/2016 12:54	YH
2,4,6-Trichlorophenol	BRL		27	380	ug/Kg-dry	231341	1	10/20/2016 12:54	YH
2,4-Dichlorophenol	BRL		130	380	ug/Kg-dry	231341	1	10/20/2016 12:54	YH
2,4-Dimethylphenol	BRL		42	380	ug/Kg-dry	231341	1	10/20/2016 12:54	YH
2,4-Dinitrophenol	BRL		160	970	ug/Kg-dry	231341	1	10/20/2016 12:54	YH
2,4-Dinitrotoluene	BRL		40	380	ug/Kg-dry	231341	1	10/20/2016 12:54	YH
2,6-Dinitrotoluene	BRL		76	380	ug/Kg-dry	231341	1	10/20/2016 12:54	YH
2-Chloronaphthalene	BRL		54	380	ug/Kg-dry	231341	1	10/20/2016 12:54	YH
2-Chlorophenol	BRL		46	380	ug/Kg-dry	231341	1	10/20/2016 12:54	YH
2-Methylnaphthalene	BRL		41	380	ug/Kg-dry	231341	1	10/20/2016 12:54	YH
2-Methylphenol	BRL		63	380	ug/Kg-dry	231341	1	10/20/2016 12:54	YH
2-Nitroaniline	BRL		52	970	ug/Kg-dry	231341	1	10/20/2016 12:54	YH
2-Nitrophenol	BRL		88	380	ug/Kg-dry	231341	1	10/20/2016 12:54	YH
3,3'-Dichlorobenzidine	BRL		53	380	ug/Kg-dry	231341	1	10/20/2016 12:54	YH
3-Nitroaniline	BRL		82	970	ug/Kg-dry	231341	1	10/20/2016 12:54	YH
4,6-Dinitro-2-methylphenol	BRL		68	970	ug/Kg-dry	231341	1	10/20/2016 12:54	YH
4-Bromophenyl phenyl ether	BRL		110	380	ug/Kg-dry	231341	1	10/20/2016 12:54	YH
4-Chloro-3-methylphenol	BRL		81	380	ug/Kg-dry	231341	1	10/20/2016 12:54	YH
4-Chloroaniline	BRL		130	380	ug/Kg-dry	231341	1	10/20/2016 12:54	YH
4-Chlorophenyl phenyl ether	BRL		47	380	ug/Kg-dry	231341	1	10/20/2016 12:54	YH
4-Methylphenol	BRL		180	380	ug/Kg-dry	231341	1	10/20/2016 12:54	YH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 27-Oct-16

Client: GHD Services, Inc.	Client Sample ID: SO-077150-101216-DJB-018
Project Name: Bluewater Thermal Solutions	Collection Date: 10/12/2016 2:10:00 PM
Lab ID: 1610C64-018	Matrix: Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D (SW3550C)									
4-Nitroaniline	BRL		120	970	ug/Kg-dry	231341	1	10/20/2016 12:54	YH
4-Nitrophenol	BRL		210	970	ug/Kg-dry	231341	1	10/20/2016 12:54	YH
Acenaphthene	BRL		50	380	ug/Kg-dry	231341	1	10/20/2016 12:54	YH
Acenaphthylene	BRL		38	380	ug/Kg-dry	231341	1	10/20/2016 12:54	YH
Acetophenone	BRL		68	380	ug/Kg-dry	231341	1	10/20/2016 12:54	YH
Anthracene	BRL		31	380	ug/Kg-dry	231341	1	10/20/2016 12:54	YH
Atrazine	BRL		99	380	ug/Kg-dry	231341	1	10/20/2016 12:54	YH
Benz(a)anthracene	BRL		23	380	ug/Kg-dry	231341	1	10/20/2016 12:54	YH
Benzaldehyde	BRL		140	380	ug/Kg-dry	231341	1	10/20/2016 12:54	YH
Benzo(a)pyrene	BRL		29	380	ug/Kg-dry	231341	1	10/20/2016 12:54	YH
Benzo(b)fluoranthene	BRL		32	380	ug/Kg-dry	231341	1	10/20/2016 12:54	YH
Benzo(g,h,i)perylene	BRL		27	380	ug/Kg-dry	231341	1	10/20/2016 12:54	YH
Benzo(k)fluoranthene	BRL		43	380	ug/Kg-dry	231341	1	10/20/2016 12:54	YH
Bis(2-chloroethoxy)methane	BRL		44	380	ug/Kg-dry	231341	1	10/20/2016 12:54	YH
Bis(2-chloroethyl)ether	BRL		37	380	ug/Kg-dry	231341	1	10/20/2016 12:54	YH
Bis(2-chloroisopropyl)ether	BRL		42	380	ug/Kg-dry	231341	1	10/20/2016 12:54	YH
Bis(2-ethylhexyl)phthalate	BRL		32	380	ug/Kg-dry	231341	1	10/20/2016 12:54	YH
Butyl benzyl phthalate	BRL		44	380	ug/Kg-dry	231341	1	10/20/2016 12:54	YH
Caprolactam	BRL		140	380	ug/Kg-dry	231341	1	10/20/2016 12:54	YH
Carbazole	BRL		40	380	ug/Kg-dry	231341	1	10/20/2016 12:54	YH
Chrysene	BRL		37	380	ug/Kg-dry	231341	1	10/20/2016 12:54	YH
Di-n-butyl phthalate	BRL		35	380	ug/Kg-dry	231341	1	10/20/2016 12:54	YH
Di-n-octyl phthalate	BRL		23	380	ug/Kg-dry	231341	1	10/20/2016 12:54	YH
Dibenz(a,h)anthracene	BRL		44	380	ug/Kg-dry	231341	1	10/20/2016 12:54	YH
Dibenzofuran	BRL		53	380	ug/Kg-dry	231341	1	10/20/2016 12:54	YH
Diethyl phthalate	BRL		39	380	ug/Kg-dry	231341	1	10/20/2016 12:54	YH
Dimethyl phthalate	BRL		46	380	ug/Kg-dry	231341	1	10/20/2016 12:54	YH
Fluoranthene	BRL		21	380	ug/Kg-dry	231341	1	10/20/2016 12:54	YH
Fluorene	BRL		36	380	ug/Kg-dry	231341	1	10/20/2016 12:54	YH
Hexachlorobenzene	BRL		60	380	ug/Kg-dry	231341	1	10/20/2016 12:54	YH
Hexachlorobutadiene	BRL		68	380	ug/Kg-dry	231341	1	10/20/2016 12:54	YH
Hexachlorocyclopentadiene	BRL		53	380	ug/Kg-dry	231341	1	10/20/2016 12:54	YH
Hexachloroethane	BRL		41	380	ug/Kg-dry	231341	1	10/20/2016 12:54	YH
Indeno(1,2,3-cd)pyrene	BRL		32	380	ug/Kg-dry	231341	1	10/20/2016 12:54	YH
Isophorone	BRL		40	380	ug/Kg-dry	231341	1	10/20/2016 12:54	YH
N-Nitrosodi-n-propylamine	BRL		51	380	ug/Kg-dry	231341	1	10/20/2016 12:54	YH
N-Nitrosodiphenylamine	BRL		37	380	ug/Kg-dry	231341	1	10/20/2016 12:54	YH
Naphthalene	BRL		44	380	ug/Kg-dry	231341	1	10/20/2016 12:54	YH
Nitrobenzene	BRL		47	380	ug/Kg-dry	231341	1	10/20/2016 12:54	YH

Qualifiers: * Value exceeds maximum contaminant level

BRL Not detected at MDL

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

NC Not confirmed

E Estimated value above quantitation range

S Spike Recovery outside limits due to matrix

J Estimated value detected below Reporting Limit

> Greater than Result value

< Less than Result value

Narr See case narrative

Client: GHD Services, Inc.	Client Sample ID: SO-077150-101216-DJB-018
Project Name: Bluewater Thermal Solutions	Collection Date: 10/12/2016 2:10:00 PM
Lab ID: 1610C64-018	Matrix: Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D (SW3550C)									
Pentachlorophenol	BRL		62	970	ug/Kg-dry	231341	1	10/20/2016 12:54	YH
Phenanthrene	BRL		36	380	ug/Kg-dry	231341	1	10/20/2016 12:54	YH
Phenol	BRL		57	380	ug/Kg-dry	231341	1	10/20/2016 12:54	YH
Pyrene	BRL		11	380	ug/Kg-dry	231341	1	10/20/2016 12:54	YH
Surr: 2,4,6-Tribromophenol	94.3		0	42.4-130	%REC	231341	1	10/20/2016 12:54	YH
Surr: 2-Fluorobiphenyl	88.2		0	51.5-120	%REC	231341	1	10/20/2016 12:54	YH
Surr: 2-Fluorophenol	85.7		0	41.1-120	%REC	231341	1	10/20/2016 12:54	YH
Surr: 4-Terphenyl-d14	99.2		0	52.7-117	%REC	231341	1	10/20/2016 12:54	YH
Surr: Nitrobenzene-d5	83.5		0	41.4-120	%REC	231341	1	10/20/2016 12:54	YH
Surr: Phenol-d5	82.4		0	47.6-120	%REC	231341	1	10/20/2016 12:54	YH
METALS, TOTAL SW6010C (SW3050B)									
Aluminum	19000		3.05	17.1	mg/Kg-dry	231487	1	10/22/2016 21:25	IO
Antimony	0.613	J	0.235	4.29	mg/Kg-dry	231487	1	10/22/2016 21:25	IO
Arsenic	2.07		0.127	0.857	mg/Kg-dry	231487	1	10/25/2016 13:49	IO
Barium	9.08		0.0649	4.29	mg/Kg-dry	231487	1	10/22/2016 21:25	IO
Beryllium	0.160	J	0.0111	0.429	mg/Kg-dry	231487	1	10/22/2016 21:25	IO
Cadmium	BRL		0.0151	0.429	mg/Kg-dry	231487	1	10/22/2016 21:25	IO
Calcium	2240		0.595	42.9	mg/Kg-dry	231487	1	10/22/2016 21:25	IO
Chromium	13.9		0.0191	0.857	mg/Kg-dry	231487	1	10/22/2016 21:25	IO
Cobalt	1.36	J	0.0224	2.14	mg/Kg-dry	231487	1	10/22/2016 21:25	IO
Copper	2.71		0.0730	2.14	mg/Kg-dry	231487	1	10/22/2016 21:25	IO
Iron	15700		9.79	85.7	mg/Kg-dry	231487	10	10/23/2016 00:35	IO
Lead	8.70		0.0668	0.429	mg/Kg-dry	231487	1	10/22/2016 21:25	IO
Magnesium	135		0.0986	42.9	mg/Kg-dry	231487	1	10/22/2016 21:25	IO
Manganese	8.39		0.0118	1.29	mg/Kg-dry	231487	1	10/22/2016 21:25	IO
Nickel	1.37	J	0.0712	3.43	mg/Kg-dry	231487	1	10/22/2016 21:25	IO
Potassium	258		0.261	85.7	mg/Kg-dry	231487	1	10/22/2016 21:25	IO
Selenium	BRL		0.279	0.429	mg/Kg-dry	231487	1	10/24/2016 22:03	JL
Silver	BRL		0.0186	0.857	mg/Kg-dry	231487	1	10/22/2016 21:25	IO
Sodium	20.8	J	0.197	85.7	mg/Kg-dry	231487	1	10/22/2016 21:25	IO
Thallium	BRL		0.159	0.857	mg/Kg-dry	231487	1	10/24/2016 22:03	JL
Vanadium	24.4		0.0248	4.29	mg/Kg-dry	231487	1	10/22/2016 21:25	IO
Zinc	5.01		0.135	1.71	mg/Kg-dry	231487	1	10/22/2016 21:25	IO
PERCENT MOISTURE D2216									
Percent Moisture	14.0		0	0	wt%	R327981	1	10/21/2016 09:00	BD

Qualifiers:	* Value exceeds maximum contaminant level	E Estimated value above quantitation range
	BRL Not detected at MDL	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	J Estimated value detected below Reporting Limit
	N Analyte not NELAC certified	> Greater than Result value
	B Analyte detected in the associated method blank	< Less than Result value
	NC Not confirmed	Narr See case narrative

Analytical Environmental Services, Inc

Date: 27-Oct-16

Client: GHD Services, Inc.	Client Sample ID: SO-077150-101216-DJB-019
Project Name: Bluewater Thermal Solutions	Collection Date: 10/12/2016 2:45:00 PM
Lab ID: 1610C64-019	Matrix: Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5035)					
Dichlorodifluoromethane	BRL		1.3	8.8	ug/Kg-dry	231390	1	10/21/2016 15:57	MD
Chloromethane	BRL		1.6	8.8	ug/Kg-dry	231390	1	10/21/2016 15:57	MD
Vinyl chloride	BRL		1.9	8.8	ug/Kg-dry	231390	1	10/21/2016 15:57	MD
Bromomethane	BRL		2.0	4.4	ug/Kg-dry	231390	1	10/21/2016 15:57	MD
Chloroethane	BRL		2.4	8.8	ug/Kg-dry	231390	1	10/21/2016 15:57	MD
Trichlorofluoromethane	BRL		2.1	4.4	ug/Kg-dry	231390	1	10/21/2016 15:57	MD
1,1-Dichloroethene	BRL		0.87	4.4	ug/Kg-dry	231390	1	10/21/2016 15:57	MD
Acetone	BRL		4.5	8.8	ug/Kg-dry	231390	1	10/21/2016 15:57	MD
Freon-113	BRL		1.1	8.8	ug/Kg-dry	231390	1	10/21/2016 15:57	MD
Carbon disulfide	BRL		2.4	8.8	ug/Kg-dry	231390	1	10/21/2016 15:57	MD
Methyl acetate	BRL		2.3	4.4	ug/Kg-dry	231390	1	10/21/2016 15:57	MD
Methylene chloride	BRL		4.4	8.8	ug/Kg-dry	231390	1	10/21/2016 15:57	MD
Methyl tert-butyl ether	BRL		1.0	4.4	ug/Kg-dry	231390	1	10/21/2016 15:57	MD
trans-1,2-Dichloroethene	BRL		1.5	4.4	ug/Kg-dry	231390	1	10/21/2016 15:57	MD
1,1-Dichloroethane	BRL		1.2	4.4	ug/Kg-dry	231390	1	10/21/2016 15:57	MD
cis-1,2-Dichloroethene	BRL		1.6	4.4	ug/Kg-dry	231390	1	10/21/2016 15:57	MD
2-Butanone	BRL		5.5	8.8	ug/Kg-dry	231390	1	10/21/2016 15:57	MD
Bromochloromethane	BRL		1.5	4.4	ug/Kg-dry	231390	1	10/21/2016 15:57	MD
Chloroform	BRL		1.1	4.4	ug/Kg-dry	231390	1	10/21/2016 15:57	MD
1,1,1-Trichloroethane	BRL		1.2	4.4	ug/Kg-dry	231390	1	10/21/2016 15:57	MD
Cyclohexane	BRL		0.98	4.4	ug/Kg-dry	231390	1	10/21/2016 15:57	MD
Carbon tetrachloride	BRL		1.2	4.4	ug/Kg-dry	231390	1	10/21/2016 15:57	MD
Benzene	BRL		0.52	4.4	ug/Kg-dry	231390	1	10/21/2016 15:57	MD
1,2-Dichloroethane	BRL		1.4	4.4	ug/Kg-dry	231390	1	10/21/2016 15:57	MD
Trichloroethene	BRL		1.2	4.4	ug/Kg-dry	231390	1	10/21/2016 15:57	MD
Methylcyclohexane	BRL		1.4	4.4	ug/Kg-dry	231390	1	10/21/2016 15:57	MD
1,2-Dichloropropane	BRL		1.3	4.4	ug/Kg-dry	231390	1	10/21/2016 15:57	MD
cis-1,3-Dichloropropene	BRL		1.6	4.4	ug/Kg-dry	231390	1	10/21/2016 15:57	MD
4-Methyl-2-pentanone	BRL		2.3	8.8	ug/Kg-dry	231390	1	10/21/2016 15:57	MD
Toluene	BRL		0.47	4.4	ug/Kg-dry	231390	1	10/21/2016 15:57	MD
trans-1,3-Dichloropropene	BRL		1.1	4.4	ug/Kg-dry	231390	1	10/21/2016 15:57	MD
1,1,2-Trichloroethane	BRL		1.4	4.4	ug/Kg-dry	231390	1	10/21/2016 15:57	MD
2-Hexanone	BRL		3.4	8.8	ug/Kg-dry	231390	1	10/21/2016 15:57	MD
Tetrachloroethene	BRL		1.3	4.4	ug/Kg-dry	231390	1	10/21/2016 15:57	MD
1,3-Dichloropropane	BRL		1.5	4.4	ug/Kg-dry	231390	1	10/21/2016 15:57	MD
Dibromochloromethane	BRL		1.2	4.4	ug/Kg-dry	231390	1	10/21/2016 15:57	MD
1,2-Dibromoethane	BRL		1.4	4.4	ug/Kg-dry	231390	1	10/21/2016 15:57	MD
Chlorobenzene	BRL		1.3	4.4	ug/Kg-dry	231390	1	10/21/2016 15:57	MD
1,1,1,2-Tetrachloroethane	BRL		1.3	4.4	ug/Kg-dry	231390	1	10/21/2016 15:57	MD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 27-Oct-16

Client: GHD Services, Inc.	Client Sample ID: SO-077150-101216-DJB-019
Project Name: Bluewater Thermal Solutions	Collection Date: 10/12/2016 2:45:00 PM
Lab ID: 1610C64-019	Matrix: Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5035)					
Ethylbenzene	BRL		0.44	4.4	ug/Kg-dry	231390	1	10/21/2016 15:57	MD
Styrene	BRL		1.2	4.4	ug/Kg-dry	231390	1	10/21/2016 15:57	MD
Bromoform	BRL		1.2	4.4	ug/Kg-dry	231390	1	10/21/2016 15:57	MD
Isopropylbenzene	BRL		1.2	4.4	ug/Kg-dry	231390	1	10/21/2016 15:57	MD
1,4-Dichlorobenzene	BRL		1.6	4.4	ug/Kg-dry	231390	1	10/21/2016 15:57	MD
1,2-Dichlorobenzene	BRL		1.4	4.4	ug/Kg-dry	231390	1	10/21/2016 15:57	MD
1,2-Dibromo-3-chloropropane	BRL		1.9	4.4	ug/Kg-dry	231390	1	10/21/2016 15:57	MD
1,2,4-Trichlorobenzene	BRL		1.7	4.4	ug/Kg-dry	231390	1	10/21/2016 15:57	MD
Xylenes, Total	BRL		1.3	4.4	ug/Kg-dry	231390	1	10/21/2016 15:57	MD
Surr: 4-Bromofluorobenzene	97.3		0	70-128	%REC	231390	1	10/21/2016 15:57	MD
Surr: Dibromofluoromethane	96.9		0	78.2-128	%REC	231390	1	10/21/2016 15:57	MD
Surr: Toluene-d8	92.8		0	76.5-116	%REC	231390	1	10/21/2016 15:57	MD
TOTAL MERCURY SW7471B				(SW7471B)					
Mercury	0.0325	J	0.00536	0.122	mg/Kg-dry	231462	1	10/21/2016 13:13	JR
TCL-SEMIVOLATILE ORGANICS SW8270D				(SW3550C)					
1,1'-Biphenyl	BRL		43	410	ug/Kg-dry	231341	1	10/20/2016 13:23	YH
2,4,5-Trichlorophenol	BRL		130	1000	ug/Kg-dry	231341	1	10/20/2016 13:23	YH
2,4,6-Trichlorophenol	BRL		28	410	ug/Kg-dry	231341	1	10/20/2016 13:23	YH
2,4-Dichlorophenol	BRL		140	410	ug/Kg-dry	231341	1	10/20/2016 13:23	YH
2,4-Dimethylphenol	BRL		45	410	ug/Kg-dry	231341	1	10/20/2016 13:23	YH
2,4-Dinitrophenol	BRL		170	1000	ug/Kg-dry	231341	1	10/20/2016 13:23	YH
2,4-Dinitrotoluene	BRL		42	410	ug/Kg-dry	231341	1	10/20/2016 13:23	YH
2,6-Dinitrotoluene	BRL		81	410	ug/Kg-dry	231341	1	10/20/2016 13:23	YH
2-Chloronaphthalene	BRL		58	410	ug/Kg-dry	231341	1	10/20/2016 13:23	YH
2-Chlorophenol	BRL		49	410	ug/Kg-dry	231341	1	10/20/2016 13:23	YH
2-Methylnaphthalene	BRL		43	410	ug/Kg-dry	231341	1	10/20/2016 13:23	YH
2-Methylphenol	BRL		68	410	ug/Kg-dry	231341	1	10/20/2016 13:23	YH
2-Nitroaniline	BRL		56	1000	ug/Kg-dry	231341	1	10/20/2016 13:23	YH
2-Nitrophenol	BRL		94	410	ug/Kg-dry	231341	1	10/20/2016 13:23	YH
3,3'-Dichlorobenzidine	BRL		56	410	ug/Kg-dry	231341	1	10/20/2016 13:23	YH
3-Nitroaniline	BRL		87	1000	ug/Kg-dry	231341	1	10/20/2016 13:23	YH
4,6-Dinitro-2-methylphenol	BRL		72	1000	ug/Kg-dry	231341	1	10/20/2016 13:23	YH
4-Bromophenyl phenyl ether	BRL		110	410	ug/Kg-dry	231341	1	10/20/2016 13:23	YH
4-Chloro-3-methylphenol	BRL		87	410	ug/Kg-dry	231341	1	10/20/2016 13:23	YH
4-Chloroaniline	BRL		140	410	ug/Kg-dry	231341	1	10/20/2016 13:23	YH
4-Chlorophenyl phenyl ether	BRL		50	410	ug/Kg-dry	231341	1	10/20/2016 13:23	YH
4-Methylphenol	BRL		200	410	ug/Kg-dry	231341	1	10/20/2016 13:23	YH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 27-Oct-16

Client: GHD Services, Inc.	Client Sample ID: SO-077150-101216-DJB-019
Project Name: Bluewater Thermal Solutions	Collection Date: 10/12/2016 2:45:00 PM
Lab ID: 1610C64-019	Matrix: Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS		SW8270D		(SW3550C)					
4-Nitroaniline	BRL		130	1000	ug/Kg-dry	231341	1	10/20/2016 13:23	YH
4-Nitrophenol	BRL		220	1000	ug/Kg-dry	231341	1	10/20/2016 13:23	YH
Acenaphthene	BRL		53	410	ug/Kg-dry	231341	1	10/20/2016 13:23	YH
Acenaphthylene	BRL		40	410	ug/Kg-dry	231341	1	10/20/2016 13:23	YH
Acetophenone	BRL		72	410	ug/Kg-dry	231341	1	10/20/2016 13:23	YH
Anthracene	BRL		34	410	ug/Kg-dry	231341	1	10/20/2016 13:23	YH
Atrazine	BRL		110	410	ug/Kg-dry	231341	1	10/20/2016 13:23	YH
Benz(a)anthracene	BRL		24	410	ug/Kg-dry	231341	1	10/20/2016 13:23	YH
Benzaldehyde	BRL		150	410	ug/Kg-dry	231341	1	10/20/2016 13:23	YH
Benzo(a)pyrene	BRL		31	410	ug/Kg-dry	231341	1	10/20/2016 13:23	YH
Benzo(b)fluoranthene	BRL		34	410	ug/Kg-dry	231341	1	10/20/2016 13:23	YH
Benzo(g,h,i)perylene	BRL		29	410	ug/Kg-dry	231341	1	10/20/2016 13:23	YH
Benzo(k)fluoranthene	BRL		46	410	ug/Kg-dry	231341	1	10/20/2016 13:23	YH
Bis(2-chloroethoxy)methane	BRL		47	410	ug/Kg-dry	231341	1	10/20/2016 13:23	YH
Bis(2-chloroethyl)ether	BRL		40	410	ug/Kg-dry	231341	1	10/20/2016 13:23	YH
Bis(2-chloroisopropyl)ether	BRL		45	410	ug/Kg-dry	231341	1	10/20/2016 13:23	YH
Bis(2-ethylhexyl)phthalate	BRL		34	410	ug/Kg-dry	231341	1	10/20/2016 13:23	YH
Butyl benzyl phthalate	BRL		47	410	ug/Kg-dry	231341	1	10/20/2016 13:23	YH
Caprolactam	BRL		150	410	ug/Kg-dry	231341	1	10/20/2016 13:23	YH
Carbazole	BRL		42	410	ug/Kg-dry	231341	1	10/20/2016 13:23	YH
Chrysene	BRL		39	410	ug/Kg-dry	231341	1	10/20/2016 13:23	YH
Di-n-butyl phthalate	BRL		37	410	ug/Kg-dry	231341	1	10/20/2016 13:23	YH
Di-n-octyl phthalate	BRL		25	410	ug/Kg-dry	231341	1	10/20/2016 13:23	YH
Dibenz(a,h)anthracene	BRL		47	410	ug/Kg-dry	231341	1	10/20/2016 13:23	YH
Dibenzofuran	BRL		57	410	ug/Kg-dry	231341	1	10/20/2016 13:23	YH
Diethyl phthalate	BRL		42	410	ug/Kg-dry	231341	1	10/20/2016 13:23	YH
Dimethyl phthalate	BRL		49	410	ug/Kg-dry	231341	1	10/20/2016 13:23	YH
Fluoranthene	BRL		23	410	ug/Kg-dry	231341	1	10/20/2016 13:23	YH
Fluorene	BRL		39	410	ug/Kg-dry	231341	1	10/20/2016 13:23	YH
Hexachlorobenzene	BRL		64	410	ug/Kg-dry	231341	1	10/20/2016 13:23	YH
Hexachlorobutadiene	BRL		73	410	ug/Kg-dry	231341	1	10/20/2016 13:23	YH
Hexachlorocyclopentadiene	BRL		57	410	ug/Kg-dry	231341	1	10/20/2016 13:23	YH
Hexachloroethane	BRL		44	410	ug/Kg-dry	231341	1	10/20/2016 13:23	YH
Indeno(1,2,3-cd)pyrene	BRL		34	410	ug/Kg-dry	231341	1	10/20/2016 13:23	YH
Isophorone	BRL		43	410	ug/Kg-dry	231341	1	10/20/2016 13:23	YH
N-Nitrosodi-n-propylamine	BRL		54	410	ug/Kg-dry	231341	1	10/20/2016 13:23	YH
N-Nitrosodiphenylamine	BRL		39	410	ug/Kg-dry	231341	1	10/20/2016 13:23	YH
Naphthalene	BRL		47	410	ug/Kg-dry	231341	1	10/20/2016 13:23	YH
Nitrobenzene	BRL		51	410	ug/Kg-dry	231341	1	10/20/2016 13:23	YH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Client: GHD Services, Inc.	Client Sample ID: SO-077150-101216-DJB-019
Project Name: Bluewater Thermal Solutions	Collection Date: 10/12/2016 2:45:00 PM
Lab ID: 1610C64-019	Matrix: Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D (SW3550C)									
Pentachlorophenol	BRL		66	1000	ug/Kg-dry	231341	1	10/20/2016 13:23	YH
Phenanthrene	BRL		38	410	ug/Kg-dry	231341	1	10/20/2016 13:23	YH
Phenol	BRL		61	410	ug/Kg-dry	231341	1	10/20/2016 13:23	YH
Pyrene	BRL		12	410	ug/Kg-dry	231341	1	10/20/2016 13:23	YH
Surr: 2,4,6-Tribromophenol	92.2		0	42.4-130	%REC	231341	1	10/20/2016 13:23	YH
Surr: 2-Fluorobiphenyl	85.5		0	51.5-120	%REC	231341	1	10/20/2016 13:23	YH
Surr: 2-Fluorophenol	80.8		0	41.1-120	%REC	231341	1	10/20/2016 13:23	YH
Surr: 4-Terphenyl-d14	97.8		0	52.7-117	%REC	231341	1	10/20/2016 13:23	YH
Surr: Nitrobenzene-d5	76.9		0	41.4-120	%REC	231341	1	10/20/2016 13:23	YH
Surr: Phenol-d5	79.8		0	47.6-120	%REC	231341	1	10/20/2016 13:23	YH
METALS, TOTAL SW6010C (SW3050B)									
Aluminum	12200		3.65	20.5	mg/Kg-dry	231487	1	10/22/2016 21:29	IO
Antimony	BRL		0.282	5.13	mg/Kg-dry	231487	1	10/22/2016 21:29	IO
Arsenic	0.303	J	0.152	1.03	mg/Kg-dry	231487	1	10/22/2016 21:29	IO
Barium	9.45		0.0777	5.13	mg/Kg-dry	231487	1	10/22/2016 21:29	IO
Beryllium	0.198	J	0.0132	0.513	mg/Kg-dry	231487	1	10/22/2016 21:29	IO
Cadmium	BRL		0.0181	0.513	mg/Kg-dry	231487	1	10/22/2016 21:29	IO
Calcium	665		0.712	51.3	mg/Kg-dry	231487	1	10/22/2016 21:29	IO
Chromium	6.33		0.0229	1.03	mg/Kg-dry	231487	1	10/22/2016 21:29	IO
Cobalt	0.637	J	0.0268	2.56	mg/Kg-dry	231487	1	10/22/2016 21:29	IO
Copper	1.14	J	0.0874	2.56	mg/Kg-dry	231487	1	10/22/2016 21:29	IO
Iron	5420		5.86	51.3	mg/Kg-dry	231487	5	10/23/2016 00:39	IO
Lead	13.1		0.0799	0.513	mg/Kg-dry	231487	1	10/22/2016 21:29	IO
Magnesium	224		0.118	51.3	mg/Kg-dry	231487	1	10/22/2016 21:29	IO
Manganese	9.20		0.0142	1.54	mg/Kg-dry	231487	1	10/22/2016 21:29	IO
Nickel	1.09	J	0.0852	4.10	mg/Kg-dry	231487	1	10/22/2016 21:29	IO
Potassium	383		0.312	103	mg/Kg-dry	231487	1	10/22/2016 21:29	IO
Selenium	BRL		0.334	0.513	mg/Kg-dry	231487	1	10/24/2016 22:06	JL
Silver	BRL		0.0223	1.03	mg/Kg-dry	231487	1	10/22/2016 21:29	IO
Sodium	21.1	J	0.236	103	mg/Kg-dry	231487	1	10/22/2016 21:29	IO
Thallium	BRL		0.190	1.03	mg/Kg-dry	231487	1	10/24/2016 22:06	JL
Vanadium	9.66		0.0296	5.13	mg/Kg-dry	231487	1	10/22/2016 21:29	IO
Zinc	5.87		0.161	2.05	mg/Kg-dry	231487	1	10/22/2016 21:29	IO
PERCENT MOISTURE D2216									
Percent Moisture	19.5		0	0	wt%	R327981	1	10/21/2016 09:00	BD

Qualifiers:	* Value exceeds maximum contaminant level	E Estimated value above quantitation range
	BRL Not detected at MDL	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	J Estimated value detected below Reporting Limit
	N Analyte not NELAC certified	> Greater than Result value
	B Analyte detected in the associated method blank	< Less than Result value
	NC Not confirmed	Narr See case narrative

Client: GHD Services, Inc.	Client Sample ID: SO-077150-101216-DJB-020
Project Name: Bluewater Thermal Solutions	Collection Date: 10/12/2016 4:10:00 PM
Lab ID: 1610C64-020	Matrix: Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5035)					
Dichlorodifluoromethane	BRL		1.2	8.2	ug/Kg-dry	231390	1	10/21/2016 16:20	MD
Chloromethane	BRL		1.5	8.2	ug/Kg-dry	231390	1	10/21/2016 16:20	MD
Vinyl chloride	BRL		1.7	8.2	ug/Kg-dry	231390	1	10/21/2016 16:20	MD
Bromomethane	BRL		1.8	4.1	ug/Kg-dry	231390	1	10/21/2016 16:20	MD
Chloroethane	BRL		2.2	8.2	ug/Kg-dry	231390	1	10/21/2016 16:20	MD
Trichlorofluoromethane	BRL		1.9	4.1	ug/Kg-dry	231390	1	10/21/2016 16:20	MD
1,1-Dichloroethene	BRL		0.81	4.1	ug/Kg-dry	231390	1	10/21/2016 16:20	MD
Acetone	150		4.2	8.2	ug/Kg-dry	231390	1	10/21/2016 16:20	MD
Freon-113	BRL		1.1	8.2	ug/Kg-dry	231390	1	10/21/2016 16:20	MD
Carbon disulfide	BRL		2.3	8.2	ug/Kg-dry	231390	1	10/21/2016 16:20	MD
Methyl acetate	BRL		2.1	4.1	ug/Kg-dry	231390	1	10/21/2016 16:20	MD
Methylene chloride	BRL		4.1	8.2	ug/Kg-dry	231390	1	10/21/2016 16:20	MD
Methyl tert-butyl ether	BRL		0.94	4.1	ug/Kg-dry	231390	1	10/21/2016 16:20	MD
trans-1,2-Dichloroethene	BRL		1.4	4.1	ug/Kg-dry	231390	1	10/21/2016 16:20	MD
1,1-Dichloroethane	BRL		1.2	4.1	ug/Kg-dry	231390	1	10/21/2016 16:20	MD
cis-1,2-Dichloroethene	BRL		1.5	4.1	ug/Kg-dry	231390	1	10/21/2016 16:20	MD
2-Butanone	BRL		5.1	8.2	ug/Kg-dry	231390	1	10/21/2016 16:20	MD
Bromochloromethane	BRL		1.4	4.1	ug/Kg-dry	231390	1	10/21/2016 16:20	MD
Chloroform	BRL		1.00	4.1	ug/Kg-dry	231390	1	10/21/2016 16:20	MD
1,1,1-Trichloroethane	BRL		1.1	4.1	ug/Kg-dry	231390	1	10/21/2016 16:20	MD
Cyclohexane	BRL		0.92	4.1	ug/Kg-dry	231390	1	10/21/2016 16:20	MD
Carbon tetrachloride	BRL		1.1	4.1	ug/Kg-dry	231390	1	10/21/2016 16:20	MD
Benzene	BRL		0.49	4.1	ug/Kg-dry	231390	1	10/21/2016 16:20	MD
1,2-Dichloroethane	BRL		1.3	4.1	ug/Kg-dry	231390	1	10/21/2016 16:20	MD
Trichloroethene	BRL		1.1	4.1	ug/Kg-dry	231390	1	10/21/2016 16:20	MD
Methylcyclohexane	BRL		1.3	4.1	ug/Kg-dry	231390	1	10/21/2016 16:20	MD
1,2-Dichloropropane	BRL		1.2	4.1	ug/Kg-dry	231390	1	10/21/2016 16:20	MD
cis-1,3-Dichloropropene	BRL		1.5	4.1	ug/Kg-dry	231390	1	10/21/2016 16:20	MD
4-Methyl-2-pentanone	BRL		2.1	8.2	ug/Kg-dry	231390	1	10/21/2016 16:20	MD
Toluene	BRL		0.44	4.1	ug/Kg-dry	231390	1	10/21/2016 16:20	MD
trans-1,3-Dichloropropene	BRL		1.0	4.1	ug/Kg-dry	231390	1	10/21/2016 16:20	MD
1,1,2-Trichloroethane	BRL		1.3	4.1	ug/Kg-dry	231390	1	10/21/2016 16:20	MD
2-Hexanone	BRL		3.2	8.2	ug/Kg-dry	231390	1	10/21/2016 16:20	MD
Tetrachloroethene	BRL		1.2	4.1	ug/Kg-dry	231390	1	10/21/2016 16:20	MD
1,3-Dichloropropane	BRL		1.4	4.1	ug/Kg-dry	231390	1	10/21/2016 16:20	MD
Dibromochloromethane	BRL		1.1	4.1	ug/Kg-dry	231390	1	10/21/2016 16:20	MD
1,2-Dibromoethane	BRL		1.3	4.1	ug/Kg-dry	231390	1	10/21/2016 16:20	MD
Chlorobenzene	BRL		1.2	4.1	ug/Kg-dry	231390	1	10/21/2016 16:20	MD
1,1,1,2-Tetrachloroethane	BRL		1.2	4.1	ug/Kg-dry	231390	1	10/21/2016 16:20	MD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 27-Oct-16

Client: GHD Services, Inc.	Client Sample ID: SO-077150-101216-DJB-020
Project Name: Bluewater Thermal Solutions	Collection Date: 10/12/2016 4:10:00 PM
Lab ID: 1610C64-020	Matrix: Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5035)					
Ethylbenzene	BRL		0.41	4.1	ug/Kg-dry	231390	1	10/21/2016 16:20	MD
Styrene	BRL		1.1	4.1	ug/Kg-dry	231390	1	10/21/2016 16:20	MD
Bromoform	BRL		1.1	4.1	ug/Kg-dry	231390	1	10/21/2016 16:20	MD
Isopropylbenzene	BRL		1.2	4.1	ug/Kg-dry	231390	1	10/21/2016 16:20	MD
1,4-Dichlorobenzene	BRL		1.5	4.1	ug/Kg-dry	231390	1	10/21/2016 16:20	MD
1,2-Dichlorobenzene	BRL		1.3	4.1	ug/Kg-dry	231390	1	10/21/2016 16:20	MD
1,2-Dibromo-3-chloropropane	BRL		1.8	4.1	ug/Kg-dry	231390	1	10/21/2016 16:20	MD
1,2,4-Trichlorobenzene	BRL		1.6	4.1	ug/Kg-dry	231390	1	10/21/2016 16:20	MD
Xylenes, Total	BRL		1.2	4.1	ug/Kg-dry	231390	1	10/21/2016 16:20	MD
Surr: 4-Bromofluorobenzene	80.4		0	70-128	%REC	231390	1	10/21/2016 16:20	MD
Surr: Dibromofluoromethane	92		0	78.2-128	%REC	231390	1	10/21/2016 16:20	MD
Surr: Toluene-d8	89.7		0	76.5-116	%REC	231390	1	10/21/2016 16:20	MD
TOTAL MERCURY SW7471B				(SW7471B)					
Mercury	0.0355	J	0.00474	0.108	mg/Kg-dry	231462	1	10/21/2016 12:54	JR
TCL-SEMIVOLATILE ORGANICS SW8270D				(SW3550C)					
1,1'-Biphenyl	BRL		37	360	ug/Kg-dry	231341	1	10/20/2016 13:53	YH
2,4,5-Trichlorophenol	BRL		110	900	ug/Kg-dry	231341	1	10/20/2016 13:53	YH
2,4,6-Trichlorophenol	BRL		25	360	ug/Kg-dry	231341	1	10/20/2016 13:53	YH
2,4-Dichlorophenol	BRL		120	360	ug/Kg-dry	231341	1	10/20/2016 13:53	YH
2,4-Dimethylphenol	BRL		39	360	ug/Kg-dry	231341	1	10/20/2016 13:53	YH
2,4-Dinitrophenol	BRL		150	900	ug/Kg-dry	231341	1	10/20/2016 13:53	YH
2,4-Dinitrotoluene	BRL		37	360	ug/Kg-dry	231341	1	10/20/2016 13:53	YH
2,6-Dinitrotoluene	BRL		71	360	ug/Kg-dry	231341	1	10/20/2016 13:53	YH
2-Chloronaphthalene	BRL		50	360	ug/Kg-dry	231341	1	10/20/2016 13:53	YH
2-Chlorophenol	BRL		43	360	ug/Kg-dry	231341	1	10/20/2016 13:53	YH
2-Methylnaphthalene	BRL		38	360	ug/Kg-dry	231341	1	10/20/2016 13:53	YH
2-Methylphenol	BRL		59	360	ug/Kg-dry	231341	1	10/20/2016 13:53	YH
2-Nitroaniline	BRL		49	900	ug/Kg-dry	231341	1	10/20/2016 13:53	YH
2-Nitrophenol	BRL		82	360	ug/Kg-dry	231341	1	10/20/2016 13:53	YH
3,3'-Dichlorobenzidine	BRL		49	360	ug/Kg-dry	231341	1	10/20/2016 13:53	YH
3-Nitroaniline	BRL		76	900	ug/Kg-dry	231341	1	10/20/2016 13:53	YH
4,6-Dinitro-2-methylphenol	BRL		63	900	ug/Kg-dry	231341	1	10/20/2016 13:53	YH
4-Bromophenyl phenyl ether	BRL		99	360	ug/Kg-dry	231341	1	10/20/2016 13:53	YH
4-Chloro-3-methylphenol	BRL		76	360	ug/Kg-dry	231341	1	10/20/2016 13:53	YH
4-Chloroaniline	BRL		120	360	ug/Kg-dry	231341	1	10/20/2016 13:53	YH
4-Chlorophenyl phenyl ether	BRL		44	360	ug/Kg-dry	231341	1	10/20/2016 13:53	YH
4-Methylphenol	BRL		170	360	ug/Kg-dry	231341	1	10/20/2016 13:53	YH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 27-Oct-16

Client: GHD Services, Inc.	Client Sample ID: SO-077150-101216-DJB-020
Project Name: Bluewater Thermal Solutions	Collection Date: 10/12/2016 4:10:00 PM
Lab ID: 1610C64-020	Matrix: Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D						(SW3550C)			
Pentachlorophenol	BRL		58	900	ug/Kg-dry	231341	1	10/20/2016 13:53	YH
Phenanthrene	BRL		34	360	ug/Kg-dry	231341	1	10/20/2016 13:53	YH
Phenol	BRL		54	360	ug/Kg-dry	231341	1	10/20/2016 13:53	YH
Pyrene	BRL		10	360	ug/Kg-dry	231341	1	10/20/2016 13:53	YH
Surr: 2,4,6-Tribromophenol	103		0	42.4-130	%REC	231341	1	10/20/2016 13:53	YH
Surr: 2-Fluorobiphenyl	97.4		0	51.5-120	%REC	231341	1	10/20/2016 13:53	YH
Surr: 2-Fluorophenol	86.5		0	41.1-120	%REC	231341	1	10/20/2016 13:53	YH
Surr: 4-Terphenyl-d14	104		0	52.7-117	%REC	231341	1	10/20/2016 13:53	YH
Surr: Nitrobenzene-d5	81.1		0	41.4-120	%REC	231341	1	10/20/2016 13:53	YH
Surr: Phenol-d5	87.3		0	47.6-120	%REC	231341	1	10/20/2016 13:53	YH
METALS, TOTAL SW6010C						(SW3050B)			
Aluminum	11700		3.54	19.9	mg/Kg-dry	231487	1	10/22/2016 21:33	IO
Antimony	0.397	J	0.273	4.97	mg/Kg-dry	231487	1	10/22/2016 21:33	IO
Arsenic	1.00		0.147	0.993	mg/Kg-dry	231487	1	10/22/2016 21:33	IO
Barium	19.9		0.0752	4.97	mg/Kg-dry	231487	1	10/22/2016 21:33	IO
Beryllium	0.161	J	0.0128	0.497	mg/Kg-dry	231487	1	10/22/2016 21:33	IO
Cadmium	0.141	J	0.0175	0.497	mg/Kg-dry	231487	1	10/22/2016 21:33	IO
Calcium	1430		0.690	49.7	mg/Kg-dry	231487	1	10/22/2016 21:33	IO
Chromium	12.5		0.0222	0.993	mg/Kg-dry	231487	1	10/22/2016 21:33	IO
Cobalt	1.38	J	0.0259	2.48	mg/Kg-dry	231487	1	10/22/2016 21:33	IO
Copper	11.1		0.0846	2.48	mg/Kg-dry	231487	1	10/22/2016 21:33	IO
Iron	9870		5.67	49.7	mg/Kg-dry	231487	5	10/23/2016 00:43	IO
Lead	26.8		0.0774	0.497	mg/Kg-dry	231487	1	10/22/2016 21:33	IO
Magnesium	156		0.114	49.7	mg/Kg-dry	231487	1	10/22/2016 21:33	IO
Manganese	26.8		0.0137	1.49	mg/Kg-dry	231487	1	10/22/2016 21:33	IO
Nickel	1.72	J	0.0824	3.97	mg/Kg-dry	231487	1	10/22/2016 21:33	IO
Potassium	208		0.303	99.3	mg/Kg-dry	231487	1	10/22/2016 21:33	IO
Selenium	BRL		0.323	0.497	mg/Kg-dry	231487	1	10/24/2016 22:10	JL
Silver	BRL		0.0216	0.993	mg/Kg-dry	231487	1	10/22/2016 21:33	IO
Sodium	22.5	J	0.229	99.3	mg/Kg-dry	231487	1	10/22/2016 21:33	IO
Thallium	BRL		0.184	0.993	mg/Kg-dry	231487	1	10/24/2016 22:10	JL
Vanadium	15.7		0.0287	4.97	mg/Kg-dry	231487	1	10/22/2016 21:33	IO
Zinc	40.9		0.156	1.99	mg/Kg-dry	231487	1	10/22/2016 21:33	IO
PERCENT MOISTURE D2216									
Percent Moisture	8.01		0	0	wt%	R327981	1	10/21/2016 09:00	BD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Client: GHD Services, Inc.	Client Sample ID: SO-077150-101216-DJB-021
Project Name: Bluewater Thermal Solutions	Collection Date: 10/12/2016 4:40:00 PM
Lab ID: 1610C64-021	Matrix: Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5035)					
Dichlorodifluoromethane	BRL		1.1	7.2	ug/Kg-dry	231390	1	10/21/2016 16:44	MD
Chloromethane	BRL		1.3	7.2	ug/Kg-dry	231390	1	10/21/2016 16:44	MD
Vinyl chloride	BRL		1.5	7.2	ug/Kg-dry	231390	1	10/21/2016 16:44	MD
Bromomethane	BRL		1.6	3.6	ug/Kg-dry	231390	1	10/21/2016 16:44	MD
Chloroethane	BRL		2.0	7.2	ug/Kg-dry	231390	1	10/21/2016 16:44	MD
Trichlorofluoromethane	BRL		1.7	3.6	ug/Kg-dry	231390	1	10/21/2016 16:44	MD
1,1-Dichloroethene	BRL		0.71	3.6	ug/Kg-dry	231390	1	10/21/2016 16:44	MD
Acetone	BRL		3.7	7.2	ug/Kg-dry	231390	1	10/21/2016 16:44	MD
Freon-113	BRL		0.94	7.2	ug/Kg-dry	231390	1	10/21/2016 16:44	MD
Carbon disulfide	BRL		2.0	7.2	ug/Kg-dry	231390	1	10/21/2016 16:44	MD
Methyl acetate	BRL		1.9	3.6	ug/Kg-dry	231390	1	10/21/2016 16:44	MD
Methylene chloride	BRL		3.6	7.2	ug/Kg-dry	231390	1	10/21/2016 16:44	MD
Methyl tert-butyl ether	BRL		0.82	3.6	ug/Kg-dry	231390	1	10/21/2016 16:44	MD
trans-1,2-Dichloroethene	BRL		1.3	3.6	ug/Kg-dry	231390	1	10/21/2016 16:44	MD
1,1-Dichloroethane	BRL		1.0	3.6	ug/Kg-dry	231390	1	10/21/2016 16:44	MD
cis-1,2-Dichloroethene	BRL		1.3	3.6	ug/Kg-dry	231390	1	10/21/2016 16:44	MD
2-Butanone	BRL		4.5	7.2	ug/Kg-dry	231390	1	10/21/2016 16:44	MD
Bromochloromethane	BRL		1.3	3.6	ug/Kg-dry	231390	1	10/21/2016 16:44	MD
Chloroform	BRL		0.87	3.6	ug/Kg-dry	231390	1	10/21/2016 16:44	MD
1,1,1-Trichloroethane	BRL		0.95	3.6	ug/Kg-dry	231390	1	10/21/2016 16:44	MD
Cyclohexane	BRL		0.81	3.6	ug/Kg-dry	231390	1	10/21/2016 16:44	MD
Carbon tetrachloride	BRL		0.96	3.6	ug/Kg-dry	231390	1	10/21/2016 16:44	MD
Benzene	BRL		0.43	3.6	ug/Kg-dry	231390	1	10/21/2016 16:44	MD
1,2-Dichloroethane	BRL		1.1	3.6	ug/Kg-dry	231390	1	10/21/2016 16:44	MD
Trichloroethene	BRL		1.00	3.6	ug/Kg-dry	231390	1	10/21/2016 16:44	MD
Methylcyclohexane	BRL		1.2	3.6	ug/Kg-dry	231390	1	10/21/2016 16:44	MD
1,2-Dichloropropane	BRL		1.1	3.6	ug/Kg-dry	231390	1	10/21/2016 16:44	MD
cis-1,3-Dichloropropene	BRL		1.3	3.6	ug/Kg-dry	231390	1	10/21/2016 16:44	MD
4-Methyl-2-pentanone	BRL		1.9	7.2	ug/Kg-dry	231390	1	10/21/2016 16:44	MD
Toluene	BRL		0.38	3.6	ug/Kg-dry	231390	1	10/21/2016 16:44	MD
trans-1,3-Dichloropropene	BRL		0.90	3.6	ug/Kg-dry	231390	1	10/21/2016 16:44	MD
1,1,2-Trichloroethane	BRL		1.1	3.6	ug/Kg-dry	231390	1	10/21/2016 16:44	MD
2-Hexanone	BRL		2.8	7.2	ug/Kg-dry	231390	1	10/21/2016 16:44	MD
Tetrachloroethene	BRL		1.1	3.6	ug/Kg-dry	231390	1	10/21/2016 16:44	MD
1,3-Dichloropropane	BRL		1.2	3.6	ug/Kg-dry	231390	1	10/21/2016 16:44	MD
Dibromochloromethane	BRL		0.98	3.6	ug/Kg-dry	231390	1	10/21/2016 16:44	MD
1,2-Dibromoethane	BRL		1.1	3.6	ug/Kg-dry	231390	1	10/21/2016 16:44	MD
Chlorobenzene	BRL		1.1	3.6	ug/Kg-dry	231390	1	10/21/2016 16:44	MD
1,1,1,2-Tetrachloroethane	BRL		1.1	3.6	ug/Kg-dry	231390	1	10/21/2016 16:44	MD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 27-Oct-16

Client: GHD Services, Inc.	Client Sample ID: SO-077150-101216-DJB-021
Project Name: Bluewater Thermal Solutions	Collection Date: 10/12/2016 4:40:00 PM
Lab ID: 1610C64-021	Matrix: Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5035)					
Ethylbenzene	BRL		0.36	3.6	ug/Kg-dry	231390	1	10/21/2016 16:44	MD
Styrene	BRL		0.95	3.6	ug/Kg-dry	231390	1	10/21/2016 16:44	MD
Bromoform	BRL		0.98	3.6	ug/Kg-dry	231390	1	10/21/2016 16:44	MD
Isopropylbenzene	BRL		1.0	3.6	ug/Kg-dry	231390	1	10/21/2016 16:44	MD
1,4-Dichlorobenzene	BRL		1.3	3.6	ug/Kg-dry	231390	1	10/21/2016 16:44	MD
1,2-Dichlorobenzene	BRL		1.2	3.6	ug/Kg-dry	231390	1	10/21/2016 16:44	MD
1,2-Dibromo-3-chloropropane	BRL		1.5	3.6	ug/Kg-dry	231390	1	10/21/2016 16:44	MD
1,2,4-Trichlorobenzene	BRL		1.4	3.6	ug/Kg-dry	231390	1	10/21/2016 16:44	MD
Xylenes, Total	BRL		1.0	3.6	ug/Kg-dry	231390	1	10/21/2016 16:44	MD
Surr: 4-Bromofluorobenzene	89.3		0	70-128	%REC	231390	1	10/21/2016 16:44	MD
Surr: Dibromofluoromethane	88.6		0	78.2-128	%REC	231390	1	10/21/2016 16:44	MD
Surr: Toluene-d8	92.5		0	76.5-116	%REC	231390	1	10/21/2016 16:44	MD
TOTAL MERCURY SW7471B				(SW7471B)					
Mercury	BRL		0.00524	0.119	mg/Kg-dry	231462	1	10/21/2016 13:16	JR
TCL-SEMIVOLATILE ORGANICS SW8270D				(SW3550C)					
1,1'-Biphenyl	BRL		43	410	ug/Kg-dry	231341	1	10/20/2016 14:21	YH
2,4,5-Trichlorophenol	BRL		130	1000	ug/Kg-dry	231341	1	10/20/2016 14:21	YH
2,4,6-Trichlorophenol	BRL		28	410	ug/Kg-dry	231341	1	10/20/2016 14:21	YH
2,4-Dichlorophenol	BRL		140	410	ug/Kg-dry	231341	1	10/20/2016 14:21	YH
2,4-Dimethylphenol	BRL		45	410	ug/Kg-dry	231341	1	10/20/2016 14:21	YH
2,4-Dinitrophenol	BRL		170	1000	ug/Kg-dry	231341	1	10/20/2016 14:21	YH
2,4-Dinitrotoluene	BRL		42	410	ug/Kg-dry	231341	1	10/20/2016 14:21	YH
2,6-Dinitrotoluene	BRL		81	410	ug/Kg-dry	231341	1	10/20/2016 14:21	YH
2-Chloronaphthalene	BRL		57	410	ug/Kg-dry	231341	1	10/20/2016 14:21	YH
2-Chlorophenol	BRL		48	410	ug/Kg-dry	231341	1	10/20/2016 14:21	YH
2-Methylnaphthalene	BRL		43	410	ug/Kg-dry	231341	1	10/20/2016 14:21	YH
2-Methylphenol	BRL		67	410	ug/Kg-dry	231341	1	10/20/2016 14:21	YH
2-Nitroaniline	BRL		56	1000	ug/Kg-dry	231341	1	10/20/2016 14:21	YH
2-Nitrophenol	BRL		93	410	ug/Kg-dry	231341	1	10/20/2016 14:21	YH
3,3'-Dichlorobenzidine	BRL		56	410	ug/Kg-dry	231341	1	10/20/2016 14:21	YH
3-Nitroaniline	BRL		87	1000	ug/Kg-dry	231341	1	10/20/2016 14:21	YH
4,6-Dinitro-2-methylphenol	BRL		72	1000	ug/Kg-dry	231341	1	10/20/2016 14:21	YH
4-Bromophenyl phenyl ether	BRL		110	410	ug/Kg-dry	231341	1	10/20/2016 14:21	YH
4-Chloro-3-methylphenol	BRL		87	410	ug/Kg-dry	231341	1	10/20/2016 14:21	YH
4-Chloroaniline	BRL		140	410	ug/Kg-dry	231341	1	10/20/2016 14:21	YH
4-Chlorophenyl phenyl ether	BRL		50	410	ug/Kg-dry	231341	1	10/20/2016 14:21	YH
4-Methylphenol	BRL		190	410	ug/Kg-dry	231341	1	10/20/2016 14:21	YH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Client:	GHD Services, Inc.	Client Sample ID:	SO-077150-101216-DJB-021
Project Name:	Bluewater Thermal Solutions	Collection Date:	10/12/2016 4:40:00 PM
Lab ID:	1610C64-021	Matrix:	Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS		SW8270D		(SW3550C)					
4-Nitroaniline	BRL		130	1000	ug/Kg-dry	231341	1	10/20/2016 14:21	YH
4-Nitrophenol	BRL		220	1000	ug/Kg-dry	231341	1	10/20/2016 14:21	YH
Acenaphthene	BRL		53	410	ug/Kg-dry	231341	1	10/20/2016 14:21	YH
Acenaphthylene	BRL		40	410	ug/Kg-dry	231341	1	10/20/2016 14:21	YH
Acetophenone	BRL		72	410	ug/Kg-dry	231341	1	10/20/2016 14:21	YH
Anthracene	BRL		33	410	ug/Kg-dry	231341	1	10/20/2016 14:21	YH
Atrazine	BRL		110	410	ug/Kg-dry	231341	1	10/20/2016 14:21	YH
Benz(a)anthracene	BRL		24	410	ug/Kg-dry	231341	1	10/20/2016 14:21	YH
Benzaldehyde	BRL		140	410	ug/Kg-dry	231341	1	10/20/2016 14:21	YH
Benzo(a)pyrene	BRL		31	410	ug/Kg-dry	231341	1	10/20/2016 14:21	YH
Benzo(b)fluoranthene	BRL		34	410	ug/Kg-dry	231341	1	10/20/2016 14:21	YH
Benzo(g,h,i)perylene	BRL		29	410	ug/Kg-dry	231341	1	10/20/2016 14:21	YH
Benzo(k)fluoranthene	BRL		46	410	ug/Kg-dry	231341	1	10/20/2016 14:21	YH
Bis(2-chloroethoxy)methane	BRL		46	410	ug/Kg-dry	231341	1	10/20/2016 14:21	YH
Bis(2-chloroethyl)ether	BRL		40	410	ug/Kg-dry	231341	1	10/20/2016 14:21	YH
Bis(2-chloroisopropyl)ether	BRL		45	410	ug/Kg-dry	231341	1	10/20/2016 14:21	YH
Bis(2-ethylhexyl)phthalate	BRL		34	410	ug/Kg-dry	231341	1	10/20/2016 14:21	YH
Butyl benzyl phthalate	BRL		47	410	ug/Kg-dry	231341	1	10/20/2016 14:21	YH
Caprolactam	BRL		150	410	ug/Kg-dry	231341	1	10/20/2016 14:21	YH
Carbazole	BRL		42	410	ug/Kg-dry	231341	1	10/20/2016 14:21	YH
Chrysene	BRL		39	410	ug/Kg-dry	231341	1	10/20/2016 14:21	YH
Di-n-butyl phthalate	BRL		37	410	ug/Kg-dry	231341	1	10/20/2016 14:21	YH
Di-n-octyl phthalate	BRL		25	410	ug/Kg-dry	231341	1	10/20/2016 14:21	YH
Dibenz(a,h)anthracene	BRL		47	410	ug/Kg-dry	231341	1	10/20/2016 14:21	YH
Dibenzofuran	BRL		57	410	ug/Kg-dry	231341	1	10/20/2016 14:21	YH
Diethyl phthalate	BRL		42	410	ug/Kg-dry	231341	1	10/20/2016 14:21	YH
Dimethyl phthalate	BRL		49	410	ug/Kg-dry	231341	1	10/20/2016 14:21	YH
Fluoranthene	BRL		23	410	ug/Kg-dry	231341	1	10/20/2016 14:21	YH
Fluorene	BRL		39	410	ug/Kg-dry	231341	1	10/20/2016 14:21	YH
Hexachlorobenzene	BRL		64	410	ug/Kg-dry	231341	1	10/20/2016 14:21	YH
Hexachlorobutadiene	BRL		72	410	ug/Kg-dry	231341	1	10/20/2016 14:21	YH
Hexachlorocyclopentadiene	BRL		57	410	ug/Kg-dry	231341	1	10/20/2016 14:21	YH
Hexachloroethane	BRL		44	410	ug/Kg-dry	231341	1	10/20/2016 14:21	YH
Indeno(1,2,3-cd)pyrene	BRL		34	410	ug/Kg-dry	231341	1	10/20/2016 14:21	YH
Isophorone	BRL		42	410	ug/Kg-dry	231341	1	10/20/2016 14:21	YH
N-Nitrosodi-n-propylamine	BRL		54	410	ug/Kg-dry	231341	1	10/20/2016 14:21	YH
N-Nitrosodiphenylamine	BRL		39	410	ug/Kg-dry	231341	1	10/20/2016 14:21	YH
Naphthalene	BRL		47	410	ug/Kg-dry	231341	1	10/20/2016 14:21	YH
Nitrobenzene	BRL		50	410	ug/Kg-dry	231341	1	10/20/2016 14:21	YH

Qualifiers:	* Value exceeds maximum contaminant level	E Estimated value above quantitation range
	BRL Not detected at MDL	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	J Estimated value detected below Reporting Limit
	N Analyte not NELAC certified	> Greater than Result value
	B Analyte detected in the associated method blank	< Less than Result value
	NC Not confirmed	Narr See case narrative

Analytical Environmental Services, Inc

Date: 27-Oct-16

Client: GHD Services, Inc.	Client Sample ID: SO-077150-101216-DJB-021
Project Name: Bluewater Thermal Solutions	Collection Date: 10/12/2016 4:40:00 PM
Lab ID: 1610C64-021	Matrix: Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D (SW3550C)									
Pentachlorophenol	BRL		66	1000	ug/Kg-dry	231341	1	10/20/2016 14:21	YH
Phenanthrene	BRL		38	410	ug/Kg-dry	231341	1	10/20/2016 14:21	YH
Phenol	BRL		61	410	ug/Kg-dry	231341	1	10/20/2016 14:21	YH
Pyrene	BRL		12	410	ug/Kg-dry	231341	1	10/20/2016 14:21	YH
Surr: 2,4,6-Tribromophenol	82.9		0	42.4-130	%REC	231341	1	10/20/2016 14:21	YH
Surr: 2-Fluorobiphenyl	75.8		0	51.5-120	%REC	231341	1	10/20/2016 14:21	YH
Surr: 2-Fluorophenol	74.9		0	41.1-120	%REC	231341	1	10/20/2016 14:21	YH
Surr: 4-Terphenyl-d14	87.3		0	52.7-117	%REC	231341	1	10/20/2016 14:21	YH
Surr: Nitrobenzene-d5	70		0	41.4-120	%REC	231341	1	10/20/2016 14:21	YH
Surr: Phenol-d5	73.1		0	47.6-120	%REC	231341	1	10/20/2016 14:21	YH
METALS, TOTAL SW6010C (SW3050B)									
Aluminum	3390		4.19	23.5	mg/Kg-dry	231526	1	10/22/2016 21:48	IO
Antimony	BRL		0.323	5.89	mg/Kg-dry	231526	1	10/22/2016 21:48	IO
Arsenic	BRL		0.174	1.18	mg/Kg-dry	231526	1	10/22/2016 21:48	IO
Barium	2.55	J	0.0891	5.89	mg/Kg-dry	231526	1	10/22/2016 21:48	IO
Beryllium	0.157	J	0.0152	0.589	mg/Kg-dry	231526	1	10/22/2016 21:48	IO
Cadmium	BRL		0.0207	0.589	mg/Kg-dry	231526	1	10/22/2016 21:48	IO
Calcium	186		0.817	58.9	mg/Kg-dry	231526	1	10/22/2016 21:48	IO
Chromium	0.231	J	0.0262	1.18	mg/Kg-dry	231526	1	10/22/2016 21:48	IO
Cobalt	0.139	J	0.0307	2.94	mg/Kg-dry	231526	1	10/22/2016 21:48	IO
Copper	1.88	J	0.100	2.94	mg/Kg-dry	231526	1	10/22/2016 21:48	IO
Iron	1330		1.34	11.8	mg/Kg-dry	231526	1	10/22/2016 21:48	IO
Lead	2.14		0.0917	0.589	mg/Kg-dry	231526	1	10/22/2016 21:48	IO
Magnesium	22.5	J	0.135	58.9	mg/Kg-dry	231526	1	10/22/2016 21:48	IO
Manganese	3.40		0.0162	1.77	mg/Kg-dry	231526	1	10/22/2016 21:48	IO
Nickel	0.137	J	0.0977	4.71	mg/Kg-dry	231526	1	10/22/2016 21:48	IO
Potassium	214		0.359	118	mg/Kg-dry	231526	1	10/22/2016 21:48	IO
Selenium	BRL		0.383	0.589	mg/Kg-dry	231526	1	10/24/2016 22:29	JL
Silver	BRL		0.0255	1.18	mg/Kg-dry	231526	1	10/22/2016 21:48	IO
Sodium	12.5	J	0.271	118	mg/Kg-dry	231526	1	10/22/2016 21:48	IO
Thallium	BRL		0.218	1.18	mg/Kg-dry	231526	1	10/22/2016 21:48	IO
Vanadium	0.117	J	0.0340	5.89	mg/Kg-dry	231526	1	10/22/2016 21:48	IO
Zinc	2.06	J	0.185	2.35	mg/Kg-dry	231526	1	10/22/2016 21:48	IO
PERCENT MOISTURE D2216									
Percent Moisture	19.2		0	0	wt%	R327981	1	10/21/2016 09:00	BD

Qualifiers:	* Value exceeds maximum contaminant level	E Estimated value above quantitation range
	BRL Not detected at MDL	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	J Estimated value detected below Reporting Limit
	N Analyte not NELAC certified	> Greater than Result value
	B Analyte detected in the associated method blank	< Less than Result value
	NC Not confirmed	Narr See case narrative

Client: GHD Services, Inc.	Client Sample ID: TRIP BLANK
Project Name: Bluewater Thermal Solutions	Collection Date: 10/14/2016
Lab ID: 1610C64-022	Matrix: Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS		SW8260B			(SW5030B)				
1,1,1,2-Tetrachloroethane	BRL		0.12	1.0	ug/L	231150	1	10/18/2016 10:09	NP
1,1,1-Trichloroethane	BRL		0.25	1.0	ug/L	231150	1	10/18/2016 10:09	NP
1,1,2-Trichloroethane	BRL		0.38	1.0	ug/L	231150	1	10/18/2016 10:09	NP
1,1-Dichloroethane	BRL		0.25	1.0	ug/L	231150	1	10/18/2016 10:09	NP
1,1-Dichloroethene	BRL		0.36	1.0	ug/L	231150	1	10/18/2016 10:09	NP
1,2,4-Trichlorobenzene	BRL		0.18	1.0	ug/L	231150	1	10/18/2016 10:09	NP
1,2-Dibromo-3-chloropropane	BRL		0.42	1.0	ug/L	231150	1	10/18/2016 10:09	NP
1,2-Dibromoethane	BRL		0.13	1.0	ug/L	231150	1	10/18/2016 10:09	NP
1,2-Dichlorobenzene	BRL		0.21	1.0	ug/L	231150	1	10/18/2016 10:09	NP
1,2-Dichloroethane	BRL		0.24	1.0	ug/L	231150	1	10/18/2016 10:09	NP
1,2-Dichloropropane	BRL		0.23	1.0	ug/L	231150	1	10/18/2016 10:09	NP
1,3-Dichlorobenzene	BRL		0.21	1.0	ug/L	231150	1	10/18/2016 10:09	NP
1,4-Dichlorobenzene	BRL		0.14	1.0	ug/L	231150	1	10/18/2016 10:09	NP
2-Butanone	BRL		2.9	5.0	ug/L	231150	1	10/18/2016 10:09	NP
2-Hexanone	BRL		3.2	5.0	ug/L	231150	1	10/18/2016 10:09	NP
4-Methyl-2-pentanone	BRL		2.7	5.0	ug/L	231150	1	10/18/2016 10:09	NP
Acetone	BRL		5.3	5.0	ug/L	231150	1	10/18/2016 10:09	NP
Benzene	BRL		0.14	1.0	ug/L	231150	1	10/18/2016 10:09	NP
Bromodichloromethane	BRL		0.20	1.0	ug/L	231150	1	10/18/2016 10:09	NP
Bromoform	BRL		0.26	1.0	ug/L	231150	1	10/18/2016 10:09	NP
Bromomethane	BRL		0.46	1.0	ug/L	231150	1	10/18/2016 10:09	NP
Carbon disulfide	BRL		0.46	1.0	ug/L	231150	1	10/18/2016 10:09	NP
Carbon tetrachloride	BRL		0.24	1.0	ug/L	231150	1	10/18/2016 10:09	NP
Chlorobenzene	BRL		0.14	1.0	ug/L	231150	1	10/18/2016 10:09	NP
Chloroethane	BRL		0.39	1.0	ug/L	231150	1	10/18/2016 10:09	NP
Chloroform	BRL		0.30	1.0	ug/L	231150	1	10/18/2016 10:09	NP
Chloromethane	BRL		0.29	1.0	ug/L	231150	1	10/18/2016 10:09	NP
cis-1,2-Dichloroethene	BRL		0.27	1.0	ug/L	231150	1	10/18/2016 10:09	NP
cis-1,3-Dichloropropene	BRL		0.21	1.0	ug/L	231150	1	10/18/2016 10:09	NP
Cyclohexane	BRL		1.6	1.0	ug/L	231150	1	10/18/2016 10:09	NP
Dibromochloromethane	BRL		0.21	1.0	ug/L	231150	1	10/18/2016 10:09	NP
Dichlorodifluoromethane	BRL		0.43	1.0	ug/L	231150	1	10/18/2016 10:09	NP
Ethylbenzene	BRL		0.20	1.0	ug/L	231150	1	10/18/2016 10:09	NP
Freon-113	BRL		0.32	1.0	ug/L	231150	1	10/18/2016 10:09	NP
Isopropylbenzene	BRL		0.16	1.0	ug/L	231150	1	10/18/2016 10:09	NP
Methyl acetate	BRL		0.31	1.0	ug/L	231150	1	10/18/2016 10:09	NP
Methyl tert-butyl ether	BRL		0.22	1.0	ug/L	231150	1	10/18/2016 10:09	NP
Methylcyclohexane	BRL		0.34	1.0	ug/L	231150	1	10/18/2016 10:09	NP
Methylene chloride	BRL		0.31	2.0	ug/L	231150	1	10/18/2016 10:09	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Client: GHD Services, Inc.	Client Sample ID: TRIP BLANK
Project Name: Bluewater Thermal Solutions	Collection Date: 10/14/2016
Lab ID: 1610C64-022	Matrix: Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	SW8260B			(SW5030B)					
Styrene	BRL		0.13	1.0	ug/L	231150	1	10/18/2016 10:09	NP
Tetrachloroethene	BRL		0.29	1.0	ug/L	231150	1	10/18/2016 10:09	NP
Toluene	BRL		0.20	1.0	ug/L	231150	1	10/18/2016 10:09	NP
trans-1,2-Dichloroethene	BRL		0.22	1.0	ug/L	231150	1	10/18/2016 10:09	NP
trans-1,3-Dichloropropene	BRL		0.13	1.0	ug/L	231150	1	10/18/2016 10:09	NP
Trichloroethene	BRL		0.35	1.0	ug/L	231150	1	10/18/2016 10:09	NP
Trichlorofluoromethane	BRL		0.32	1.0	ug/L	231150	1	10/18/2016 10:09	NP
Vinyl chloride	BRL		0.42	1.0	ug/L	231150	1	10/18/2016 10:09	NP
Xylenes, Total	BRL		0.30	1.0	ug/L	231150	1	10/18/2016 10:09	NP
Surr: 4-Bromofluorobenzene	92.9		0	70-130	%REC	231150	1	10/18/2016 10:09	NP
Surr: Dibromofluoromethane	103		0	70-130	%REC	231150	1	10/18/2016 10:09	NP
Surr: Toluene-d8	98		0	70-130	%REC	231150	1	10/18/2016 10:09	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client GAH Services/DUMUTH

Work Order Number 1610C64

Checklist completed by Miriam Suarez 10/15/2014
Signature Date

Carrier name: FedEx UPS Courier Client US Mail Other

Shipping container/cooler in good condition? Yes No Not Present
Custody seals intact on shipping container/cooler? Yes No Not Present
Custody seals intact on sample bottles? Yes No Not Present
Container/Temp Blank temperature in compliance? (0°≤6°C)* Yes No

Cooler #1 0.2° Cooler #2 _____ Cooler #3 _____ Cooler #4 _____ Cooler#5 _____ Cooler #6 _____

Chain of custody present? Yes No
Chain of custody signed when relinquished and received? Yes No
Chain of custody agrees with sample labels? Yes No
Samples in proper container/bottle? Yes No
Sample containers intact? Yes No
Sufficient sample volume for indicated test? Yes No
All samples received within holding time? Yes No
Was TAT marked on the COC? Yes No
Proceed with Standard TAT as per project history? Yes No Not Applicable
Water - VOA vials have zero headspace? No VOA vials submitted Yes No
Water - pH acceptable upon receipt? Yes No Not Applicable

Adjusted? _____ Checked by _____
Sample Condition: Good Other(Explain) _____
(For diffusive samples or AIHA lead) Is a known blank included? Yes No

See Case Narrative for resolution of the Non-Conformance.

* Samples do not have to comply with the given range for certain parameters.

Client: GHD Services, Inc.
Project Name: Bluewater Thermal Solutions
Workorder: 1610C64

ANALYTICAL QC SUMMARY REPORT

BatchID: 231129

Sample ID: MB-231129	Client ID:	Units: ug/Kg	Prep Date: 10/17/2016	Run No: 327575							
Sample Type: MBLK	TestCode: TCL-SEMIVOLATILE ORGANICS SW8270D	BatchID: 231129	Analysis Date: 10/18/2016	Seq No: 7103747							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1'-Biphenyl	BRL	330									
2,4,5-Trichlorophenol	BRL	1700									
2,4,6-Trichlorophenol	BRL	330									
2,4-Dichlorophenol	BRL	330									
2,4-Dimethylphenol	BRL	330									
2,4-Dinitrophenol	BRL	1700									
2,4-Dinitrotoluene	BRL	330									
2,6-Dinitrotoluene	BRL	330									
2-Chloronaphthalene	BRL	330									
2-Chlorophenol	BRL	330									
2-Methylnaphthalene	BRL	330									
2-Methylphenol	BRL	330									
2-Nitroaniline	BRL	1700									
2-Nitrophenol	BRL	330									
3,3'-Dichlorobenzidine	BRL	670									
3-Nitroaniline	BRL	1700									
4,6-Dinitro-2-methylphenol	BRL	1700									
4-Bromophenyl phenyl ether	BRL	330									
4-Chloro-3-methylphenol	BRL	330									
4-Chloroaniline	BRL	330									
4-Chlorophenyl phenyl ether	BRL	330									
4-Methylphenol	BRL	330									
4-Nitroaniline	BRL	1700									
4-Nitrophenol	BRL	1700									
Acenaphthene	BRL	330									
Acenaphthylene	BRL	330									
Acetophenone	BRL	330									

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Bluewater Thermal Solutions
Workorder: 1610C64

ANALYTICAL QC SUMMARY REPORT

BatchID: 231129

Sample ID: MB-231129	Client ID:	Units: ug/Kg	Prep Date: 10/17/2016	Run No: 327575							
SampleType: MBLK	TestCode: TCL-SEMIVOLATILE ORGANICS SW8270D	BatchID: 231129	Analysis Date: 10/18/2016	Seq No: 7103747							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Anthracene	BRL	330									
Atrazine	BRL	330									
Benz(a)anthracene	BRL	330									
Benzaldehyde	BRL	330									
Benzo(a)pyrene	BRL	330									
Benzo(b)fluoranthene	BRL	330									
Benzo(g,h,i)perylene	BRL	330									
Benzo(k)fluoranthene	BRL	330									
Bis(2-chloroethoxy)methane	BRL	330									
Bis(2-chloroethyl)ether	BRL	330									
Bis(2-chloroisopropyl)ether	BRL	330									
Bis(2-ethylhexyl)phthalate	BRL	330									
Butyl benzyl phthalate	BRL	330									
Caprolactam	BRL	330									
Carbazole	BRL	330									
Chrysene	BRL	330									
Di-n-butyl phthalate	BRL	330									
Di-n-octyl phthalate	BRL	330									
Dibenz(a,h)anthracene	BRL	330									
Dibenzofuran	BRL	330									
Diethyl phthalate	BRL	330									
Dimethyl phthalate	BRL	330									
Fluoranthene	BRL	330									
Fluorene	BRL	330									
Hexachlorobenzene	BRL	330									
Hexachlorobutadiene	BRL	330									
Hexachlorocyclopentadiene	BRL	660									

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Bluewater Thermal Solutions
Workorder: 1610C64

ANALYTICAL QC SUMMARY REPORT

BatchID: 231129

Sample ID: MB-231129	Client ID:	Units: ug/Kg	Prep Date: 10/17/2016	Run No: 327575							
SampleType: MBLK	TestCode: TCL-SEMIVOLATILE ORGANICS SW8270D	BatchID: 231129	Analysis Date: 10/18/2016	Seq No: 7103747							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Hexachloroethane	BRL	330									
Indeno(1,2,3-cd)pyrene	BRL	330									
Isophorone	BRL	330									
N-Nitrosodi-n-propylamine	BRL	330									
N-Nitrosodiphenylamine	BRL	330									
Naphthalene	BRL	330									
Nitrobenzene	BRL	330									
Pentachlorophenol	BRL	1700									
Phenanthrene	BRL	330									
Phenol	BRL	330									
Pyrene	BRL	330									
Surr: 2,4,6-Tribromophenol	2525	0	3333		75.8	42.4	130				
Surr: 2-Fluorobiphenyl	1112	0	1667		66.7	51.5	120				
Surr: 2-Fluorophenol	2469	0	3333		74.1	41.1	120				
Surr: 4-Terphenyl-d14	1763	0	1667		106	52.7	117				
Surr: Nitrobenzene-d5	1323	0	1667		79.4	41.4	120				
Surr: Phenol-d5	2683	0	3333		80.5	47.6	120				

Sample ID: LCS-231129	Client ID:	Units: ug/Kg	Prep Date: 10/17/2016	Run No: 327575							
SampleType: LCS	TestCode: TCL-SEMIVOLATILE ORGANICS SW8270D	BatchID: 231129	Analysis Date: 10/18/2016	Seq No: 7103871							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

2,4,5-Trichlorophenol	2913	1700	3333		87.4	70	130				
2,4,6-Trichlorophenol	3148	330	3333		94.4	70	130				
2,4-Dichlorophenol	2969	330	3333		89.1	70	130				
2,4-Dimethylphenol	2802	330	3333		84.1	70	130				
2,4-Dinitrotoluene	3661	330	3333		110	70	130				
2,6-Dinitrotoluene	3430	330	3333		103	70	130				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Bluewater Thermal Solutions
Workorder: 1610C64

ANALYTICAL QC SUMMARY REPORT

BatchID: 231129

Sample ID: LCS-231129	Client ID:	Units: ug/Kg	Prep Date: 10/17/2016	Run No: 327575							
SampleType: LCS	TestCode: TCL-SEMIVOLATILE ORGANICS SW8270D	BatchID: 231129	Analysis Date: 10/18/2016	Seq No: 7103871							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
2-Chlorophenol	3046	330	3333		91.4	50	130				
2-Methylphenol	3015	330	3333		90.4	70	130				
3,3'-Dichlorobenzidine	2961	670	3333		88.8	10	130				
4-Bromophenyl phenyl ether	3474	330	3333		104	70	130				
4-Chloro-3-methylphenol	3313	330	3333		99.4	50	130				
4-Methylphenol	3721	330	3333		112	70	130				
Acenaphthene	4910	330	5000		98.2	70	130				
Acenaphthylene	3503	330	3333		105	70	130				
Anthracene	3370	330	3333		101	70	130				
Benz(a)anthracene	3662	330	3333		110	70	130				
Benzo(a)pyrene	1889	330	1667		113	70	130				
Benzo(b)fluoranthene	4203	330	3333		126	70	130				
Bis(2-chloroethoxy)methane	3495	330	3333		105	70	130				
Bis(2-chloroethyl)ether	3324	330	3333		99.7	70	130				
Bis(2-chloroisopropyl)ether	3135	330	3333		94.1	50	130				
Bis(2-ethylhexyl)phthalate	4339	330	3333		130	70	130				S
Chrysene	3751	330	3333		113	70	130				
Di-n-butyl phthalate	3730	330	3333		112	70	130				
Di-n-octyl phthalate	1850	330	1667		111	70	130				
Dibenz(a,h)anthracene	4768	330	3333		143	70	130				S
Diethyl phthalate	3512	330	3333		105	70	130				
Dimethyl phthalate	3504	330	3333		105	70	130				
Fluoranthene	1552	330	1667		93.1	70	130				
Fluorene	3398	330	3333		102	70	130				
Hexachlorobenzene	3374	330	3333		101	70	130				
Hexachlorobutadiene	4252	330	5000		85.0	70	130				
N-Nitrosodiphenylamine	4027	330	5000		80.5	40	130				

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Bluewater Thermal Solutions
Workorder: 1610C64

ANALYTICAL QC SUMMARY REPORT

BatchID: 231129

Sample ID: LCS-231129	Client ID:	Units: ug/Kg	Prep Date: 10/17/2016	Run No: 327575							
SampleType: LCS	TestCode: TCL-SEMIVOLATILE ORGANICS SW8270D	BatchID: 231129	Analysis Date: 10/18/2016	Seq No: 7103871							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Naphthalene	3229	330	3333		96.9	70	130				
Nitrobenzene	3232	330	3333		97.0	70	130				
Pyrene	4051	330	3333		122	70	130				
Surr: 2,4,6-Tribromophenol	3040	0	3333		91.2	42.4	130				
Surr: 2-Fluorobiphenyl	1629	0	1667		97.7	51.5	120				
Surr: 2-Fluorophenol	3103	0	3333		93.1	41.1	120				
Surr: 4-Terphenyl-d14	1841	0	1667		110	52.7	117				
Surr: Nitrobenzene-d5	1783	0	1667		107	41.4	120				
Surr: Phenol-d5	3387	0	3333		102	47.6	120				

Sample ID: 1610956-001BMS	Client ID:	Units: ug/Kg-dry	Prep Date: 10/17/2016	Run No: 327575							
SampleType: MS	TestCode: TCL-SEMIVOLATILE ORGANICS SW8270D	BatchID: 231129	Analysis Date: 10/18/2016	Seq No: 7105003							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

2,4,5-Trichlorophenol	3042	2100	4029		75.5	42.8	122				
2,4,6-Trichlorophenol	3210	400	4029		79.7	51.4	118				
2,4-Dichlorophenol	2930	400	4029		72.7	50	120				
2,4-Dimethylphenol	2916	400	4029		72.4	43.3	120				
2,4-Dinitrotoluene	3612	400	4029		89.7	49.2	120				
2,6-Dinitrotoluene	3410	400	4029		84.6	45.1	126				
2-Chlorophenol	2929	400	4029		72.7	51.7	120				
2-Methylphenol	2926	400	4029		72.6	48.7	120				
3,3'-Dichlorobenzidine	3158	810	4029		78.4	27.9	120				
4-Bromophenyl phenyl ether	3496	400	4029		86.8	51.7	119				
4-Chloro-3-methylphenol	3368	400	4029		83.6	52.9	120				
4-Methylphenol	3690	400	4029		91.6	55.7	122				
Acenaphthene	4929	400	6043		81.6	52.2	120				
Acenaphthylene	3539	400	4029		87.8	52.8	120				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Bluewater Thermal Solutions
Workorder: 1610C64

ANALYTICAL QC SUMMARY REPORT

BatchID: 231129

Sample ID: 1610956-001BMS	Client ID:	Units: ug/Kg-dry	Prep Date: 10/17/2016	Run No: 327575							
SampleType: MS	TestCode: TCL-SEMIVOLATILE ORGANICS SW8270D	BatchID: 231129	Analysis Date: 10/18/2016	Seq No: 7105003							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Anthracene	3440	400	4029		85.4	49.2	117				
Benz(a)anthracene	3632	400	4029		90.2	50.6	124				
Benzo(a)pyrene	1594	400	2014		79.1	41.7	132				
Benzo(b)fluoranthene	3484	400	4029		86.5	46.8	127				
Bis(2-chloroethoxy)methane	3435	400	4029		85.3	45.2	120				
Bis(2-chloroethyl)ether	3132	400	4029		77.8	42.9	120				
Bis(2-chloroisopropyl)ether	3697	400	4029		91.8	36.4	120				
Bis(2-ethylhexyl)phthalate	4286	400	4029		106	54.6	127				
Chrysene	3656	400	4029		90.8	47.7	119				
Di-n-butyl phthalate	3866	400	4029		96.0	56.8	126				
Di-n-octyl phthalate	1806	400	2014		89.7	47.3	139				
Dibenz(a,h)anthracene	4108	400	4029		102	45.2	126				
Diethyl phthalate	3556	400	4029		88.3	46.4	118				
Dimethyl phthalate	3537	400	4029		87.8	53.6	120				
Fluoranthene	1584	400	2014		78.6	48.3	129				
Fluorene	3410	400	4029		84.6	48.8	117				
Hexachlorobenzene	3423	400	4029		85.0	45.7	120				
Hexachlorobutadiene	4052	400	6043		67.0	42.5	120				
N-Nitrosodiphenylamine	4219	400	6043		69.8	37.5	122				
Naphthalene	3146	400	4029		78.1	45.5	120				
Nitrobenzene	3157	400	4029		78.4	46.3	120				
Pyrene	4033	400	4029		100	49.1	120				
Surr: 2,4,6-Tribromophenol	3048	0	4029		75.6	42.4	130				
Surr: 2-Fluorobiphenyl	1645	0	2014		81.7	51.5	120				
Surr: 2-Fluorophenol	2943	0	4029		73.0	41.1	120				
Surr: 4-Terphenyl-d14	1847	0	2014		91.7	52.7	117				
Surr: Nitrobenzene-d5	1694	0	2014		84.1	41.4	120				

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Bluewater Thermal Solutions
Workorder: 1610C64

ANALYTICAL QC SUMMARY REPORT

BatchID: 231129

Sample ID: 1610956-001BMS	Client ID:	Units: ug/Kg-dry	Prep Date: 10/17/2016	Run No: 327575							
SampleType: MS	TestCode: TCL-SEMIVOLATILE ORGANICS SW8270D	BatchID: 231129	Analysis Date: 10/18/2016	Seq No: 7105003							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Surr: Phenol-d5 3351 0 4029 83.2 47.6 120

Sample ID: 1610956-001BMSD	Client ID:	Units: ug/Kg-dry	Prep Date: 10/17/2016	Run No: 327575							
SampleType: MSD	TestCode: TCL-SEMIVOLATILE ORGANICS SW8270D	BatchID: 231129	Analysis Date: 10/18/2016	Seq No: 7105012							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

2,4,5-Trichlorophenol	2881	2100	4029		71.5	42.8	122	3042	5.45	29.5	
2,4,6-Trichlorophenol	3057	400	4029		75.9	51.4	118	3210	4.90	28	
2,4-Dichlorophenol	2872	400	4029		71.3	50	120	2930	2.01	37	
2,4-Dimethylphenol	2909	400	4029		72.2	43.3	120	2916	0.221	29.3	
2,4-Dinitrotoluene	3293	400	4029		81.7	49.2	120	3612	9.25	23.4	
2,6-Dinitrotoluene	3201	400	4029		79.4	45.1	126	3410	6.34	22.7	
2-Chlorophenol	2992	400	4029		74.3	51.7	120	2929	2.14	29.9	
2-Methylphenol	2999	400	4029		74.4	48.7	120	2926	2.48	35.7	
3,3'-Dichlorobenzidine	3109	810	4029		77.2	27.9	120	3158	1.54	26.1	
4-Bromophenyl phenyl ether	3260	400	4029		80.9	51.7	119	3496	6.96	34.4	
4-Chloro-3-methylphenol	3276	400	4029		81.3	52.9	120	3368	2.76	45.7	
4-Methylphenol	3603	400	4029		89.4	55.7	122	3690	2.38	25.6	
Acenaphthene	4606	400	6043		76.2	52.2	120	4929	6.78	24.4	
Acenaphthylene	3349	400	4029		83.1	52.8	120	3539	5.53	24	
Anthracene	3177	400	4029		78.8	49.2	117	3440	7.96	36	
Benz(a)anthracene	3342	400	4029		83.0	50.6	124	3632	8.31	33.7	
Benzo(a)pyrene	1453	400	2014		72.1	41.7	132	1594	9.26	25.9	
Benzo(b)fluoranthene	3242	400	4029		80.5	46.8	127	3484	7.18	25.3	
Bis(2-chloroethoxy)methane	3299	400	4029		81.9	45.2	120	3435	4.04	25.7	
Bis(2-chloroethyl)ether	3212	400	4029		79.7	42.9	120	3132	2.53	27.2	
Bis(2-chloroisopropyl)ether	3776	400	4029		93.7	36.4	120	3697	2.11	35.8	
Bis(2-ethylhexyl)phthalate	3890	400	4029		96.6	54.6	127	4286	9.70	24	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Bluewater Thermal Solutions
Workorder: 1610C64

ANALYTICAL QC SUMMARY REPORT

BatchID: 231129

Sample ID: 1610956-001BMSD	Client ID:	Units: ug/Kg-dry	Prep Date: 10/17/2016	Run No: 327575
SampleType: MSD	TestCode: TCL-SEMIVOLATILE ORGANICS SW8270D	BatchID: 231129	Analysis Date: 10/18/2016	Seq No: 7105012

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chrysene	3417	400	4029		84.8	47.7	119	3656	6.74	34	
Di-n-butyl phthalate	3513	400	4029		87.2	56.8	126	3866	9.59	34.6	
Di-n-octyl phthalate	1659	400	2014		82.3	47.3	139	1806	8.53	25.4	
Dibenz(a,h)anthracene	3802	400	4029		94.4	45.2	126	4108	7.73	44.3	
Diethyl phthalate	3247	400	4029		80.6	46.4	118	3556	9.08	36.9	
Dimethyl phthalate	3244	400	4029		80.5	53.6	120	3537	8.64	25.5	
Fluoranthene	1446	400	2014		71.8	48.3	129	1584	9.10	26.3	
Fluorene	3139	400	4029		77.9	48.8	117	3410	8.28	35.1	
Hexachlorobenzene	3064	400	4029		76.0	45.7	120	3423	11.1	36	
Hexachlorobutadiene	4137	400	6043		68.5	42.5	120	4052	2.08	37.2	
N-Nitrosodiphenylamine	3863	400	6043		63.9	37.5	122	4219	8.81	37.9	
Naphthalene	3139	400	4029		77.9	45.5	120	3146	0.218	26.8	
Nitrobenzene	3137	400	4029		77.9	46.3	120	3157	0.640	27.4	
Pyrene	3703	400	4029		91.9	49.1	120	4033	8.53	33.4	
Surr: 2,4,6-Tribromophenol	2746	0	4029		68.2	42.4	130	3048	0	0	
Surr: 2-Fluorobiphenyl	1554	0	2014		77.1	51.5	120	1645	0	0	
Surr: 2-Fluorophenol	2990	0	4029		74.2	41.1	120	2943	0	0	
Surr: 4-Terphenyl-d14	1659	0	2014		82.4	52.7	117	1847	0	0	
Surr: Nitrobenzene-d5	1703	0	2014		84.6	41.4	120	1694	0	0	
Surr: Phenol-d5	3363	0	4029		83.5	47.6	120	3351	0	0	

Qualifiers:	> Greater than Result value	< Less than Result value	B Analyte detected in the associated method blank
BRL	Below reporting limit	E Estimated (value above quantitation range)	H Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N Analyte not NELAC certified	R RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S Spike Recovery outside limits due to matrix	

Client: GHD Services, Inc.
Project Name: Bluewater Thermal Solutions
Workorder: 1610C64

ANALYTICAL QC SUMMARY REPORT

BatchID: 231150

Sample ID: MB-231150	Client ID:	Units: ug/L	Prep Date: 10/15/2016	Run No: 327459							
SampleType: MBLK	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 231150	Analysis Date: 10/15/2016	Seq No: 7100793							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1,1,2-Tetrachloroethane	BRL	1.0									
1,1,1-Trichloroethane	BRL	1.0									
1,1,2-Trichloroethane	BRL	1.0									
1,1-Dichloroethane	BRL	1.0									
1,1-Dichloroethene	BRL	2.0									
1,2,4-Trichlorobenzene	BRL	1.0									
1,2-Dibromo-3-chloropropane	BRL	1.0									
1,2-Dibromoethane	BRL	1.0									
1,2-Dichlorobenzene	BRL	1.0									
1,2-Dichloroethane	BRL	1.0									
1,2-Dichloropropane	BRL	1.0									
1,3-Dichlorobenzene	BRL	1.0									
1,4-Dichlorobenzene	BRL	1.0									
2-Butanone	BRL	10									
2-Hexanone	BRL	10									
4-Methyl-2-pentanone	BRL	10									
Acetone	BRL	20									
Benzene	BRL	1.0									
Bromodichloromethane	BRL	1.0									
Bromoform	BRL	1.0									
Bromomethane	BRL	1.0									
Carbon disulfide	BRL	5.0									
Carbon tetrachloride	BRL	2.0									
Chlorobenzene	BRL	1.0									
Chloroethane	BRL	1.0									
Chloroform	BRL	1.0									
Chloromethane	BRL	1.0									

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Bluewater Thermal Solutions
Workorder: 1610C64

ANALYTICAL QC SUMMARY REPORT

BatchID: 231150

Sample ID: MB-231150	Client ID:	Units: ug/L	Prep Date: 10/15/2016	Run No: 327459							
SampleType: MBLK	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 231150	Analysis Date: 10/15/2016	Seq No: 7100793							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

cis-1,2-Dichloroethene	BRL	1.0									
cis-1,3-Dichloropropene	BRL	1.0									
Cyclohexane	BRL	2.0									
Dibromochloromethane	BRL	1.0									
Dichlorodifluoromethane	BRL	1.0									
Ethylbenzene	BRL	1.0									
Freon-113	BRL	5.0									
Isopropylbenzene	BRL	1.0									
Methyl acetate	BRL	2.0									
Methyl tert-butyl ether	BRL	1.0									
Methylcyclohexane	BRL	2.0									
Methylene chloride	BRL	5.0									
Styrene	BRL	1.0									
Tetrachloroethene	BRL	1.0									
Toluene	BRL	1.0									
trans-1,2-Dichloroethene	BRL	2.0									
trans-1,3-Dichloropropene	BRL	2.0									
Trichloroethene	BRL	1.0									
Trichlorofluoromethane	BRL	1.0									
Vinyl chloride	BRL	1.0									
Xylenes, Total	BRL	1.0									
Surr: 4-Bromofluorobenzene	49.59	0	50.00		99.2	70	130				
Surr: Dibromofluoromethane	50.37	0	50.00		101	70	130				
Surr: Toluene-d8	48.67	0	50.00		97.3	70	130				

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Bluewater Thermal Solutions
Workorder: 1610C64

ANALYTICAL QC SUMMARY REPORT

BatchID: 231150

Sample ID: LCS-231150	Client ID:	Units: ug/L	Prep Date: 10/15/2016	Run No: 327459							
SampleType: LCS	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 231150	Analysis Date: 10/15/2016	Seq No: 7100792							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	46.95	1.0	50.00		93.9	70	130				
1,1,1-Trichloroethane	49.29	1.0	50.00		98.6	70	130				
1,1,2-Trichloroethane	45.98	1.0	50.00		92.0	70	130				
1,1-Dichloroethane	46.13	1.0	50.00		92.3	70	130				
1,1-Dichloroethene	47.74	2.0	50.00		95.5	60	140				
1,2,4-Trichlorobenzene	57.15	1.0	50.00		114	70	130				
1,2-Dibromo-3-chloropropane	51.16	1.0	50.00		102	70	130				
1,2-Dibromoethane	47.88	1.0	50.00		95.8	70	130				
1,2-Dichlorobenzene	47.29	1.0	50.00		94.6	70	130				
1,2-Dichloroethane	45.45	1.0	50.00		90.9	70	130				
1,2-Dichloropropane	44.88	1.0	50.00		89.8	70	130				
1,3-Dichlorobenzene	47.82	1.0	50.00		95.6	70	130				
1,4-Dichlorobenzene	45.18	1.0	50.00		90.4	70	130				
Benzene	48.99	1.0	50.00		98.0	70	130				
Bromodichloromethane	45.29	1.0	50.00		90.6	70	130				
Bromoform	45.08	1.0	50.00		90.2	70	130				
Carbon tetrachloride	49.10	2.0	50.00		98.2	70	130				
Chlorobenzene	45.05	1.0	50.00		90.1	70	130				
Chloroform	47.13	1.0	50.00		94.3	70	130				
cis-1,2-Dichloroethene	48.71	1.0	50.00		97.4	70	130				
cis-1,3-Dichloropropene	48.64	1.0	50.00		97.3	70	130				
Dibromochloromethane	44.58	1.0	50.00		89.2	70	130				
Ethylbenzene	50.91	1.0	50.00		102	70	130				
Isopropylbenzene	50.93	1.0	50.00		102	70	130				
Methylene chloride	49.19	5.0	50.00		98.4	70	130				
Styrene	52.70	1.0	50.00		105	70	130				
Tetrachloroethene	45.15	1.0	50.00		90.3	70	130				

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Bluewater Thermal Solutions
Workorder: 1610C64

ANALYTICAL QC SUMMARY REPORT

BatchID: 231150

Sample ID: LCS-231150	Client ID:	Units: ug/L	Prep Date: 10/15/2016	Run No: 327459							
SampleType: LCS	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 231150	Analysis Date: 10/15/2016	Seq No: 7100792							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Toluene	48.95	1.0	50.00		97.9	70	130				
trans-1,2-Dichloroethene	45.75	2.0	50.00		91.5	70	130				
trans-1,3-Dichloropropene	52.30	2.0	50.00		105	70	130				
Trichloroethene	44.47	1.0	50.00		88.9	70	130				
Vinyl chloride	46.55	1.0	50.00		93.1	70	130				
Xylenes, Total	158.5	1.0	150.0		106	70	130				
Surr: 4-Bromofluorobenzene	51.45	0	50.00		103	70	130				
Surr: Dibromofluoromethane	50.16	0	50.00		100	70	130				
Surr: Toluene-d8	49.67	0	50.00		99.3	70	130				

Sample ID: 1610674-023AMS	Client ID:	Units: ug/L	Prep Date: 10/15/2016	Run No: 327459							
SampleType: MS	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 231150	Analysis Date: 10/15/2016	Seq No: 7100798							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1,1,2-Tetrachloroethane	529.5	10	500.0		106	63.6	142				
1,1,1-Trichloroethane	631.4	10	500.0		126	64.5	140				
1,1,2-Trichloroethane	516.7	10	500.0		103	73.9	127				
1,1-Dichloroethane	564.9	10	500.0		113	61.6	127				
1,1-Dichloroethene	667.7	20	500.0		134	60	150				
1,2,4-Trichlorobenzene	657.7	10	500.0		132	60.4	131				S
1,2-Dibromo-3-chloropropane	550.2	10	500.0		110	50.2	131				
1,2-Dibromoethane	538.5	10	500.0		108	74.1	126				
1,2-Dichlorobenzene	533.3	10	500.0		107	72	123				
1,2-Dichloroethane	505.6	10	500.0		101	66.5	133				
1,2-Dichloropropane	512.7	10	500.0		103	73	126				
1,3-Dichlorobenzene	536.0	10	500.0		107	72.5	123				
1,4-Dichlorobenzene	514.5	10	500.0		103	71.1	121				
Benzene	610.4	10	500.0	19.40	118	70.1	132				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Bluewater Thermal Solutions
Workorder: 1610C64

ANALYTICAL QC SUMMARY REPORT

BatchID: 231150

Sample ID: 1610674-023AMS	Client ID:	Units: ug/L	Prep Date: 10/15/2016	Run No: 327459							
SampleType: MS	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 231150	Analysis Date: 10/15/2016	Seq No: 7100798							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Bromodichloromethane	512.4	10	500.0		102	62.2	131				
Bromoform	495.6	10	500.0		99.1	50.5	138				
Carbon tetrachloride	655.1	20	500.0		131	60	149				
Chlorobenzene	524.1	10	500.0		105	70.9	131				
Chloroform	552.0	10	500.0		110	67.7	128				
cis-1,2-Dichloroethene	583.5	10	500.0		117	68.8	133				
cis-1,3-Dichloropropene	548.2	10	500.0		110	53.8	134				
Dibromochloromethane	494.9	10	500.0		99.0	57	135				
Ethylbenzene	699.9	10	500.0	62.40	128	77.8	129				
Isopropylbenzene	644.1	10	500.0	11.80	126	63	132				
Methylene chloride	585.4	50	500.0	19.60	113	60.5	124				
Styrene	637.5	10	500.0		128	73.3	133				
Tetrachloroethene	593.9	10	500.0		119	69.6	140				
Toluene	608.3	10	500.0	20.70	118	70.1	133				
trans-1,2-Dichloroethene	596.3	20	500.0		119	63.7	127				
trans-1,3-Dichloropropene	575.9	20	500.0		115	56.2	127				
Trichloroethene	564.5	10	500.0		113	70	136				
Vinyl chloride	624.8	10	500.0		125	56.8	141				
Xylenes, Total	2632	10	1500	629.8	133	74.7	133				S
Surr: 4-Bromofluorobenzene	526.2	0	500.0		105	70	130				
Surr: Dibromofluoromethane	497.8	0	500.0		99.6	70	130				
Surr: Toluene-d8	492.1	0	500.0		98.4	70	130				

Sample ID: 1610674-023AMSD	Client ID:	Units: ug/L	Prep Date: 10/15/2016	Run No: 327459							
SampleType: MSD	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 231150	Analysis Date: 10/15/2016	Seq No: 7100799							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1,1,2-Tetrachloroethane	463.0	10	500.0		92.6	63.6	142	529.5	13.4	20	
---------------------------	-------	----	-------	--	------	------	-----	-------	------	----	--

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
 Project Name: Bluewater Thermal Solutions
 Workorder: 1610C64

ANALYTICAL QC SUMMARY REPORT

BatchID: 231150

Sample ID: 1610674-023AMSD	Client ID:	Units: ug/L	Prep Date: 10/15/2016	Run No: 327459
SampleType: MSD	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 231150	Analysis Date: 10/15/2016	Seq No: 7100799

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	529.8	10	500.0		106	64.5	140	631.4	17.5	20	
1,1,2-Trichloroethane	448.9	10	500.0		89.8	73.9	127	516.7	14.0	20	
1,1-Dichloroethane	474.4	10	500.0		94.9	61.6	127	564.9	17.4	20	
1,1-Dichloroethene	548.8	20	500.0		110	60	150	667.7	19.5	17.7	R
1,2,4-Trichlorobenzene	579.0	10	500.0		116	60.4	131	657.7	12.7	24	
1,2-Dibromo-3-chloropropane	472.9	10	500.0		94.6	50.2	131	550.2	15.1	19.5	
1,2-Dibromoethane	460.6	10	500.0		92.1	74.1	126	538.5	15.6	20	
1,2-Dichlorobenzene	459.4	10	500.0		91.9	72	123	533.3	14.9	20	
1,2-Dichloroethane	434.7	10	500.0		86.9	66.5	133	505.6	15.1	20	
1,2-Dichloropropane	443.7	10	500.0		88.7	73	126	512.7	14.4	20	
1,3-Dichlorobenzene	464.0	10	500.0		92.8	72.5	123	536.0	14.4	20	
1,4-Dichlorobenzene	442.4	10	500.0		88.5	71.1	121	514.5	15.1	20	
Benzene	520.1	10	500.0	19.40	100	70.1	132	610.4	16.0	20	
Bromodichloromethane	439.9	10	500.0		88.0	62.2	131	512.4	15.2	20	
Bromoform	424.4	10	500.0		84.9	50.5	138	495.6	15.5	17.9	
Carbon tetrachloride	555.3	20	500.0		111	60	149	655.1	16.5	20	
Chlorobenzene	455.9	10	500.0		91.2	70.9	131	524.1	13.9	20	
Chloroform	462.5	10	500.0		92.5	67.7	128	552.0	17.6	20	
cis-1,2-Dichloroethene	498.8	10	500.0		99.8	68.8	133	583.5	15.7	20	
cis-1,3-Dichloropropene	479.6	10	500.0		95.9	53.8	134	548.2	13.3	20	
Dibromochloromethane	431.2	10	500.0		86.2	57	135	494.9	13.8	20	
Ethylbenzene	606.4	10	500.0	62.40	109	77.8	129	699.9	14.3	20	
Isopropylbenzene	553.1	10	500.0	11.80	108	63	132	644.1	15.2	20	
Methylene chloride	497.4	50	500.0	19.60	95.6	60.5	124	585.4	16.3	17.4	
Styrene	541.0	10	500.0		108	73.3	133	637.5	16.4	20	
Tetrachloroethene	498.3	10	500.0		99.7	69.6	140	593.9	17.5	20	
Toluene	517.8	10	500.0	20.70	99.4	70.1	133	608.3	16.1	20	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Bluewater Thermal Solutions
Workorder: 1610C64

ANALYTICAL QC SUMMARY REPORT

BatchID: 231150

Sample ID: 1610674-023AMSD	Client ID:	Units: ug/L	Prep Date: 10/15/2016	Run No: 327459
SampleType: MSD	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 231150	Analysis Date: 10/15/2016	Seq No: 7100799

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
trans-1,2-Dichloroethene	489.1	20	500.0		97.8	63.7	127	596.3	19.8	20	
trans-1,3-Dichloropropene	491.6	20	500.0		98.3	56.2	127	575.9	15.8	20	
Trichloroethene	469.9	10	500.0		94.0	70	136	564.5	18.3	20	
Vinyl chloride	516.3	10	500.0		103	56.8	141	624.8	19.0	18.4	R
Xylenes, Total	2246	10	1500	629.8	108	74.7	133	2632	15.8	22.7	
Surr: 4-Bromofluorobenzene	520.8	0	500.0		104	70	130	526.2	0	0	
Surr: Dibromofluoromethane	503.9	0	500.0		101	70	130	497.8	0	0	
Surr: Toluene-d8	494.2	0	500.0		98.8	70	130	492.1	0	0	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Bluewater Thermal Solutions
Workorder: 1610C64

ANALYTICAL QC SUMMARY REPORT

BatchID: 231323

Sample ID: MB-231323	Client ID:	Units: ug/Kg	Prep Date: 10/19/2016	Run No: 327701							
SampleType: MBLK	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 231323	Analysis Date: 10/19/2016	Seq No: 7107322							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1,1,2-Tetrachloroethane	BRL	5.0									
1,1,1-Trichloroethane	BRL	5.0									
1,1,2-Trichloroethane	BRL	5.0									
1,1-Dichloroethane	BRL	5.0									
1,1-Dichloroethene	BRL	5.0									
1,2,4-Trichlorobenzene	BRL	5.0									
1,2-Dibromo-3-chloropropane	BRL	5.0									
1,2-Dibromoethane	BRL	5.0									
1,2-Dichlorobenzene	BRL	5.0									
1,2-Dichloroethane	BRL	5.0									
1,2-Dichloropropane	BRL	5.0									
1,3-Dichloropropane	BRL	5.0									
1,4-Dichlorobenzene	BRL	5.0									
2-Butanone	BRL	50									
2-Hexanone	BRL	10									
4-Methyl-2-pentanone	BRL	10									
Acetone	BRL	100									
Benzene	BRL	5.0									
Bromochloromethane	BRL	5.0									
Bromoform	BRL	5.0									
Bromomethane	BRL	5.0									
Carbon disulfide	BRL	10									
Carbon tetrachloride	BRL	5.0									
Chlorobenzene	BRL	5.0									
Chloroethane	BRL	10									
Chloroform	BRL	5.0									
Chloromethane	BRL	10									

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Bluewater Thermal Solutions
Workorder: 1610C64

ANALYTICAL QC SUMMARY REPORT

BatchID: 231323

Sample ID: MB-231323	Client ID:	Units: ug/Kg	Prep Date: 10/19/2016	Run No: 327701							
SampleType: MBLK	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 231323	Analysis Date: 10/19/2016	Seq No: 7107322							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

cis-1,2-Dichloroethene	BRL	5.0									
cis-1,3-Dichloropropene	BRL	5.0									
Cyclohexane	BRL	5.0									
Dibromochloromethane	BRL	5.0									
Dichlorodifluoromethane	BRL	10									
Ethylbenzene	BRL	5.0									
Freon-113	BRL	10									
Isopropylbenzene	BRL	5.0									
Methyl acetate	BRL	5.0									
Methyl tert-butyl ether	BRL	5.0									
Methylcyclohexane	BRL	5.0									
Methylene chloride	BRL	20									
Styrene	BRL	5.0									
Tetrachloroethene	BRL	5.0									
Toluene	BRL	5.0									
trans-1,2-Dichloroethene	BRL	5.0									
trans-1,3-Dichloropropene	BRL	5.0									
Trichloroethene	BRL	5.0									
Trichlorofluoromethane	BRL	5.0									
Vinyl chloride	BRL	10									
Xylenes, Total	BRL	5.0									
Surr: 4-Bromofluorobenzene	45.22	0	50.00		90.4	70	130				
Surr: Dibromofluoromethane	50.60	0	50.00		101	70	130				
Surr: Toluene-d8	48.55	0	50.00		97.1	70	130				

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Bluewater Thermal Solutions
Workorder: 1610C64

ANALYTICAL QC SUMMARY REPORT

BatchID: 231323

Sample ID: LCS-231323	Client ID:	Units: ug/Kg	Prep Date: 10/19/2016	Run No: 327701							
SampleType: LCS	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 231323	Analysis Date: 10/19/2016	Seq No: 7107324							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	61.44	5.0	50.00		123	70	130				
1,1,1-Trichloroethane	56.71	5.0	50.00		113	70	130				
1,1,2-Trichloroethane	51.59	5.0	50.00		103	70	130				
1,1-Dichloroethane	50.11	5.0	50.00		100	70	130				
1,1-Dichloroethene	41.15	5.0	50.00		82.3	60	140				
1,2,4-Trichlorobenzene	51.42	5.0	50.00		103	70	130				
1,2-Dibromo-3-chloropropane	41.51	5.0	50.00		83.0	70	130				
1,2-Dibromoethane	48.06	5.0	50.00		96.1	70	130				
1,2-Dichlorobenzene	49.59	5.0	50.00		99.2	70	130				
1,2-Dichloroethane	45.43	5.0	50.00		90.9	70	130				
1,2-Dichloropropane	51.41	5.0	50.00		103	70	130				
1,3-Dichloropropane	51.42	5.0	50.00		103	70	130				
1,4-Dichlorobenzene	49.43	5.0	50.00		98.9	70	130				
Benzene	52.10	5.0	50.00		104	70	130				
Bromochloromethane	54.87	5.0	50.00		110	70	130				
Bromoform	48.64	5.0	50.00		97.3	70	130				
Carbon tetrachloride	60.69	5.0	50.00		121	70	130				
Chlorobenzene	51.72	5.0	50.00		103	70	130				
Chloroform	48.66	5.0	50.00		97.3	70	130				
cis-1,2-Dichloroethene	51.90	5.0	50.00		104	70	130				
cis-1,3-Dichloropropene	53.23	5.0	50.00		106	70	130				
Dibromochloromethane	53.64	5.0	50.00		107	70	130				
Ethylbenzene	53.38	5.0	50.00		107	70	130				
Isopropylbenzene	48.14	5.0	50.00		96.3	70	130				
Methylene chloride	39.36	20	50.00		78.7	70	130				
Styrene	51.20	5.0	50.00		102	70	130				
Tetrachloroethene	52.78	5.0	50.00		106	70	130				

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Bluewater Thermal Solutions
Workorder: 1610C64

ANALYTICAL QC SUMMARY REPORT

BatchID: 231323

Sample ID: LCS-231323	Client ID:	Units: ug/Kg	Prep Date: 10/19/2016	Run No: 327701							
SampleType: LCS	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 231323	Analysis Date: 10/19/2016	Seq No: 7107324							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Toluene	50.67	5.0	50.00		101	70	130				
trans-1,2-Dichloroethene	46.23	5.0	50.00		92.5	70	130				
trans-1,3-Dichloropropene	52.00	5.0	50.00		104	70	130				
Trichloroethene	52.16	5.0	50.00		104	70	130				
Vinyl chloride	43.66	10	50.00		87.3	70	130				
Xylenes, Total	156.9	5.0	150.0		105	70	130				
Surr: 4-Bromofluorobenzene	48.78	0	50.00		97.6	70	130				
Surr: Dibromofluoromethane	49.00	0	50.00		98.0	70	130				
Surr: Toluene-d8	49.25	0	50.00		98.5	70	130				

Sample ID: 1610956-001AMS	Client ID:	Units: ug/Kg-dry	Prep Date: 10/19/2016	Run No: 327701							
SampleType: MS	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 231323	Analysis Date: 10/19/2016	Seq No: 7108139							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1,1,2-Tetrachloroethane	74.01	6.0	60.43		122	70.5	127				
1,1,1-Trichloroethane	64.77	6.0	60.43		107	70	135				
1,1,2-Trichloroethane	62.18	6.0	60.43		103	72.3	130				
1,1-Dichloroethane	56.28	6.0	60.43		93.1	60.8	140				
1,1-Dichloroethene	45.59	6.0	60.43		75.4	56.6	151				
1,2,4-Trichlorobenzene	67.48	6.0	60.43		112	62.2	135				
1,2-Dibromo-3-chloropropane	49.66	6.0	60.43		82.2	60.6	126				
1,2-Dibromoethane	56.13	6.0	60.43		92.9	74.1	123				
1,2-Dichlorobenzene	58.66	6.0	60.43		97.1	70.4	130				
1,2-Dichloroethane	54.35	6.0	60.43		89.9	70.2	129				
1,2-Dichloropropane	63.37	6.0	60.43		105	70.1	129				
1,3-Dichloropropane	63.00	6.0	60.43		104	77.2	123				
1,4-Dichlorobenzene	59.21	6.0	60.43		98.0	70.6	130				
Benzene	61.88	6.0	60.43		102	70.4	130				

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Bluewater Thermal Solutions
Workorder: 1610C64

ANALYTICAL QC SUMMARY REPORT

BatchID: 231323

Sample ID: 1610956-001AMS	Client ID:	Units: ug/Kg-dry	Prep Date: 10/19/2016	Run No: 327701							
SampleType: MS	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 231323	Analysis Date: 10/19/2016	Seq No: 7108139							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Bromochloromethane	61.26	6.0	60.43		101	71.3	129				
Bromoform	58.59	6.0	60.43		97.0	65.2	122				
Carbon tetrachloride	72.10	6.0	60.43		119	64.3	138				
Chlorobenzene	61.54	6.0	60.43		102	67.5	132				
Chloroform	56.74	6.0	60.43		93.9	73.9	130				
cis-1,2-Dichloroethene	57.19	6.0	60.43		94.6	70.9	139				
cis-1,3-Dichloropropene	63.08	6.0	60.43		104	60.4	120				
Dibromochloromethane	63.38	6.0	60.43		105	65.1	121				
Ethylbenzene	64.79	6.0	60.43		107	64.9	136				
Isopropylbenzene	55.82	6.0	60.43		92.4	70.2	129				
Methylene chloride	45.64	24	60.43		75.5	64.5	158				
Styrene	60.25	6.0	60.43		99.7	72.9	130				
Tetrachloroethene	67.25	6.0	60.43		111	70.1	134				
Toluene	60.90	6.0	60.43		101	70.4	130				
trans-1,2-Dichloroethene	52.84	6.0	60.43		87.4	60.4	158				
trans-1,3-Dichloropropene	62.16	6.0	60.43		103	60.1	117				
Trichloroethene	62.01	6.0	60.43		103	70.1	137				
Vinyl chloride	47.44	12	60.43		78.5	60	128				
Xylenes, Total	191.1	6.0	181.3		105	62.3	134				
Surr: 4-Bromofluorobenzene	59.86	0	60.43		99.1	70	128				
Surr: Dibromofluoromethane	59.20	0	60.43		98.0	78.2	128				
Surr: Toluene-d8	60.43	0	60.43		100	76.5	116				

Sample ID: 1610C64-005AMS	Client ID: SO-077150-101116-DJB-005	Units: ug/Kg-dry	Prep Date: 10/19/2016	Run No: 327863							
SampleType: MS	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 231323	Analysis Date: 10/20/2016	Seq No: 7111897							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1,1,2-Tetrachloroethane	66.91	5.7	56.51		118	70.5	127				
---------------------------	-------	-----	-------	--	-----	------	-----	--	--	--	--

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
 Project Name: Bluewater Thermal Solutions
 Workorder: 1610C64

ANALYTICAL QC SUMMARY REPORT

BatchID: 231323

Sample ID: 1610C64-005AMS	Client ID: SO-077150-101116-DJB-005	Units: ug/Kg-dry	Prep Date: 10/19/2016	Run No: 327863							
SampleType: MS	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 231323	Analysis Date: 10/20/2016	Seq No: 7111897							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	60.19	5.7	56.51		107	70	135				
1,1,2-Trichloroethane	55.44	5.7	56.51		98.1	72.3	130				
1,1-Dichloroethane	52.38	5.7	56.51		92.7	60.8	140				
1,1-Dichloroethene	46.02	5.7	56.51		81.4	56.6	151				
1,2,4-Trichlorobenzene	53.18	5.7	56.51		94.1	62.2	135				
1,2-Dibromo-3-chloropropane	43.95	5.7	56.51		77.8	60.6	126				
1,2-Dibromoethane	52.80	5.7	56.51		93.4	74.1	123				
1,2-Dichlorobenzene	51.91	5.7	56.51		91.9	70.4	130				
1,2-Dichloroethane	48.46	5.7	56.51		85.8	70.2	129				
1,2-Dichloropropane	53.70	5.7	56.51		95.0	70.1	129				
1,3-Dichloropropane	53.28	5.7	56.51		94.3	77.2	123				
1,4-Dichlorobenzene	50.30	5.7	56.51		89.0	70.6	130				
Benzene	56.20	5.7	56.51		99.5	70.4	130				
Bromochloromethane	61.77	5.7	56.51		109	71.3	129				
Bromoform	54.32	5.7	56.51		96.1	65.2	122				
Carbon tetrachloride	64.00	5.7	56.51		113	64.3	138				
Chlorobenzene	54.95	5.7	56.51		97.2	67.5	132				
Chloroform	51.61	5.7	56.51		91.3	73.9	130				
cis-1,2-Dichloroethene	55.35	5.7	56.51		98.0	70.9	139				
cis-1,3-Dichloropropene	55.69	5.7	56.51		98.6	60.4	120				
Dibromochloromethane	57.15	5.7	56.51		101	65.1	121				
Ethylbenzene	52.29	5.7	56.51		92.5	64.9	136				
Isopropylbenzene	48.05	5.7	56.51		85.0	70.2	129				
Methylene chloride	45.05	23	56.51		79.7	64.5	158				
Styrene	53.21	5.7	56.51		94.2	72.9	130				
Tetrachloroethene	52.91	5.7	56.51		93.6	70.1	134				
Toluene	53.62	5.7	56.51		94.9	70.4	130				

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Bluewater Thermal Solutions
Workorder: 1610C64

ANALYTICAL QC SUMMARY REPORT

BatchID: 231323

Sample ID: 1610C64-005AMS	Client ID: SO-077150-101116-DJB-005	Units: ug/Kg-dry	Prep Date: 10/19/2016	Run No: 327863							
SampleType: MS	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 231323	Analysis Date: 10/20/2016	Seq No: 7111897							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

trans-1,2-Dichloroethene	50.31	5.7	56.51		89.0	60.4	158				
trans-1,3-Dichloropropene	54.18	5.7	56.51		95.9	60.1	117				
Trichloroethene	56.75	5.7	56.51		100	70.1	137				
Vinyl chloride	46.11	11	56.51		81.6	60	128				
Xylenes, Total	154.1	5.7	169.5		90.9	62.3	134				
Surr: 4-Bromofluorobenzene	55.54	0	56.51		98.3	70	128				
Surr: Dibromofluoromethane	56.56	0	56.51		100	78.2	128				
Surr: Toluene-d8	54.49	0	56.51		96.4	76.5	116				

Sample ID: 1610956-001AMSD	Client ID:	Units: ug/Kg-dry	Prep Date: 10/19/2016	Run No: 327701							
SampleType: MSD	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 231323	Analysis Date: 10/19/2016	Seq No: 7108140							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1,1,2-Tetrachloroethane	74.80	6.0	60.43		124	70.5	127	74.01	1.06	17.3	
1,1,1-Trichloroethane	67.38	6.0	60.43		112	70	135	64.77	3.95	18.7	
1,1,2-Trichloroethane	61.83	6.0	60.43		102	72.3	130	62.18	0.565	14.1	
1,1-Dichloroethane	59.67	6.0	60.43		98.7	60.8	140	56.28	5.84	14.1	
1,1-Dichloroethene	48.32	6.0	60.43		80.0	56.6	151	45.59	5.82	20.4	
1,2,4-Trichlorobenzene	66.64	6.0	60.43		110	62.2	135	67.48	1.24	23.9	
1,2-Dibromo-3-chloropropane	52.98	6.0	60.43		87.7	60.6	126	49.66	6.48	15.2	
1,2-Dibromoethane	57.08	6.0	60.43		94.5	74.1	123	56.13	1.69	14.4	
1,2-Dichlorobenzene	59.49	6.0	60.43		98.4	70.4	130	58.66	1.39	15	
1,2-Dichloroethane	54.24	6.0	60.43		89.8	70.2	129	54.35	0.200	15	
1,2-Dichloropropane	62.25	6.0	60.43		103	70.1	129	63.37	1.77	15.1	
1,3-Dichloropropane	62.00	6.0	60.43		103	77.2	123	63.00	1.60	15.5	
1,4-Dichlorobenzene	59.32	6.0	60.43		98.2	70.6	130	59.21	0.184	14.5	
Benzene	61.59	6.0	60.43		102	70.4	130	61.88	0.470	16.9	
Bromochloromethane	64.66	6.0	60.43		107	71.3	129	61.26	5.39	15	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Bluewater Thermal Solutions
Workorder: 1610C64

ANALYTICAL QC SUMMARY REPORT

BatchID: 231323

Sample ID: 1610956-001AMSD	Client ID:	Units: ug/Kg-dry	Prep Date: 10/19/2016	Run No: 327701
SampleType: MSD	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 231323	Analysis Date: 10/19/2016	Seq No: 7108140

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Bromoform	58.57	6.0	60.43		96.9	65.2	122	58.59	0.041	15.1	
Carbon tetrachloride	71.73	6.0	60.43		119	64.3	138	72.10	0.521	25.2	
Chlorobenzene	62.04	6.0	60.43		103	67.5	132	61.54	0.802	14.6	
Chloroform	57.66	6.0	60.43		95.4	73.9	130	56.74	1.61	15	
cis-1,2-Dichloroethene	60.64	6.0	60.43		100	70.9	139	57.19	5.85	15	
cis-1,3-Dichloropropene	64.14	6.0	60.43		106	60.4	120	63.08	1.67	15.6	
Dibromochloromethane	63.72	6.0	60.43		105	65.1	121	63.38	0.533	16.3	
Ethylbenzene	62.51	6.0	60.43		103	64.9	136	64.79	3.59	16.3	
Isopropylbenzene	57.32	6.0	60.43		94.9	70.2	129	55.82	2.65	18.8	
Methylene chloride	47.33	24	60.43		78.3	64.5	158	45.64	3.64	23.7	
Styrene	60.53	6.0	60.43		100	72.9	130	60.25	0.460	15	
Tetrachloroethene	63.81	6.0	60.43		106	70.1	134	67.25	5.24	19.3	
Toluene	62.07	6.0	60.43		103	70.4	130	60.90	1.91	16.6	
trans-1,2-Dichloroethene	55.29	6.0	60.43		91.5	60.4	158	52.84	4.54	54.5	
trans-1,3-Dichloropropene	63.05	6.0	60.43		104	60.1	117	62.16	1.43	15	
Trichloroethene	61.69	6.0	60.43		102	70.1	137	62.01	0.528	17	
Vinyl chloride	53.08	12	60.43		87.8	60	128	47.44	11.2	31.4	
Xylenes, Total	185.7	6.0	181.3		102	62.3	134	191.1	2.83	16.1	
Surr: 4-Bromofluorobenzene	60.30	0	60.43		99.8	70	128	59.86	0	0	
Surr: Dibromofluoromethane	58.22	0	60.43		96.3	78.2	128	59.20	0	0	
Surr: Toluene-d8	59.00	0	60.43		97.6	76.5	116	60.43	0	0	

Sample ID: 1610C64-005AMSD	Client ID: SO-077150-101116-DJB-005	Units: ug/Kg-dry	Prep Date: 10/19/2016	Run No: 327863
SampleType: MSD	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 231323	Analysis Date: 10/20/2016	Seq No: 7111898

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	67.96	5.7	56.51		120	70.5	127	66.91	1.56	17.3	
1,1,1-Trichloroethane	58.65	5.7	56.51		104	70	135	60.19	2.59	18.7	

Qualifiers:	> Greater than Result value	< Less than Result value	B Analyte detected in the associated method blank
BRL	Below reporting limit	E Estimated (value above quantitation range)	H Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N Analyte not NELAC certified	R RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S Spike Recovery outside limits due to matrix	

Client: GHD Services, Inc.
Project Name: Bluewater Thermal Solutions
Workorder: 1610C64

ANALYTICAL QC SUMMARY REPORT

BatchID: 231323

Sample ID: 1610C64-005AMSD	Client ID: SO-077150-101116-DJB-005	Units: ug/Kg-dry	Prep Date: 10/19/2016	Run No: 327863
SampleType: MSD	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 231323	Analysis Date: 10/20/2016	Seq No: 7111898

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,2-Trichloroethane	55.17	5.7	56.51		97.6	72.3	130	55.44	0.490	14.1	
1,1-Dichloroethane	51.54	5.7	56.51		91.2	60.8	140	52.38	1.61	14.1	
1,1-Dichloroethene	44.70	5.7	56.51		79.1	56.6	151	46.02	2.92	20.4	
1,2,4-Trichlorobenzene	53.57	5.7	56.51		94.8	62.2	135	53.18	0.720	23.9	
1,2-Dibromo-3-chloropropane	43.81	5.7	56.51		77.5	60.6	126	43.95	0.309	15.2	
1,2-Dibromoethane	53.77	5.7	56.51		95.2	74.1	123	52.80	1.82	14.4	
1,2-Dichlorobenzene	53.13	5.7	56.51		94.0	70.4	130	51.91	2.32	15	
1,2-Dichloroethane	48.27	5.7	56.51		85.4	70.2	129	48.46	0.397	15	
1,2-Dichloropropane	53.06	5.7	56.51		93.9	70.1	129	53.70	1.21	15.1	
1,3-Dichloropropane	54.03	5.7	56.51		95.6	77.2	123	53.28	1.39	15.5	
1,4-Dichlorobenzene	51.41	5.7	56.51		91.0	70.6	130	50.30	2.18	14.5	
Benzene	54.57	5.7	56.51		96.6	70.4	130	56.20	2.94	16.9	
Bromochloromethane	62.76	5.7	56.51		111	71.3	129	61.77	1.58	15	
Bromoform	56.94	5.7	56.51		101	65.2	122	54.32	4.69	15.1	
Carbon tetrachloride	62.96	5.7	56.51		111	64.3	138	64.00	1.64	25.2	
Chlorobenzene	55.52	5.7	56.51		98.3	67.5	132	54.95	1.04	14.6	
Chloroform	51.36	5.7	56.51		90.9	73.9	130	51.61	0.483	15	
cis-1,2-Dichloroethene	54.87	5.7	56.51		97.1	70.9	139	55.35	0.882	15	
cis-1,3-Dichloropropene	56.23	5.7	56.51		99.5	60.4	120	55.69	0.969	15.6	
Dibromochloromethane	58.55	5.7	56.51		104	65.1	121	57.15	2.42	16.3	
Ethylbenzene	53.57	5.7	56.51		94.8	64.9	136	52.29	2.41	16.3	
Isopropylbenzene	47.63	5.7	56.51		84.3	70.2	129	48.05	0.874	18.8	
Methylene chloride	43.74	23	56.51		77.4	64.5	158	45.05	2.95	23.7	
Styrene	53.92	5.7	56.51		95.4	72.9	130	53.21	1.33	15	
Tetrachloroethene	52.90	5.7	56.51		93.6	70.1	134	52.91	0.021	19.3	
Toluene	51.66	5.7	56.51		91.4	70.4	130	53.62	3.74	16.6	
trans-1,2-Dichloroethene	49.52	5.7	56.51		87.6	60.4	158	50.31	1.58	54.5	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Bluewater Thermal Solutions
Workorder: 1610C64

ANALYTICAL QC SUMMARY REPORT

BatchID: 231323

Sample ID: 1610C64-005AMSD	Client ID: SO-077150-101116-DJB-005	Units: ug/Kg-dry	Prep Date: 10/19/2016	Run No: 327863							
SampleType: MSD	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 231323	Analysis Date: 10/20/2016	Seq No: 7111898							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

trans-1,3-Dichloropropene	55.87	5.7	56.51		98.9	60.1	117	54.18	3.08	15	
Trichloroethene	54.81	5.7	56.51		97.0	70.1	137	56.75	3.48	17	
Vinyl chloride	46.67	11	56.51		82.6	60	128	46.11	1.22	31.4	
Xylenes, Total	157.4	5.7	169.5		92.8	62.3	134	154.1	2.13	16.1	
Surr: 4-Bromofluorobenzene	57.24	0	56.51		101	70	128	55.54	0	0	
Surr: Dibromofluoromethane	55.93	0	56.51		99.0	78.2	128	56.56	0	0	
Surr: Toluene-d8	53.74	0	56.51		95.1	76.5	116	54.49	0	0	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Bluewater Thermal Solutions
Workorder: 1610C64

ANALYTICAL QC SUMMARY REPORT

BatchID: 231341

Sample ID: MB-231341	Client ID:	Units: ug/Kg	Prep Date: 10/20/2016	Run No: 327810							
SampleType: MBLK	TestCode: TCL-SEMIVOLATILE ORGANICS SW8270D	BatchID: 231341	Analysis Date: 10/20/2016	Seq No: 7110512							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1'-Biphenyl	BRL	330									
2,4,5-Trichlorophenol	BRL	1700									
2,4,6-Trichlorophenol	BRL	330									
2,4-Dichlorophenol	BRL	330									
2,4-Dimethylphenol	BRL	330									
2,4-Dinitrophenol	BRL	1700									
2,4-Dinitrotoluene	BRL	330									
2,6-Dinitrotoluene	BRL	330									
2-Chloronaphthalene	BRL	330									
2-Chlorophenol	BRL	330									
2-Methylnaphthalene	BRL	330									
2-Methylphenol	BRL	330									
2-Nitroaniline	BRL	1700									
2-Nitrophenol	BRL	330									
3,3'-Dichlorobenzidine	BRL	670									
3-Nitroaniline	BRL	1700									
4,6-Dinitro-2-methylphenol	BRL	1700									
4-Bromophenyl phenyl ether	BRL	330									
4-Chloro-3-methylphenol	BRL	330									
4-Chloroaniline	BRL	330									
4-Chlorophenyl phenyl ether	BRL	330									
4-Methylphenol	BRL	330									
4-Nitroaniline	BRL	1700									
4-Nitrophenol	BRL	1700									
Acenaphthene	BRL	330									
Acenaphthylene	BRL	330									
Acetophenone	BRL	330									

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Bluewater Thermal Solutions
Workorder: 1610C64

ANALYTICAL QC SUMMARY REPORT

BatchID: 231341

Sample ID: MB-231341	Client ID:	Units: ug/Kg	Prep Date: 10/20/2016	Run No: 327810							
SampleType: MBLK	TestCode: TCL-SEMIVOLATILE ORGANICS SW8270D	BatchID: 231341	Analysis Date: 10/20/2016	Seq No: 7110512							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Anthracene	BRL	330									
Atrazine	BRL	330									
Benz(a)anthracene	BRL	330									
Benzaldehyde	BRL	330									
Benzo(a)pyrene	BRL	330									
Benzo(b)fluoranthene	BRL	330									
Benzo(g,h,i)perylene	BRL	330									
Benzo(k)fluoranthene	BRL	330									
Bis(2-chloroethoxy)methane	BRL	330									
Bis(2-chloroethyl)ether	BRL	330									
Bis(2-chloroisopropyl)ether	BRL	330									
Bis(2-ethylhexyl)phthalate	BRL	330									
Butyl benzyl phthalate	BRL	330									
Caprolactam	BRL	330									
Carbazole	BRL	330									
Chrysene	BRL	330									
Di-n-butyl phthalate	BRL	330									
Di-n-octyl phthalate	BRL	330									
Dibenz(a,h)anthracene	BRL	330									
Dibenzofuran	BRL	330									
Diethyl phthalate	BRL	330									
Dimethyl phthalate	BRL	330									
Fluoranthene	BRL	330									
Fluorene	BRL	330									
Hexachlorobenzene	BRL	330									
Hexachlorobutadiene	BRL	330									
Hexachlorocyclopentadiene	BRL	660									

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Bluewater Thermal Solutions
Workorder: 1610C64

ANALYTICAL QC SUMMARY REPORT

BatchID: 231341

Sample ID: MB-231341	Client ID:	Units: ug/Kg	Prep Date: 10/20/2016	Run No: 327810							
SampleType: MBLK	TestCode: TCL-SEMIVOLATILE ORGANICS SW8270D	BatchID: 231341	Analysis Date: 10/20/2016	Seq No: 7110512							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Hexachloroethane	BRL	330									
Indeno(1,2,3-cd)pyrene	BRL	330									
Isophorone	BRL	330									
N-Nitrosodi-n-propylamine	BRL	330									
N-Nitrosodiphenylamine	BRL	330									
Naphthalene	BRL	330									
Nitrobenzene	BRL	330									
Pentachlorophenol	BRL	1700									
Phenanthrene	BRL	330									
Phenol	BRL	330									
Pyrene	BRL	330									
Surr: 2,4,6-Tribromophenol	2999	0	3333		90.0	42.4	130				
Surr: 2-Fluorobiphenyl	1460	0	1667		87.6	51.5	120				
Surr: 2-Fluorophenol	2702	0	3333		81.1	41.1	120				
Surr: 4-Terphenyl-d14	1617	0	1667		97.0	52.7	117				
Surr: Nitrobenzene-d5	1293	0	1667		77.6	41.4	120				
Surr: Phenol-d5	2695	0	3333		80.8	47.6	120				

Sample ID: LCS-231341	Client ID:	Units: ug/Kg	Prep Date: 10/20/2016	Run No: 327810							
SampleType: LCS	TestCode: TCL-SEMIVOLATILE ORGANICS SW8270D	BatchID: 231341	Analysis Date: 10/20/2016	Seq No: 7111533							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

2,4,5-Trichlorophenol	3053	1700	3333		91.6	70	130				
2,4,6-Trichlorophenol	3138	330	3333		94.1	70	130				
2,4-Dichlorophenol	3339	330	3333		100	70	130				
2,4-Dimethylphenol	2925	330	3333		87.7	70	130				
2,4-Dinitrotoluene	3557	330	3333		107	70	130				
2,6-Dinitrotoluene	3518	330	3333		106	70	130				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Bluewater Thermal Solutions
Workorder: 1610C64

ANALYTICAL QC SUMMARY REPORT

BatchID: 231341

Sample ID: LCS-231341	Client ID:	Units: ug/Kg	Prep Date: 10/20/2016	Run No: 327810							
SampleType: LCS	TestCode: TCL-SEMIVOLATILE ORGANICS SW8270D	BatchID: 231341	Analysis Date: 10/20/2016	Seq No: 7111533							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
2-Chlorophenol	3089	330	3333		92.7	50	130				
2-Methylphenol	2689	330	3333		80.7	70	130				
3,3'-Dichlorobenzidine	2519	670	3333		75.6	10	130				
4-Bromophenyl phenyl ether	3784	330	3333		114	70	130				
4-Chloro-3-methylphenol	3095	330	3333		92.8	50	130				
4-Methylphenol	3035	330	3333		91.1	70	130				
Acenaphthene	4815	330	5000		96.3	70	130				
Acenaphthylene	3470	330	3333		104	70	130				
Anthracene	3279	330	3333		98.4	70	130				
Benz(a)anthracene	3458	330	3333		104	70	130				
Benzo(a)pyrene	1599	330	1667		95.9	70	130				
Benzo(b)fluoranthene	3561	330	3333		107	70	130				
Bis(2-chloroethoxy)methane	3189	330	3333		95.7	70	130				
Bis(2-chloroethyl)ether	3045	330	3333		91.4	70	130				
Bis(2-chloroisopropyl)ether	3098	330	3333		93.0	50	130				
Bis(2-ethylhexyl)phthalate	3876	330	3333		116	70	130				
Chrysene	3458	330	3333		104	70	130				
Di-n-butyl phthalate	3907	330	3333		117	70	130				
Di-n-octyl phthalate	1845	330	1667		111	70	130				
Dibenz(a,h)anthracene	3551	330	3333		107	70	130				
Diethyl phthalate	3314	330	3333		99.4	70	130				
Dimethyl phthalate	3527	330	3333		106	70	130				
Fluoranthene	1673	330	1667		100	70	130				
Fluorene	3347	330	3333		100	70	130				
Hexachlorobenzene	3704	330	3333		111	70	130				
Hexachlorobutadiene	4655	330	5000		93.1	70	130				
N-Nitrosodiphenylamine	3973	330	5000		79.5	40	130				

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Bluewater Thermal Solutions
Workorder: 1610C64

ANALYTICAL QC SUMMARY REPORT

BatchID: 231341

Sample ID: LCS-231341	Client ID:	Units: ug/Kg	Prep Date: 10/20/2016	Run No: 327810							
SampleType: LCS	TestCode: TCL-SEMIVOLATILE ORGANICS SW8270D	BatchID: 231341	Analysis Date: 10/20/2016	Seq No: 7111533							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Naphthalene	3318	330	3333		99.6	70	130				
Nitrobenzene	3564	330	3333		107	70	130				
Pyrene	3522	330	3333		106	70	130				
Surr: 2,4,6-Tribromophenol	3283	0	3333		98.5	42.4	130				
Surr: 2-Fluorobiphenyl	1652	0	1667		99.1	51.5	120				
Surr: 2-Fluorophenol	3068	0	3333		92.0	41.1	120				
Surr: 4-Terphenyl-d14	1780	0	1667		107	52.7	117				
Surr: Nitrobenzene-d5	1505	0	1667		90.3	41.4	120				
Surr: Phenol-d5	3270	0	3333		98.1	47.6	120				

Sample ID: 1610C64-021BMS	Client ID: SO-077150-101216-DJB-021	Units: ug/Kg-dry	Prep Date: 10/20/2016	Run No: 327810							
SampleType: MS	TestCode: TCL-SEMIVOLATILE ORGANICS SW8270D	BatchID: 231341	Analysis Date: 10/20/2016	Seq No: 7111533							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

2,4,5-Trichlorophenol	3581	2100	4127		86.8	42.8	122				
2,4,6-Trichlorophenol	3829	410	4127		92.8	51.4	118				
2,4-Dichlorophenol	4028	410	4127		97.6	50	120				
2,4-Dimethylphenol	3516	410	4127		85.2	43.3	120				
2,4-Dinitrotoluene	4192	410	4127		102	49.2	120				
2,6-Dinitrotoluene	4121	410	4127		99.8	45.1	126				
2-Chlorophenol	3650	410	4127		88.4	51.7	120				
2-Methylphenol	3151	410	4127		76.4	48.7	120				
3,3'-Dichlorobenzidine	3434	830	4127		83.2	27.9	120				
4-Bromophenyl phenyl ether	4582	410	4127		111	51.7	119				
4-Chloro-3-methylphenol	3825	410	4127		92.7	52.9	120				
4-Methylphenol	3873	410	4127		93.8	55.7	122				
Acenaphthene	5622	410	6191		90.8	52.2	120				
Acenaphthylene	4056	410	4127		98.3	52.8	120				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Bluewater Thermal Solutions
Workorder: 1610C64

ANALYTICAL QC SUMMARY REPORT

BatchID: 231341

Sample ID: 1610C64-021BMS	Client ID: SO-077150-101216-DJB-021	Units: ug/Kg-dry	Prep Date: 10/20/2016	Run No: 327810							
SampleType: MS	TestCode: TCL-SEMIVOLATILE ORGANICS SW8270D	BatchID: 231341	Analysis Date: 10/20/2016	Seq No: 7111531							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Anthracene	3893	410	4127		94.3	49.2	117				
Benz(a)anthracene	4256	410	4127		103	50.6	124				
Benzo(a)pyrene	2034	410	2064		98.6	41.7	132				
Benzo(b)fluoranthene	4624	410	4127		112	46.8	127				
Bis(2-chloroethoxy)methane	3767	410	4127		91.3	45.2	120				
Bis(2-chloroethyl)ether	3523	410	4127		85.4	42.9	120				
Bis(2-chloroisopropyl)ether	3563	410	4127		86.3	36.4	120				
Bis(2-ethylhexyl)phthalate	4820	410	4127		117	54.6	127				
Chrysene	4242	410	4127		103	47.7	119				
Di-n-butyl phthalate	4713	410	4127		114	56.8	126				
Di-n-octyl phthalate	2248	410	2064		109	47.3	139				
Dibenz(a,h)anthracene	4494	410	4127		109	45.2	126				
Diethyl phthalate	3916	410	4127		94.9	46.4	118				
Dimethyl phthalate	4194	410	4127		102	53.6	120				
Fluoranthene	1997	410	2064		96.8	48.3	129				
Fluorene	3928	410	4127		95.2	48.8	117				
Hexachlorobenzene	4295	410	4127		104	45.7	120				
Hexachlorobutadiene	5335	410	6191		86.2	42.5	120				
N-Nitrosodiphenylamine	4752	410	6191		76.8	37.5	122				
Naphthalene	3867	410	4127		93.7	45.5	120				
Nitrobenzene	4093	410	4127		99.2	46.3	120				
Pyrene	4374	410	4127		106	49.1	120				
Surr: 2,4,6-Tribromophenol	3939	0	4127		95.4	42.4	130				
Surr: 2-Fluorobiphenyl	1974	0	2064		95.7	51.5	120				
Surr: 2-Fluorophenol	3420	0	4127		82.8	41.1	120				
Surr: 4-Terphenyl-d14	2212	0	2064		107	52.7	117				
Surr: Nitrobenzene-d5	1753	0	2064		84.9	41.4	120				

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Bluewater Thermal Solutions
Workorder: 1610C64

ANALYTICAL QC SUMMARY REPORT

BatchID: 231341

Sample ID: 1610C64-021BMS	Client ID: SO-077150-101216-DJB-021	Units: ug/Kg-dry	Prep Date: 10/20/2016	Run No: 327810							
SampleType: MS	TestCode: TCL-SEMIVOLATILE ORGANICS SW8270D	BatchID: 231341	Analysis Date: 10/20/2016	Seq No: 7111531							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Surr: Phenol-d5 3774 0 4127 91.4 47.6 120

Sample ID: 1610C64-021BMSD	Client ID: SO-077150-101216-DJB-021	Units: ug/Kg-dry	Prep Date: 10/20/2016	Run No: 327810							
SampleType: MSD	TestCode: TCL-SEMIVOLATILE ORGANICS SW8270D	BatchID: 231341	Analysis Date: 10/20/2016	Seq No: 7111532							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

2,4,5-Trichlorophenol	3471	2100	4127		84.1	42.8	122	3581	3.13	29.5	
2,4,6-Trichlorophenol	3510	410	4127		85.0	51.4	118	3829	8.71	28	
2,4-Dichlorophenol	3487	410	4127		84.5	50	120	4028	14.4	37	
2,4-Dimethylphenol	3129	410	4127		75.8	43.3	120	3516	11.7	29.3	
2,4-Dinitrotoluene	4003	410	4127		97.0	49.2	120	4192	4.61	23.4	
2,6-Dinitrotoluene	3988	410	4127		96.6	45.1	126	4121	3.27	22.7	
2-Chlorophenol	3018	410	4127		73.1	51.7	120	3650	18.9	29.9	
2-Methylphenol	2786	410	4127		67.5	48.7	120	3151	12.3	35.7	
3,3'-Dichlorobenzidine	3029	830	4127		73.4	27.9	120	3434	12.5	26.1	
4-Bromophenyl phenyl ether	4365	410	4127		106	51.7	119	4582	4.84	34.4	
4-Chloro-3-methylphenol	3427	410	4127		83.0	52.9	120	3825	11.0	45.7	
4-Methylphenol	3384	410	4127		82.0	55.7	122	3873	13.5	25.6	
Acenaphthene	5291	410	6191		85.5	52.2	120	5622	6.07	24.4	
Acenaphthylene	3813	410	4127		92.4	52.8	120	4056	6.17	24	
Anthracene	3772	410	4127		91.4	49.2	117	3893	3.14	36	
Benz(a)anthracene	4107	410	4127		99.5	50.6	124	4256	3.56	33.7	
Benzo(a)pyrene	1819	410	2064		88.2	41.7	132	2034	11.1	25.9	
Benzo(b)fluoranthene	4376	410	4127		106	46.8	127	4624	5.52	25.3	
Bis(2-chloroethoxy)methane	3411	410	4127		82.6	45.2	120	3767	9.92	25.7	
Bis(2-chloroethyl)ether	3084	410	4127		74.7	42.9	120	3523	13.3	27.2	
Bis(2-chloroisopropyl)ether	3183	410	4127		77.1	36.4	120	3563	11.3	35.8	
Bis(2-ethylhexyl)phthalate	4697	410	4127		114	54.6	127	4820	2.59	24	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Bluewater Thermal Solutions
Workorder: 1610C64

ANALYTICAL QC SUMMARY REPORT

BatchID: 231341

Sample ID: 1610C64-021BMSD	Client ID: SO-077150-101216-DJB-021	Units: ug/Kg-dry	Prep Date: 10/20/2016	Run No: 327810
SampleType: MSD	TestCode: TCL-SEMIVOLATILE ORGANICS SW8270D	BatchID: 231341	Analysis Date: 10/20/2016	Seq No: 7111532

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chrysene	4158	410	4127		101	47.7	119	4242	2.01	34	
Di-n-butyl phthalate	4548	410	4127		110	56.8	126	4713	3.57	34.6	
Di-n-octyl phthalate	2162	410	2064		105	47.3	139	2248	3.89	25.4	
Dibenz(a,h)anthracene	4182	410	4127		101	45.2	126	4494	7.20	44.3	
Diethyl phthalate	3735	410	4127		90.5	46.4	118	3916	4.73	36.9	
Dimethyl phthalate	4017	410	4127		97.3	53.6	120	4194	4.31	25.5	
Fluoranthene	1928	410	2064		93.4	48.3	129	1997	3.51	26.3	
Fluorene	3753	410	4127		90.9	48.8	117	3928	4.57	35.1	
Hexachlorobenzene	4177	410	4127		101	45.7	120	4295	2.77	36	
Hexachlorobutadiene	4795	410	6191		77.5	42.5	120	5335	10.7	37.2	
N-Nitrosodiphenylamine	4568	410	6191		73.8	37.5	122	4752	3.94	37.9	
Naphthalene	3481	410	4127		84.3	45.5	120	3867	10.5	26.8	
Nitrobenzene	3659	410	4127		88.6	46.3	120	4093	11.2	27.4	
Pyrene	4187	410	4127		101	49.1	120	4374	4.37	33.4	
Surr: 2,4,6-Tribromophenol	3817	0	4127		92.5	42.4	130	3939	0	0	
Surr: 2-Fluorobiphenyl	1812	0	2064		87.8	51.5	120	1974	0	0	
Surr: 2-Fluorophenol	2831	0	4127		68.6	41.1	120	3420	0	0	
Surr: 4-Terphenyl-d14	2089	0	2064		101	52.7	117	2212	0	0	
Surr: Nitrobenzene-d5	1556	0	2064		75.4	41.4	120	1753	0	0	
Surr: Phenol-d5	3338	0	4127		80.9	47.6	120	3774	0	0	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Bluewater Thermal Solutions
Workorder: 1610C64

ANALYTICAL QC SUMMARY REPORT

BatchID: 231390

Sample ID: MB-231390	Client ID:	Units: ug/Kg	Prep Date: 10/20/2016	Run No: 327814							
SampleType: MBLK	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 231390	Analysis Date: 10/20/2016	Seq No: 7111863							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1,1,2-Tetrachloroethane	BRL	5.0									
1,1,1-Trichloroethane	BRL	5.0									
1,1,2-Trichloroethane	BRL	5.0									
1,1-Dichloroethane	BRL	5.0									
1,1-Dichloroethene	BRL	5.0									
1,2,4-Trichlorobenzene	BRL	5.0									
1,2-Dibromo-3-chloropropane	BRL	5.0									
1,2-Dibromoethane	BRL	5.0									
1,2-Dichlorobenzene	BRL	5.0									
1,2-Dichloroethane	BRL	5.0									
1,2-Dichloropropane	BRL	5.0									
1,3-Dichloropropane	BRL	5.0									
1,4-Dichlorobenzene	BRL	5.0									
2-Butanone	BRL	50									
2-Hexanone	BRL	10									
4-Methyl-2-pentanone	BRL	10									
Acetone	BRL	100									
Benzene	BRL	5.0									
Bromochloromethane	BRL	5.0									
Bromoform	BRL	5.0									
Bromomethane	BRL	5.0									
Carbon disulfide	BRL	10									
Carbon tetrachloride	BRL	5.0									
Chlorobenzene	BRL	5.0									
Chloroethane	BRL	10									
Chloroform	BRL	5.0									
Chloromethane	BRL	10									

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Bluewater Thermal Solutions
Workorder: 1610C64

ANALYTICAL QC SUMMARY REPORT

BatchID: 231390

Sample ID: MB-231390	Client ID:	Units: ug/Kg	Prep Date: 10/20/2016	Run No: 327814							
SampleType: MBLK	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 231390	Analysis Date: 10/20/2016	Seq No: 7111863							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
cis-1,2-Dichloroethene	BRL	5.0									
cis-1,3-Dichloropropene	BRL	5.0									
Cyclohexane	BRL	5.0									
Dibromochloromethane	BRL	5.0									
Dichlorodifluoromethane	BRL	10									
Ethylbenzene	BRL	5.0									
Freon-113	BRL	10									
Isopropylbenzene	BRL	5.0									
Methyl acetate	BRL	5.0									
Methyl tert-butyl ether	BRL	5.0									
Methylcyclohexane	BRL	5.0									
Methylene chloride	BRL	20									
Styrene	BRL	5.0									
Tetrachloroethene	BRL	5.0									
Toluene	BRL	5.0									
trans-1,2-Dichloroethene	BRL	5.0									
trans-1,3-Dichloropropene	BRL	5.0									
Trichloroethene	BRL	5.0									
Trichlorofluoromethane	BRL	5.0									
Vinyl chloride	BRL	10									
Xylenes, Total	BRL	5.0									
Surr: 4-Bromofluorobenzene	45.46	0	50.00		90.9	70	130				
Surr: Dibromofluoromethane	47.91	0	50.00		95.8	70	130				
Surr: Toluene-d8	47.16	0	50.00		94.3	70	130				

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Bluewater Thermal Solutions
Workorder: 1610C64

ANALYTICAL QC SUMMARY REPORT

BatchID: 231390

Sample ID: LCS-231390	Client ID:	Units: ug/Kg	Prep Date: 10/20/2016	Run No: 327814							
SampleType: LCS	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 231390	Analysis Date: 10/20/2016	Seq No: 7111862							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	66.89	5.0	50.00		134	70	130				S
1,1,1-Trichloroethane	56.54	5.0	50.00		113	70	130				
1,1,2-Trichloroethane	48.91	5.0	50.00		97.8	70	130				
1,1-Dichloroethane	48.30	5.0	50.00		96.6	70	130				
1,1-Dichloroethene	42.88	5.0	50.00		85.8	60	140				
1,2,4-Trichlorobenzene	62.02	5.0	50.00		124	70	130				
1,2-Dibromo-3-chloropropane	39.69	5.0	50.00		79.4	70	130				
1,2-Dibromoethane	48.79	5.0	50.00		97.6	70	130				
1,2-Dichlorobenzene	53.95	5.0	50.00		108	70	130				
1,2-Dichloroethane	43.27	5.0	50.00		86.5	70	130				
1,2-Dichloropropane	52.63	5.0	50.00		105	70	130				
1,3-Dichloropropane	50.07	5.0	50.00		100	70	130				
1,4-Dichlorobenzene	55.13	5.0	50.00		110	70	130				
Benzene	54.33	5.0	50.00		109	70	130				
Bromochloromethane	54.03	5.0	50.00		108	70	130				
Bromoform	49.88	5.0	50.00		99.8	70	130				
Carbon tetrachloride	64.88	5.0	50.00		130	70	130				
Chlorobenzene	56.25	5.0	50.00		112	70	130				
Chloroform	46.54	5.0	50.00		93.1	70	130				
cis-1,2-Dichloroethene	51.95	5.0	50.00		104	70	130				
cis-1,3-Dichloropropene	55.97	5.0	50.00		112	70	130				
Dibromochloromethane	54.46	5.0	50.00		109	70	130				
Ethylbenzene	56.62	5.0	50.00		113	70	130				
Isopropylbenzene	54.11	5.0	50.00		108	70	130				
Methylene chloride	38.84	20	50.00		77.7	70	130				
Styrene	53.05	5.0	50.00		106	70	130				
Tetrachloroethene	63.94	5.0	50.00		128	70	130				

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
 Project Name: Bluewater Thermal Solutions
 Workorder: 1610C64

ANALYTICAL QC SUMMARY REPORT

BatchID: 231390

Sample ID: LCS-231390	Client ID:	Units: ug/Kg	Prep Date: 10/20/2016	Run No: 327814							
SampleType: LCS	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 231390	Analysis Date: 10/20/2016	Seq No: 7111862							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Toluene	54.64	5.0	50.00		109	70	130				
trans-1,2-Dichloroethene	49.45	5.0	50.00		98.9	70	130				
trans-1,3-Dichloropropene	53.54	5.0	50.00		107	70	130				
Trichloroethene	59.83	5.0	50.00		120	70	130				
Vinyl chloride	44.07	10	50.00		88.1	70	130				
Xylenes, Total	164.4	5.0	150.0		110	70	130				
Surr: 4-Bromofluorobenzene	47.01	0	50.00		94.0	70	130				
Surr: Dibromofluoromethane	46.86	0	50.00		93.7	70	130				
Surr: Toluene-d8	47.33	0	50.00		94.7	70	130				

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Bluewater Thermal Solutions
Workorder: 1610C64

ANALYTICAL QC SUMMARY REPORT

BatchID: 231461

Sample ID: MB-231461	Client ID:	Units: mg/Kg	Prep Date: 10/21/2016	Run No: 327959							
SampleType: MBLK	TestCode: TOTAL MERCURY SW7471B	BatchID: 231461	Analysis Date: 10/21/2016	Seq No: 7112977							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Mercury

BRL 0.100

Sample ID: LCS-231461	Client ID:	Units: mg/Kg	Prep Date: 10/21/2016	Run No: 327959							
SampleType: LCS	TestCode: TOTAL MERCURY SW7471B	BatchID: 231461	Analysis Date: 10/21/2016	Seq No: 7112978							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Mercury

0.3967 0.100 0.4000 99.2 80 120

Sample ID: 1610G90-001BMS	Client ID:	Units: mg/Kg-dry	Prep Date: 10/21/2016	Run No: 327959							
SampleType: MS	TestCode: TOTAL MERCURY SW7471B	BatchID: 231461	Analysis Date: 10/21/2016	Seq No: 7112980							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Mercury

0.4549 0.110 0.4409 0.006252 102 70 130

Sample ID: 1610G90-001BMSD	Client ID:	Units: mg/Kg-dry	Prep Date: 10/21/2016	Run No: 327959							
SampleType: MSD	TestCode: TOTAL MERCURY SW7471B	BatchID: 231461	Analysis Date: 10/21/2016	Seq No: 7112981							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Mercury

0.4738 0.110 0.4409 0.006252 106 70 130 0.4549 4.07 30

Qualifiers:	> Greater than Result value	< Less than Result value	B Analyte detected in the associated method blank
	BRL Below reporting limit	E Estimated (value above quantitation range)	H Holding times for preparation or analysis exceeded
	J Estimated value detected below Reporting Limit	N Analyte not NELAC certified	R RPD outside limits due to matrix
	Rpt Lim Reporting Limit	S Spike Recovery outside limits due to matrix	

Client: GHD Services, Inc.
Project Name: Bluewater Thermal Solutions
Workorder: 1610C64

ANALYTICAL QC SUMMARY REPORT

BatchID: 231462

Sample ID: MB-231462	Client ID:	Units: mg/Kg	Prep Date: 10/21/2016	Run No: 327960							
SampleType: MBLK	TestCode: TOTAL MERCURY SW7471B	BatchID: 231462	Analysis Date: 10/21/2016	Seq No: 7113054							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Mercury BRL 0.100

Sample ID: LCS-231462	Client ID:	Units: mg/Kg	Prep Date: 10/21/2016	Run No: 327960							
SampleType: LCS	TestCode: TOTAL MERCURY SW7471B	BatchID: 231462	Analysis Date: 10/21/2016	Seq No: 7113055							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Mercury 0.3950 0.100 0.4000 98.8 80 120

Sample ID: 1610C64-020BMS	Client ID: SO-077150-101216-DJB-020	Units: mg/Kg-dry	Prep Date: 10/21/2016	Run No: 327960							
SampleType: MS	TestCode: TOTAL MERCURY SW7471B	BatchID: 231462	Analysis Date: 10/21/2016	Seq No: 7113057							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Mercury 0.4434 0.108 0.4305 0.03550 94.8 70 130

Sample ID: 1610C64-020BMSD	Client ID: SO-077150-101216-DJB-020	Units: mg/Kg-dry	Prep Date: 10/21/2016	Run No: 327960							
SampleType: MSD	TestCode: TOTAL MERCURY SW7471B	BatchID: 231462	Analysis Date: 10/21/2016	Seq No: 7113060							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Mercury 0.4539 0.108 0.4331 0.03550 96.6 70 130 0.4434 2.34 30

Qualifiers:

> Greater than Result value	< Less than Result value	B Analyte detected in the associated method blank
BRL Below reporting limit	E Estimated (value above quantitation range)	H Holding times for preparation or analysis exceeded
J Estimated value detected below Reporting Limit	N Analyte not NELAC certified	R RPD outside limits due to matrix
Rpt Lim Reporting Limit	S Spike Recovery outside limits due to matrix	

Client: GHD Services, Inc.
 Project Name: Bluewater Thermal Solutions
 Workorder: 1610C64

ANALYTICAL QC SUMMARY REPORT

BatchID: 231487

Sample ID: MB-231487	Client ID:	Units: mg/Kg	Prep Date: 10/22/2016	Run No: 328045							
SampleType: MBLK	TestCode: METALS, TOTAL SW6010C	BatchID: 231487	Analysis Date: 10/22/2016	Seq No: 7115728							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Aluminum	BRL	20.0									
Antimony	BRL	5.00									
Arsenic	BRL	1.00									
Barium	BRL	5.00									
Beryllium	BRL	0.500									
Cadmium	BRL	0.500									
Calcium	BRL	50.0									
Chromium	0.05679	1.00									J
Cobalt	BRL	2.50									
Copper	BRL	2.50									
Iron	BRL	10.0									
Lead	BRL	0.500									
Magnesium	0.4072	50.0									J
Manganese	BRL	1.50									
Nickel	BRL	4.00									
Potassium	0.3099	100									J
Selenium	BRL	0.500									
Silver	BRL	1.00									
Sodium	1.259	100									J
Thallium	BRL	1.00									
Vanadium	BRL	5.00									
Zinc	BRL	2.00									

Sample ID: MB-231487	Client ID:	Units: mg/Kg	Prep Date: 10/22/2016	Run No: 328175							
SampleType: MBLK	TestCode: METALS, TOTAL SW6010C	BatchID: 231487	Analysis Date: 10/24/2016	Seq No: 7119520							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Selenium	BRL	0.500									
----------	-----	-------	--	--	--	--	--	--	--	--	--

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Bluewater Thermal Solutions
Workorder: 1610C64

ANALYTICAL QC SUMMARY REPORT

BatchID: 231487

Sample ID: MB-231487	Client ID:	Units: mg/Kg	Prep Date: 10/22/2016	Run No: 328175							
SampleType: MBLK	TestCode: METALS, TOTAL SW6010C	BatchID: 231487	Analysis Date: 10/24/2016	Seq No: 7119520							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Thallium

BRL 1.00

Sample ID: LCS-231487	Client ID:	Units: mg/Kg	Prep Date: 10/22/2016	Run No: 328045							
SampleType: LCS	TestCode: METALS, TOTAL SW6010C	BatchID: 231487	Analysis Date: 10/22/2016	Seq No: 7115729							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Aluminum	489.4	50.0	500.0		97.9	80	120				
Antimony	49.16	5.00	50.00		98.3	80	120				
Arsenic	48.55	5.00	50.00		97.1	80	120				
Barium	50.01	5.00	50.00		100	80	120				
Beryllium	49.35	2.50	50.00		98.7	80	120				
Cadmium	48.50	2.50	50.00		97.0	80	120				
Calcium	499.1	50.0	500.0		99.8	80	120				
Chromium	50.13	2.50	50.00	0.05679	100	80	120				
Cobalt	49.40	2.50	50.00		98.8	80	120				
Copper	50.43	2.50	50.00		101	80	120				
Iron	491.1	50.0	500.0		98.2	80	120				
Lead	48.87	5.00	50.00		97.7	80	120				
Magnesium	490.4	50.0	500.0	0.4072	98.0	80	120				
Manganese	49.78	5.00	50.00		99.6	80	120				
Nickel	49.33	5.00	50.00		98.7	80	120				
Potassium	478.8	100	500.0	0.3099	95.7	80	120				
Selenium	48.09	5.00	50.00		96.2	80	120				
Silver	4.899	2.50	5.000		98.0	80	120				
Sodium	494.8	100	500.0	1.259	98.7	80	120				
Thallium	48.50	5.00	50.00		97.0	80	120				
Vanadium	50.33	5.00	50.00		101	80	120				
Zinc	48.51	5.00	50.00		97.0	80	120				

Qualifiers:	> Greater than Result value	< Less than Result value	B Analyte detected in the associated method blank
	BRL Below reporting limit	E Estimated (value above quantitation range)	H Holding times for preparation or analysis exceeded
	J Estimated value detected below Reporting Limit	N Analyte not NELAC certified	R RPD outside limits due to matrix
	Rpt Lim Reporting Limit	S Spike Recovery outside limits due to matrix	

Client: GHD Services, Inc.
 Project Name: Bluewater Thermal Solutions
 Workorder: 1610C64

ANALYTICAL QC SUMMARY REPORT

BatchID: 231487

Sample ID: 1610C64-001CMS	Client ID: SO-077150-101116-DJB-001	Units: mg/Kg-dry	Prep Date: 10/22/2016	Run No: 328045
SampleType: MS	TestCode: METALS, TOTAL SW6010C	BatchID: 231487	Analysis Date: 10/22/2016	Seq No: 7115733

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aluminum	20510	58.7	587.3	16160	740	75	125				S
Antimony	32.83	5.87	58.73	0.3495	55.3	75	125				S
Arsenic	54.09	5.87	58.73	0.6552	91.0	75	125				
Barium	63.91	5.87	58.73	8.566	94.2	75	125				
Beryllium	56.82	2.94	58.73	0.2731	96.3	75	125				
Cadmium	55.58	2.94	58.73		94.6	75	125				
Calcium	1470	58.7	587.3	1054	70.8	75	125				S
Chromium	62.40	2.94	58.73	5.594	96.7	75	125				
Cobalt	55.68	2.94	58.73	0.7488	93.5	75	125				
Copper	61.30	2.94	58.73	1.864	101	75	125				
Lead	64.33	5.87	58.73	11.32	90.2	75	125				
Magnesium	743.5	58.7	587.3	251.9	83.7	75	125				
Manganese	69.61	5.87	58.73	16.03	91.2	75	125				
Nickel	55.17	5.87	58.73	0.7693	92.6	75	125				
Potassium	1114	117	587.3	545.0	97.0	75	125				
Selenium	53.51	5.87	58.73		91.1	75	125				
Silver	5.631	2.94	5.873	0.02566	95.4	75	125				
Sodium	814.1	117	587.3	73.50	126	75	125				S
Thallium	55.25	5.87	58.73		94.1	75	125				
Vanadium	64.05	5.87	58.73	8.486	94.6	75	125				
Zinc	60.43	5.87	58.73	6.179	92.4	75	125				

Sample ID: 1610C64-001CMS	Client ID: SO-077150-101116-DJB-001	Units: mg/Kg-dry	Prep Date: 10/22/2016	Run No: 328045
SampleType: MS	TestCode: METALS, TOTAL SW6010C	BatchID: 231487	Analysis Date: 10/22/2016	Seq No: 7115774

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Iron	5742	294	587.3	6276	-91.0	75	125				S

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Bluewater Thermal Solutions
Workorder: 1610C64

ANALYTICAL QC SUMMARY REPORT

BatchID: 231487

Sample ID: 1610C64-001CMSD	Client ID: SO-077150-101116-DJB-001	Units: mg/Kg-dry	Prep Date: 10/22/2016	Run No: 328045
SampleType: MSD	TestCode: METALS, TOTAL SW6010C	BatchID: 231487	Analysis Date: 10/22/2016	Seq No: 7115734

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aluminum	26640	58.8	588.2	16160	1780	75	125	20510	26.0	20	SR
Antimony	31.60	5.88	58.82	0.3495	53.1	75	125	32.83	3.84	20	S
Arsenic	53.68	5.88	58.82	0.6552	90.2	75	125	54.09	0.758	20	
Barium	67.44	5.88	58.82	8.566	100	75	125	63.91	5.37	20	
Beryllium	56.71	2.94	58.82	0.2731	96.0	75	125	56.82	0.177	20	
Cadmium	55.36	2.94	58.82		94.1	75	125	55.58	0.398	20	
Calcium	2350	58.8	588.2	1054	220	75	125	1470	46.1	20	SR
Chromium	67.82	2.94	58.82	5.594	106	75	125	62.40	8.33	20	
Cobalt	55.80	2.94	58.82	0.7488	93.6	75	125	55.68	0.208	20	
Copper	62.78	2.94	58.82	1.864	104	75	125	61.30	2.39	20	
Lead	68.73	5.88	58.82	11.32	97.6	75	125	64.33	6.62	20	
Magnesium	847.2	58.8	588.2	251.9	101	75	125	743.5	13.0	20	
Manganese	73.38	5.88	58.82	16.03	97.5	75	125	69.61	5.27	20	
Nickel	55.53	5.88	58.82	0.7693	93.1	75	125	55.17	0.654	20	
Potassium	1346	118	588.2	545.0	136	75	125	1114	18.8	20	S
Selenium	50.94	5.88	58.82		86.6	75	125	53.51	4.93	20	
Silver	5.637	2.94	5.882	0.02566	95.4	75	125	5.631	0.103	20	
Sodium	850.3	118	588.2	73.50	132	75	125	814.1	4.35	20	S
Thallium	55.47	5.88	58.82		94.3	75	125	55.25	0.404	20	
Vanadium	80.97	5.88	58.82	8.486	123	75	125	64.05	23.3	20	R
Zinc	62.67	5.88	58.82	6.179	96.0	75	125	60.43	3.64	20	

Sample ID: 1610C64-001CMSD	Client ID: SO-077150-101116-DJB-001	Units: mg/Kg-dry	Prep Date: 10/22/2016	Run No: 328045
SampleType: MSD	TestCode: METALS, TOTAL SW6010C	BatchID: 231487	Analysis Date: 10/22/2016	Seq No: 7115776

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Iron	11820	294	588.2	6276	942	75	125	5742	69.2	20	SR

Qualifiers:	> Greater than Result value	< Less than Result value	B Analyte detected in the associated method blank
BRL	Below reporting limit	E Estimated (value above quantitation range)	H Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N Analyte not NELAC certified	R RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S Spike Recovery outside limits due to matrix	

Client: GHD Services, Inc.
 Project Name: Bluewater Thermal Solutions
 Workorder: 1610C64

ANALYTICAL QC SUMMARY REPORT

BatchID: 231526

Sample ID: MB-231526	Client ID:	Units: mg/Kg	Prep Date: 10/22/2016	Run No: 328049							
SampleType: MBLK	TestCode: METALS, TOTAL SW6010C	BatchID: 231526	Analysis Date: 10/22/2016	Seq No: 7116223							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Aluminum	BRL	20.0									
Antimony	BRL	5.00									
Arsenic	BRL	1.00									
Barium	BRL	5.00									
Beryllium	BRL	0.500									
Cadmium	BRL	0.500									
Calcium	BRL	50.0									
Chromium	0.05508	1.00									J
Cobalt	BRL	2.50									
Copper	BRL	2.50									
Iron	BRL	10.0									
Lead	BRL	0.500									
Magnesium	0.4254	50.0									J
Manganese	BRL	1.50									
Nickel	BRL	4.00									
Potassium	0.3502	100									J
Selenium	BRL	0.500									
Silver	BRL	1.00									
Sodium	1.435	100									J
Thallium	BRL	1.00									
Vanadium	BRL	5.00									
Zinc	BRL	2.00									

Sample ID: MB-231526	Client ID:	Units: mg/Kg	Prep Date: 10/22/2016	Run No: 328176							
SampleType: MBLK	TestCode: METALS, TOTAL SW6010C	BatchID: 231526	Analysis Date: 10/24/2016	Seq No: 7119653							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Selenium	BRL	0.500									
----------	-----	-------	--	--	--	--	--	--	--	--	--

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Bluewater Thermal Solutions
Workorder: 1610C64

ANALYTICAL QC SUMMARY REPORT

BatchID: 231526

Sample ID: LCS-231526	Client ID:	Units: mg/Kg	Prep Date: 10/22/2016	Run No: 328049							
SampleType: LCS	TestCode: METALS, TOTAL SW6010C	BatchID: 231526	Analysis Date: 10/22/2016	Seq No: 7116226							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Aluminum	488.5	50.0	500.0		97.7	80	120				
Antimony	49.02	5.00	50.00		98.0	80	120				
Arsenic	47.86	5.00	50.00		95.7	80	120				
Barium	49.82	5.00	50.00		99.6	80	120				
Beryllium	48.96	2.50	50.00		97.9	80	120				
Cadmium	47.98	2.50	50.00		96.0	80	120				
Calcium	494.6	50.0	500.0		98.9	80	120				
Chromium	49.79	2.50	50.00	0.05508	99.5	80	120				
Cobalt	49.29	2.50	50.00		98.6	80	120				
Copper	49.98	2.50	50.00		100.0	80	120				
Iron	489.4	50.0	500.0		97.9	80	120				
Lead	48.39	5.00	50.00		96.8	80	120				
Magnesium	487.3	50.0	500.0	0.4254	97.4	80	120				
Manganese	49.23	5.00	50.00		98.5	80	120				
Nickel	49.30	5.00	50.00		98.6	80	120				
Potassium	477.5	100	500.0	0.3502	95.4	80	120				
Selenium	46.85	5.00	50.00		93.7	80	120				
Silver	4.861	2.50	5.000		97.2	80	120				
Sodium	489.7	100	500.0	1.435	97.7	80	120				
Thallium	48.42	5.00	50.00		96.8	80	120				
Vanadium	49.72	5.00	50.00		99.4	80	120				
Zinc	48.30	5.00	50.00		96.6	80	120				

Sample ID: 1610C64-021CMS	Client ID: SO-077150-101216-DJB-021	Units: mg/Kg-dry	Prep Date: 10/22/2016	Run No: 328049							
SampleType: MS	TestCode: METALS, TOTAL SW6010C	BatchID: 231526	Analysis Date: 10/22/2016	Seq No: 7116232							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Aluminum	5996	58.5	584.9	3392	445	75	125				S
----------	------	------	-------	------	-----	----	-----	--	--	--	---

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
 Project Name: Bluewater Thermal Solutions
 Workorder: 1610C64

ANALYTICAL QC SUMMARY REPORT

BatchID: 231526

Sample ID: 1610C64-021CMS	Client ID: SO-077150-101216-DJB-021	Units: mg/Kg-dry	Prep Date: 10/22/2016	Run No: 328049							
SampleType: MS	TestCode: METALS, TOTAL SW6010C	BatchID: 231526	Analysis Date: 10/22/2016	Seq No: 7116232							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Antimony	45.17	5.85	58.49		77.2	75	125				
Arsenic	54.50	5.85	58.49		93.2	75	125				
Barium	60.21	5.85	58.49	2.554	98.6	75	125				
Beryllium	57.25	2.92	58.49	0.1569	97.6	75	125				
Cadmium	55.34	2.92	58.49		94.6	75	125				
Calcium	1177	58.5	584.9	185.6	170	75	125				S
Chromium	57.71	2.92	58.49	0.2309	98.3	75	125				
Cobalt	57.02	2.92	58.49	0.1392	97.2	75	125				
Copper	64.18	2.92	58.49	1.879	107	75	125				
Iron	4647	58.5	584.9	1329	567	75	125				S
Lead	83.62	5.85	58.49	2.139	139	75	125				S
Magnesium	577.6	58.5	584.9	22.49	94.9	75	125				
Manganese	126.5	5.85	58.49	3.395	210	75	125				S
Nickel	56.44	5.85	58.49	0.1367	96.3	75	125				
Potassium	817.6	117	584.9	214.0	103	75	125				
Selenium	53.07	5.85	58.49		90.7	75	125				
Silver	5.643	2.92	5.849		96.5	75	125				
Sodium	652.8	117	584.9	12.46	109	75	125				
Thallium	54.57	5.85	58.49		93.3	75	125				
Vanadium	57.24	5.85	58.49	0.1166	97.7	75	125				
Zinc	62.39	5.85	58.49	2.062	103	75	125				

Sample ID: 1610C64-021CMSD	Client ID: SO-077150-101216-DJB-021	Units: mg/Kg-dry	Prep Date: 10/22/2016	Run No: 328049							
SampleType: MSD	TestCode: METALS, TOTAL SW6010C	BatchID: 231526	Analysis Date: 10/22/2016	Seq No: 7116234							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Aluminum	5506	58.7	586.6	3392	360	75	125	5996	8.52	20	S
Antimony	45.62	5.87	58.66		77.8	75	125	45.17	0.984	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
 Project Name: Bluewater Thermal Solutions
 Workorder: 1610C64

ANALYTICAL QC SUMMARY REPORT

BatchID: 231526

Sample ID: 1610C64-021CMSD Client ID: SO-077150-101216-DJB-021 Units: mg/Kg-dry Prep Date: 10/22/2016 Run No: 328049
 SampleType: MSD TestCode: METALS, TOTAL SW6010C BatchID: 231526 Analysis Date: 10/22/2016 Seq No: 7116234

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	53.87	5.87	58.66		91.8	75	125	54.50	1.15	20	
Barium	57.67	5.87	58.66	2.554	94.0	75	125	60.21	4.32	20	
Beryllium	56.15	2.93	58.66	0.1569	95.5	75	125	57.25	1.93	20	
Cadmium	54.52	2.93	58.66		92.9	75	125	55.34	1.50	20	
Calcium	874.3	58.7	586.6	185.6	117	75	125	1177	29.5	20	R
Chromium	58.14	2.93	58.66	0.2309	98.7	75	125	57.71	0.752	20	
Cobalt	55.92	2.93	58.66	0.1392	95.1	75	125	57.02	1.94	20	
Copper	60.90	2.93	58.66	1.879	101	75	125	64.18	5.24	20	
Iron	2799	58.7	586.6	1329	251	75	125	4647	49.6	20	SR
Lead	59.21	5.87	58.66	2.139	97.3	75	125	83.62	34.2	20	R
Magnesium	571.6	58.7	586.6	22.49	93.6	75	125	577.6	1.06	20	
Manganese	65.37	5.87	58.66	3.395	106	75	125	126.5	63.7	20	R
Nickel	55.81	5.87	58.66	0.1367	94.9	75	125	56.44	1.13	20	
Potassium	778.9	117	586.6	214.0	96.3	75	125	817.6	4.85	20	
Selenium	54.31	5.87	58.66		92.6	75	125	53.07	2.32	20	
Silver	5.553	2.93	5.866		94.7	75	125	5.643	1.60	20	
Sodium	638.4	117	586.6	12.46	107	75	125	652.8	2.22	20	
Thallium	54.32	5.87	58.66		92.6	75	125	54.57	0.460	20	
Vanadium	56.39	5.87	58.66	0.1166	95.9	75	125	57.24	1.49	20	
Zinc	59.95	5.87	58.66	2.062	98.7	75	125	62.39	3.98	20	

Qualifiers: > Greater than Result value < Less than Result value B Analyte detected in the associated method blank
 BRL Below reporting limit E Estimated (value above quantitation range) H Holding times for preparation or analysis exceeded
 J Estimated value detected below Reporting Limit N Analyte not NELAC certified R RPD outside limits due to matrix
 Rpt Lim Reporting Limit S Spike Recovery outside limits due to matrix



ANALYTICAL ENVIRONMENTAL SERVICES, INC.

November 17, 2016

Terefe Mazengia
GHD Services, Inc.
3075 Breckenridge Blvd., Suite 470
Duluth GA 30096

TEL: (770) 441-0027
FAX: (770) 441-2050

RE: Bluewater Thermal Solutions

Dear Terefe Mazengia:

Order No: 1611766

Analytical Environmental Services, Inc. received 10 samples on 11/8/2016 4:52:00 AM for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative. AES' certifications are as follows:

-South Carolina Certification number 98016003 for Clean Water Act and for Solid and Hazardous Waste, effective until 6/30/17.

These results relate only to the items tested. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

Sincerely,

Chris Pafford
Project Manager



COMPANY: GMD		ADDRESS: 3075 Breckinridge Blvd Duluth GA 30096					ANALYSIS REQUESTED										Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.		No # of Containers
PHONE: 770. 441. 0027		FAX:					PRESERVATION (See codes)										REMARKS		
SAMPLED BY: Terefe Mazengia		SIGNATURE: Terefe					VOCs SIOC TAL METALS												
#	SAMPLE ID	SAMPLED		Grab	Composite	Matrix (See codes)	PRESERVATION (See codes)										REMARKS	No # of Containers	
		DATE	TIME				H+	I	N										
1	Gw-077150-110816-TBM-101	11/7/16	14:30		✓	GW	✓	✓	✓										5
2	-102		15:50		✓		✓	✓	✓										5
3	-103		17:25		✓		✓	✓	✓										5
4	Gw-077150-110816-TBM-104	11/8/16	9:15		✓		✓	✓	✓										15
5	-105		10:40		✓		✓	✓	✓										5
6	-106		10:50		✓		✓	✓	✓										5
7	-107		12:00		✓		✓	✓	✓										5
8	-108		13:10		✓		✓	✓	✓										5
9	Trip					W													2
10																			
11																			
12																			
13																			
14																			
RELINQUISHED BY		DATE/TIME		RECEIVED BY		DATE/TIME		PROJECT INFORMATION										RECEIPT	
1: Terefe Mazengia		11/8/16 16:50		1: Jerrin Ashley		11/8/16 4:52 pm		PROJECT NAME: Bluewater Thermal										Total # of Containers 52	
2:				2:		0.1° and 2.1°		PROJECT #: 077150										Turnaround Time Request Standard 5 Business Days 2 Business Day Rush Next Business Day Rush Same Day Rush (auth req.) Other _____	
3:				3:				SITE ADDRESS: Fountain Inn, SC											
								SEND REPORT TO: SSOW											
SPECIAL INSTRUCTIONS/COMMENTS: See SSOW for details TAL Metals - Totals (unfiltered)				SHIPMENT METHOD				INVOICE TO: (IF DIFFERENT FROM ABOVE) SSOW										STATE PROGRAM (if any): _____	
				OUT / / VIA:														E-mail? Y/N; Fax? Y/N	
				IN CLIENT FedEx UPS MAIL COURIER														DATA PACKAGE: I II III IV	
				GREYHOUND OTHER _____				QUOTE #: _____ PO#: _____											

SAMPLES RECEIVED AFTER 3PM OR ON SATURDAY ARE CONSIDERED RECEIVED THE NEXT BUSINESS DAY. IF TURNAROUND TIME IS NOT INDICATED, AES WILL PROCEED WITH STANDARD TAT OF SAMPLES. SAMPLES ARE DISPOSED 30 DAYS AFTER REPORT COMPLETION UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify) WW = Waste Water
 PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client

Client: GHD Services, Inc.
Project: Bluewater Thermal Solutions
Lab ID: 1611766

Case Narrative

Semi-Volatile Organics Analysis by Method 8270D:

LCS-232573 recovery for 2-Methylphenol, 2,4-Dichlorophenol, 2,4-Dimethylphenol, Hexachlorobutadiene was outside control limits biased low.

Volatiles Organic Compounds Analysis by Method 8260B:

LCS-232790 recovery for Carbon tetrachloride was outside control limits biased high. Target analyte was not detected in the analytical samples and data is reportable with high bias.

Analytical Environmental Services, Inc

Date: 17-Nov-16

Client: GHD Services, Inc.	Client Sample ID: GW-077150-110716-TBM-101
Project Name: Bluewater Thermal Solutions	Collection Date: 11/7/2016 2:30:00 PM
Lab ID: 1611766-001	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS		SW8260B			(SW5030B)			
1,1,1,2-Tetrachloroethane	BRL	1.0		ug/L	232790	1	11/11/2016 10:57	NP
1,1,1-Trichloroethane	BRL	1.0		ug/L	232790	1	11/11/2016 10:57	NP
1,1,2-Trichloroethane	BRL	1.0		ug/L	232790	1	11/11/2016 10:57	NP
1,1-Dichloroethane	BRL	1.0		ug/L	232790	1	11/11/2016 10:57	NP
1,1-Dichloroethene	BRL	1.0		ug/L	232790	1	11/11/2016 10:57	NP
1,2,4-Trichlorobenzene	BRL	1.0		ug/L	232790	1	11/11/2016 10:57	NP
1,2-Dibromo-3-chloropropane	BRL	1.0		ug/L	232790	1	11/11/2016 10:57	NP
1,2-Dibromoethane	BRL	1.0		ug/L	232790	1	11/11/2016 10:57	NP
1,2-Dichlorobenzene	BRL	1.0		ug/L	232790	1	11/11/2016 10:57	NP
1,2-Dichloroethane	BRL	1.0		ug/L	232790	1	11/11/2016 10:57	NP
1,2-Dichloropropane	BRL	1.0		ug/L	232790	1	11/11/2016 10:57	NP
1,3-Dichlorobenzene	BRL	1.0		ug/L	232790	1	11/11/2016 10:57	NP
1,4-Dichlorobenzene	BRL	1.0		ug/L	232790	1	11/11/2016 10:57	NP
2-Butanone	BRL	5.0		ug/L	232790	1	11/11/2016 10:57	NP
2-Hexanone	BRL	5.0		ug/L	232790	1	11/11/2016 10:57	NP
4-Methyl-2-pentanone	BRL	5.0		ug/L	232790	1	11/11/2016 10:57	NP
Acetone	BRL	5.0		ug/L	232790	1	11/11/2016 10:57	NP
Benzene	BRL	1.0		ug/L	232790	1	11/11/2016 10:57	NP
Bromodichloromethane	BRL	1.0		ug/L	232790	1	11/11/2016 10:57	NP
Bromoform	BRL	1.0		ug/L	232790	1	11/11/2016 10:57	NP
Bromomethane	BRL	1.0		ug/L	232790	1	11/11/2016 10:57	NP
Carbon disulfide	BRL	1.0		ug/L	232790	1	11/11/2016 10:57	NP
Carbon tetrachloride	BRL	1.0		ug/L	232790	1	11/11/2016 10:57	NP
Chlorobenzene	BRL	1.0		ug/L	232790	1	11/11/2016 10:57	NP
Chloroethane	BRL	1.0		ug/L	232790	1	11/11/2016 10:57	NP
Chloroform	2.1	1.0		ug/L	232790	1	11/11/2016 10:57	NP
Chloromethane	BRL	1.0		ug/L	232790	1	11/11/2016 10:57	NP
cis-1,2-Dichloroethene	2.3	1.0		ug/L	232790	1	11/11/2016 10:57	NP
cis-1,3-Dichloropropene	BRL	1.0		ug/L	232790	1	11/11/2016 10:57	NP
Cyclohexane	BRL	1.0		ug/L	232790	1	11/11/2016 10:57	NP
Dibromochloromethane	BRL	1.0		ug/L	232790	1	11/11/2016 10:57	NP
Dichlorodifluoromethane	BRL	1.0		ug/L	232790	1	11/11/2016 10:57	NP
Ethylbenzene	BRL	1.0		ug/L	232790	1	11/11/2016 10:57	NP
Freon-113	BRL	1.0		ug/L	232790	1	11/11/2016 10:57	NP
Isopropylbenzene	BRL	1.0		ug/L	232790	1	11/11/2016 10:57	NP
Methyl acetate	BRL	1.0		ug/L	232790	1	11/11/2016 10:57	NP
Methyl tert-butyl ether	BRL	1.0		ug/L	232790	1	11/11/2016 10:57	NP
Methylcyclohexane	BRL	1.0		ug/L	232790	1	11/11/2016 10:57	NP
Methylene chloride	BRL	2.0		ug/L	232790	1	11/11/2016 10:57	NP
Styrene	BRL	1.0		ug/L	232790	1	11/11/2016 10:57	NP
Tetrachloroethene	3100	50		ug/L	232790	50	11/11/2016 15:55	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Client: GHD Services, Inc.	Client Sample ID: GW-077150-110716-TBM-101
Project Name: Bluewater Thermal Solutions	Collection Date: 11/7/2016 2:30:00 PM
Lab ID: 1611766-001	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Toluene	BRL	1.0		ug/L	232790	1	11/11/2016 10:57	NP
trans-1,2-Dichloroethene	BRL	1.0		ug/L	232790	1	11/11/2016 10:57	NP
trans-1,3-Dichloropropene	BRL	1.0		ug/L	232790	1	11/11/2016 10:57	NP
Trichloroethene	82	1.0		ug/L	232790	1	11/11/2016 10:57	NP
Trichlorofluoromethane	BRL	1.0		ug/L	232790	1	11/11/2016 10:57	NP
Vinyl chloride	BRL	1.0		ug/L	232790	1	11/11/2016 10:57	NP
Xylenes, Total	BRL	1.0		ug/L	232790	1	11/11/2016 10:57	NP
Surr: 4-Bromofluorobenzene	115	70-130		%REC	232790	50	11/11/2016 15:55	NP
Surr: 4-Bromofluorobenzene	112	70-130		%REC	232790	1	11/11/2016 10:57	NP
Surr: Dibromofluoromethane	108	70-130		%REC	232790	50	11/11/2016 15:55	NP
Surr: Dibromofluoromethane	107	70-130		%REC	232790	1	11/11/2016 10:57	NP
Surr: Toluene-d8	93.9	70-130		%REC	232790	50	11/11/2016 15:55	NP
Surr: Toluene-d8	92.1	70-130		%REC	232790	1	11/11/2016 10:57	NP
TCL-SEMIVOLATILE ORGANICS SW8270D (SW3520)								
1,1'-Biphenyl	BRL	10		ug/L	232573	1	11/11/2016 15:14	YH
2,4,5-Trichlorophenol	BRL	25		ug/L	232573	1	11/11/2016 15:14	YH
2,4,6-Trichlorophenol	BRL	10		ug/L	232573	1	11/11/2016 15:14	YH
2,4-Dichlorophenol	BRL	10		ug/L	232573	1	11/11/2016 15:14	YH
2,4-Dimethylphenol	BRL	10		ug/L	232573	1	11/11/2016 15:14	YH
2,4-Dinitrophenol	BRL	25		ug/L	232573	1	11/11/2016 15:14	YH
2,4-Dinitrotoluene	BRL	10		ug/L	232573	1	11/11/2016 15:14	YH
2,6-Dinitrotoluene	BRL	10		ug/L	232573	1	11/11/2016 15:14	YH
2-Chloronaphthalene	BRL	10		ug/L	232573	1	11/11/2016 15:14	YH
2-Chlorophenol	BRL	10		ug/L	232573	1	11/11/2016 15:14	YH
2-Methylnaphthalene	BRL	10		ug/L	232573	1	11/11/2016 15:14	YH
2-Methylphenol	BRL	10		ug/L	232573	1	11/11/2016 15:14	YH
2-Nitroaniline	BRL	25		ug/L	232573	1	11/11/2016 15:14	YH
2-Nitrophenol	BRL	10		ug/L	232573	1	11/11/2016 15:14	YH
3,3'-Dichlorobenzidine	BRL	10		ug/L	232573	1	11/11/2016 15:14	YH
3-Nitroaniline	BRL	25		ug/L	232573	1	11/11/2016 15:14	YH
4,6-Dinitro-2-methylphenol	BRL	25		ug/L	232573	1	11/11/2016 15:14	YH
4-Bromophenyl phenyl ether	BRL	10		ug/L	232573	1	11/11/2016 15:14	YH
4-Chloro-3-methylphenol	BRL	10		ug/L	232573	1	11/11/2016 15:14	YH
4-Chloroaniline	BRL	10		ug/L	232573	1	11/11/2016 15:14	YH
4-Chlorophenyl phenyl ether	BRL	10		ug/L	232573	1	11/11/2016 15:14	YH
4-Methylphenol	BRL	10		ug/L	232573	1	11/11/2016 15:14	YH
4-Nitroaniline	BRL	25		ug/L	232573	1	11/11/2016 15:14	YH
4-Nitrophenol	BRL	25		ug/L	232573	1	11/11/2016 15:14	YH
Acenaphthene	BRL	10		ug/L	232573	1	11/11/2016 15:14	YH
Acenaphthylene	BRL	10		ug/L	232573	1	11/11/2016 15:14	YH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 17-Nov-16

Client: GHD Services, Inc.	Client Sample ID: GW-077150-110716-TBM-101
Project Name: Bluewater Thermal Solutions	Collection Date: 11/7/2016 2:30:00 PM
Lab ID: 1611766-001	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D					(SW3520)			
Acetophenone	BRL	10		ug/L	232573	1	11/11/2016 15:14	YH
Anthracene	BRL	10		ug/L	232573	1	11/11/2016 15:14	YH
Atrazine	BRL	10		ug/L	232573	1	11/11/2016 15:14	YH
Benz(a)anthracene	BRL	10		ug/L	232573	1	11/11/2016 15:14	YH
Benzaldehyde	BRL	10		ug/L	232573	1	11/11/2016 15:14	YH
Benzo(a)pyrene	BRL	10		ug/L	232573	1	11/11/2016 15:14	YH
Benzo(b)fluoranthene	BRL	10		ug/L	232573	1	11/11/2016 15:14	YH
Benzo(g,h,i)perylene	BRL	10		ug/L	232573	1	11/11/2016 15:14	YH
Benzo(k)fluoranthene	BRL	10		ug/L	232573	1	11/11/2016 15:14	YH
Bis(2-chloroethoxy)methane	BRL	10		ug/L	232573	1	11/11/2016 15:14	YH
Bis(2-chloroethyl)ether	BRL	10		ug/L	232573	1	11/11/2016 15:14	YH
Bis(2-chloroisopropyl)ether	BRL	10		ug/L	232573	1	11/11/2016 15:14	YH
Bis(2-ethylhexyl)phthalate	BRL	10		ug/L	232573	1	11/11/2016 15:14	YH
Butyl benzyl phthalate	BRL	10		ug/L	232573	1	11/11/2016 15:14	YH
Caprolactam	BRL	10		ug/L	232573	1	11/11/2016 15:14	YH
Carbazole	BRL	10		ug/L	232573	1	11/11/2016 15:14	YH
Chrysene	BRL	10		ug/L	232573	1	11/11/2016 15:14	YH
Di-n-butyl phthalate	BRL	10		ug/L	232573	1	11/11/2016 15:14	YH
Di-n-octyl phthalate	BRL	10		ug/L	232573	1	11/11/2016 15:14	YH
Dibenz(a,h)anthracene	BRL	10		ug/L	232573	1	11/11/2016 15:14	YH
Dibenzofuran	BRL	10		ug/L	232573	1	11/11/2016 15:14	YH
Diethyl phthalate	BRL	10		ug/L	232573	1	11/11/2016 15:14	YH
Dimethyl phthalate	BRL	10		ug/L	232573	1	11/11/2016 15:14	YH
Fluoranthene	BRL	10		ug/L	232573	1	11/11/2016 15:14	YH
Fluorene	BRL	10		ug/L	232573	1	11/11/2016 15:14	YH
Hexachlorobenzene	BRL	10		ug/L	232573	1	11/11/2016 15:14	YH
Hexachlorobutadiene	BRL	10		ug/L	232573	1	11/11/2016 15:14	YH
Hexachlorocyclopentadiene	BRL	10		ug/L	232573	1	11/11/2016 15:14	YH
Hexachloroethane	BRL	10		ug/L	232573	1	11/11/2016 15:14	YH
Indeno(1,2,3-cd)pyrene	BRL	10		ug/L	232573	1	11/11/2016 15:14	YH
Isophorone	BRL	10		ug/L	232573	1	11/11/2016 15:14	YH
N-Nitrosodi-n-propylamine	BRL	10		ug/L	232573	1	11/11/2016 15:14	YH
N-Nitrosodiphenylamine	BRL	10		ug/L	232573	1	11/11/2016 15:14	YH
Naphthalene	BRL	10		ug/L	232573	1	11/11/2016 15:14	YH
Nitrobenzene	BRL	10		ug/L	232573	1	11/11/2016 15:14	YH
Pentachlorophenol	BRL	25		ug/L	232573	1	11/11/2016 15:14	YH
Phenanthrene	BRL	10		ug/L	232573	1	11/11/2016 15:14	YH
Phenol	BRL	10		ug/L	232573	1	11/11/2016 15:14	YH
Pyrene	BRL	10		ug/L	232573	1	11/11/2016 15:14	YH
Surr: 2,4,6-Tribromophenol	71.4	51.5-141		%REC	232573	1	11/11/2016 15:14	YH
Surr: 2-Fluorobiphenyl	73.4	50.8-122		%REC	232573	1	11/11/2016 15:14	YH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 17-Nov-16

Client: GHD Services, Inc.	Client Sample ID: GW-077150-110716-TBM-101
Project Name: Bluewater Thermal Solutions	Collection Date: 11/7/2016 2:30:00 PM
Lab ID: 1611766-001	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D					(SW3520)			
Surr: 2-Fluorophenol	36.9	28.1-120		%REC	232573	1	11/11/2016 15:14	YH
Surr: 4-Terphenyl-d14	85	47.2-131		%REC	232573	1	11/11/2016 15:14	YH
Surr: Nitrobenzene-d5	81.5	42.1-124		%REC	232573	1	11/11/2016 15:14	YH
Surr: Phenol-d5	59.8	16-120		%REC	232573	1	11/11/2016 15:14	YH
METALS, TOTAL SW6010C					(SW3010A)			
Aluminum	211	200		ug/L	232819	1	11/16/2016 13:31	IO
Antimony	BRL	20.0		ug/L	232819	1	11/16/2016 13:31	IO
Arsenic	BRL	10.0		ug/L	232819	1	11/16/2016 13:31	IO
Barium	250	20.0		ug/L	232819	1	11/16/2016 13:31	IO
Beryllium	BRL	5.00		ug/L	232819	1	11/16/2016 13:31	IO
Cadmium	BRL	5.00		ug/L	232819	1	11/16/2016 13:31	IO
Calcium	558	100		ug/L	232819	1	11/16/2016 13:31	IO
Chromium	BRL	10.0		ug/L	232819	1	11/16/2016 13:31	IO
Cobalt	BRL	20.0		ug/L	232819	1	11/16/2016 13:31	IO
Copper	BRL	10.0		ug/L	232819	1	11/16/2016 13:31	IO
Iron	BRL	100		ug/L	232819	1	11/16/2016 13:31	IO
Lead	BRL	5.00		ug/L	232819	1	11/16/2016 13:31	IO
Magnesium	1060	100		ug/L	232819	1	11/16/2016 13:31	IO
Manganese	499	15.0		ug/L	232819	1	11/16/2016 13:31	IO
Nickel	BRL	20.0		ug/L	232819	1	11/16/2016 13:31	IO
Potassium	5130	500		ug/L	232819	1	11/16/2016 13:31	IO
Selenium	BRL	10.0		ug/L	232819	1	11/16/2016 13:31	IO
Silver	BRL	10.0		ug/L	232819	1	11/16/2016 13:31	IO
Sodium	8660	1000		ug/L	232819	1	11/16/2016 13:31	IO
Thallium	BRL	10.0		ug/L	232819	1	11/16/2016 13:31	IO
Vanadium	BRL	10.0		ug/L	232819	1	11/16/2016 13:31	IO
Zinc	BRL	20.0		ug/L	232819	1	11/16/2016 13:31	IO
Mercury, Total SW7470A					(SW7470A)			
Mercury	BRL	0.200		ug/L	232713	1	11/11/2016 14:11	JR

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 17-Nov-16

Client: GHD Services, Inc.	Client Sample ID: GW-077150-110716-TBM-102
Project Name: Bluewater Thermal Solutions	Collection Date: 11/7/2016 3:50:00 PM
Lab ID: 1611766-002	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
1,1,1,2-Tetrachloroethane	BRL	1.0		ug/L	232790	1	11/12/2016 16:29	NP
1,1,1-Trichloroethane	BRL	1.0		ug/L	232790	1	11/12/2016 16:29	NP
1,1,2-Trichloroethane	BRL	1.0		ug/L	232790	1	11/12/2016 16:29	NP
1,1-Dichloroethane	BRL	1.0		ug/L	232790	1	11/12/2016 16:29	NP
1,1-Dichloroethene	BRL	1.0		ug/L	232790	1	11/12/2016 16:29	NP
1,2,4-Trichlorobenzene	BRL	1.0		ug/L	232790	1	11/12/2016 16:29	NP
1,2-Dibromo-3-chloropropane	BRL	1.0		ug/L	232790	1	11/12/2016 16:29	NP
1,2-Dibromoethane	BRL	1.0		ug/L	232790	1	11/12/2016 16:29	NP
1,2-Dichlorobenzene	BRL	1.0		ug/L	232790	1	11/12/2016 16:29	NP
1,2-Dichloroethane	BRL	1.0		ug/L	232790	1	11/12/2016 16:29	NP
1,2-Dichloropropane	BRL	1.0		ug/L	232790	1	11/12/2016 16:29	NP
1,3-Dichlorobenzene	BRL	1.0		ug/L	232790	1	11/12/2016 16:29	NP
1,4-Dichlorobenzene	BRL	1.0		ug/L	232790	1	11/12/2016 16:29	NP
2-Butanone	BRL	5.0		ug/L	232790	1	11/12/2016 16:29	NP
2-Hexanone	BRL	5.0		ug/L	232790	1	11/12/2016 16:29	NP
4-Methyl-2-pentanone	BRL	5.0		ug/L	232790	1	11/12/2016 16:29	NP
Acetone	30	5.0		ug/L	232790	1	11/12/2016 16:29	NP
Benzene	BRL	1.0		ug/L	232790	1	11/12/2016 16:29	NP
Bromodichloromethane	BRL	1.0		ug/L	232790	1	11/12/2016 16:29	NP
Bromoform	BRL	1.0		ug/L	232790	1	11/12/2016 16:29	NP
Bromomethane	BRL	1.0		ug/L	232790	1	11/12/2016 16:29	NP
Carbon disulfide	1.9	1.0		ug/L	232790	1	11/12/2016 16:29	NP
Carbon tetrachloride	BRL	1.0		ug/L	232790	1	11/12/2016 16:29	NP
Chlorobenzene	BRL	1.0		ug/L	232790	1	11/12/2016 16:29	NP
Chloroethane	BRL	1.0		ug/L	232790	1	11/12/2016 16:29	NP
Chloroform	1.2	1.0		ug/L	232790	1	11/12/2016 16:29	NP
Chloromethane	BRL	1.0		ug/L	232790	1	11/12/2016 16:29	NP
cis-1,2-Dichloroethene	BRL	1.0		ug/L	232790	1	11/12/2016 16:29	NP
cis-1,3-Dichloropropene	BRL	1.0		ug/L	232790	1	11/12/2016 16:29	NP
Cyclohexane	BRL	1.0		ug/L	232790	1	11/12/2016 16:29	NP
Dibromochloromethane	BRL	1.0		ug/L	232790	1	11/12/2016 16:29	NP
Dichlorodifluoromethane	BRL	1.0		ug/L	232790	1	11/12/2016 16:29	NP
Ethylbenzene	BRL	1.0		ug/L	232790	1	11/12/2016 16:29	NP
Freon-113	BRL	1.0		ug/L	232790	1	11/12/2016 16:29	NP
Isopropylbenzene	BRL	1.0		ug/L	232790	1	11/12/2016 16:29	NP
Methyl acetate	BRL	1.0		ug/L	232790	1	11/12/2016 16:29	NP
Methyl tert-butyl ether	BRL	1.0		ug/L	232790	1	11/12/2016 16:29	NP
Methylcyclohexane	BRL	1.0		ug/L	232790	1	11/12/2016 16:29	NP
Methylene chloride	BRL	2.0		ug/L	232790	1	11/12/2016 16:29	NP
Styrene	BRL	1.0		ug/L	232790	1	11/12/2016 16:29	NP
Tetrachloroethene	BRL	1.0		ug/L	232790	1	11/12/2016 16:29	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 17-Nov-16

Client: GHD Services, Inc.	Client Sample ID: GW-077150-110716-TBM-102
Project Name: Bluewater Thermal Solutions	Collection Date: 11/7/2016 3:50:00 PM
Lab ID: 1611766-002	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Toluene	BRL	1.0		ug/L	232790	1	11/12/2016 16:29	NP
trans-1,2-Dichloroethene	BRL	1.0		ug/L	232790	1	11/12/2016 16:29	NP
trans-1,3-Dichloropropene	BRL	1.0		ug/L	232790	1	11/12/2016 16:29	NP
Trichloroethene	BRL	1.0		ug/L	232790	1	11/12/2016 16:29	NP
Trichlorofluoromethane	BRL	1.0		ug/L	232790	1	11/12/2016 16:29	NP
Vinyl chloride	BRL	1.0		ug/L	232790	1	11/12/2016 16:29	NP
Xylenes, Total	BRL	1.0		ug/L	232790	1	11/12/2016 16:29	NP
Surr: 4-Bromofluorobenzene	113	70-130		%REC	232790	1	11/12/2016 16:29	NP
Surr: Dibromofluoromethane	110	70-130		%REC	232790	1	11/12/2016 16:29	NP
Surr: Toluene-d8	97.8	70-130		%REC	232790	1	11/12/2016 16:29	NP
TCL-SEMIVOLATILE ORGANICS SW8270D (SW3520)								
1,1'-Biphenyl	BRL	10		ug/L	232573	1	11/11/2016 15:40	YH
2,4,5-Trichlorophenol	BRL	25		ug/L	232573	1	11/11/2016 15:40	YH
2,4,6-Trichlorophenol	BRL	10		ug/L	232573	1	11/11/2016 15:40	YH
2,4-Dichlorophenol	BRL	10		ug/L	232573	1	11/11/2016 15:40	YH
2,4-Dimethylphenol	BRL	10		ug/L	232573	1	11/11/2016 15:40	YH
2,4-Dinitrophenol	BRL	25		ug/L	232573	1	11/11/2016 15:40	YH
2,4-Dinitrotoluene	BRL	10		ug/L	232573	1	11/11/2016 15:40	YH
2,6-Dinitrotoluene	BRL	10		ug/L	232573	1	11/11/2016 15:40	YH
2-Chloronaphthalene	BRL	10		ug/L	232573	1	11/11/2016 15:40	YH
2-Chlorophenol	BRL	10		ug/L	232573	1	11/11/2016 15:40	YH
2-Methylnaphthalene	BRL	10		ug/L	232573	1	11/11/2016 15:40	YH
2-Methylphenol	BRL	10		ug/L	232573	1	11/11/2016 15:40	YH
2-Nitroaniline	BRL	25		ug/L	232573	1	11/11/2016 15:40	YH
2-Nitrophenol	BRL	10		ug/L	232573	1	11/11/2016 15:40	YH
3,3'-Dichlorobenzidine	BRL	10		ug/L	232573	1	11/11/2016 15:40	YH
3-Nitroaniline	BRL	25		ug/L	232573	1	11/11/2016 15:40	YH
4,6-Dinitro-2-methylphenol	BRL	25		ug/L	232573	1	11/11/2016 15:40	YH
4-Bromophenyl phenyl ether	BRL	10		ug/L	232573	1	11/11/2016 15:40	YH
4-Chloro-3-methylphenol	BRL	10		ug/L	232573	1	11/11/2016 15:40	YH
4-Chloroaniline	BRL	10		ug/L	232573	1	11/11/2016 15:40	YH
4-Chlorophenyl phenyl ether	BRL	10		ug/L	232573	1	11/11/2016 15:40	YH
4-Methylphenol	BRL	10		ug/L	232573	1	11/11/2016 15:40	YH
4-Nitroaniline	BRL	25		ug/L	232573	1	11/11/2016 15:40	YH
4-Nitrophenol	BRL	25		ug/L	232573	1	11/11/2016 15:40	YH
Acenaphthene	BRL	10		ug/L	232573	1	11/11/2016 15:40	YH
Acenaphthylene	BRL	10		ug/L	232573	1	11/11/2016 15:40	YH
Acetophenone	BRL	10		ug/L	232573	1	11/11/2016 15:40	YH
Anthracene	BRL	10		ug/L	232573	1	11/11/2016 15:40	YH
Atrazine	BRL	10		ug/L	232573	1	11/11/2016 15:40	YH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 17-Nov-16

Client: GHD Services, Inc.	Client Sample ID: GW-077150-110716-TBM-102
Project Name: Bluewater Thermal Solutions	Collection Date: 11/7/2016 3:50:00 PM
Lab ID: 1611766-002	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D					(SW3520)			
Benz(a)anthracene	BRL	10		ug/L	232573	1	11/11/2016 15:40	YH
Benzaldehyde	BRL	10		ug/L	232573	1	11/11/2016 15:40	YH
Benzo(a)pyrene	BRL	10		ug/L	232573	1	11/11/2016 15:40	YH
Benzo(b)fluoranthene	BRL	10		ug/L	232573	1	11/11/2016 15:40	YH
Benzo(g,h,i)perylene	BRL	10		ug/L	232573	1	11/11/2016 15:40	YH
Benzo(k)fluoranthene	BRL	10		ug/L	232573	1	11/11/2016 15:40	YH
Bis(2-chloroethoxy)methane	BRL	10		ug/L	232573	1	11/11/2016 15:40	YH
Bis(2-chloroethyl)ether	BRL	10		ug/L	232573	1	11/11/2016 15:40	YH
Bis(2-chloroisopropyl)ether	BRL	10		ug/L	232573	1	11/11/2016 15:40	YH
Bis(2-ethylhexyl)phthalate	BRL	10		ug/L	232573	1	11/11/2016 15:40	YH
Butyl benzyl phthalate	BRL	10		ug/L	232573	1	11/11/2016 15:40	YH
Caprolactam	BRL	10		ug/L	232573	1	11/11/2016 15:40	YH
Carbazole	BRL	10		ug/L	232573	1	11/11/2016 15:40	YH
Chrysene	BRL	10		ug/L	232573	1	11/11/2016 15:40	YH
Di-n-butyl phthalate	BRL	10		ug/L	232573	1	11/11/2016 15:40	YH
Di-n-octyl phthalate	BRL	10		ug/L	232573	1	11/11/2016 15:40	YH
Dibenz(a,h)anthracene	BRL	10		ug/L	232573	1	11/11/2016 15:40	YH
Dibenzofuran	BRL	10		ug/L	232573	1	11/11/2016 15:40	YH
Diethyl phthalate	BRL	10		ug/L	232573	1	11/11/2016 15:40	YH
Dimethyl phthalate	BRL	10		ug/L	232573	1	11/11/2016 15:40	YH
Fluoranthene	BRL	10		ug/L	232573	1	11/11/2016 15:40	YH
Fluorene	BRL	10		ug/L	232573	1	11/11/2016 15:40	YH
Hexachlorobenzene	BRL	10		ug/L	232573	1	11/11/2016 15:40	YH
Hexachlorobutadiene	BRL	10		ug/L	232573	1	11/11/2016 15:40	YH
Hexachlorocyclopentadiene	BRL	10		ug/L	232573	1	11/11/2016 15:40	YH
Hexachloroethane	BRL	10		ug/L	232573	1	11/11/2016 15:40	YH
Indeno(1,2,3-cd)pyrene	BRL	10		ug/L	232573	1	11/11/2016 15:40	YH
Isophorone	BRL	10		ug/L	232573	1	11/11/2016 15:40	YH
N-Nitrosodi-n-propylamine	BRL	10		ug/L	232573	1	11/11/2016 15:40	YH
N-Nitrosodiphenylamine	BRL	10		ug/L	232573	1	11/11/2016 15:40	YH
Naphthalene	BRL	10		ug/L	232573	1	11/11/2016 15:40	YH
Nitrobenzene	BRL	10		ug/L	232573	1	11/11/2016 15:40	YH
Pentachlorophenol	BRL	25		ug/L	232573	1	11/11/2016 15:40	YH
Phenanthrene	BRL	10		ug/L	232573	1	11/11/2016 15:40	YH
Phenol	BRL	10		ug/L	232573	1	11/11/2016 15:40	YH
Pyrene	BRL	10		ug/L	232573	1	11/11/2016 15:40	YH
Surr: 2,4,6-Tribromophenol	81.5	51.5-141		%REC	232573	1	11/11/2016 15:40	YH
Surr: 2-Fluorobiphenyl	76.4	50.8-122		%REC	232573	1	11/11/2016 15:40	YH
Surr: 2-Fluorophenol	68.8	28.1-120		%REC	232573	1	11/11/2016 15:40	YH
Surr: 4-Terphenyl-d14	86.3	47.2-131		%REC	232573	1	11/11/2016 15:40	YH
Surr: Nitrobenzene-d5	86.1	42.1-124		%REC	232573	1	11/11/2016 15:40	YH

Qualifiers:	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 17-Nov-16

Client: GHD Services, Inc.	Client Sample ID: GW-077150-110716-TBM-102
Project Name: Bluewater Thermal Solutions	Collection Date: 11/7/2016 3:50:00 PM
Lab ID: 1611766-002	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D					(SW3520)			
Surr: Phenol-d5	84.6	16-120		%REC	232573	1	11/11/2016 15:40	YH
METALS, TOTAL SW6010C					(SW3010A)			
Aluminum	4090	200		ug/L	232819	1	11/16/2016 13:35	IO
Antimony	56.9	20.0		ug/L	232819	1	11/16/2016 13:35	IO
Arsenic	BRL	10.0		ug/L	232819	1	11/16/2016 13:35	IO
Barium	BRL	20.0		ug/L	232819	1	11/16/2016 13:35	IO
Beryllium	BRL	5.00		ug/L	232819	1	11/16/2016 13:35	IO
Cadmium	BRL	5.00		ug/L	232819	1	11/16/2016 13:35	IO
Calcium	62000	100		ug/L	232819	1	11/16/2016 13:35	IO
Chromium	48.9	10.0		ug/L	232819	1	11/16/2016 13:35	IO
Cobalt	BRL	20.0		ug/L	232819	1	11/16/2016 13:35	IO
Copper	BRL	10.0		ug/L	232819	1	11/16/2016 13:35	IO
Iron	BRL	100		ug/L	232819	1	11/16/2016 13:35	IO
Lead	BRL	5.00		ug/L	232819	1	11/16/2016 13:35	IO
Magnesium	BRL	100		ug/L	232819	1	11/16/2016 13:35	IO
Manganese	BRL	15.0		ug/L	232819	1	11/16/2016 13:35	IO
Nickel	54.7	20.0		ug/L	232819	1	11/16/2016 13:35	IO
Potassium	11300	500		ug/L	232819	1	11/16/2016 13:35	IO
Selenium	62.1	10.0		ug/L	232819	1	11/16/2016 13:35	IO
Silver	BRL	10.0		ug/L	232819	1	11/16/2016 13:35	IO
Sodium	19700	1000		ug/L	232819	1	11/16/2016 13:35	IO
Thallium	BRL	10.0		ug/L	232819	1	11/16/2016 13:35	IO
Vanadium	11.7	10.0		ug/L	232819	1	11/16/2016 13:35	IO
Zinc	BRL	20.0		ug/L	232819	1	11/16/2016 13:35	IO
Mercury, Total SW7470A					(SW7470A)			
Mercury	BRL	0.200		ug/L	232713	1	11/11/2016 14:29	JR

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 17-Nov-16

Client: GHD Services, Inc.	Client Sample ID: GW-077150-110716-TBM-103
Project Name: Bluewater Thermal Solutions	Collection Date: 11/7/2016 5:25:00 PM
Lab ID: 1611766-003	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
1,1,1,2-Tetrachloroethane	BRL	1.0		ug/L	232790	1	11/14/2016 12:20	NP
1,1,1-Trichloroethane	BRL	1.0		ug/L	232790	1	11/14/2016 12:20	NP
1,1,2-Trichloroethane	BRL	1.0		ug/L	232790	1	11/14/2016 12:20	NP
1,1-Dichloroethane	BRL	1.0		ug/L	232790	1	11/14/2016 12:20	NP
1,1-Dichloroethene	BRL	1.0		ug/L	232790	1	11/14/2016 12:20	NP
1,2,4-Trichlorobenzene	BRL	1.0		ug/L	232790	1	11/14/2016 12:20	NP
1,2-Dibromo-3-chloropropane	BRL	1.0		ug/L	232790	1	11/14/2016 12:20	NP
1,2-Dibromoethane	BRL	1.0		ug/L	232790	1	11/14/2016 12:20	NP
1,2-Dichlorobenzene	BRL	1.0		ug/L	232790	1	11/14/2016 12:20	NP
1,2-Dichloroethane	BRL	1.0		ug/L	232790	1	11/14/2016 12:20	NP
1,2-Dichloropropane	BRL	1.0		ug/L	232790	1	11/14/2016 12:20	NP
1,3-Dichlorobenzene	BRL	1.0		ug/L	232790	1	11/14/2016 12:20	NP
1,4-Dichlorobenzene	BRL	1.0		ug/L	232790	1	11/14/2016 12:20	NP
2-Butanone	BRL	5.0		ug/L	232790	1	11/14/2016 12:20	NP
2-Hexanone	BRL	5.0		ug/L	232790	1	11/14/2016 12:20	NP
4-Methyl-2-pentanone	BRL	5.0		ug/L	232790	1	11/14/2016 12:20	NP
Acetone	BRL	5.0		ug/L	232790	1	11/14/2016 12:20	NP
Benzene	BRL	1.0		ug/L	232790	1	11/14/2016 12:20	NP
Bromodichloromethane	BRL	1.0		ug/L	232790	1	11/14/2016 12:20	NP
Bromoform	BRL	1.0		ug/L	232790	1	11/14/2016 12:20	NP
Bromomethane	BRL	1.0		ug/L	232790	1	11/14/2016 12:20	NP
Carbon disulfide	BRL	1.0		ug/L	232790	1	11/14/2016 12:20	NP
Carbon tetrachloride	BRL	1.0		ug/L	232790	1	11/14/2016 12:20	NP
Chlorobenzene	BRL	1.0		ug/L	232790	1	11/14/2016 12:20	NP
Chloroethane	BRL	1.0		ug/L	232790	1	11/14/2016 12:20	NP
Chloroform	BRL	1.0		ug/L	232790	1	11/14/2016 12:20	NP
Chloromethane	BRL	1.0		ug/L	232790	1	11/14/2016 12:20	NP
cis-1,2-Dichloroethene	BRL	1.0		ug/L	232790	1	11/14/2016 12:20	NP
cis-1,3-Dichloropropene	BRL	1.0		ug/L	232790	1	11/14/2016 12:20	NP
Cyclohexane	BRL	1.0		ug/L	232790	1	11/14/2016 12:20	NP
Dibromochloromethane	BRL	1.0		ug/L	232790	1	11/14/2016 12:20	NP
Dichlorodifluoromethane	BRL	1.0		ug/L	232790	1	11/14/2016 12:20	NP
Ethylbenzene	BRL	1.0		ug/L	232790	1	11/14/2016 12:20	NP
Freon-113	BRL	1.0		ug/L	232790	1	11/14/2016 12:20	NP
Isopropylbenzene	BRL	1.0		ug/L	232790	1	11/14/2016 12:20	NP
Methyl acetate	BRL	1.0		ug/L	232790	1	11/14/2016 12:20	NP
Methyl tert-butyl ether	BRL	1.0		ug/L	232790	1	11/14/2016 12:20	NP
Methylcyclohexane	BRL	1.0		ug/L	232790	1	11/14/2016 12:20	NP
Methylene chloride	BRL	2.0		ug/L	232790	1	11/14/2016 12:20	NP
Styrene	BRL	1.0		ug/L	232790	1	11/14/2016 12:20	NP
Tetrachloroethene	BRL	1.0		ug/L	232790	1	11/14/2016 12:20	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 17-Nov-16

Client: GHD Services, Inc.	Client Sample ID: GW-077150-110716-TBM-103
Project Name: Bluewater Thermal Solutions	Collection Date: 11/7/2016 5:25:00 PM
Lab ID: 1611766-003	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B		(SW5030B)						
Toluene	BRL	1.0		ug/L	232790	1	11/14/2016 12:20	NP
trans-1,2-Dichloroethene	BRL	1.0		ug/L	232790	1	11/14/2016 12:20	NP
trans-1,3-Dichloropropene	BRL	1.0		ug/L	232790	1	11/14/2016 12:20	NP
Trichloroethene	BRL	1.0		ug/L	232790	1	11/14/2016 12:20	NP
Trichlorofluoromethane	BRL	1.0		ug/L	232790	1	11/14/2016 12:20	NP
Vinyl chloride	BRL	1.0		ug/L	232790	1	11/14/2016 12:20	NP
Xylenes, Total	BRL	1.0		ug/L	232790	1	11/14/2016 12:20	NP
Surr: 4-Bromofluorobenzene	114	70-130		%REC	232790	1	11/14/2016 12:20	NP
Surr: Dibromofluoromethane	113	70-130		%REC	232790	1	11/14/2016 12:20	NP
Surr: Toluene-d8	96	70-130		%REC	232790	1	11/14/2016 12:20	NP
TCL-SEMIVOLATILE ORGANICS SW8270D		(SW3520)						
1,1'-Biphenyl	BRL	10		ug/L	232573	1	11/11/2016 16:06	YH
2,4,5-Trichlorophenol	BRL	25		ug/L	232573	1	11/11/2016 16:06	YH
2,4,6-Trichlorophenol	BRL	10		ug/L	232573	1	11/11/2016 16:06	YH
2,4-Dichlorophenol	BRL	10		ug/L	232573	1	11/11/2016 16:06	YH
2,4-Dimethylphenol	BRL	10		ug/L	232573	1	11/11/2016 16:06	YH
2,4-Dinitrophenol	BRL	25		ug/L	232573	1	11/11/2016 16:06	YH
2,4-Dinitrotoluene	BRL	10		ug/L	232573	1	11/11/2016 16:06	YH
2,6-Dinitrotoluene	BRL	10		ug/L	232573	1	11/11/2016 16:06	YH
2-Chloronaphthalene	BRL	10		ug/L	232573	1	11/11/2016 16:06	YH
2-Chlorophenol	BRL	10		ug/L	232573	1	11/11/2016 16:06	YH
2-Methylnaphthalene	BRL	10		ug/L	232573	1	11/11/2016 16:06	YH
2-Methylphenol	BRL	10		ug/L	232573	1	11/11/2016 16:06	YH
2-Nitroaniline	BRL	25		ug/L	232573	1	11/11/2016 16:06	YH
2-Nitrophenol	BRL	10		ug/L	232573	1	11/11/2016 16:06	YH
3,3'-Dichlorobenzidine	BRL	10		ug/L	232573	1	11/11/2016 16:06	YH
3-Nitroaniline	BRL	25		ug/L	232573	1	11/11/2016 16:06	YH
4,6-Dinitro-2-methylphenol	BRL	25		ug/L	232573	1	11/11/2016 16:06	YH
4-Bromophenyl phenyl ether	BRL	10		ug/L	232573	1	11/11/2016 16:06	YH
4-Chloro-3-methylphenol	BRL	10		ug/L	232573	1	11/11/2016 16:06	YH
4-Chloroaniline	BRL	10		ug/L	232573	1	11/11/2016 16:06	YH
4-Chlorophenyl phenyl ether	BRL	10		ug/L	232573	1	11/11/2016 16:06	YH
4-Methylphenol	BRL	10		ug/L	232573	1	11/11/2016 16:06	YH
4-Nitroaniline	BRL	25		ug/L	232573	1	11/11/2016 16:06	YH
4-Nitrophenol	BRL	25		ug/L	232573	1	11/11/2016 16:06	YH
Acenaphthene	BRL	10		ug/L	232573	1	11/11/2016 16:06	YH
Acenaphthylene	BRL	10		ug/L	232573	1	11/11/2016 16:06	YH
Acetophenone	BRL	10		ug/L	232573	1	11/11/2016 16:06	YH
Anthracene	BRL	10		ug/L	232573	1	11/11/2016 16:06	YH
Atrazine	BRL	10		ug/L	232573	1	11/11/2016 16:06	YH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 17-Nov-16

Client: GHD Services, Inc.	Client Sample ID: GW-077150-110716-TBM-103
Project Name: Bluewater Thermal Solutions	Collection Date: 11/7/2016 5:25:00 PM
Lab ID: 1611766-003	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D					(SW3520)			
Benz(a)anthracene	BRL	10		ug/L	232573	1	11/11/2016 16:06	YH
Benzaldehyde	BRL	10		ug/L	232573	1	11/11/2016 16:06	YH
Benzo(a)pyrene	BRL	10		ug/L	232573	1	11/11/2016 16:06	YH
Benzo(b)fluoranthene	BRL	10		ug/L	232573	1	11/11/2016 16:06	YH
Benzo(g,h,i)perylene	BRL	10		ug/L	232573	1	11/11/2016 16:06	YH
Benzo(k)fluoranthene	BRL	10		ug/L	232573	1	11/11/2016 16:06	YH
Bis(2-chloroethoxy)methane	BRL	10		ug/L	232573	1	11/11/2016 16:06	YH
Bis(2-chloroethyl)ether	BRL	10		ug/L	232573	1	11/11/2016 16:06	YH
Bis(2-chloroisopropyl)ether	BRL	10		ug/L	232573	1	11/11/2016 16:06	YH
Bis(2-ethylhexyl)phthalate	BRL	10		ug/L	232573	1	11/11/2016 16:06	YH
Butyl benzyl phthalate	BRL	10		ug/L	232573	1	11/11/2016 16:06	YH
Caprolactam	BRL	10		ug/L	232573	1	11/11/2016 16:06	YH
Carbazole	BRL	10		ug/L	232573	1	11/11/2016 16:06	YH
Chrysene	BRL	10		ug/L	232573	1	11/11/2016 16:06	YH
Di-n-butyl phthalate	BRL	10		ug/L	232573	1	11/11/2016 16:06	YH
Di-n-octyl phthalate	BRL	10		ug/L	232573	1	11/11/2016 16:06	YH
Dibenz(a,h)anthracene	BRL	10		ug/L	232573	1	11/11/2016 16:06	YH
Dibenzofuran	BRL	10		ug/L	232573	1	11/11/2016 16:06	YH
Diethyl phthalate	BRL	10		ug/L	232573	1	11/11/2016 16:06	YH
Dimethyl phthalate	BRL	10		ug/L	232573	1	11/11/2016 16:06	YH
Fluoranthene	BRL	10		ug/L	232573	1	11/11/2016 16:06	YH
Fluorene	BRL	10		ug/L	232573	1	11/11/2016 16:06	YH
Hexachlorobenzene	BRL	10		ug/L	232573	1	11/11/2016 16:06	YH
Hexachlorobutadiene	BRL	10		ug/L	232573	1	11/11/2016 16:06	YH
Hexachlorocyclopentadiene	BRL	10		ug/L	232573	1	11/11/2016 16:06	YH
Hexachloroethane	BRL	10		ug/L	232573	1	11/11/2016 16:06	YH
Indeno(1,2,3-cd)pyrene	BRL	10		ug/L	232573	1	11/11/2016 16:06	YH
Isophorone	BRL	10		ug/L	232573	1	11/11/2016 16:06	YH
N-Nitrosodi-n-propylamine	BRL	10		ug/L	232573	1	11/11/2016 16:06	YH
N-Nitrosodiphenylamine	BRL	10		ug/L	232573	1	11/11/2016 16:06	YH
Naphthalene	BRL	10		ug/L	232573	1	11/11/2016 16:06	YH
Nitrobenzene	BRL	10		ug/L	232573	1	11/11/2016 16:06	YH
Pentachlorophenol	BRL	25		ug/L	232573	1	11/11/2016 16:06	YH
Phenanthrene	BRL	10		ug/L	232573	1	11/11/2016 16:06	YH
Phenol	BRL	10		ug/L	232573	1	11/11/2016 16:06	YH
Pyrene	BRL	10		ug/L	232573	1	11/11/2016 16:06	YH
Surr: 2,4,6-Tribromophenol	74.2	51.5-141		%REC	232573	1	11/11/2016 16:06	YH
Surr: 2-Fluorobiphenyl	69.2	50.8-122		%REC	232573	1	11/11/2016 16:06	YH
Surr: 2-Fluorophenol	61.5	28.1-120		%REC	232573	1	11/11/2016 16:06	YH
Surr: 4-Terphenyl-d14	80.1	47.2-131		%REC	232573	1	11/11/2016 16:06	YH
Surr: Nitrobenzene-d5	77.3	42.1-124		%REC	232573	1	11/11/2016 16:06	YH

Qualifiers:	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 17-Nov-16

Client: GHD Services, Inc.	Client Sample ID: GW-077150-110716-TBM-103
Project Name: Bluewater Thermal Solutions	Collection Date: 11/7/2016 5:25:00 PM
Lab ID: 1611766-003	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D					(SW3520)			
Surr: Phenol-d5	74.3	16-120		%REC	232573	1	11/11/2016 16:06	YH
METALS, TOTAL SW6010C					(SW3010A)			
Aluminum	BRL	200		ug/L	232819	1	11/16/2016 13:38	IO
Antimony	BRL	20.0		ug/L	232819	1	11/16/2016 13:38	IO
Arsenic	BRL	10.0		ug/L	232819	1	11/16/2016 13:38	IO
Barium	117	20.0		ug/L	232819	1	11/16/2016 13:38	IO
Beryllium	BRL	5.00		ug/L	232819	1	11/16/2016 13:38	IO
Cadmium	BRL	5.00		ug/L	232819	1	11/16/2016 13:38	IO
Calcium	1940	100		ug/L	232819	1	11/16/2016 13:38	IO
Chromium	BRL	10.0		ug/L	232819	1	11/16/2016 13:38	IO
Cobalt	BRL	20.0		ug/L	232819	1	11/16/2016 13:38	IO
Copper	BRL	10.0		ug/L	232819	1	11/16/2016 13:38	IO
Iron	433	100		ug/L	232819	1	11/16/2016 13:38	IO
Lead	BRL	5.00		ug/L	232819	1	11/16/2016 13:38	IO
Magnesium	356	100		ug/L	232819	1	11/16/2016 13:38	IO
Manganese	1600	15.0		ug/L	232819	1	11/16/2016 13:38	IO
Nickel	BRL	20.0		ug/L	232819	1	11/16/2016 13:38	IO
Potassium	1820	500		ug/L	232819	1	11/16/2016 13:38	IO
Selenium	BRL	10.0		ug/L	232819	1	11/16/2016 13:38	IO
Silver	BRL	10.0		ug/L	232819	1	11/16/2016 13:38	IO
Sodium	2250	1000		ug/L	232819	1	11/16/2016 13:38	IO
Thallium	BRL	10.0		ug/L	232819	1	11/16/2016 13:38	IO
Vanadium	BRL	10.0		ug/L	232819	1	11/16/2016 13:38	IO
Zinc	BRL	20.0		ug/L	232819	1	11/16/2016 13:38	IO
Mercury, Total SW7470A					(SW7470A)			
Mercury	BRL	0.200		ug/L	232713	1	11/11/2016 14:31	JR

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 17-Nov-16

Client: GHD Services, Inc.	Client Sample ID: GW-077150-110816-TBM-104
Project Name: Bluewater Thermal Solutions	Collection Date: 11/8/2016 9:15:00 AM
Lab ID: 1611766-004	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
1,1,1,2-Tetrachloroethane	BRL	1.0		ug/L	232790	1	11/12/2016 16:53	NP
1,1,1-Trichloroethane	BRL	1.0		ug/L	232790	1	11/12/2016 16:53	NP
1,1,2-Trichloroethane	BRL	1.0		ug/L	232790	1	11/12/2016 16:53	NP
1,1-Dichloroethane	BRL	1.0		ug/L	232790	1	11/12/2016 16:53	NP
1,1-Dichloroethene	BRL	1.0		ug/L	232790	1	11/12/2016 16:53	NP
1,2,4-Trichlorobenzene	BRL	1.0		ug/L	232790	1	11/12/2016 16:53	NP
1,2-Dibromo-3-chloropropane	BRL	1.0		ug/L	232790	1	11/12/2016 16:53	NP
1,2-Dibromoethane	BRL	1.0		ug/L	232790	1	11/12/2016 16:53	NP
1,2-Dichlorobenzene	BRL	1.0		ug/L	232790	1	11/12/2016 16:53	NP
1,2-Dichloroethane	BRL	1.0		ug/L	232790	1	11/12/2016 16:53	NP
1,2-Dichloropropane	BRL	1.0		ug/L	232790	1	11/12/2016 16:53	NP
1,3-Dichlorobenzene	BRL	1.0		ug/L	232790	1	11/12/2016 16:53	NP
1,4-Dichlorobenzene	BRL	1.0		ug/L	232790	1	11/12/2016 16:53	NP
2-Butanone	BRL	5.0		ug/L	232790	1	11/12/2016 16:53	NP
2-Hexanone	BRL	5.0		ug/L	232790	1	11/12/2016 16:53	NP
4-Methyl-2-pentanone	BRL	5.0		ug/L	232790	1	11/12/2016 16:53	NP
Acetone	BRL	5.0		ug/L	232790	1	11/12/2016 16:53	NP
Benzene	BRL	1.0		ug/L	232790	1	11/12/2016 16:53	NP
Bromodichloromethane	BRL	1.0		ug/L	232790	1	11/12/2016 16:53	NP
Bromoform	BRL	1.0		ug/L	232790	1	11/12/2016 16:53	NP
Bromomethane	BRL	1.0		ug/L	232790	1	11/12/2016 16:53	NP
Carbon disulfide	BRL	1.0		ug/L	232790	1	11/12/2016 16:53	NP
Carbon tetrachloride	BRL	1.0		ug/L	232790	1	11/12/2016 16:53	NP
Chlorobenzene	BRL	1.0		ug/L	232790	1	11/12/2016 16:53	NP
Chloroethane	BRL	1.0		ug/L	232790	1	11/12/2016 16:53	NP
Chloroform	BRL	1.0		ug/L	232790	1	11/12/2016 16:53	NP
Chloromethane	BRL	1.0		ug/L	232790	1	11/12/2016 16:53	NP
cis-1,2-Dichloroethene	BRL	1.0		ug/L	232790	1	11/12/2016 16:53	NP
cis-1,3-Dichloropropene	BRL	1.0		ug/L	232790	1	11/12/2016 16:53	NP
Cyclohexane	BRL	1.0		ug/L	232790	1	11/12/2016 16:53	NP
Dibromochloromethane	BRL	1.0		ug/L	232790	1	11/12/2016 16:53	NP
Dichlorodifluoromethane	BRL	1.0		ug/L	232790	1	11/12/2016 16:53	NP
Ethylbenzene	BRL	1.0		ug/L	232790	1	11/12/2016 16:53	NP
Freon-113	BRL	1.0		ug/L	232790	1	11/12/2016 16:53	NP
Isopropylbenzene	BRL	1.0		ug/L	232790	1	11/12/2016 16:53	NP
Methyl acetate	BRL	1.0		ug/L	232790	1	11/12/2016 16:53	NP
Methyl tert-butyl ether	BRL	1.0		ug/L	232790	1	11/12/2016 16:53	NP
Methylcyclohexane	BRL	1.0		ug/L	232790	1	11/12/2016 16:53	NP
Methylene chloride	BRL	2.0		ug/L	232790	1	11/12/2016 16:53	NP
Styrene	BRL	1.0		ug/L	232790	1	11/12/2016 16:53	NP
Tetrachloroethene	BRL	1.0		ug/L	232790	1	11/12/2016 16:53	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Client: GHD Services, Inc.	Client Sample ID: GW-077150-110816-TBM-104
Project Name: Bluewater Thermal Solutions	Collection Date: 11/8/2016 9:15:00 AM
Lab ID: 1611766-004	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B		(SW5030B)						
Toluene	BRL	1.0		ug/L	232790	1	11/12/2016 16:53	NP
trans-1,2-Dichloroethene	BRL	1.0		ug/L	232790	1	11/12/2016 16:53	NP
trans-1,3-Dichloropropene	BRL	1.0		ug/L	232790	1	11/12/2016 16:53	NP
Trichloroethene	BRL	1.0		ug/L	232790	1	11/12/2016 16:53	NP
Trichlorofluoromethane	BRL	1.0		ug/L	232790	1	11/12/2016 16:53	NP
Vinyl chloride	BRL	1.0		ug/L	232790	1	11/12/2016 16:53	NP
Xylenes, Total	BRL	1.0		ug/L	232790	1	11/12/2016 16:53	NP
Surr: 4-Bromofluorobenzene	119	70-130		%REC	232790	1	11/12/2016 16:53	NP
Surr: Dibromofluoromethane	118	70-130		%REC	232790	1	11/12/2016 16:53	NP
Surr: Toluene-d8	98.2	70-130		%REC	232790	1	11/12/2016 16:53	NP
TCL-SEMIVOLATILE ORGANICS SW8270D		(SW3520)						
1,1'-Biphenyl	BRL	10		ug/L	232573	1	11/11/2016 14:48	YH
2,4,5-Trichlorophenol	BRL	25		ug/L	232573	1	11/11/2016 14:48	YH
2,4,6-Trichlorophenol	BRL	10		ug/L	232573	1	11/11/2016 14:48	YH
2,4-Dichlorophenol	BRL	10		ug/L	232573	1	11/11/2016 14:48	YH
2,4-Dimethylphenol	BRL	10		ug/L	232573	1	11/11/2016 14:48	YH
2,4-Dinitrophenol	BRL	25		ug/L	232573	1	11/11/2016 14:48	YH
2,4-Dinitrotoluene	BRL	10		ug/L	232573	1	11/11/2016 14:48	YH
2,6-Dinitrotoluene	BRL	10		ug/L	232573	1	11/11/2016 14:48	YH
2-Chloronaphthalene	BRL	10		ug/L	232573	1	11/11/2016 14:48	YH
2-Chlorophenol	BRL	10		ug/L	232573	1	11/11/2016 14:48	YH
2-Methylnaphthalene	BRL	10		ug/L	232573	1	11/11/2016 14:48	YH
2-Methylphenol	BRL	10		ug/L	232573	1	11/11/2016 14:48	YH
2-Nitroaniline	BRL	25		ug/L	232573	1	11/11/2016 14:48	YH
2-Nitrophenol	BRL	10		ug/L	232573	1	11/11/2016 14:48	YH
3,3'-Dichlorobenzidine	BRL	10		ug/L	232573	1	11/11/2016 14:48	YH
3-Nitroaniline	BRL	25		ug/L	232573	1	11/11/2016 14:48	YH
4,6-Dinitro-2-methylphenol	BRL	25		ug/L	232573	1	11/11/2016 14:48	YH
4-Bromophenyl phenyl ether	BRL	10		ug/L	232573	1	11/11/2016 14:48	YH
4-Chloro-3-methylphenol	BRL	10		ug/L	232573	1	11/11/2016 14:48	YH
4-Chloroaniline	BRL	10		ug/L	232573	1	11/11/2016 14:48	YH
4-Chlorophenyl phenyl ether	BRL	10		ug/L	232573	1	11/11/2016 14:48	YH
4-Methylphenol	BRL	10		ug/L	232573	1	11/11/2016 14:48	YH
4-Nitroaniline	BRL	25		ug/L	232573	1	11/11/2016 14:48	YH
4-Nitrophenol	BRL	25		ug/L	232573	1	11/11/2016 14:48	YH
Acenaphthene	BRL	10		ug/L	232573	1	11/11/2016 14:48	YH
Acenaphthylene	BRL	10		ug/L	232573	1	11/11/2016 14:48	YH
Acetophenone	BRL	10		ug/L	232573	1	11/11/2016 14:48	YH
Anthracene	BRL	10		ug/L	232573	1	11/11/2016 14:48	YH
Atrazine	BRL	10		ug/L	232573	1	11/11/2016 14:48	YH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Client: GHD Services, Inc.	Client Sample ID: GW-077150-110816-TBM-104
Project Name: Bluewater Thermal Solutions	Collection Date: 11/8/2016 9:15:00 AM
Lab ID: 1611766-004	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D					(SW3520)			
Benz(a)anthracene	BRL	10		ug/L	232573	1	11/11/2016 14:48	YH
Benzaldehyde	BRL	10		ug/L	232573	1	11/11/2016 14:48	YH
Benzo(a)pyrene	BRL	10		ug/L	232573	1	11/11/2016 14:48	YH
Benzo(b)fluoranthene	BRL	10		ug/L	232573	1	11/11/2016 14:48	YH
Benzo(g,h,i)perylene	BRL	10		ug/L	232573	1	11/11/2016 14:48	YH
Benzo(k)fluoranthene	BRL	10		ug/L	232573	1	11/11/2016 14:48	YH
Bis(2-chloroethoxy)methane	BRL	10		ug/L	232573	1	11/11/2016 14:48	YH
Bis(2-chloroethyl)ether	BRL	10		ug/L	232573	1	11/11/2016 14:48	YH
Bis(2-chloroisopropyl)ether	BRL	10		ug/L	232573	1	11/11/2016 14:48	YH
Bis(2-ethylhexyl)phthalate	BRL	10		ug/L	232573	1	11/11/2016 14:48	YH
Butyl benzyl phthalate	BRL	10		ug/L	232573	1	11/11/2016 14:48	YH
Caprolactam	BRL	10		ug/L	232573	1	11/11/2016 14:48	YH
Carbazole	BRL	10		ug/L	232573	1	11/11/2016 14:48	YH
Chrysene	BRL	10		ug/L	232573	1	11/11/2016 14:48	YH
Di-n-butyl phthalate	BRL	10		ug/L	232573	1	11/11/2016 14:48	YH
Di-n-octyl phthalate	BRL	10		ug/L	232573	1	11/11/2016 14:48	YH
Dibenz(a,h)anthracene	BRL	10		ug/L	232573	1	11/11/2016 14:48	YH
Dibenzofuran	BRL	10		ug/L	232573	1	11/11/2016 14:48	YH
Diethyl phthalate	BRL	10		ug/L	232573	1	11/11/2016 14:48	YH
Dimethyl phthalate	BRL	10		ug/L	232573	1	11/11/2016 14:48	YH
Fluoranthene	BRL	10		ug/L	232573	1	11/11/2016 14:48	YH
Fluorene	BRL	10		ug/L	232573	1	11/11/2016 14:48	YH
Hexachlorobenzene	BRL	10		ug/L	232573	1	11/11/2016 14:48	YH
Hexachlorobutadiene	BRL	10		ug/L	232573	1	11/11/2016 14:48	YH
Hexachlorocyclopentadiene	BRL	10		ug/L	232573	1	11/11/2016 14:48	YH
Hexachloroethane	BRL	10		ug/L	232573	1	11/11/2016 14:48	YH
Indeno(1,2,3-cd)pyrene	BRL	10		ug/L	232573	1	11/11/2016 14:48	YH
Isophorone	BRL	10		ug/L	232573	1	11/11/2016 14:48	YH
N-Nitrosodi-n-propylamine	BRL	10		ug/L	232573	1	11/11/2016 14:48	YH
N-Nitrosodiphenylamine	BRL	10		ug/L	232573	1	11/11/2016 14:48	YH
Naphthalene	BRL	10		ug/L	232573	1	11/11/2016 14:48	YH
Nitrobenzene	BRL	10		ug/L	232573	1	11/11/2016 14:48	YH
Pentachlorophenol	BRL	25		ug/L	232573	1	11/11/2016 14:48	YH
Phenanthrene	BRL	10		ug/L	232573	1	11/11/2016 14:48	YH
Phenol	BRL	10		ug/L	232573	1	11/11/2016 14:48	YH
Pyrene	BRL	10		ug/L	232573	1	11/11/2016 14:48	YH
Surr: 2,4,6-Tribromophenol	78.3	51.5-141		%REC	232573	1	11/11/2016 14:48	YH
Surr: 2-Fluorobiphenyl	72.4	50.8-122		%REC	232573	1	11/11/2016 14:48	YH
Surr: 2-Fluorophenol	57.5	28.1-120		%REC	232573	1	11/11/2016 14:48	YH
Surr: 4-Terphenyl-d14	82.1	47.2-131		%REC	232573	1	11/11/2016 14:48	YH
Surr: Nitrobenzene-d5	81.2	42.1-124		%REC	232573	1	11/11/2016 14:48	YH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 17-Nov-16

Client: GHD Services, Inc.	Client Sample ID: GW-077150-110816-TBM-104
Project Name: Bluewater Thermal Solutions	Collection Date: 11/8/2016 9:15:00 AM
Lab ID: 1611766-004	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D					(SW3520)			
Surr: Phenol-d5	74.5	16-120		%REC	232573	1	11/11/2016 14:48	YH
METALS, TOTAL SW6010C					(SW3010A)			
Aluminum	202	200		ug/L	232819	1	11/16/2016 12:58	IO
Antimony	BRL	20.0		ug/L	232819	1	11/16/2016 12:58	IO
Arsenic	BRL	10.0		ug/L	232819	1	11/16/2016 12:58	IO
Barium	63.5	20.0		ug/L	232819	1	11/16/2016 12:58	IO
Beryllium	BRL	5.00		ug/L	232819	1	11/16/2016 12:58	IO
Cadmium	BRL	5.00		ug/L	232819	1	11/16/2016 12:58	IO
Calcium	1540	100		ug/L	232819	1	11/16/2016 12:58	IO
Chromium	BRL	10.0		ug/L	232819	1	11/16/2016 12:58	IO
Cobalt	BRL	20.0		ug/L	232819	1	11/16/2016 12:58	IO
Copper	BRL	10.0		ug/L	232819	1	11/16/2016 12:58	IO
Iron	152	100		ug/L	232819	1	11/16/2016 12:58	IO
Lead	BRL	5.00		ug/L	232819	1	11/16/2016 12:58	IO
Magnesium	288	100		ug/L	232819	1	11/16/2016 12:58	IO
Manganese	357	15.0		ug/L	232819	1	11/16/2016 12:58	IO
Nickel	BRL	20.0		ug/L	232819	1	11/16/2016 12:58	IO
Potassium	1970	500		ug/L	232819	1	11/16/2016 12:58	IO
Selenium	BRL	10.0		ug/L	232819	1	11/16/2016 12:58	IO
Silver	BRL	10.0		ug/L	232819	1	11/16/2016 12:58	IO
Sodium	9790	1000		ug/L	232819	1	11/16/2016 12:58	IO
Thallium	BRL	10.0		ug/L	232819	1	11/16/2016 12:58	IO
Vanadium	BRL	10.0		ug/L	232819	1	11/16/2016 12:58	IO
Zinc	BRL	20.0		ug/L	232819	1	11/16/2016 12:58	IO
Mercury, Total SW7470A					(SW7470A)			
Mercury	BRL	0.200		ug/L	232713	1	11/11/2016 14:33	JR

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 17-Nov-16

Client: GHD Services, Inc.	Client Sample ID: GW-077150-110816-TBM-105
Project Name: Bluewater Thermal Solutions	Collection Date: 11/8/2016 10:40:00 AM
Lab ID: 1611766-005	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
1,1,1,2-Tetrachloroethane	BRL	1.0		ug/L	232790	1	11/14/2016 12:44	NP
1,1,1-Trichloroethane	BRL	1.0		ug/L	232790	1	11/14/2016 12:44	NP
1,1,2-Trichloroethane	BRL	1.0		ug/L	232790	1	11/14/2016 12:44	NP
1,1-Dichloroethane	9.1	1.0		ug/L	232790	1	11/14/2016 12:44	NP
1,1-Dichloroethene	33	1.0		ug/L	232790	1	11/14/2016 12:44	NP
1,2,4-Trichlorobenzene	BRL	1.0		ug/L	232790	1	11/14/2016 12:44	NP
1,2-Dibromo-3-chloropropane	BRL	1.0		ug/L	232790	1	11/14/2016 12:44	NP
1,2-Dibromoethane	BRL	1.0		ug/L	232790	1	11/14/2016 12:44	NP
1,2-Dichlorobenzene	BRL	1.0		ug/L	232790	1	11/14/2016 12:44	NP
1,2-Dichloroethane	BRL	1.0		ug/L	232790	1	11/14/2016 12:44	NP
1,2-Dichloropropane	BRL	1.0		ug/L	232790	1	11/14/2016 12:44	NP
1,3-Dichlorobenzene	BRL	1.0		ug/L	232790	1	11/14/2016 12:44	NP
1,4-Dichlorobenzene	BRL	1.0		ug/L	232790	1	11/14/2016 12:44	NP
2-Butanone	BRL	5.0		ug/L	232790	1	11/14/2016 12:44	NP
2-Hexanone	BRL	5.0		ug/L	232790	1	11/14/2016 12:44	NP
4-Methyl-2-pentanone	BRL	5.0		ug/L	232790	1	11/14/2016 12:44	NP
Acetone	BRL	5.0		ug/L	232790	1	11/14/2016 12:44	NP
Benzene	BRL	1.0		ug/L	232790	1	11/14/2016 12:44	NP
Bromodichloromethane	BRL	1.0		ug/L	232790	1	11/14/2016 12:44	NP
Bromoform	BRL	1.0		ug/L	232790	1	11/14/2016 12:44	NP
Bromomethane	BRL	1.0		ug/L	232790	1	11/14/2016 12:44	NP
Carbon disulfide	BRL	1.0		ug/L	232790	1	11/14/2016 12:44	NP
Carbon tetrachloride	BRL	1.0		ug/L	232790	1	11/14/2016 12:44	NP
Chlorobenzene	BRL	1.0		ug/L	232790	1	11/14/2016 12:44	NP
Chloroethane	BRL	1.0		ug/L	232790	1	11/14/2016 12:44	NP
Chloroform	BRL	1.0		ug/L	232790	1	11/14/2016 12:44	NP
Chloromethane	BRL	1.0		ug/L	232790	1	11/14/2016 12:44	NP
cis-1,2-Dichloroethene	BRL	1.0		ug/L	232790	1	11/14/2016 12:44	NP
cis-1,3-Dichloropropene	BRL	1.0		ug/L	232790	1	11/14/2016 12:44	NP
Cyclohexane	BRL	1.0		ug/L	232790	1	11/14/2016 12:44	NP
Dibromochloromethane	BRL	1.0		ug/L	232790	1	11/14/2016 12:44	NP
Dichlorodifluoromethane	BRL	1.0		ug/L	232790	1	11/14/2016 12:44	NP
Ethylbenzene	BRL	1.0		ug/L	232790	1	11/14/2016 12:44	NP
Freon-113	BRL	1.0		ug/L	232790	1	11/14/2016 12:44	NP
Isopropylbenzene	BRL	1.0		ug/L	232790	1	11/14/2016 12:44	NP
Methyl acetate	BRL	1.0		ug/L	232790	1	11/14/2016 12:44	NP
Methyl tert-butyl ether	BRL	1.0		ug/L	232790	1	11/14/2016 12:44	NP
Methylcyclohexane	BRL	1.0		ug/L	232790	1	11/14/2016 12:44	NP
Methylene chloride	BRL	2.0		ug/L	232790	1	11/14/2016 12:44	NP
Styrene	BRL	1.0		ug/L	232790	1	11/14/2016 12:44	NP
Tetrachloroethene	BRL	1.0		ug/L	232790	1	11/14/2016 12:44	NP

Qualifiers:	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

Client: GHD Services, Inc.	Client Sample ID: GW-077150-110816-TBM-105
Project Name: Bluewater Thermal Solutions	Collection Date: 11/8/2016 10:40:00 AM
Lab ID: 1611766-005	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B		(SW5030B)						
Toluene	BRL	1.0		ug/L	232790	1	11/14/2016 12:44	NP
trans-1,2-Dichloroethene	BRL	1.0		ug/L	232790	1	11/14/2016 12:44	NP
trans-1,3-Dichloropropene	BRL	1.0		ug/L	232790	1	11/14/2016 12:44	NP
Trichloroethene	BRL	1.0		ug/L	232790	1	11/14/2016 12:44	NP
Trichlorofluoromethane	BRL	1.0		ug/L	232790	1	11/14/2016 12:44	NP
Vinyl chloride	BRL	1.0		ug/L	232790	1	11/14/2016 12:44	NP
Xylenes, Total	BRL	1.0		ug/L	232790	1	11/14/2016 12:44	NP
Surr: 4-Bromofluorobenzene	117	70-130		%REC	232790	1	11/14/2016 12:44	NP
Surr: Dibromofluoromethane	123	70-130		%REC	232790	1	11/14/2016 12:44	NP
Surr: Toluene-d8	98	70-130		%REC	232790	1	11/14/2016 12:44	NP
TCL-SEMIVOLATILE ORGANICS SW8270D		(SW3520)						
1,1'-Biphenyl	BRL	10		ug/L	232573	1	11/11/2016 14:34	YH
2,4,5-Trichlorophenol	BRL	25		ug/L	232573	1	11/11/2016 14:34	YH
2,4,6-Trichlorophenol	BRL	10		ug/L	232573	1	11/11/2016 14:34	YH
2,4-Dichlorophenol	BRL	10		ug/L	232573	1	11/11/2016 14:34	YH
2,4-Dimethylphenol	BRL	10		ug/L	232573	1	11/11/2016 14:34	YH
2,4-Dinitrophenol	BRL	25		ug/L	232573	1	11/11/2016 14:34	YH
2,4-Dinitrotoluene	BRL	10		ug/L	232573	1	11/11/2016 14:34	YH
2,6-Dinitrotoluene	BRL	10		ug/L	232573	1	11/11/2016 14:34	YH
2-Chloronaphthalene	BRL	10		ug/L	232573	1	11/11/2016 14:34	YH
2-Chlorophenol	BRL	10		ug/L	232573	1	11/11/2016 14:34	YH
2-Methylnaphthalene	BRL	10		ug/L	232573	1	11/11/2016 14:34	YH
2-Methylphenol	BRL	10		ug/L	232573	1	11/11/2016 14:34	YH
2-Nitroaniline	BRL	25		ug/L	232573	1	11/11/2016 14:34	YH
2-Nitrophenol	BRL	10		ug/L	232573	1	11/11/2016 14:34	YH
3,3'-Dichlorobenzidine	BRL	10		ug/L	232573	1	11/11/2016 14:34	YH
3-Nitroaniline	BRL	25		ug/L	232573	1	11/11/2016 14:34	YH
4,6-Dinitro-2-methylphenol	BRL	25		ug/L	232573	1	11/11/2016 14:34	YH
4-Bromophenyl phenyl ether	BRL	10		ug/L	232573	1	11/11/2016 14:34	YH
4-Chloro-3-methylphenol	BRL	10		ug/L	232573	1	11/11/2016 14:34	YH
4-Chloroaniline	BRL	10		ug/L	232573	1	11/11/2016 14:34	YH
4-Chlorophenyl phenyl ether	BRL	10		ug/L	232573	1	11/11/2016 14:34	YH
4-Methylphenol	BRL	10		ug/L	232573	1	11/11/2016 14:34	YH
4-Nitroaniline	BRL	25		ug/L	232573	1	11/11/2016 14:34	YH
4-Nitrophenol	BRL	25		ug/L	232573	1	11/11/2016 14:34	YH
Acenaphthene	BRL	10		ug/L	232573	1	11/11/2016 14:34	YH
Acenaphthylene	BRL	10		ug/L	232573	1	11/11/2016 14:34	YH
Acetophenone	BRL	10		ug/L	232573	1	11/11/2016 14:34	YH
Anthracene	BRL	10		ug/L	232573	1	11/11/2016 14:34	YH
Atrazine	BRL	10		ug/L	232573	1	11/11/2016 14:34	YH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 17-Nov-16

Client: GHD Services, Inc.	Client Sample ID: GW-077150-110816-TBM-105
Project Name: Bluewater Thermal Solutions	Collection Date: 11/8/2016 10:40:00 AM
Lab ID: 1611766-005	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D					(SW3520)			
Benz(a)anthracene	BRL	10		ug/L	232573	1	11/11/2016 14:34	YH
Benzaldehyde	BRL	10		ug/L	232573	1	11/11/2016 14:34	YH
Benzo(a)pyrene	BRL	10		ug/L	232573	1	11/11/2016 14:34	YH
Benzo(b)fluoranthene	BRL	10		ug/L	232573	1	11/11/2016 14:34	YH
Benzo(g,h,i)perylene	BRL	10		ug/L	232573	1	11/11/2016 14:34	YH
Benzo(k)fluoranthene	BRL	10		ug/L	232573	1	11/11/2016 14:34	YH
Bis(2-chloroethoxy)methane	BRL	10		ug/L	232573	1	11/11/2016 14:34	YH
Bis(2-chloroethyl)ether	BRL	10		ug/L	232573	1	11/11/2016 14:34	YH
Bis(2-chloroisopropyl)ether	BRL	10		ug/L	232573	1	11/11/2016 14:34	YH
Bis(2-ethylhexyl)phthalate	BRL	10		ug/L	232573	1	11/11/2016 14:34	YH
Butyl benzyl phthalate	BRL	10		ug/L	232573	1	11/11/2016 14:34	YH
Caprolactam	BRL	10		ug/L	232573	1	11/11/2016 14:34	YH
Carbazole	BRL	10		ug/L	232573	1	11/11/2016 14:34	YH
Chrysene	BRL	10		ug/L	232573	1	11/11/2016 14:34	YH
Di-n-butyl phthalate	BRL	10		ug/L	232573	1	11/11/2016 14:34	YH
Di-n-octyl phthalate	BRL	10		ug/L	232573	1	11/11/2016 14:34	YH
Dibenz(a,h)anthracene	BRL	10		ug/L	232573	1	11/11/2016 14:34	YH
Dibenzofuran	BRL	10		ug/L	232573	1	11/11/2016 14:34	YH
Diethyl phthalate	BRL	10		ug/L	232573	1	11/11/2016 14:34	YH
Dimethyl phthalate	BRL	10		ug/L	232573	1	11/11/2016 14:34	YH
Fluoranthene	BRL	10		ug/L	232573	1	11/11/2016 14:34	YH
Fluorene	BRL	10		ug/L	232573	1	11/11/2016 14:34	YH
Hexachlorobenzene	BRL	10		ug/L	232573	1	11/11/2016 14:34	YH
Hexachlorobutadiene	BRL	10		ug/L	232573	1	11/11/2016 14:34	YH
Hexachlorocyclopentadiene	BRL	10		ug/L	232573	1	11/11/2016 14:34	YH
Hexachloroethane	BRL	10		ug/L	232573	1	11/11/2016 14:34	YH
Indeno(1,2,3-cd)pyrene	BRL	10		ug/L	232573	1	11/11/2016 14:34	YH
Isophorone	BRL	10		ug/L	232573	1	11/11/2016 14:34	YH
N-Nitrosodi-n-propylamine	BRL	10		ug/L	232573	1	11/11/2016 14:34	YH
N-Nitrosodiphenylamine	BRL	10		ug/L	232573	1	11/11/2016 14:34	YH
Naphthalene	BRL	10		ug/L	232573	1	11/11/2016 14:34	YH
Nitrobenzene	BRL	10		ug/L	232573	1	11/11/2016 14:34	YH
Pentachlorophenol	BRL	25		ug/L	232573	1	11/11/2016 14:34	YH
Phenanthrene	BRL	10		ug/L	232573	1	11/11/2016 14:34	YH
Phenol	BRL	10		ug/L	232573	1	11/11/2016 14:34	YH
Pyrene	BRL	10		ug/L	232573	1	11/11/2016 14:34	YH
Surr: 2,4,6-Tribromophenol	83	51.5-141		%REC	232573	1	11/11/2016 14:34	YH
Surr: 2-Fluorobiphenyl	66	50.8-122		%REC	232573	1	11/11/2016 14:34	YH
Surr: 2-Fluorophenol	48.4	28.1-120		%REC	232573	1	11/11/2016 14:34	YH
Surr: 4-Terphenyl-d14	77.4	47.2-131		%REC	232573	1	11/11/2016 14:34	YH
Surr: Nitrobenzene-d5	70.8	42.1-124		%REC	232573	1	11/11/2016 14:34	YH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 17-Nov-16

Client: GHD Services, Inc.	Client Sample ID: GW-077150-110816-TBM-105
Project Name: Bluewater Thermal Solutions	Collection Date: 11/8/2016 10:40:00 AM
Lab ID: 1611766-005	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D					(SW3520)			
Surr: Phenol-d5	62.7	16-120		%REC	232573	1	11/11/2016 14:34	YH
METALS, TOTAL SW6010C					(SW3010A)			
Aluminum	374	200		ug/L	232819	1	11/16/2016 13:42	IO
Antimony	BRL	20.0		ug/L	232819	1	11/16/2016 13:42	IO
Arsenic	BRL	10.0		ug/L	232819	1	11/16/2016 13:42	IO
Barium	137	20.0		ug/L	232819	1	11/16/2016 13:42	IO
Beryllium	BRL	5.00		ug/L	232819	1	11/16/2016 13:42	IO
Cadmium	BRL	5.00		ug/L	232819	1	11/16/2016 13:42	IO
Calcium	761	100		ug/L	232819	1	11/16/2016 13:42	IO
Chromium	BRL	10.0		ug/L	232819	1	11/16/2016 13:42	IO
Cobalt	BRL	20.0		ug/L	232819	1	11/16/2016 13:42	IO
Copper	BRL	10.0		ug/L	232819	1	11/16/2016 13:42	IO
Iron	BRL	100		ug/L	232819	1	11/16/2016 13:42	IO
Lead	BRL	5.00		ug/L	232819	1	11/16/2016 13:42	IO
Magnesium	1810	100		ug/L	232819	1	11/16/2016 13:42	IO
Manganese	240	15.0		ug/L	232819	1	11/16/2016 13:42	IO
Nickel	BRL	20.0		ug/L	232819	1	11/16/2016 13:42	IO
Potassium	5600	500		ug/L	232819	1	11/16/2016 13:42	IO
Selenium	BRL	10.0		ug/L	232819	1	11/16/2016 13:42	IO
Silver	BRL	10.0		ug/L	232819	1	11/16/2016 13:42	IO
Sodium	52400	1000		ug/L	232819	1	11/16/2016 13:42	IO
Thallium	BRL	10.0		ug/L	232819	1	11/16/2016 13:42	IO
Vanadium	BRL	10.0		ug/L	232819	1	11/16/2016 13:42	IO
Zinc	BRL	20.0		ug/L	232819	1	11/16/2016 13:42	IO
Mercury, Total SW7470A					(SW7470A)			
Mercury	BRL	0.200		ug/L	232713	1	11/11/2016 14:35	JR

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 17-Nov-16

Client: GHD Services, Inc.	Client Sample ID: GW-077150-110816-TBM-106
Project Name: Bluewater Thermal Solutions	Collection Date: 11/8/2016 10:50:00 AM
Lab ID: 1611766-006	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
1,1,1,2-Tetrachloroethane	BRL	1.0		ug/L	232790	1	11/14/2016 13:08	NP
1,1,1-Trichloroethane	BRL	1.0		ug/L	232790	1	11/14/2016 13:08	NP
1,1,2-Trichloroethane	BRL	1.0		ug/L	232790	1	11/14/2016 13:08	NP
1,1-Dichloroethane	9.2	1.0		ug/L	232790	1	11/14/2016 13:08	NP
1,1-Dichloroethene	33	1.0		ug/L	232790	1	11/14/2016 13:08	NP
1,2,4-Trichlorobenzene	BRL	1.0		ug/L	232790	1	11/14/2016 13:08	NP
1,2-Dibromo-3-chloropropane	BRL	1.0		ug/L	232790	1	11/14/2016 13:08	NP
1,2-Dibromoethane	BRL	1.0		ug/L	232790	1	11/14/2016 13:08	NP
1,2-Dichlorobenzene	BRL	1.0		ug/L	232790	1	11/14/2016 13:08	NP
1,2-Dichloroethane	BRL	1.0		ug/L	232790	1	11/14/2016 13:08	NP
1,2-Dichloropropane	BRL	1.0		ug/L	232790	1	11/14/2016 13:08	NP
1,3-Dichlorobenzene	BRL	1.0		ug/L	232790	1	11/14/2016 13:08	NP
1,4-Dichlorobenzene	BRL	1.0		ug/L	232790	1	11/14/2016 13:08	NP
2-Butanone	BRL	5.0		ug/L	232790	1	11/14/2016 13:08	NP
2-Hexanone	BRL	5.0		ug/L	232790	1	11/14/2016 13:08	NP
4-Methyl-2-pentanone	BRL	5.0		ug/L	232790	1	11/14/2016 13:08	NP
Acetone	BRL	5.0		ug/L	232790	1	11/14/2016 13:08	NP
Benzene	BRL	1.0		ug/L	232790	1	11/14/2016 13:08	NP
Bromodichloromethane	BRL	1.0		ug/L	232790	1	11/14/2016 13:08	NP
Bromoform	BRL	1.0		ug/L	232790	1	11/14/2016 13:08	NP
Bromomethane	BRL	1.0		ug/L	232790	1	11/14/2016 13:08	NP
Carbon disulfide	BRL	1.0		ug/L	232790	1	11/14/2016 13:08	NP
Carbon tetrachloride	BRL	1.0		ug/L	232790	1	11/14/2016 13:08	NP
Chlorobenzene	BRL	1.0		ug/L	232790	1	11/14/2016 13:08	NP
Chloroethane	BRL	1.0		ug/L	232790	1	11/14/2016 13:08	NP
Chloroform	BRL	1.0		ug/L	232790	1	11/14/2016 13:08	NP
Chloromethane	BRL	1.0		ug/L	232790	1	11/14/2016 13:08	NP
cis-1,2-Dichloroethene	BRL	1.0		ug/L	232790	1	11/14/2016 13:08	NP
cis-1,3-Dichloropropene	BRL	1.0		ug/L	232790	1	11/14/2016 13:08	NP
Cyclohexane	BRL	1.0		ug/L	232790	1	11/14/2016 13:08	NP
Dibromochloromethane	BRL	1.0		ug/L	232790	1	11/14/2016 13:08	NP
Dichlorodifluoromethane	BRL	1.0		ug/L	232790	1	11/14/2016 13:08	NP
Ethylbenzene	BRL	1.0		ug/L	232790	1	11/14/2016 13:08	NP
Freon-113	BRL	1.0		ug/L	232790	1	11/14/2016 13:08	NP
Isopropylbenzene	BRL	1.0		ug/L	232790	1	11/14/2016 13:08	NP
Methyl acetate	BRL	1.0		ug/L	232790	1	11/14/2016 13:08	NP
Methyl tert-butyl ether	BRL	1.0		ug/L	232790	1	11/14/2016 13:08	NP
Methylcyclohexane	BRL	1.0		ug/L	232790	1	11/14/2016 13:08	NP
Methylene chloride	BRL	2.0		ug/L	232790	1	11/14/2016 13:08	NP
Styrene	BRL	1.0		ug/L	232790	1	11/14/2016 13:08	NP
Tetrachloroethene	BRL	1.0		ug/L	232790	1	11/14/2016 13:08	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 17-Nov-16

Client: GHD Services, Inc.	Client Sample ID: GW-077150-110816-TBM-106
Project Name: Bluewater Thermal Solutions	Collection Date: 11/8/2016 10:50:00 AM
Lab ID: 1611766-006	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Toluene	BRL	1.0		ug/L	232790	1	11/14/2016 13:08	NP
trans-1,2-Dichloroethene	BRL	1.0		ug/L	232790	1	11/14/2016 13:08	NP
trans-1,3-Dichloropropene	BRL	1.0		ug/L	232790	1	11/14/2016 13:08	NP
Trichloroethene	BRL	1.0		ug/L	232790	1	11/14/2016 13:08	NP
Trichlorofluoromethane	BRL	1.0		ug/L	232790	1	11/14/2016 13:08	NP
Vinyl chloride	BRL	1.0		ug/L	232790	1	11/14/2016 13:08	NP
Xylenes, Total	BRL	1.0		ug/L	232790	1	11/14/2016 13:08	NP
Surr: 4-Bromofluorobenzene	119	70-130		%REC	232790	1	11/14/2016 13:08	NP
Surr: Dibromofluoromethane	122	70-130		%REC	232790	1	11/14/2016 13:08	NP
Surr: Toluene-d8	95.5	70-130		%REC	232790	1	11/14/2016 13:08	NP
TCL-SEMIVOLATILE ORGANICS SW8270D (SW3520)								
1,1'-Biphenyl	BRL	10		ug/L	232573	1	11/11/2016 14:59	YH
2,4,5-Trichlorophenol	BRL	25		ug/L	232573	1	11/11/2016 14:59	YH
2,4,6-Trichlorophenol	BRL	10		ug/L	232573	1	11/11/2016 14:59	YH
2,4-Dichlorophenol	BRL	10		ug/L	232573	1	11/11/2016 14:59	YH
2,4-Dimethylphenol	BRL	10		ug/L	232573	1	11/11/2016 14:59	YH
2,4-Dinitrophenol	BRL	25		ug/L	232573	1	11/11/2016 14:59	YH
2,4-Dinitrotoluene	BRL	10		ug/L	232573	1	11/11/2016 14:59	YH
2,6-Dinitrotoluene	BRL	10		ug/L	232573	1	11/11/2016 14:59	YH
2-Chloronaphthalene	BRL	10		ug/L	232573	1	11/11/2016 14:59	YH
2-Chlorophenol	BRL	10		ug/L	232573	1	11/11/2016 14:59	YH
2-Methylnaphthalene	BRL	10		ug/L	232573	1	11/11/2016 14:59	YH
2-Methylphenol	BRL	10		ug/L	232573	1	11/11/2016 14:59	YH
2-Nitroaniline	BRL	25		ug/L	232573	1	11/11/2016 14:59	YH
2-Nitrophenol	BRL	10		ug/L	232573	1	11/11/2016 14:59	YH
3,3'-Dichlorobenzidine	BRL	10		ug/L	232573	1	11/11/2016 14:59	YH
3-Nitroaniline	BRL	25		ug/L	232573	1	11/11/2016 14:59	YH
4,6-Dinitro-2-methylphenol	BRL	25		ug/L	232573	1	11/11/2016 14:59	YH
4-Bromophenyl phenyl ether	BRL	10		ug/L	232573	1	11/11/2016 14:59	YH
4-Chloro-3-methylphenol	BRL	10		ug/L	232573	1	11/11/2016 14:59	YH
4-Chloroaniline	BRL	10		ug/L	232573	1	11/11/2016 14:59	YH
4-Chlorophenyl phenyl ether	BRL	10		ug/L	232573	1	11/11/2016 14:59	YH
4-Methylphenol	BRL	10		ug/L	232573	1	11/11/2016 14:59	YH
4-Nitroaniline	BRL	25		ug/L	232573	1	11/11/2016 14:59	YH
4-Nitrophenol	BRL	25		ug/L	232573	1	11/11/2016 14:59	YH
Acenaphthene	BRL	10		ug/L	232573	1	11/11/2016 14:59	YH
Acenaphthylene	BRL	10		ug/L	232573	1	11/11/2016 14:59	YH
Acetophenone	BRL	10		ug/L	232573	1	11/11/2016 14:59	YH
Anthracene	BRL	10		ug/L	232573	1	11/11/2016 14:59	YH
Atrazine	BRL	10		ug/L	232573	1	11/11/2016 14:59	YH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 17-Nov-16

Client: GHD Services, Inc.	Client Sample ID: GW-077150-110816-TBM-106
Project Name: Bluewater Thermal Solutions	Collection Date: 11/8/2016 10:50:00 AM
Lab ID: 1611766-006	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D					(SW3520)			
Benz(a)anthracene	BRL	10		ug/L	232573	1	11/11/2016 14:59	YH
Benzaldehyde	BRL	10		ug/L	232573	1	11/11/2016 14:59	YH
Benzo(a)pyrene	BRL	10		ug/L	232573	1	11/11/2016 14:59	YH
Benzo(b)fluoranthene	BRL	10		ug/L	232573	1	11/11/2016 14:59	YH
Benzo(g,h,i)perylene	BRL	10		ug/L	232573	1	11/11/2016 14:59	YH
Benzo(k)fluoranthene	BRL	10		ug/L	232573	1	11/11/2016 14:59	YH
Bis(2-chloroethoxy)methane	BRL	10		ug/L	232573	1	11/11/2016 14:59	YH
Bis(2-chloroethyl)ether	BRL	10		ug/L	232573	1	11/11/2016 14:59	YH
Bis(2-chloroisopropyl)ether	BRL	10		ug/L	232573	1	11/11/2016 14:59	YH
Bis(2-ethylhexyl)phthalate	BRL	10		ug/L	232573	1	11/11/2016 14:59	YH
Butyl benzyl phthalate	BRL	10		ug/L	232573	1	11/11/2016 14:59	YH
Caprolactam	BRL	10		ug/L	232573	1	11/11/2016 14:59	YH
Carbazole	BRL	10		ug/L	232573	1	11/11/2016 14:59	YH
Chrysene	BRL	10		ug/L	232573	1	11/11/2016 14:59	YH
Di-n-butyl phthalate	BRL	10		ug/L	232573	1	11/11/2016 14:59	YH
Di-n-octyl phthalate	BRL	10		ug/L	232573	1	11/11/2016 14:59	YH
Dibenz(a,h)anthracene	BRL	10		ug/L	232573	1	11/11/2016 14:59	YH
Dibenzofuran	BRL	10		ug/L	232573	1	11/11/2016 14:59	YH
Diethyl phthalate	BRL	10		ug/L	232573	1	11/11/2016 14:59	YH
Dimethyl phthalate	BRL	10		ug/L	232573	1	11/11/2016 14:59	YH
Fluoranthene	BRL	10		ug/L	232573	1	11/11/2016 14:59	YH
Fluorene	BRL	10		ug/L	232573	1	11/11/2016 14:59	YH
Hexachlorobenzene	BRL	10		ug/L	232573	1	11/11/2016 14:59	YH
Hexachlorobutadiene	BRL	10		ug/L	232573	1	11/11/2016 14:59	YH
Hexachlorocyclopentadiene	BRL	10		ug/L	232573	1	11/11/2016 14:59	YH
Hexachloroethane	BRL	10		ug/L	232573	1	11/11/2016 14:59	YH
Indeno(1,2,3-cd)pyrene	BRL	10		ug/L	232573	1	11/11/2016 14:59	YH
Isophorone	BRL	10		ug/L	232573	1	11/11/2016 14:59	YH
N-Nitrosodi-n-propylamine	BRL	10		ug/L	232573	1	11/11/2016 14:59	YH
N-Nitrosodiphenylamine	BRL	10		ug/L	232573	1	11/11/2016 14:59	YH
Naphthalene	BRL	10		ug/L	232573	1	11/11/2016 14:59	YH
Nitrobenzene	BRL	10		ug/L	232573	1	11/11/2016 14:59	YH
Pentachlorophenol	BRL	25		ug/L	232573	1	11/11/2016 14:59	YH
Phenanthrene	BRL	10		ug/L	232573	1	11/11/2016 14:59	YH
Phenol	BRL	10		ug/L	232573	1	11/11/2016 14:59	YH
Pyrene	BRL	10		ug/L	232573	1	11/11/2016 14:59	YH
Surr: 2,4,6-Tribromophenol	87.8	51.5-141		%REC	232573	1	11/11/2016 14:59	YH
Surr: 2-Fluorobiphenyl	71	50.8-122		%REC	232573	1	11/11/2016 14:59	YH
Surr: 2-Fluorophenol	59.2	28.1-120		%REC	232573	1	11/11/2016 14:59	YH
Surr: 4-Terphenyl-d14	79.7	47.2-131		%REC	232573	1	11/11/2016 14:59	YH
Surr: Nitrobenzene-d5	79	42.1-124		%REC	232573	1	11/11/2016 14:59	YH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 17-Nov-16

Client: GHD Services, Inc.	Client Sample ID: GW-077150-110816-TBM-106
Project Name: Bluewater Thermal Solutions	Collection Date: 11/8/2016 10:50:00 AM
Lab ID: 1611766-006	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D					(SW3520)			
Surr: Phenol-d5	71.1	16-120		%REC	232573	1	11/11/2016 14:59	YH
METALS, TOTAL SW6010C					(SW3010A)			
Aluminum	365	200		ug/L	232819	1	11/16/2016 13:52	IO
Antimony	BRL	20.0		ug/L	232819	1	11/16/2016 13:52	IO
Arsenic	BRL	10.0		ug/L	232819	1	11/16/2016 13:52	IO
Barium	136	20.0		ug/L	232819	1	11/16/2016 13:52	IO
Beryllium	BRL	5.00		ug/L	232819	1	11/16/2016 13:52	IO
Cadmium	BRL	5.00		ug/L	232819	1	11/16/2016 13:52	IO
Calcium	766	100		ug/L	232819	1	11/16/2016 13:52	IO
Chromium	BRL	10.0		ug/L	232819	1	11/16/2016 13:52	IO
Cobalt	BRL	20.0		ug/L	232819	1	11/16/2016 13:52	IO
Copper	BRL	10.0		ug/L	232819	1	11/16/2016 13:52	IO
Iron	BRL	100		ug/L	232819	1	11/16/2016 13:52	IO
Lead	BRL	5.00		ug/L	232819	1	11/16/2016 13:52	IO
Magnesium	1790	100		ug/L	232819	1	11/16/2016 13:52	IO
Manganese	241	15.0		ug/L	232819	1	11/16/2016 13:52	IO
Nickel	BRL	20.0		ug/L	232819	1	11/16/2016 13:52	IO
Potassium	5620	500		ug/L	232819	1	11/16/2016 13:52	IO
Selenium	BRL	10.0		ug/L	232819	1	11/16/2016 13:52	IO
Silver	BRL	10.0		ug/L	232819	1	11/16/2016 13:52	IO
Sodium	51600	1000		ug/L	232819	1	11/16/2016 13:52	IO
Thallium	BRL	10.0		ug/L	232819	1	11/16/2016 13:52	IO
Vanadium	BRL	10.0		ug/L	232819	1	11/16/2016 13:52	IO
Zinc	BRL	20.0		ug/L	232819	1	11/16/2016 13:52	IO
Mercury, Total SW7470A					(SW7470A)			
Mercury	BRL	0.200		ug/L	232713	1	11/11/2016 14:36	JR

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 17-Nov-16

Client: GHD Services, Inc.	Client Sample ID: GW-077150-110816-TBM-107
Project Name: Bluewater Thermal Solutions	Collection Date: 11/8/2016 12:00:00 PM
Lab ID: 1611766-007	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
1,1,1,2-Tetrachloroethane	BRL	1.0		ug/L	232790	1	11/14/2016 13:32	NP
1,1,1-Trichloroethane	BRL	1.0		ug/L	232790	1	11/14/2016 13:32	NP
1,1,2-Trichloroethane	BRL	1.0		ug/L	232790	1	11/14/2016 13:32	NP
1,1-Dichloroethane	BRL	1.0		ug/L	232790	1	11/14/2016 13:32	NP
1,1-Dichloroethene	BRL	1.0		ug/L	232790	1	11/14/2016 13:32	NP
1,2,4-Trichlorobenzene	BRL	1.0		ug/L	232790	1	11/14/2016 13:32	NP
1,2-Dibromo-3-chloropropane	BRL	1.0		ug/L	232790	1	11/14/2016 13:32	NP
1,2-Dibromoethane	BRL	1.0		ug/L	232790	1	11/14/2016 13:32	NP
1,2-Dichlorobenzene	BRL	1.0		ug/L	232790	1	11/14/2016 13:32	NP
1,2-Dichloroethane	BRL	1.0		ug/L	232790	1	11/14/2016 13:32	NP
1,2-Dichloropropane	BRL	1.0		ug/L	232790	1	11/14/2016 13:32	NP
1,3-Dichlorobenzene	BRL	1.0		ug/L	232790	1	11/14/2016 13:32	NP
1,4-Dichlorobenzene	BRL	1.0		ug/L	232790	1	11/14/2016 13:32	NP
2-Butanone	BRL	5.0		ug/L	232790	1	11/14/2016 13:32	NP
2-Hexanone	BRL	5.0		ug/L	232790	1	11/14/2016 13:32	NP
4-Methyl-2-pentanone	BRL	5.0		ug/L	232790	1	11/14/2016 13:32	NP
Acetone	BRL	5.0		ug/L	232790	1	11/14/2016 13:32	NP
Benzene	BRL	1.0		ug/L	232790	1	11/14/2016 13:32	NP
Bromodichloromethane	BRL	1.0		ug/L	232790	1	11/14/2016 13:32	NP
Bromoform	BRL	1.0		ug/L	232790	1	11/14/2016 13:32	NP
Bromomethane	BRL	1.0		ug/L	232790	1	11/14/2016 13:32	NP
Carbon disulfide	BRL	1.0		ug/L	232790	1	11/14/2016 13:32	NP
Carbon tetrachloride	BRL	1.0		ug/L	232790	1	11/14/2016 13:32	NP
Chlorobenzene	BRL	1.0		ug/L	232790	1	11/14/2016 13:32	NP
Chloroethane	BRL	1.0		ug/L	232790	1	11/14/2016 13:32	NP
Chloroform	BRL	1.0		ug/L	232790	1	11/14/2016 13:32	NP
Chloromethane	BRL	1.0		ug/L	232790	1	11/14/2016 13:32	NP
cis-1,2-Dichloroethene	BRL	1.0		ug/L	232790	1	11/14/2016 13:32	NP
cis-1,3-Dichloropropene	BRL	1.0		ug/L	232790	1	11/14/2016 13:32	NP
Cyclohexane	BRL	1.0		ug/L	232790	1	11/14/2016 13:32	NP
Dibromochloromethane	BRL	1.0		ug/L	232790	1	11/14/2016 13:32	NP
Dichlorodifluoromethane	BRL	1.0		ug/L	232790	1	11/14/2016 13:32	NP
Ethylbenzene	BRL	1.0		ug/L	232790	1	11/14/2016 13:32	NP
Freon-113	BRL	1.0		ug/L	232790	1	11/14/2016 13:32	NP
Isopropylbenzene	BRL	1.0		ug/L	232790	1	11/14/2016 13:32	NP
Methyl acetate	BRL	1.0		ug/L	232790	1	11/14/2016 13:32	NP
Methyl tert-butyl ether	BRL	1.0		ug/L	232790	1	11/14/2016 13:32	NP
Methylcyclohexane	BRL	1.0		ug/L	232790	1	11/14/2016 13:32	NP
Methylene chloride	BRL	2.0		ug/L	232790	1	11/14/2016 13:32	NP
Styrene	BRL	1.0		ug/L	232790	1	11/14/2016 13:32	NP
Tetrachloroethene	BRL	1.0		ug/L	232790	1	11/14/2016 13:32	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 17-Nov-16

Client: GHD Services, Inc.	Client Sample ID: GW-077150-110816-TBM-107
Project Name: Bluewater Thermal Solutions	Collection Date: 11/8/2016 12:00:00 PM
Lab ID: 1611766-007	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Toluene	BRL	1.0		ug/L	232790	1	11/14/2016 13:32	NP
trans-1,2-Dichloroethene	BRL	1.0		ug/L	232790	1	11/14/2016 13:32	NP
trans-1,3-Dichloropropene	BRL	1.0		ug/L	232790	1	11/14/2016 13:32	NP
Trichloroethene	BRL	1.0		ug/L	232790	1	11/14/2016 13:32	NP
Trichlorofluoromethane	BRL	1.0		ug/L	232790	1	11/14/2016 13:32	NP
Vinyl chloride	BRL	1.0		ug/L	232790	1	11/14/2016 13:32	NP
Xylenes, Total	BRL	1.0		ug/L	232790	1	11/14/2016 13:32	NP
Surr: 4-Bromofluorobenzene	115	70-130		%REC	232790	1	11/14/2016 13:32	NP
Surr: Dibromofluoromethane	114	70-130		%REC	232790	1	11/14/2016 13:32	NP
Surr: Toluene-d8	98	70-130		%REC	232790	1	11/14/2016 13:32	NP
TCL-SEMIVOLATILE ORGANICS SW8270D (SW3520)								
1,1'-Biphenyl	BRL	10		ug/L	232573	1	11/11/2016 15:24	YH
2,4,5-Trichlorophenol	BRL	25		ug/L	232573	1	11/11/2016 15:24	YH
2,4,6-Trichlorophenol	BRL	10		ug/L	232573	1	11/11/2016 15:24	YH
2,4-Dichlorophenol	BRL	10		ug/L	232573	1	11/11/2016 15:24	YH
2,4-Dimethylphenol	BRL	10		ug/L	232573	1	11/11/2016 15:24	YH
2,4-Dinitrophenol	BRL	25		ug/L	232573	1	11/11/2016 15:24	YH
2,4-Dinitrotoluene	BRL	10		ug/L	232573	1	11/11/2016 15:24	YH
2,6-Dinitrotoluene	BRL	10		ug/L	232573	1	11/11/2016 15:24	YH
2-Chloronaphthalene	BRL	10		ug/L	232573	1	11/11/2016 15:24	YH
2-Chlorophenol	BRL	10		ug/L	232573	1	11/11/2016 15:24	YH
2-Methylnaphthalene	BRL	10		ug/L	232573	1	11/11/2016 15:24	YH
2-Methylphenol	BRL	10		ug/L	232573	1	11/11/2016 15:24	YH
2-Nitroaniline	BRL	25		ug/L	232573	1	11/11/2016 15:24	YH
2-Nitrophenol	BRL	10		ug/L	232573	1	11/11/2016 15:24	YH
3,3'-Dichlorobenzidine	BRL	10		ug/L	232573	1	11/11/2016 15:24	YH
3-Nitroaniline	BRL	25		ug/L	232573	1	11/11/2016 15:24	YH
4,6-Dinitro-2-methylphenol	BRL	25		ug/L	232573	1	11/11/2016 15:24	YH
4-Bromophenyl phenyl ether	BRL	10		ug/L	232573	1	11/11/2016 15:24	YH
4-Chloro-3-methylphenol	BRL	10		ug/L	232573	1	11/11/2016 15:24	YH
4-Chloroaniline	BRL	10		ug/L	232573	1	11/11/2016 15:24	YH
4-Chlorophenyl phenyl ether	BRL	10		ug/L	232573	1	11/11/2016 15:24	YH
4-Methylphenol	BRL	10		ug/L	232573	1	11/11/2016 15:24	YH
4-Nitroaniline	BRL	25		ug/L	232573	1	11/11/2016 15:24	YH
4-Nitrophenol	BRL	25		ug/L	232573	1	11/11/2016 15:24	YH
Acenaphthene	BRL	10		ug/L	232573	1	11/11/2016 15:24	YH
Acenaphthylene	BRL	10		ug/L	232573	1	11/11/2016 15:24	YH
Acetophenone	BRL	10		ug/L	232573	1	11/11/2016 15:24	YH
Anthracene	BRL	10		ug/L	232573	1	11/11/2016 15:24	YH
Atrazine	BRL	10		ug/L	232573	1	11/11/2016 15:24	YH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 17-Nov-16

Client: GHD Services, Inc.	Client Sample ID: GW-077150-110816-TBM-107
Project Name: Bluewater Thermal Solutions	Collection Date: 11/8/2016 12:00:00 PM
Lab ID: 1611766-007	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D					(SW3520)			
Benz(a)anthracene	BRL	10		ug/L	232573	1	11/11/2016 15:24	YH
Benzaldehyde	BRL	10		ug/L	232573	1	11/11/2016 15:24	YH
Benzo(a)pyrene	BRL	10		ug/L	232573	1	11/11/2016 15:24	YH
Benzo(b)fluoranthene	BRL	10		ug/L	232573	1	11/11/2016 15:24	YH
Benzo(g,h,i)perylene	BRL	10		ug/L	232573	1	11/11/2016 15:24	YH
Benzo(k)fluoranthene	BRL	10		ug/L	232573	1	11/11/2016 15:24	YH
Bis(2-chloroethoxy)methane	BRL	10		ug/L	232573	1	11/11/2016 15:24	YH
Bis(2-chloroethyl)ether	BRL	10		ug/L	232573	1	11/11/2016 15:24	YH
Bis(2-chloroisopropyl)ether	BRL	10		ug/L	232573	1	11/11/2016 15:24	YH
Bis(2-ethylhexyl)phthalate	BRL	10		ug/L	232573	1	11/11/2016 15:24	YH
Butyl benzyl phthalate	BRL	10		ug/L	232573	1	11/11/2016 15:24	YH
Caprolactam	BRL	10		ug/L	232573	1	11/11/2016 15:24	YH
Carbazole	BRL	10		ug/L	232573	1	11/11/2016 15:24	YH
Chrysene	BRL	10		ug/L	232573	1	11/11/2016 15:24	YH
Di-n-butyl phthalate	BRL	10		ug/L	232573	1	11/11/2016 15:24	YH
Di-n-octyl phthalate	BRL	10		ug/L	232573	1	11/11/2016 15:24	YH
Dibenz(a,h)anthracene	BRL	10		ug/L	232573	1	11/11/2016 15:24	YH
Dibenzofuran	BRL	10		ug/L	232573	1	11/11/2016 15:24	YH
Diethyl phthalate	BRL	10		ug/L	232573	1	11/11/2016 15:24	YH
Dimethyl phthalate	BRL	10		ug/L	232573	1	11/11/2016 15:24	YH
Fluoranthene	BRL	10		ug/L	232573	1	11/11/2016 15:24	YH
Fluorene	BRL	10		ug/L	232573	1	11/11/2016 15:24	YH
Hexachlorobenzene	BRL	10		ug/L	232573	1	11/11/2016 15:24	YH
Hexachlorobutadiene	BRL	10		ug/L	232573	1	11/11/2016 15:24	YH
Hexachlorocyclopentadiene	BRL	10		ug/L	232573	1	11/11/2016 15:24	YH
Hexachloroethane	BRL	10		ug/L	232573	1	11/11/2016 15:24	YH
Indeno(1,2,3-cd)pyrene	BRL	10		ug/L	232573	1	11/11/2016 15:24	YH
Isophorone	BRL	10		ug/L	232573	1	11/11/2016 15:24	YH
N-Nitrosodi-n-propylamine	BRL	10		ug/L	232573	1	11/11/2016 15:24	YH
N-Nitrosodiphenylamine	BRL	10		ug/L	232573	1	11/11/2016 15:24	YH
Naphthalene	BRL	10		ug/L	232573	1	11/11/2016 15:24	YH
Nitrobenzene	BRL	10		ug/L	232573	1	11/11/2016 15:24	YH
Pentachlorophenol	BRL	25		ug/L	232573	1	11/11/2016 15:24	YH
Phenanthrene	BRL	10		ug/L	232573	1	11/11/2016 15:24	YH
Phenol	BRL	10		ug/L	232573	1	11/11/2016 15:24	YH
Pyrene	BRL	10		ug/L	232573	1	11/11/2016 15:24	YH
Surr: 2,4,6-Tribromophenol	84.9	51.5-141		%REC	232573	1	11/11/2016 15:24	YH
Surr: 2-Fluorobiphenyl	69.6	50.8-122		%REC	232573	1	11/11/2016 15:24	YH
Surr: 2-Fluorophenol	59.4	28.1-120		%REC	232573	1	11/11/2016 15:24	YH
Surr: 4-Terphenyl-d14	78.4	47.2-131		%REC	232573	1	11/11/2016 15:24	YH
Surr: Nitrobenzene-d5	77	42.1-124		%REC	232573	1	11/11/2016 15:24	YH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 17-Nov-16

Client: GHD Services, Inc.	Client Sample ID: GW-077150-110816-TBM-107
Project Name: Bluewater Thermal Solutions	Collection Date: 11/8/2016 12:00:00 PM
Lab ID: 1611766-007	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D					(SW3520)			
Surr: Phenol-d5	72.5	16-120		%REC	232573	1	11/11/2016 15:24	YH
METALS, TOTAL SW6010C					(SW3010A)			
Aluminum	754	200		ug/L	232819	1	11/16/2016 13:56	IO
Antimony	BRL	20.0		ug/L	232819	1	11/16/2016 13:56	IO
Arsenic	BRL	10.0		ug/L	232819	1	11/16/2016 13:56	IO
Barium	30.2	20.0		ug/L	232819	1	11/16/2016 13:56	IO
Beryllium	BRL	5.00		ug/L	232819	1	11/16/2016 13:56	IO
Cadmium	BRL	5.00		ug/L	232819	1	11/16/2016 13:56	IO
Calcium	4640	100		ug/L	232819	1	11/16/2016 13:56	IO
Chromium	BRL	10.0		ug/L	232819	1	11/16/2016 13:56	IO
Cobalt	BRL	20.0		ug/L	232819	1	11/16/2016 13:56	IO
Copper	BRL	10.0		ug/L	232819	1	11/16/2016 13:56	IO
Iron	BRL	100		ug/L	232819	1	11/16/2016 13:56	IO
Lead	BRL	5.00		ug/L	232819	1	11/16/2016 13:56	IO
Magnesium	389	100		ug/L	232819	1	11/16/2016 13:56	IO
Manganese	79.9	15.0		ug/L	232819	1	11/16/2016 13:56	IO
Nickel	BRL	20.0		ug/L	232819	1	11/16/2016 13:56	IO
Potassium	25400	500		ug/L	232819	1	11/16/2016 13:56	IO
Selenium	BRL	10.0		ug/L	232819	1	11/16/2016 13:56	IO
Silver	BRL	10.0		ug/L	232819	1	11/16/2016 13:56	IO
Sodium	9160	1000		ug/L	232819	1	11/16/2016 13:56	IO
Thallium	BRL	10.0		ug/L	232819	1	11/16/2016 13:56	IO
Vanadium	BRL	10.0		ug/L	232819	1	11/16/2016 13:56	IO
Zinc	BRL	20.0		ug/L	232819	1	11/16/2016 13:56	IO
Mercury, Total SW7470A					(SW7470A)			
Mercury	BRL	0.200		ug/L	232713	1	11/11/2016 14:38	JR

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 17-Nov-16

Client: GHD Services, Inc.	Client Sample ID: GW-077150-110816-TBM-108
Project Name: Bluewater Thermal Solutions	Collection Date: 11/8/2016 1:10:00 PM
Lab ID: 1611766-008	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
1,1,1,2-Tetrachloroethane	BRL	1.0		ug/L	232790	1	11/14/2016 13:56	NP
1,1,1-Trichloroethane	BRL	1.0		ug/L	232790	1	11/14/2016 13:56	NP
1,1,2-Trichloroethane	BRL	1.0		ug/L	232790	1	11/14/2016 13:56	NP
1,1-Dichloroethane	BRL	1.0		ug/L	232790	1	11/14/2016 13:56	NP
1,1-Dichloroethene	BRL	1.0		ug/L	232790	1	11/14/2016 13:56	NP
1,2,4-Trichlorobenzene	BRL	1.0		ug/L	232790	1	11/14/2016 13:56	NP
1,2-Dibromo-3-chloropropane	BRL	1.0		ug/L	232790	1	11/14/2016 13:56	NP
1,2-Dibromoethane	BRL	1.0		ug/L	232790	1	11/14/2016 13:56	NP
1,2-Dichlorobenzene	BRL	1.0		ug/L	232790	1	11/14/2016 13:56	NP
1,2-Dichloroethane	BRL	1.0		ug/L	232790	1	11/14/2016 13:56	NP
1,2-Dichloropropane	BRL	1.0		ug/L	232790	1	11/14/2016 13:56	NP
1,3-Dichlorobenzene	BRL	1.0		ug/L	232790	1	11/14/2016 13:56	NP
1,4-Dichlorobenzene	BRL	1.0		ug/L	232790	1	11/14/2016 13:56	NP
2-Butanone	BRL	5.0		ug/L	232790	1	11/14/2016 13:56	NP
2-Hexanone	BRL	5.0		ug/L	232790	1	11/14/2016 13:56	NP
4-Methyl-2-pentanone	BRL	5.0		ug/L	232790	1	11/14/2016 13:56	NP
Acetone	BRL	5.0		ug/L	232790	1	11/14/2016 13:56	NP
Benzene	BRL	1.0		ug/L	232790	1	11/14/2016 13:56	NP
Bromodichloromethane	BRL	1.0		ug/L	232790	1	11/14/2016 13:56	NP
Bromoform	BRL	1.0		ug/L	232790	1	11/14/2016 13:56	NP
Bromomethane	BRL	1.0		ug/L	232790	1	11/14/2016 13:56	NP
Carbon disulfide	BRL	1.0		ug/L	232790	1	11/14/2016 13:56	NP
Carbon tetrachloride	BRL	1.0		ug/L	232790	1	11/14/2016 13:56	NP
Chlorobenzene	BRL	1.0		ug/L	232790	1	11/14/2016 13:56	NP
Chloroethane	BRL	1.0		ug/L	232790	1	11/14/2016 13:56	NP
Chloroform	BRL	1.0		ug/L	232790	1	11/14/2016 13:56	NP
Chloromethane	BRL	1.0		ug/L	232790	1	11/14/2016 13:56	NP
cis-1,2-Dichloroethene	BRL	1.0		ug/L	232790	1	11/14/2016 13:56	NP
cis-1,3-Dichloropropene	BRL	1.0		ug/L	232790	1	11/14/2016 13:56	NP
Cyclohexane	BRL	1.0		ug/L	232790	1	11/14/2016 13:56	NP
Dibromochloromethane	BRL	1.0		ug/L	232790	1	11/14/2016 13:56	NP
Dichlorodifluoromethane	BRL	1.0		ug/L	232790	1	11/14/2016 13:56	NP
Ethylbenzene	BRL	1.0		ug/L	232790	1	11/14/2016 13:56	NP
Freon-113	BRL	1.0		ug/L	232790	1	11/14/2016 13:56	NP
Isopropylbenzene	BRL	1.0		ug/L	232790	1	11/14/2016 13:56	NP
Methyl acetate	BRL	1.0		ug/L	232790	1	11/14/2016 13:56	NP
Methyl tert-butyl ether	BRL	1.0		ug/L	232790	1	11/14/2016 13:56	NP
Methylcyclohexane	BRL	1.0		ug/L	232790	1	11/14/2016 13:56	NP
Methylene chloride	BRL	2.0		ug/L	232790	1	11/14/2016 13:56	NP
Styrene	BRL	1.0		ug/L	232790	1	11/14/2016 13:56	NP
Tetrachloroethene	53	1.0		ug/L	232790	1	11/14/2016 13:56	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Client: GHD Services, Inc.	Client Sample ID: GW-077150-110816-TBM-108
Project Name: Bluewater Thermal Solutions	Collection Date: 11/8/2016 1:10:00 PM
Lab ID: 1611766-008	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B			(SW5030B)					
Toluene	BRL	1.0		ug/L	232790	1	11/14/2016 13:56	NP
trans-1,2-Dichloroethene	BRL	1.0		ug/L	232790	1	11/14/2016 13:56	NP
trans-1,3-Dichloropropene	BRL	1.0		ug/L	232790	1	11/14/2016 13:56	NP
Trichloroethene	BRL	1.0		ug/L	232790	1	11/14/2016 13:56	NP
Trichlorofluoromethane	BRL	1.0		ug/L	232790	1	11/14/2016 13:56	NP
Vinyl chloride	BRL	1.0		ug/L	232790	1	11/14/2016 13:56	NP
Xylenes, Total	BRL	1.0		ug/L	232790	1	11/14/2016 13:56	NP
Surr: 4-Bromofluorobenzene	118	70-130		%REC	232790	1	11/14/2016 13:56	NP
Surr: Dibromofluoromethane	119	70-130		%REC	232790	1	11/14/2016 13:56	NP
Surr: Toluene-d8	96.8	70-130		%REC	232790	1	11/14/2016 13:56	NP
TCL-SEMIVOLATILE ORGANICS SW8270D			(SW3520)					
1,1'-Biphenyl	BRL	10		ug/L	232573	1	11/11/2016 15:49	YH
2,4,5-Trichlorophenol	BRL	25		ug/L	232573	1	11/11/2016 15:49	YH
2,4,6-Trichlorophenol	BRL	10		ug/L	232573	1	11/11/2016 15:49	YH
2,4-Dichlorophenol	BRL	10		ug/L	232573	1	11/11/2016 15:49	YH
2,4-Dimethylphenol	BRL	10		ug/L	232573	1	11/11/2016 15:49	YH
2,4-Dinitrophenol	BRL	25		ug/L	232573	1	11/11/2016 15:49	YH
2,4-Dinitrotoluene	BRL	10		ug/L	232573	1	11/11/2016 15:49	YH
2,6-Dinitrotoluene	BRL	10		ug/L	232573	1	11/11/2016 15:49	YH
2-Chloronaphthalene	BRL	10		ug/L	232573	1	11/11/2016 15:49	YH
2-Chlorophenol	BRL	10		ug/L	232573	1	11/11/2016 15:49	YH
2-Methylnaphthalene	BRL	10		ug/L	232573	1	11/11/2016 15:49	YH
2-Methylphenol	BRL	10		ug/L	232573	1	11/11/2016 15:49	YH
2-Nitroaniline	BRL	25		ug/L	232573	1	11/11/2016 15:49	YH
2-Nitrophenol	BRL	10		ug/L	232573	1	11/11/2016 15:49	YH
3,3'-Dichlorobenzidine	BRL	10		ug/L	232573	1	11/11/2016 15:49	YH
3-Nitroaniline	BRL	25		ug/L	232573	1	11/11/2016 15:49	YH
4,6-Dinitro-2-methylphenol	BRL	25		ug/L	232573	1	11/11/2016 15:49	YH
4-Bromophenyl phenyl ether	BRL	10		ug/L	232573	1	11/11/2016 15:49	YH
4-Chloro-3-methylphenol	BRL	10		ug/L	232573	1	11/11/2016 15:49	YH
4-Chloroaniline	BRL	10		ug/L	232573	1	11/11/2016 15:49	YH
4-Chlorophenyl phenyl ether	BRL	10		ug/L	232573	1	11/11/2016 15:49	YH
4-Methylphenol	BRL	10		ug/L	232573	1	11/11/2016 15:49	YH
4-Nitroaniline	BRL	25		ug/L	232573	1	11/11/2016 15:49	YH
4-Nitrophenol	BRL	25		ug/L	232573	1	11/11/2016 15:49	YH
Acenaphthene	BRL	10		ug/L	232573	1	11/11/2016 15:49	YH
Acenaphthylene	BRL	10		ug/L	232573	1	11/11/2016 15:49	YH
Acetophenone	BRL	10		ug/L	232573	1	11/11/2016 15:49	YH
Anthracene	BRL	10		ug/L	232573	1	11/11/2016 15:49	YH
Atrazine	BRL	10		ug/L	232573	1	11/11/2016 15:49	YH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 17-Nov-16

Client: GHD Services, Inc.	Client Sample ID: GW-077150-110816-TBM-108
Project Name: Bluewater Thermal Solutions	Collection Date: 11/8/2016 1:10:00 PM
Lab ID: 1611766-008	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D					(SW3520)			
Benz(a)anthracene	BRL	10		ug/L	232573	1	11/11/2016 15:49	YH
Benzaldehyde	BRL	10		ug/L	232573	1	11/11/2016 15:49	YH
Benzo(a)pyrene	BRL	10		ug/L	232573	1	11/11/2016 15:49	YH
Benzo(b)fluoranthene	BRL	10		ug/L	232573	1	11/11/2016 15:49	YH
Benzo(g,h,i)perylene	BRL	10		ug/L	232573	1	11/11/2016 15:49	YH
Benzo(k)fluoranthene	BRL	10		ug/L	232573	1	11/11/2016 15:49	YH
Bis(2-chloroethoxy)methane	BRL	10		ug/L	232573	1	11/11/2016 15:49	YH
Bis(2-chloroethyl)ether	BRL	10		ug/L	232573	1	11/11/2016 15:49	YH
Bis(2-chloroisopropyl)ether	BRL	10		ug/L	232573	1	11/11/2016 15:49	YH
Bis(2-ethylhexyl)phthalate	BRL	10		ug/L	232573	1	11/11/2016 15:49	YH
Butyl benzyl phthalate	BRL	10		ug/L	232573	1	11/11/2016 15:49	YH
Caprolactam	BRL	10		ug/L	232573	1	11/11/2016 15:49	YH
Carbazole	BRL	10		ug/L	232573	1	11/11/2016 15:49	YH
Chrysene	BRL	10		ug/L	232573	1	11/11/2016 15:49	YH
Di-n-butyl phthalate	BRL	10		ug/L	232573	1	11/11/2016 15:49	YH
Di-n-octyl phthalate	BRL	10		ug/L	232573	1	11/11/2016 15:49	YH
Dibenz(a,h)anthracene	BRL	10		ug/L	232573	1	11/11/2016 15:49	YH
Dibenzofuran	BRL	10		ug/L	232573	1	11/11/2016 15:49	YH
Diethyl phthalate	BRL	10		ug/L	232573	1	11/11/2016 15:49	YH
Dimethyl phthalate	BRL	10		ug/L	232573	1	11/11/2016 15:49	YH
Fluoranthene	BRL	10		ug/L	232573	1	11/11/2016 15:49	YH
Fluorene	BRL	10		ug/L	232573	1	11/11/2016 15:49	YH
Hexachlorobenzene	BRL	10		ug/L	232573	1	11/11/2016 15:49	YH
Hexachlorobutadiene	BRL	10		ug/L	232573	1	11/11/2016 15:49	YH
Hexachlorocyclopentadiene	BRL	10		ug/L	232573	1	11/11/2016 15:49	YH
Hexachloroethane	BRL	10		ug/L	232573	1	11/11/2016 15:49	YH
Indeno(1,2,3-cd)pyrene	BRL	10		ug/L	232573	1	11/11/2016 15:49	YH
Isophorone	BRL	10		ug/L	232573	1	11/11/2016 15:49	YH
N-Nitrosodi-n-propylamine	BRL	10		ug/L	232573	1	11/11/2016 15:49	YH
N-Nitrosodiphenylamine	BRL	10		ug/L	232573	1	11/11/2016 15:49	YH
Naphthalene	BRL	10		ug/L	232573	1	11/11/2016 15:49	YH
Nitrobenzene	BRL	10		ug/L	232573	1	11/11/2016 15:49	YH
Pentachlorophenol	BRL	25		ug/L	232573	1	11/11/2016 15:49	YH
Phenanthrene	BRL	10		ug/L	232573	1	11/11/2016 15:49	YH
Phenol	BRL	10		ug/L	232573	1	11/11/2016 15:49	YH
Pyrene	BRL	10		ug/L	232573	1	11/11/2016 15:49	YH
Surr: 2,4,6-Tribromophenol	84.3	51.5-141		%REC	232573	1	11/11/2016 15:49	YH
Surr: 2-Fluorobiphenyl	65.9	50.8-122		%REC	232573	1	11/11/2016 15:49	YH
Surr: 2-Fluorophenol	45.2	28.1-120		%REC	232573	1	11/11/2016 15:49	YH
Surr: 4-Terphenyl-d14	78.5	47.2-131		%REC	232573	1	11/11/2016 15:49	YH
Surr: Nitrobenzene-d5	69.9	42.1-124		%REC	232573	1	11/11/2016 15:49	YH

Qualifiers:	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 17-Nov-16

Client: GHD Services, Inc.	Client Sample ID: GW-077150-110816-TBM-108
Project Name: Bluewater Thermal Solutions	Collection Date: 11/8/2016 1:10:00 PM
Lab ID: 1611766-008	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D					(SW3520)			
Surr: Phenol-d5	61.6	16-120		%REC	232573	1	11/11/2016 15:49	YH
METALS, TOTAL SW6010C					(SW3010A)			
Aluminum	273	200		ug/L	232819	1	11/16/2016 14:00	IO
Antimony	BRL	20.0		ug/L	232819	1	11/16/2016 14:00	IO
Arsenic	BRL	10.0		ug/L	232819	1	11/16/2016 14:00	IO
Barium	63.4	20.0		ug/L	232819	1	11/16/2016 14:00	IO
Beryllium	BRL	5.00		ug/L	232819	1	11/16/2016 14:00	IO
Cadmium	BRL	5.00		ug/L	232819	1	11/16/2016 14:00	IO
Calcium	631	100		ug/L	232819	1	11/16/2016 14:00	IO
Chromium	BRL	10.0		ug/L	232819	1	11/16/2016 14:00	IO
Cobalt	BRL	20.0		ug/L	232819	1	11/16/2016 14:00	IO
Copper	BRL	10.0		ug/L	232819	1	11/16/2016 14:00	IO
Iron	BRL	100		ug/L	232819	1	11/16/2016 14:00	IO
Lead	BRL	5.00		ug/L	232819	1	11/16/2016 14:00	IO
Magnesium	620	100		ug/L	232819	1	11/16/2016 14:00	IO
Manganese	145	15.0		ug/L	232819	1	11/16/2016 14:00	IO
Nickel	BRL	20.0		ug/L	232819	1	11/16/2016 14:00	IO
Potassium	2550	500		ug/L	232819	1	11/16/2016 14:00	IO
Selenium	BRL	10.0		ug/L	232819	1	11/16/2016 14:00	IO
Silver	BRL	10.0		ug/L	232819	1	11/16/2016 14:00	IO
Sodium	1220	1000		ug/L	232819	1	11/16/2016 14:00	IO
Thallium	BRL	10.0		ug/L	232819	1	11/16/2016 14:00	IO
Vanadium	BRL	10.0		ug/L	232819	1	11/16/2016 14:00	IO
Zinc	BRL	20.0		ug/L	232819	1	11/16/2016 14:00	IO
Mercury, Total SW7470A					(SW7470A)			
Mercury	BRL	0.200		ug/L	232713	1	11/11/2016 14:40	JR

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 17-Nov-16

Client: GHD Services, Inc.	Client Sample ID: TRIP BLANK
Project Name: Bluewater Thermal Solutions	Collection Date: 11/8/2016
Lab ID: 1611766-009	Matrix: Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
1,1,1,2-Tetrachloroethane	BRL	1.0		ug/L	232790	1	11/11/2016 10:08	NP
1,1,1-Trichloroethane	BRL	1.0		ug/L	232790	1	11/11/2016 10:08	NP
1,1,2-Trichloroethane	BRL	1.0		ug/L	232790	1	11/11/2016 10:08	NP
1,1-Dichloroethane	BRL	1.0		ug/L	232790	1	11/11/2016 10:08	NP
1,1-Dichloroethene	BRL	1.0		ug/L	232790	1	11/11/2016 10:08	NP
1,2,4-Trichlorobenzene	BRL	1.0		ug/L	232790	1	11/11/2016 10:08	NP
1,2-Dibromo-3-chloropropane	BRL	1.0		ug/L	232790	1	11/11/2016 10:08	NP
1,2-Dibromoethane	BRL	1.0		ug/L	232790	1	11/11/2016 10:08	NP
1,2-Dichlorobenzene	BRL	1.0		ug/L	232790	1	11/11/2016 10:08	NP
1,2-Dichloroethane	BRL	1.0		ug/L	232790	1	11/11/2016 10:08	NP
1,2-Dichloropropane	BRL	1.0		ug/L	232790	1	11/11/2016 10:08	NP
1,3-Dichlorobenzene	BRL	1.0		ug/L	232790	1	11/11/2016 10:08	NP
1,4-Dichlorobenzene	BRL	1.0		ug/L	232790	1	11/11/2016 10:08	NP
2-Butanone	BRL	5.0		ug/L	232790	1	11/11/2016 10:08	NP
2-Hexanone	BRL	5.0		ug/L	232790	1	11/11/2016 10:08	NP
4-Methyl-2-pentanone	BRL	5.0		ug/L	232790	1	11/11/2016 10:08	NP
Acetone	BRL	5.0		ug/L	232790	1	11/11/2016 10:08	NP
Benzene	BRL	1.0		ug/L	232790	1	11/11/2016 10:08	NP
Bromodichloromethane	BRL	1.0		ug/L	232790	1	11/11/2016 10:08	NP
Bromoform	BRL	1.0		ug/L	232790	1	11/11/2016 10:08	NP
Bromomethane	BRL	1.0		ug/L	232790	1	11/11/2016 10:08	NP
Carbon disulfide	BRL	1.0		ug/L	232790	1	11/11/2016 10:08	NP
Carbon tetrachloride	BRL	1.0		ug/L	232790	1	11/11/2016 10:08	NP
Chlorobenzene	BRL	1.0		ug/L	232790	1	11/11/2016 10:08	NP
Chloroethane	BRL	1.0		ug/L	232790	1	11/11/2016 10:08	NP
Chloroform	BRL	1.0		ug/L	232790	1	11/11/2016 10:08	NP
Chloromethane	BRL	1.0		ug/L	232790	1	11/11/2016 10:08	NP
cis-1,2-Dichloroethene	BRL	1.0		ug/L	232790	1	11/11/2016 10:08	NP
cis-1,3-Dichloropropene	BRL	1.0		ug/L	232790	1	11/11/2016 10:08	NP
Cyclohexane	BRL	1.0		ug/L	232790	1	11/11/2016 10:08	NP
Dibromochloromethane	BRL	1.0		ug/L	232790	1	11/11/2016 10:08	NP
Dichlorodifluoromethane	BRL	1.0		ug/L	232790	1	11/11/2016 10:08	NP
Ethylbenzene	BRL	1.0		ug/L	232790	1	11/11/2016 10:08	NP
Freon-113	BRL	1.0		ug/L	232790	1	11/11/2016 10:08	NP
Isopropylbenzene	BRL	1.0		ug/L	232790	1	11/11/2016 10:08	NP
Methyl acetate	BRL	1.0		ug/L	232790	1	11/11/2016 10:08	NP
Methyl tert-butyl ether	BRL	1.0		ug/L	232790	1	11/11/2016 10:08	NP
Methylcyclohexane	BRL	1.0		ug/L	232790	1	11/11/2016 10:08	NP
Methylene chloride	BRL	2.0		ug/L	232790	1	11/11/2016 10:08	NP
Styrene	BRL	1.0		ug/L	232790	1	11/11/2016 10:08	NP
Tetrachloroethene	BRL	1.0		ug/L	232790	1	11/11/2016 10:08	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Client: GHD Services, Inc.	Client Sample ID: TRIP BLANK
Project Name: Bluewater Thermal Solutions	Collection Date: 11/8/2016
Lab ID: 1611766-009	Matrix: Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS		SW8260B						
					(SW5030B)			
Toluene	BRL	1.0		ug/L	232790	1	11/11/2016 10:08	NP
trans-1,2-Dichloroethene	BRL	1.0		ug/L	232790	1	11/11/2016 10:08	NP
trans-1,3-Dichloropropene	BRL	1.0		ug/L	232790	1	11/11/2016 10:08	NP
Trichloroethene	BRL	1.0		ug/L	232790	1	11/11/2016 10:08	NP
Trichlorofluoromethane	BRL	1.0		ug/L	232790	1	11/11/2016 10:08	NP
Vinyl chloride	BRL	1.0		ug/L	232790	1	11/11/2016 10:08	NP
Xylenes, Total	BRL	1.0		ug/L	232790	1	11/11/2016 10:08	NP
Surr: 4-Bromofluorobenzene	113	70-130		%REC	232790	1	11/11/2016 10:08	NP
Surr: Dibromofluoromethane	113	70-130		%REC	232790	1	11/11/2016 10:08	NP
Surr: Toluene-d8	93.5	70-130		%REC	232790	1	11/11/2016 10:08	NP

Qualifiers:	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 17-Nov-16

Client: GHD Services, Inc.	Client Sample ID: TRIP BLANK 2
Project Name: Bluewater Thermal Solutions	Collection Date: 11/8/2016
Lab ID: 1611766-010	Matrix: Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
1,1,1,2-Tetrachloroethane	BRL	1.0		ug/L	232790	1	11/11/2016 10:32	NP
1,1,1-Trichloroethane	BRL	1.0		ug/L	232790	1	11/11/2016 10:32	NP
1,1,2-Trichloroethane	BRL	1.0		ug/L	232790	1	11/11/2016 10:32	NP
1,1-Dichloroethane	BRL	1.0		ug/L	232790	1	11/11/2016 10:32	NP
1,1-Dichloroethene	BRL	1.0		ug/L	232790	1	11/11/2016 10:32	NP
1,2,4-Trichlorobenzene	BRL	1.0		ug/L	232790	1	11/11/2016 10:32	NP
1,2-Dibromo-3-chloropropane	BRL	1.0		ug/L	232790	1	11/11/2016 10:32	NP
1,2-Dibromoethane	BRL	1.0		ug/L	232790	1	11/11/2016 10:32	NP
1,2-Dichlorobenzene	BRL	1.0		ug/L	232790	1	11/11/2016 10:32	NP
1,2-Dichloroethane	BRL	1.0		ug/L	232790	1	11/11/2016 10:32	NP
1,2-Dichloropropane	BRL	1.0		ug/L	232790	1	11/11/2016 10:32	NP
1,3-Dichlorobenzene	BRL	1.0		ug/L	232790	1	11/11/2016 10:32	NP
1,4-Dichlorobenzene	BRL	1.0		ug/L	232790	1	11/11/2016 10:32	NP
2-Butanone	BRL	5.0		ug/L	232790	1	11/11/2016 10:32	NP
2-Hexanone	BRL	5.0		ug/L	232790	1	11/11/2016 10:32	NP
4-Methyl-2-pentanone	BRL	5.0		ug/L	232790	1	11/11/2016 10:32	NP
Acetone	BRL	5.0		ug/L	232790	1	11/11/2016 10:32	NP
Benzene	BRL	1.0		ug/L	232790	1	11/11/2016 10:32	NP
Bromodichloromethane	BRL	1.0		ug/L	232790	1	11/11/2016 10:32	NP
Bromoform	BRL	1.0		ug/L	232790	1	11/11/2016 10:32	NP
Bromomethane	BRL	1.0		ug/L	232790	1	11/11/2016 10:32	NP
Carbon disulfide	BRL	1.0		ug/L	232790	1	11/11/2016 10:32	NP
Carbon tetrachloride	BRL	1.0		ug/L	232790	1	11/11/2016 10:32	NP
Chlorobenzene	BRL	1.0		ug/L	232790	1	11/11/2016 10:32	NP
Chloroethane	BRL	1.0		ug/L	232790	1	11/11/2016 10:32	NP
Chloroform	BRL	1.0		ug/L	232790	1	11/11/2016 10:32	NP
Chloromethane	BRL	1.0		ug/L	232790	1	11/11/2016 10:32	NP
cis-1,2-Dichloroethene	BRL	1.0		ug/L	232790	1	11/11/2016 10:32	NP
cis-1,3-Dichloropropene	BRL	1.0		ug/L	232790	1	11/11/2016 10:32	NP
Cyclohexane	BRL	1.0		ug/L	232790	1	11/11/2016 10:32	NP
Dibromochloromethane	BRL	1.0		ug/L	232790	1	11/11/2016 10:32	NP
Dichlorodifluoromethane	BRL	1.0		ug/L	232790	1	11/11/2016 10:32	NP
Ethylbenzene	BRL	1.0		ug/L	232790	1	11/11/2016 10:32	NP
Freon-113	BRL	1.0		ug/L	232790	1	11/11/2016 10:32	NP
Isopropylbenzene	BRL	1.0		ug/L	232790	1	11/11/2016 10:32	NP
Methyl acetate	BRL	1.0		ug/L	232790	1	11/11/2016 10:32	NP
Methyl tert-butyl ether	BRL	1.0		ug/L	232790	1	11/11/2016 10:32	NP
Methylcyclohexane	BRL	1.0		ug/L	232790	1	11/11/2016 10:32	NP
Methylene chloride	BRL	2.0		ug/L	232790	1	11/11/2016 10:32	NP
Styrene	BRL	1.0		ug/L	232790	1	11/11/2016 10:32	NP
Tetrachloroethene	BRL	1.0		ug/L	232790	1	11/11/2016 10:32	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client CAD/Duluth Work Order Number 1411766

Checklist completed by [Signature] Date 11/8/2014
Signature Date

Carrier name: FedEx UPS Courier Client US Mail Other

Shipping container/cooler in good condition? Yes No Not Present
Custody seals intact on shipping container/cooler? Yes No Not Present
Custody seals intact on sample bottles? Yes No Not Present
Container/Temp Blank temperature in compliance? (0°≤6°C)* Yes No

Cooler #1 0.1°C Cooler #2 2.1°C Cooler #3 _____ Cooler #4 _____ Cooler #5 _____ Cooler #6 _____

Chain of custody present? Yes No
Chain of custody signed when relinquished and received? Yes No
Chain of custody agrees with sample labels? Yes No
Samples in proper container/bottle? Yes No
Sample containers intact? Yes No
Sufficient sample volume for indicated test? Yes No
All samples received within holding time? Yes No
Was TAT marked on the COC? Yes No
Proceed with Standard TAT as per project history? Yes No Not Applicable
Water - VOA vials have zero headspace? No VOA vials submitted Yes No
Water - pH acceptable upon receipt? Yes No Not Applicable

Adjusted? _____ Checked by [Signature]
Sample Condition: Good Other(Explain) _____
(For diffusive samples or AIHA lead) Is a known blank included? Yes No

See Case Narrative for resolution of the Non-Conformance.

* Samples do not have to comply with the given range for certain parameters.

Client: GHD Services, Inc.
Project Name: Bluewater Thermal Solutions
Workorder: 1611766

ANALYTICAL QC SUMMARY REPORT

BatchID: 232573

Sample ID: MB-232573	Client ID:	Units: ug/L	Prep Date: 11/09/2016	Run No: 329646							
Sample Type: MBLK	TestCode: TCL-SEMIVOLATILE ORGANICS SW8270D	BatchID: 232573	Analysis Date: 11/11/2016	Seq No: 7161035							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1'-Biphenyl	BRL	10									
2,4,5-Trichlorophenol	BRL	25									
2,4,6-Trichlorophenol	BRL	10									
2,4-Dichlorophenol	BRL	10									
2,4-Dimethylphenol	BRL	10									
2,4-Dinitrophenol	BRL	25									
2,4-Dinitrotoluene	BRL	10									
2,6-Dinitrotoluene	BRL	10									
2-Chloronaphthalene	BRL	10									
2-Chlorophenol	BRL	10									
2-Methylnaphthalene	BRL	10									
2-Methylphenol	BRL	10									
2-Nitroaniline	BRL	25									
2-Nitrophenol	BRL	10									
3,3'-Dichlorobenzidine	BRL	10									
3-Nitroaniline	BRL	25									
4,6-Dinitro-2-methylphenol	BRL	25									
4-Bromophenyl phenyl ether	BRL	10									
4-Chloro-3-methylphenol	BRL	10									
4-Chloroaniline	BRL	10									
4-Chlorophenyl phenyl ether	BRL	10									
4-Methylphenol	BRL	10									
4-Nitroaniline	BRL	25									
4-Nitrophenol	BRL	25									
Acenaphthene	BRL	10									
Acenaphthylene	BRL	10									
Acetophenone	BRL	10									

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Bluewater Thermal Solutions
Workorder: 1611766

ANALYTICAL QC SUMMARY REPORT

BatchID: 232573

Sample ID: MB-232573	Client ID:	Units: ug/L	Prep Date: 11/09/2016	Run No: 329646							
SampleType: MBLK	TestCode: TCL-SEMIVOLATILE ORGANICS SW8270D	BatchID: 232573	Analysis Date: 11/11/2016	Seq No: 7161035							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Anthracene	BRL	10									
Atrazine	BRL	10									
Benz(a)anthracene	BRL	10									
Benzaldehyde	BRL	10									
Benzo(a)pyrene	BRL	10									
Benzo(b)fluoranthene	BRL	10									
Benzo(g,h,i)perylene	BRL	10									
Benzo(k)fluoranthene	BRL	10									
Bis(2-chloroethoxy)methane	BRL	10									
Bis(2-chloroethyl)ether	BRL	10									
Bis(2-chloroisopropyl)ether	BRL	10									
Bis(2-ethylhexyl)phthalate	BRL	10									
Butyl benzyl phthalate	BRL	10									
Caprolactam	BRL	10									
Carbazole	BRL	10									
Chrysene	BRL	10									
Di-n-butyl phthalate	BRL	10									
Di-n-octyl phthalate	BRL	10									
Dibenz(a,h)anthracene	BRL	10									
Dibenzofuran	BRL	10									
Diethyl phthalate	BRL	10									
Dimethyl phthalate	BRL	10									
Fluoranthene	BRL	10									
Fluorene	BRL	10									
Hexachlorobenzene	BRL	10									
Hexachlorobutadiene	BRL	10									
Hexachlorocyclopentadiene	BRL	10									

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Bluewater Thermal Solutions
Workorder: 1611766

ANALYTICAL QC SUMMARY REPORT

BatchID: 232573

Sample ID: MB-232573	Client ID:	Units: ug/L	Prep Date: 11/09/2016	Run No: 329646							
SampleType: MBLK	TestCode: TCL-SEMIVOLATILE ORGANICS SW8270D	BatchID: 232573	Analysis Date: 11/11/2016	Seq No: 7161035							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Hexachloroethane	BRL	10									
Indeno(1,2,3-cd)pyrene	BRL	10									
Isophorone	BRL	10									
N-Nitrosodi-n-propylamine	BRL	10									
N-Nitrosodiphenylamine	BRL	10									
Naphthalene	BRL	10									
Nitrobenzene	BRL	10									
Pentachlorophenol	BRL	25									
Phenanthrene	BRL	10									
Phenol	BRL	10									
Pyrene	BRL	10									
Surr: 2,4,6-Tribromophenol	81.48	0	100.0		81.5	51.5	141				
Surr: 2-Fluorobiphenyl	37.99	0	50.00		76.0	50.8	122				
Surr: 2-Fluorophenol	67.17	0	100.0		67.2	28.1	120				
Surr: 4-Terphenyl-d14	43.52	0	50.00		87.0	47.2	131				
Surr: Nitrobenzene-d5	41.74	0	50.00		83.5	42.1	124				
Surr: Phenol-d5	78.77	0	100.0		78.8	16	120				

Sample ID: LCS-232573	Client ID:	Units: ug/L	Prep Date: 11/09/2016	Run No: 329646							
SampleType: LCS	TestCode: TCL-SEMIVOLATILE ORGANICS SW8270D	BatchID: 232573	Analysis Date: 11/11/2016	Seq No: 7161036							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

2,4,5-Trichlorophenol	70.57	25	100.0		70.6	70	130				
2,4,6-Trichlorophenol	72.50	10	100.0		72.5	70	130				
2,4-Dichlorophenol	65.84	10	100.0		65.8	70	130				S
2,4-Dimethylphenol	60.87	10	100.0		60.9	70	130				S
2,4-Dinitrotoluene	84.99	10	100.0		85.0	70	130				
2,6-Dinitrotoluene	80.98	10	100.0		81.0	70	130				

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Bluewater Thermal Solutions
Workorder: 1611766

ANALYTICAL QC SUMMARY REPORT

BatchID: 232573

Sample ID: LCS-232573	Client ID:	Units: ug/L	Prep Date: 11/09/2016	Run No: 329646							
SampleType: LCS	TestCode: TCL-SEMIVOLATILE ORGANICS SW8270D	BatchID: 232573	Analysis Date: 11/11/2016	Seq No: 7161036							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
2-Chlorophenol	60.35	10	100.0		60.4	50	130				
2-Methylphenol	62.33	10	100.0		62.3	70	130				S
3,3'-Dichlorobenzidine	59.18	10	100.0		59.2	10	130				
4-Bromophenyl phenyl ether	85.66	10	100.0		85.7	70	130				
4-Chloro-3-methylphenol	76.93	10	100.0		76.9	70	130				
4-Methylphenol	77.98	10	100.0		78.0	70	130				
Acenaphthene	111.3	10	150.0		74.2	70	130				
Acenaphthylene	82.53	10	100.0		82.5	70	130				
Anthracene	77.06	10	100.0		77.1	70	130				
Benz(a)anthracene	79.90	10	100.0		79.9	70	130				
Benzo(a)pyrene	36.09	10	50.00		72.2	70	130				
Benzo(b)fluoranthene	81.12	10	100.0		81.1	70	130				
Bis(2-chloroethoxy)methane	83.48	10	100.0		83.5	70	130				
Bis(2-chloroethyl)ether	80.29	10	100.0		80.3	70	130				
Bis(2-chloroisopropyl)ether	77.40	10	100.0		77.4	50	130				
Bis(2-ethylhexyl)phthalate	99.39	10	100.0		99.4	70	130				
Chrysene	77.94	10	100.0		77.9	70	130				
Di-n-butyl phthalate	91.65	10	100.0		91.6	70	130				
Di-n-octyl phthalate	43.49	10	50.00		87.0	70	130				
Dibenz(a,h)anthracene	90.33	10	100.0		90.3	70	130				
Diethyl phthalate	81.80	10	100.0		81.8	70	130				
Dimethyl phthalate	85.11	10	100.0		85.1	70	130				
Fluoranthene	36.46	10	50.00		72.9	70	130				
Fluorene	77.81	10	100.0		77.8	70	130				
Hexachlorobenzene	80.36	10	100.0		80.4	70	130				
Hexachlorobutadiene	80.14	10	150.0		53.4	70	130				S
N-Nitrosodiphenylamine	90.63	10	150.0		60.4	40	130				

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Bluewater Thermal Solutions
Workorder: 1611766

ANALYTICAL QC SUMMARY REPORT

BatchID: 232573

Sample ID: LCS-232573	Client ID:	Units: ug/L	Prep Date: 11/09/2016	Run No: 329646							
SampleType: LCS	TestCode: TCL-SEMIVOLATILE ORGANICS SW8270D	BatchID: 232573	Analysis Date: 11/11/2016	Seq No: 7161036							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Naphthalene	73.57	10	100.0		73.6	70	130				
Nitrobenzene	81.75	10	100.0		81.8	70	130				
Pyrene	84.61	10	100.0		84.6	70	130				
Surr: 2,4,6-Tribromophenol	77.15	0	100.0		77.2	51.5	141				
Surr: 2-Fluorobiphenyl	38.77	0	50.00		77.5	50.8	122				
Surr: 2-Fluorophenol	44.59	0	100.0		44.6	28.1	120				
Surr: 4-Terphenyl-d14	41.55	0	50.00		83.1	47.2	131				
Surr: Nitrobenzene-d5	42.28	0	50.00		84.6	42.1	124				
Surr: Phenol-d5	64.52	0	100.0		64.5	16	120				

Sample ID: 1611766-004CMS	Client ID: GW-077150-110816-TBM-104	Units: ug/L	Prep Date: 11/10/2016	Run No: 329646							
SampleType: MS	TestCode: TCL-SEMIVOLATILE ORGANICS SW8270D	BatchID: 232573	Analysis Date: 11/11/2016	Seq No: 7163527							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

2,4,5-Trichlorophenol	74.76	25	100.0		74.8	47.9	120				
2,4,6-Trichlorophenol	77.97	10	100.0		78.0	50.5	120				
2,4-Dichlorophenol	74.72	10	100.0		74.7	50.6	120				
2,4-Dimethylphenol	59.26	10	100.0		59.3	40.1	120				
2,4-Dinitrotoluene	82.86	10	100.0		82.9	51.4	126				
2,6-Dinitrotoluene	81.41	10	100.0		81.4	55.6	127				
2-Chlorophenol	72.66	10	100.0		72.7	49.6	120				
2-Methylphenol	70.09	10	100.0		70.1	43.1	120				
3,3'-Dichlorobenzidine	BRL	10	100.0		0	20.1	120				S
4-Bromophenyl phenyl ether	82.35	10	100.0		82.4	51.9	125				
4-Chloro-3-methylphenol	81.99	10	100.0		82.0	50.7	130				
4-Methylphenol	86.51	10	100.0		86.5	46.7	120				
Acenaphthene	109.4	10	150.0		72.9	49.2	123				
Acenaphthylene	82.59	10	100.0		82.6	52	124				

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Bluewater Thermal Solutions
Workorder: 1611766

ANALYTICAL QC SUMMARY REPORT

BatchID: 232573

Sample ID: 1611766-004CMS	Client ID: GW-077150-110816-TBM-104	Units: ug/L	Prep Date: 11/10/2016	Run No: 329646							
SampleType: MS	TestCode: TCL-SEMIVOLATILE ORGANICS SW8270D	BatchID: 232573	Analysis Date: 11/11/2016	Seq No: 7163527							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Anthracene	74.73	10	100.0		74.7	46.9	122				
Benz(a)anthracene	77.61	10	100.0		77.6	50	127				
Benzo(a)pyrene	35.43	10	50.00		70.9	49.5	131				
Benzo(b)fluoranthene	76.94	10	100.0		76.9	54	125				
Bis(2-chloroethoxy)methane	86.59	10	100.0		86.6	51.4	120				
Bis(2-chloroethyl)ether	84.91	10	100.0		84.9	47.8	120				
Bis(2-chloroisopropyl)ether	103.8	10	100.0		104	40.3	124				
Bis(2-ethylhexyl)phthalate	103.5	10	100.0		103	53.1	137				
Chrysene	78.80	10	100.0		78.8	49.7	124				
Di-n-butyl phthalate	91.15	10	100.0		91.2	58.2	133				
Di-n-octyl phthalate	47.07	10	50.00		94.1	57.1	139				
Dibenz(a,h)anthracene	89.11	10	100.0		89.1	48.4	126				
Diethyl phthalate	79.70	10	100.0		79.7	56.2	118				
Dimethyl phthalate	83.94	10	100.0		83.9	56.3	122				
Fluoranthene	35.27	10	50.00		70.5	48.2	131				
Fluorene	75.51	10	100.0		75.5	51.3	118				
Hexachlorobenzene	75.68	10	100.0		75.7	50.3	120				
Hexachlorobutadiene	93.49	10	150.0		62.3	41.5	120				
N-Nitrosodiphenylamine	89.89	10	150.0		59.9	51.4	120				
Naphthalene	77.51	10	100.0		77.5	49.7	120				
Nitrobenzene	84.17	10	100.0		84.2	49.5	120				
Pyrene	84.63	10	100.0		84.6	50.5	130				
Surr: 2,4,6-Tribromophenol	77.89	0	100.0		77.9	51.5	141				
Surr: 2-Fluorobiphenyl	38.30	0	50.00		76.6	50.8	122				
Surr: 2-Fluorophenol	65.25	0	100.0		65.2	28.1	120				
Surr: 4-Terphenyl-d14	41.49	0	50.00		83.0	47.2	131				
Surr: Nitrobenzene-d5	44.61	0	50.00		89.2	42.1	124				

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Bluewater Thermal Solutions
Workorder: 1611766

ANALYTICAL QC SUMMARY REPORT

BatchID: 232573

Sample ID: 1611766-004CMS	Client ID: GW-077150-110816-TBM-104	Units: ug/L	Prep Date: 11/10/2016	Run No: 329646							
SampleType: MS	TestCode: TCL-SEMIVOLATILE ORGANICS SW8270D	BatchID: 232573	Analysis Date: 11/11/2016	Seq No: 7163527							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Surr: Phenol-d5 78.28 0 100.0 78.3 16 120

Sample ID: 1611766-004CMSD	Client ID: GW-077150-110816-TBM-104	Units: ug/L	Prep Date: 11/10/2016	Run No: 329646							
SampleType: MSD	TestCode: TCL-SEMIVOLATILE ORGANICS SW8270D	BatchID: 232573	Analysis Date: 11/11/2016	Seq No: 7163529							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

2,4,5-Trichlorophenol	76.10	25	100.0		76.1	47.9	120	74.76	1.78	30.8	
2,4,6-Trichlorophenol	77.21	10	100.0		77.2	50.5	120	77.97	0.980	32.2	
2,4-Dichlorophenol	75.11	10	100.0		75.1	50.6	120	74.72	0.521	35.3	
2,4-Dimethylphenol	62.76	10	100.0		62.8	40.1	120	59.26	5.74	22.2	
2,4-Dinitrotoluene	84.07	10	100.0		84.1	51.4	126	82.86	1.45	29.2	
2,6-Dinitrotoluene	81.16	10	100.0		81.2	55.6	127	81.41	0.308	19.4	
2-Chlorophenol	73.43	10	100.0		73.4	49.6	120	72.66	1.05	28.2	
2-Methylphenol	72.18	10	100.0		72.2	43.1	120	70.09	2.94	33.1	
3,3'-Dichlorobenzidine	BRL	10	100.0		0	20.1	120	0	0	34.6	S
4-Bromophenyl phenyl ether	81.58	10	100.0		81.6	51.9	125	82.35	0.939	16.9	
4-Chloro-3-methylphenol	82.40	10	100.0		82.4	50.7	130	81.99	0.499	29.7	
4-Methylphenol	87.11	10	100.0		87.1	46.7	120	86.51	0.691	26.6	
Acenaphthene	108.3	10	150.0		72.2	49.2	123	109.4	0.937	29.3	
Acenaphthylene	82.17	10	100.0		82.2	52	124	82.59	0.510	16.9	
Anthracene	73.95	10	100.0		74.0	46.9	122	74.73	1.05	20	
Benz(a)anthracene	78.16	10	100.0		78.2	50	127	77.61	0.706	23.1	
Benzo(a)pyrene	34.22	10	50.00		68.4	49.5	131	35.43	3.47	31.5	
Benzo(b)fluoranthene	76.69	10	100.0		76.7	54	125	76.94	0.325	31.9	
Bis(2-chloroethoxy)methane	84.06	10	100.0		84.1	51.4	120	86.59	2.97	20.8	
Bis(2-chloroethyl)ether	83.66	10	100.0		83.7	47.8	120	84.91	1.48	24.1	
Bis(2-chloroisopropyl)ether	103.2	10	100.0		103	40.3	124	103.8	0.580	43.9	
Bis(2-ethylhexyl)phthalate	102.9	10	100.0		103	53.1	137	103.5	0.562	26.3	

Qualifiers: > Greater than Result value < Less than Result value B Analyte detected in the associated method blank
 BRL Below reporting limit E Estimated (value above quantitation range) H Holding times for preparation or analysis exceeded
 J Estimated value detected below Reporting Limit N Analyte not NELAC certified R RPD outside limits due to matrix
 Rpt Lim Reporting Limit S Spike Recovery outside limits due to matrix

Client: GHD Services, Inc.
 Project Name: Bluewater Thermal Solutions
 Workorder: 1611766

ANALYTICAL QC SUMMARY REPORT

BatchID: 232573

Sample ID: 1611766-004CMSD	Client ID: GW-077150-110816-TBM-104	Units: ug/L	Prep Date: 11/10/2016	Run No: 329646
SampleType: MSD	TestCode: TCL-SEMIVOLATILE ORGANICS SW8270D	BatchID: 232573	Analysis Date: 11/11/2016	Seq No: 7163529

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chrysene	80.39	10	100.0		80.4	49.7	124	78.80	2.00	26.1	
Di-n-butyl phthalate	89.53	10	100.0		89.5	58.2	133	91.15	1.79	19.1	
Di-n-octyl phthalate	47.24	10	50.00		94.5	57.1	139	47.07	0.361	26.3	
Dibenz(a,h)anthracene	87.93	10	100.0		87.9	48.4	126	89.11	1.33	35.9	
Diethyl phthalate	79.15	10	100.0		79.2	56.2	118	79.70	0.692	20.9	
Dimethyl phthalate	82.27	10	100.0		82.3	56.3	122	83.94	2.01	18.1	
Fluoranthene	34.97	10	50.00		69.9	48.2	131	35.27	0.854	17.2	
Fluorene	75.37	10	100.0		75.4	51.3	118	75.51	0.186	17.6	
Hexachlorobenzene	76.50	10	100.0		76.5	50.3	120	75.68	1.08	19.9	
Hexachlorobutadiene	94.95	10	150.0		63.3	41.5	120	93.49	1.55	20	
N-Nitrosodiphenylamine	89.16	10	150.0		59.4	51.4	120	89.89	0.815	20	
Naphthalene	77.30	10	100.0		77.3	49.7	120	77.51	0.271	20	
Nitrobenzene	82.88	10	100.0		82.9	49.5	120	84.17	1.54	22.5	
Pyrene	84.55	10	100.0		84.6	50.5	130	84.63	0.095	27.3	
Surr: 2,4,6-Tribromophenol	77.44	0	100.0		77.4	51.5	141	77.89	0	0	
Surr: 2-Fluorobiphenyl	37.52	0	50.00		75.0	50.8	122	38.30	0	0	
Surr: 2-Fluorophenol	64.24	0	100.0		64.2	28.1	120	65.25	0	0	
Surr: 4-Terphenyl-d14	40.24	0	50.00		80.5	47.2	131	41.49	0	0	
Surr: Nitrobenzene-d5	43.51	0	50.00		87.0	42.1	124	44.61	0	0	
Surr: Phenol-d5	76.06	0	100.0		76.1	16	120	78.28	0	0	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Bluewater Thermal Solutions
Workorder: 1611766

ANALYTICAL QC SUMMARY REPORT

BatchID: 232713

Sample ID: MB-232713	Client ID:	Units: ug/L	Prep Date: 11/11/2016	Run No: 329650							
SampleType: MBLK	TestCode: Mercury, Total SW7470A	BatchID: 232713	Analysis Date: 11/11/2016	Seq No: 7162289							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Mercury BRL 0.200

Sample ID: LCS-232713	Client ID:	Units: ug/L	Prep Date: 11/11/2016	Run No: 329650							
SampleType: LCS	TestCode: Mercury, Total SW7470A	BatchID: 232713	Analysis Date: 11/11/2016	Seq No: 7162290							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Mercury 4.912 0.200 5.000 98.2 80 120

Sample ID: 1611766-001BMS	Client ID: GW-077150-110716-TBM-101	Units: ug/L	Prep Date: 11/11/2016	Run No: 329650							
SampleType: MS	TestCode: Mercury, Total SW7470A	BatchID: 232713	Analysis Date: 11/11/2016	Seq No: 7162292							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Mercury 4.817 0.200 5.000 0.1204 93.9 70 130

Sample ID: 1611766-001BMSD	Client ID: GW-077150-110716-TBM-101	Units: ug/L	Prep Date: 11/11/2016	Run No: 329650							
SampleType: MSD	TestCode: Mercury, Total SW7470A	BatchID: 232713	Analysis Date: 11/11/2016	Seq No: 7162293							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Mercury 4.817 0.200 5.000 0.1204 93.9 70 130 4.817 0.013 20

Qualifiers: > Greater than Result value < Less than Result value B Analyte detected in the associated method blank
 BRL Below reporting limit E Estimated (value above quantitation range) H Holding times for preparation or analysis exceeded
 J Estimated value detected below Reporting Limit N Analyte not NELAC certified R RPD outside limits due to matrix
 Rpt Lim Reporting Limit S Spike Recovery outside limits due to matrix

Client: GHD Services, Inc.
Project Name: Bluewater Thermal Solutions
Workorder: 1611766

ANALYTICAL QC SUMMARY REPORT

BatchID: 232790

Sample ID: MB-232790	Client ID:	Units: ug/L	Prep Date: 11/11/2016	Run No: 329744							
SampleType: MBLK	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 232790	Analysis Date: 11/11/2016	Seq No: 7164035							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1,1,2-Tetrachloroethane	BRL	1.0									
1,1,1-Trichloroethane	BRL	1.0									
1,1,2-Trichloroethane	BRL	1.0									
1,1-Dichloroethane	BRL	1.0									
1,1-Dichloroethene	BRL	2.0									
1,2,4-Trichlorobenzene	BRL	1.0									
1,2-Dibromo-3-chloropropane	BRL	1.0									
1,2-Dibromoethane	BRL	1.0									
1,2-Dichlorobenzene	BRL	1.0									
1,2-Dichloroethane	BRL	1.0									
1,2-Dichloropropane	BRL	1.0									
1,3-Dichlorobenzene	BRL	1.0									
1,4-Dichlorobenzene	BRL	1.0									
2-Butanone	BRL	10									
2-Hexanone	BRL	10									
4-Methyl-2-pentanone	BRL	10									
Acetone	BRL	20									
Benzene	BRL	1.0									
Bromodichloromethane	BRL	1.0									
Bromoform	BRL	1.0									
Bromomethane	BRL	1.0									
Carbon disulfide	BRL	5.0									
Carbon tetrachloride	BRL	2.0									
Chlorobenzene	BRL	1.0									
Chloroethane	BRL	1.0									
Chloroform	BRL	1.0									
Chloromethane	BRL	1.0									

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Bluewater Thermal Solutions
Workorder: 1611766

ANALYTICAL QC SUMMARY REPORT

BatchID: 232790

Sample ID: MB-232790	Client ID:	Units: ug/L	Prep Date: 11/11/2016	Run No: 329744							
SampleType: MBLK	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 232790	Analysis Date: 11/11/2016	Seq No: 7164035							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

cis-1,2-Dichloroethene	BRL	1.0									
cis-1,3-Dichloropropene	BRL	1.0									
Cyclohexane	BRL	2.0									
Dibromochloromethane	BRL	1.0									
Dichlorodifluoromethane	BRL	1.0									
Ethylbenzene	BRL	1.0									
Freon-113	BRL	5.0									
Isopropylbenzene	BRL	1.0									
Methyl acetate	BRL	2.0									
Methyl tert-butyl ether	BRL	1.0									
Methylcyclohexane	BRL	2.0									
Methylene chloride	BRL	5.0									
Styrene	BRL	1.0									
Tetrachloroethene	BRL	1.0									
Toluene	BRL	1.0									
trans-1,2-Dichloroethene	BRL	2.0									
trans-1,3-Dichloropropene	BRL	2.0									
Trichloroethene	BRL	1.0									
Trichlorofluoromethane	BRL	1.0									
Vinyl chloride	BRL	1.0									
Xylenes, Total	BRL	1.0									
Surr: 4-Bromofluorobenzene	54.79	0	50.00		110	70	130				
Surr: Dibromofluoromethane	54.64	0	50.00		109	70	130				
Surr: Toluene-d8	48.31	0	50.00		96.6	70	130				

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Bluewater Thermal Solutions
Workorder: 1611766

ANALYTICAL QC SUMMARY REPORT

BatchID: 232790

Sample ID: LCS-232790	Client ID:	Units: ug/L	Prep Date: 11/11/2016	Run No: 329744							
SampleType: LCS	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 232790	Analysis Date: 11/11/2016	Seq No: 7164043							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	64.54	1.0	50.00		129	70	130				
1,1,1-Trichloroethane	64.12	1.0	50.00		128	70	130				
1,1,2-Trichloroethane	43.55	1.0	50.00		87.1	70	130				
1,1-Dichloroethane	45.92	1.0	50.00		91.8	70	130				
1,1-Dichloroethene	49.66	2.0	50.00		99.3	60	140				
1,2,4-Trichlorobenzene	55.02	1.0	50.00		110	70	130				
1,2-Dibromo-3-chloropropane	61.61	1.0	50.00		123	70	130				
1,2-Dibromoethane	54.43	1.0	50.00		109	70	130				
1,2-Dichlorobenzene	50.82	1.0	50.00		102	70	130				
1,2-Dichloroethane	63.29	1.0	50.00		127	70	130				
1,2-Dichloropropane	51.83	1.0	50.00		104	70	130				
1,3-Dichlorobenzene	48.44	1.0	50.00		96.9	70	130				
1,4-Dichlorobenzene	48.75	1.0	50.00		97.5	70	130				
Benzene	46.48	1.0	50.00		93.0	70	130				
Bromodichloromethane	61.59	1.0	50.00		123	70	130				
Bromoform	64.48	1.0	50.00		129	70	130				
Carbon tetrachloride	94.81	2.0	50.00		190	70	130				S
Chlorobenzene	53.92	1.0	50.00		108	70	130				
Chloroform	56.23	1.0	50.00		112	70	130				
cis-1,2-Dichloroethene	44.63	1.0	50.00		89.3	70	130				
cis-1,3-Dichloropropene	53.26	1.0	50.00		107	70	130				
Dibromochloromethane	59.68	1.0	50.00		119	70	130				
Ethylbenzene	57.06	1.0	50.00		114	70	130				
Isopropylbenzene	43.32	1.0	50.00		86.6	70	130				
Methylene chloride	39.22	5.0	50.00		78.4	70	130				
Styrene	52.45	1.0	50.00		105	70	130				
Tetrachloroethene	63.76	1.0	50.00		128	70	130				

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Bluewater Thermal Solutions
Workorder: 1611766

ANALYTICAL QC SUMMARY REPORT

BatchID: 232790

Sample ID: LCS-232790	Client ID:	Units: ug/L	Prep Date: 11/11/2016	Run No: 329744							
SampleType: LCS	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 232790	Analysis Date: 11/11/2016	Seq No: 7164043							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Toluene	51.38	1.0	50.00		103	70	130				
trans-1,2-Dichloroethene	48.29	2.0	50.00		96.6	70	130				
trans-1,3-Dichloropropene	60.44	2.0	50.00		121	70	130				
Trichloroethene	64.08	1.0	50.00		128	70	130				
Vinyl chloride	61.58	1.0	50.00		123	70	130				
Xylenes, Total	183.6	1.0	150.0		122	70	130				
Surr: 4-Bromofluorobenzene	57.19	0	50.00		114	70	130				
Surr: Dibromofluoromethane	57.67	0	50.00		115	70	130				
Surr: Toluene-d8	48.14	0	50.00		96.3	70	130				

Sample ID: 1611766-004AMS	Client ID: GW-077150-110816-TBM-104	Units: ug/L	Prep Date: 11/11/2016	Run No: 329744							
SampleType: MS	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 232790	Analysis Date: 11/11/2016	Seq No: 7164041							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1,1,2-Tetrachloroethane	2978	50	2500		119	63.6	142				
1,1,1-Trichloroethane	2971	50	2500		119	64.5	140				
1,1,2-Trichloroethane	2076	50	2500		83.0	73.9	127				
1,1-Dichloroethane	2174	50	2500		87.0	61.6	127				
1,1-Dichloroethene	2532	100	2500		101	60	150				
1,2,4-Trichlorobenzene	1877	50	2500		75.1	60.4	131				
1,2-Dibromo-3-chloropropane	2672	50	2500		107	50.2	131				
1,2-Dibromoethane	2493	50	2500		99.7	74.1	126				
1,2-Dichlorobenzene	2248	50	2500		89.9	72	123				
1,2-Dichloroethane	3128	50	2500		125	66.5	133				
1,2-Dichloropropane	2381	50	2500		95.2	73	126				
1,3-Dichlorobenzene	2174	50	2500		87.0	72.5	123				
1,4-Dichlorobenzene	2224	50	2500		88.9	71.1	121				
Benzene	2199	50	2500		88.0	70.1	132				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Bluewater Thermal Solutions
Workorder: 1611766

ANALYTICAL QC SUMMARY REPORT

BatchID: 232790

Sample ID: 1611766-004AMS	Client ID: GW-077150-110816-TBM-104	Units: ug/L	Prep Date: 11/11/2016	Run No: 329744							
SampleType: MS	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 232790	Analysis Date: 11/11/2016	Seq No: 7164041							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Bromodichloromethane	2973	50	2500		119	62.2	131				
Bromoform	2937	50	2500		117	50.5	138				
Carbon tetrachloride	4314	100	2500		173	60	149				S
Chlorobenzene	2512	50	2500		100	70.9	131				
Chloroform	2795	50	2500		112	67.7	128				
cis-1,2-Dichloroethene	2203	50	2500		88.1	68.8	133				
cis-1,3-Dichloropropene	2488	50	2500		99.5	53.8	134				
Dibromochloromethane	2842	50	2500		114	57	135				
Ethylbenzene	2610	50	2500		104	77.8	129				
Isopropylbenzene	1894	50	2500		75.8	63	132				
Methylene chloride	1978	250	2500		79.1	60.5	124				
Styrene	2498	50	2500		99.9	73.3	133				
Tetrachloroethene	2960	50	2500		118	69.6	140				
Toluene	2396	50	2500		95.9	70.1	133				
trans-1,2-Dichloroethene	2264	100	2500		90.5	63.7	127				
trans-1,3-Dichloropropene	2791	100	2500		112	56.2	127				
Trichloroethene	2750	50	2500		110	70	136				
Vinyl chloride	2883	50	2500		115	56.8	141				
Xylenes, Total	8453	50	7500		113	74.7	133				
Surr: 4-Bromofluorobenzene	2874	0	2500		115	70	130				
Surr: Dibromofluoromethane	3022	0	2500		121	70	130				
Surr: Toluene-d8	2430	0	2500		97.2	70	130				

Sample ID: 1611766-004AMSD	Client ID: GW-077150-110816-TBM-104	Units: ug/L	Prep Date: 11/11/2016	Run No: 329744							
SampleType: MSD	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 232790	Analysis Date: 11/11/2016	Seq No: 7164042							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1,1,2-Tetrachloroethane	2966	50	2500		119	63.6	142	2978	0.387	20	
---------------------------	------	----	------	--	-----	------	-----	------	-------	----	--

Qualifiers:	> Greater than Result value	< Less than Result value	B Analyte detected in the associated method blank
BRL	Below reporting limit	E Estimated (value above quantitation range)	H Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N Analyte not NELAC certified	R RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S Spike Recovery outside limits due to matrix	

Client: GHD Services, Inc.
Project Name: Bluewater Thermal Solutions
Workorder: 1611766

ANALYTICAL QC SUMMARY REPORT

BatchID: 232790

Sample ID: 1611766-004AMSD	Client ID: GW-077150-110816-TBM-104	Units: ug/L	Prep Date: 11/11/2016	Run No: 329744
SampleType: MSD	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 232790	Analysis Date: 11/11/2016	Seq No: 7164042

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	2846	50	2500		114	64.5	140	2971	4.30	20	
1,1,2-Trichloroethane	2108	50	2500		84.3	73.9	127	2076	1.55	20	
1,1-Dichloroethane	2077	50	2500		83.1	61.6	127	2174	4.56	20	
1,1-Dichloroethene	2314	100	2500		92.6	60	150	2532	8.98	17.7	
1,2,4-Trichlorobenzene	2134	50	2500		85.3	60.4	131	1877	12.8	24	
1,2-Dibromo-3-chloropropane	2970	50	2500		119	50.2	131	2672	10.6	19.5	
1,2-Dibromoethane	2586	50	2500		103	74.1	126	2493	3.66	20	
1,2-Dichlorobenzene	2279	50	2500		91.2	72	123	2248	1.35	20	
1,2-Dichloroethane	3008	50	2500		120	66.5	133	3128	3.91	20	
1,2-Dichloropropane	2308	50	2500		92.3	73	126	2381	3.11	20	
1,3-Dichlorobenzene	2184	50	2500		87.4	72.5	123	2174	0.459	20	
1,4-Dichlorobenzene	2177	50	2500		87.1	71.1	121	2224	2.11	20	
Benzene	2056	50	2500		82.2	70.1	132	2199	6.75	20	
Bromodichloromethane	2812	50	2500		112	62.2	131	2973	5.57	20	
Bromoform	3080	50	2500		123	50.5	138	2937	4.74	17.9	
Carbon tetrachloride	4274	100	2500		171	60	149	4314	0.932	20	S
Chlorobenzene	2458	50	2500		98.3	70.9	131	2512	2.17	20	
Chloroform	2684	50	2500		107	67.7	128	2795	4.03	20	
cis-1,2-Dichloroethene	2030	50	2500		81.2	68.8	133	2203	8.17	20	
cis-1,3-Dichloropropene	2491	50	2500		99.6	53.8	134	2488	0.141	20	
Dibromochloromethane	2912	50	2500		116	57	135	2842	2.45	20	
Ethylbenzene	2594	50	2500		104	77.8	129	2610	0.576	20	
Isopropylbenzene	1852	50	2500		74.1	63	132	1894	2.27	20	
Methylene chloride	1846	250	2500		73.8	60.5	124	1978	6.93	17.4	
Styrene	2426	50	2500		97.0	73.3	133	2498	2.95	20	
Tetrachloroethene	2820	50	2500		113	69.6	140	2960	4.86	20	
Toluene	2296	50	2500		91.8	70.1	133	2396	4.28	20	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Bluewater Thermal Solutions
Workorder: 1611766

ANALYTICAL QC SUMMARY REPORT

BatchID: 232790

Sample ID: 1611766-004AMSD	Client ID: GW-077150-110816-TBM-104	Units: ug/L	Prep Date: 11/11/2016	Run No: 329744
SampleType: MSD	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 232790	Analysis Date: 11/11/2016	Seq No: 7164042

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
trans-1,2-Dichloroethene	2125	100	2500		85.0	63.7	127	2264	6.31	20	
trans-1,3-Dichloropropene	2979	100	2500		119	56.2	127	2791	6.52	20	
Trichloroethene	2677	50	2500		107	70	136	2750	2.69	20	
Vinyl chloride	2646	50	2500		106	56.8	141	2883	8.59	18.4	
Xylenes, Total	8312	50	7500		111	74.7	133	8453	1.69	22.7	
Surr: 4-Bromofluorobenzene	2828	0	2500		113	70	130	2874	0	0	
Surr: Dibromofluoromethane	2814	0	2500		113	70	130	3022	0	0	
Surr: Toluene-d8	2441	0	2500		97.6	70	130	2430	0	0	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Bluewater Thermal Solutions
Workorder: 1611766

ANALYTICAL QC SUMMARY REPORT

BatchID: 232819

Sample ID: MB-232819	Client ID:	Units: ug/L	Prep Date: 11/14/2016	Run No: 330046							
SampleType: MBLK	TestCode: METALS, TOTAL SW6010C	BatchID: 232819	Analysis Date: 11/16/2016	Seq No: 7172311							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Aluminum	BRL	200									
Antimony	BRL	20.0									
Arsenic	BRL	50.0									
Barium	BRL	20.0									
Beryllium	BRL	10.0									
Cadmium	BRL	5.00									
Calcium	BRL	100									
Chromium	BRL	10.0									
Cobalt	BRL	20.0									
Copper	BRL	10.0									
Iron	BRL	100									
Lead	BRL	10.0									
Magnesium	BRL	100									
Manganese	BRL	15.0									
Nickel	BRL	20.0									
Potassium	BRL	500									
Selenium	BRL	20.0									
Silver	BRL	10.0									
Sodium	BRL	1000									
Thallium	BRL	20.0									
Vanadium	BRL	10.0									
Zinc	BRL	20.0									

Sample ID: LCS-232819	Client ID:	Units: ug/L	Prep Date: 11/14/2016	Run No: 330046							
SampleType: LCS	TestCode: METALS, TOTAL SW6010C	BatchID: 232819	Analysis Date: 11/16/2016	Seq No: 7172312							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Aluminum	10030	200	10000		100	80	120				
----------	-------	-----	-------	--	-----	----	-----	--	--	--	--

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Bluewater Thermal Solutions
Workorder: 1611766

ANALYTICAL QC SUMMARY REPORT

BatchID: 232819

Sample ID: LCS-232819	Client ID:	Units: ug/L	Prep Date: 11/14/2016	Run No: 330046							
SampleType: LCS	TestCode: METALS, TOTAL SW6010C	BatchID: 232819	Analysis Date: 11/16/2016	Seq No: 7172312							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Antimony	1052	20.0	1000		105	80	120				
Arsenic	1015	50.0	1000		101	80	120				
Barium	1008	20.0	1000		101	80	120				
Beryllium	1012	10.0	1000		101	80	120				
Cadmium	1020	5.00	1000		102	80	120				
Calcium	10110	100	10000	14.30	101	80	120				
Chromium	1006	10.0	1000		101	80	120				
Cobalt	1013	20.0	1000		101	80	120				
Copper	1008	10.0	1000		101	80	120				
Iron	10070	100	10000		101	80	120				
Lead	1013	10.0	1000		101	80	120				
Magnesium	9955	100	10000		99.6	80	120				
Manganese	1017	15.0	1000		102	80	120				
Nickel	1008	20.0	1000		101	80	120				
Potassium	10700	500	10000	173.8	105	80	120				
Selenium	1015	20.0	1000		101	80	120				
Silver	102.7	10.0	100.0		103	80	120				
Sodium	10590	1000	10000	170.3	104	80	120				
Thallium	1019	20.0	1000		102	80	120				
Vanadium	1017	10.0	1000		102	80	120				
Zinc	1009	20.0	1000		101	80	120				

Sample ID: 1611766-004BMS	Client ID: GW-077150-110816-TBM-104	Units: ug/L	Prep Date: 11/14/2016	Run No: 330046							
SampleType: MS	TestCode: METALS, TOTAL SW6010C	BatchID: 232819	Analysis Date: 11/16/2016	Seq No: 7172316							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Aluminum	10470	200	10000	201.6	103	75	125				
Antimony	1032	20.0	1000		103	75	125				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Bluewater Thermal Solutions
Workorder: 1611766

ANALYTICAL QC SUMMARY REPORT

BatchID: 232819

Sample ID: 1611766-004BMS	Client ID: GW-077150-110816-TBM-104	Units: ug/L	Prep Date: 11/14/2016	Run No: 330046							
SampleType: MS	TestCode: METALS, TOTAL SW6010C	BatchID: 232819	Analysis Date: 11/16/2016	Seq No: 7172316							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Arsenic	1003	50.0	1000		100	75	125				
Barium	1047	20.0	1000	63.53	98.4	75	125				
Beryllium	1002	10.0	1000		100	75	125				
Cadmium	1008	5.00	1000	0.3925	101	75	125				
Calcium	11500	100	10000	1540	99.6	75	125				
Chromium	992.9	10.0	1000	0.8799	99.2	75	125				
Cobalt	998.8	20.0	1000	2.429	99.6	75	125				
Copper	1003	10.0	1000		100	75	125				
Iron	10020	100	10000	151.7	98.7	75	125				
Lead	995.6	10.0	1000		99.6	75	125				
Magnesium	10130	100	10000	287.5	98.4	75	125				
Manganese	1343	15.0	1000	357.0	98.6	75	125				
Nickel	986.6	20.0	1000		98.7	75	125				
Potassium	13610	500	10000	1974	116	75	125				
Selenium	1007	20.0	1000	9.782	99.8	75	125				
Silver	101.8	10.0	100.0		102	75	125				
Sodium	22990	1000	10000	9788	132	75	125				S
Thallium	1007	20.0	1000		101	75	125				
Vanadium	999.7	10.0	1000		100.0	75	125				
Zinc	995.4	20.0	1000		99.5	75	125				

Sample ID: 1611766-004BMSD	Client ID: GW-077150-110816-TBM-104	Units: ug/L	Prep Date: 11/14/2016	Run No: 330046							
SampleType: MSD	TestCode: METALS, TOTAL SW6010C	BatchID: 232819	Analysis Date: 11/16/2016	Seq No: 7172318							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Aluminum	10690	200	10000	201.6	105	75	125	10470	2.04	20	
Antimony	1057	20.0	1000		106	75	125	1032	2.45	20	
Arsenic	1021	50.0	1000		102	75	125	1003	1.73	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
 Project Name: Bluewater Thermal Solutions
 Workorder: 1611766

ANALYTICAL QC SUMMARY REPORT

BatchID: 232819

Sample ID: 1611766-004BMSD	Client ID: GW-077150-110816-TBM-104	Units: ug/L	Prep Date: 11/14/2016	Run No: 330046
SampleType: MSD	TestCode: METALS, TOTAL SW6010C	BatchID: 232819	Analysis Date: 11/16/2016	Seq No: 7172318

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Barium	1070	20.0	1000	63.53	101	75	125	1047	2.13	20	
Beryllium	1017	10.0	1000		102	75	125	1002	1.51	20	
Cadmium	1022	5.00	1000	0.3925	102	75	125	1008	1.47	20	
Calcium	11770	100	10000	1540	102	75	125	11500	2.29	20	
Chromium	1011	10.0	1000	0.8799	101	75	125	992.9	1.83	20	
Cobalt	1018	20.0	1000	2.429	102	75	125	998.8	1.90	20	
Copper	1022	10.0	1000		102	75	125	1003	1.79	20	
Iron	10210	100	10000	151.7	101	75	125	10020	1.80	20	
Lead	1013	10.0	1000		101	75	125	995.6	1.70	20	
Magnesium	10310	100	10000	287.5	100	75	125	10130	1.83	20	
Manganese	1377	15.0	1000	357.0	102	75	125	1343	2.49	20	
Nickel	1004	20.0	1000		100	75	125	986.6	1.71	20	
Potassium	14070	500	10000	1974	121	75	125	13610	3.33	20	
Selenium	1026	20.0	1000	9.782	102	75	125	1007	1.84	20	
Silver	103.7	10.0	100.0		104	75	125	101.8	1.88	20	
Sodium	23840	1000	10000	9788	141	75	125	22990	3.63	20	S
Thallium	1032	20.0	1000		103	75	125	1007	2.47	20	
Vanadium	1021	10.0	1000		102	75	125	999.7	2.09	20	
Zinc	1008	20.0	1000		101	75	125	995.4	1.30	20	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

www.ghd.com

