SUMMARY REPORT
212 WEST CARDINAL LANE (FORMERLY 1223 WEST CARDINAL LANE)
LAUREL BAY MILITARY HOUSING AREA
MARINE CORPS AIR STATION BEAUFORT
BEAUFORT, SC

Revision: 0
Prepared for:

Department of the Navy
Naval Facilities Engineering Command, Mid-Atlantic
9324 Virginia Avenue
Norfolk, Virginia 23511-3095

and

Naval Facilities Engineering Command Atlantic
9324 Virginia Avenue
Norfolk, Virginia 23511-3095

JUNE 2021

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Prepared by:

CDM - AECOM Multimedia Joint Venture
10560 Arrowhead Drive, Suite 500
Fairfax, Virginia 22030

Contract Number: N62470-14-D-9016
CTO WE52
JUNE 2021

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Appendices

List of Acronyms

bgs	below ground surface
BTEX	benzene, toluene, ethylbenzene, and xylenes
CTO	Contract Task Order
COPC	constituents of potential concern
IDIQ	Indefinite Delivery, Indefinite Quantity
IGWA	Initial Groundwater Assessment
JV	Joint Venture
LBMH	Laurel Bay Military Housing
MCAS	Marine Corps Air Station
NAVFAC Mid-Lant	Naval Facilities Engineering Command Mid-Atlantic
NFA	No Further Action
PAH	polynuclear aromatic hydrocarbon
QAPP	Quality Assurance Program Plan
RBSL	risk-based screening level
SCDHEC	South Carolina Department of Health and Environmental Control
Site	LBMH area at MCAS Beaufort, South Carolina
UST	underground storage tank
VISL	vapor intrusion screening level

1.0 INTRODUCTION

The CDM - AECOM Multimedia Joint Venture (JV) was contracted by the Naval Facilities Engineering Command, Mid-Atlantic (NAVFAC Mid-Lant) to provide reporting services for the heating oil underground storage tanks (USTs) located in Laurel Bay Military Housing (LBMH) area at the Marine Corps Air Station (MCAS) Beaufort, South Carolina (Site). This work has been awarded under Contract Task Order (CTO) WE52 of the Indefinite Delivery, Indefinite Quantity (IDIQ) Multimedia Environmental Compliance Contract (Contract No. N62470-14-D-9016).

As of January 2014, the LBMH addresses were re-numbered to comply with the E-911 emergency response addressing system; however, in order to remain consistent with historical sampling and reporting for LBMH area, the residences will continue to be referenced with their original address numbers in sample nomenclature and reporting documents.

This report summarizes the results the environmental investigation activities associated with the storage of home heating oil and the potential release of petroleum constituents at the referenced property. Based on the results of the investigation, a No Further Action (NFA) determination has been made by the South Carolina Department of Health and Environmental Control (SCDHEC) for 212 West Cardinal Lane (Formerly 1223 West Cardinal Lane). This NFA determination indicates that there are no unacceptable risks to human health or the environment for the petroleum constituents associated with the home heating oil USTs. The following information is included in this report:

- Background information;
- Sampling activities and results; and
- A determination of the property status.

1.1 Background Information

The LBMH area is located approximately 3.5 miles west of MCAS Beaufort. The area is approximately 970 acres in size and serves as an enlisted and officer family housing area. The area is configured with single family and duplex residential structures, and includes recreation, open space, and community facilities. The community includes approximately 1,300 housing units, including legacy Capehart style homes and newer duplex style homes. The housing area

is bordered on the west by salt marshes and the Broad River, and to the north, east and south by uplands. Forested areas lie along the northern and northeastern borders.

Capehart style homes within the LBMH area were formerly heated using heating oil stored in USTs at each residence. There were 1,100 Capehart style housing units in the LBMH area. The newer duplex homes within the LBMH area never utilized heating oil tanks. Heating oil has not been used at Laurel Bay since the mid-1980s. As was the accepted practice at the time, USTs were drained, filled with dirt, capped, and left in place when they were removed from service. Residential USTs are not regulated in the State of South Carolina (i.e., there are no federal or state laws governing installation, management, or removal).

In 2007, MCAS Beaufort began a voluntary program to remove the unregulated, residential USTs and conduct sampling activities to determine if, and to what extent, petroleum constituents may have impacted the surrounding environment. MCAS Beaufort coordinated with SCDHEC to develop removal procedures that were consistent with procedural requirements for regulated USTs. All tank removal activities and follow-on actions are conducted in coordination with SCDHEC. To date, all known USTs have been removed from all residential properties within the LBMH area.

1.2 UST Removal and Assessment Process

During the UST removal process, a soil sample was collected from beneath the UST excavations (approximately 4 to 6 feet [ft] below ground surface [bgs]) and analyzed for a predetermined list of constituents of potential concern (COPCs) associated with the petroleum compounds found in home heating oil. These COPCs, derived from the *Quality Assurance Program Plan (QAPP) for the Underground Storage Tank Management Division, Revision 3.1* (SCDHEC, 2016) and the *Underground Storage Tank Assessment Instructions for Permanent Closure and Change-In-Service,* (SCDHEC, 2018), are as follows:

- benzene, toluene, ethylbenzene, and xylenes (BTEX),
- naphthalene, and
- five select polynuclear aromatic hydrocarbon (PAHs): benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene and dibenz(a,h)anthracene.

Soil sample results were submitted by MCAS Beaufort to SCDHEC utilizing SCDHEC's UST Assessment Report form. In accordance with SCDHEC's *QAPP for the UST Management*

Division (SCDHEC, 2016), the soil screening levels consists of SCDHEC risk-based screening levels (RBSLs). It should be noted that the RBSLs for select PAHs were revised in Revision 2.0 of the QAPP (SCDHEC, 2013) and were revised again in Revision 3.0 (SCDHEC, 2015). The screening levels used for evaluation at each site were those levels that were in effect at the time of reporting and review by SCDHEC.

The results of the soil sampling at each former UST location were used to determine if a potential for groundwater contamination exists (i.e., soil results greater than RBSLs) and subsequently to select properties for follow-up initial groundwater assessment (IGWA) sampling. The IGWA sampling process utilizes temporary groundwater sampling points that are typically installed and sampled within the same day. The intent of the sampling point is to determine the presence or absence of the aforementioned COPCs in groundwater and identify whether former UST locations may require additional delineation of COPCs in groundwater. These sampling points are not subjected to the same installation standards as permanent monitoring wells and, as such; the data obtained from the IGWA wells can sometimes be biased high and is considered preliminary data. In order to confirm the presence of any impact to groundwater, a permanent well is installed where IGWA sampling has indicated the presence of COPCs is in excess of the SCDHEC RBSLs for groundwater. If COPCs are found to be present in the permanent well, additional permanent wells are installed to delineate the extent of impact to groundwater and a sampling program is established. Groundwater analytical results are also compared to the site specific groundwater vapor intrusion screening levels (VISLs) to evaluate the potential for vapor intrusion and the necessity for an investigation associated with this media. A multi-media investigation selection process tree, applicable to the LBMH UST investigations, is presented as Appendix A.

2.0 SAMPLING ACTIVITIES AND RESULTS

The following section presents the sampling activities and associated results for 212 West Cardinal Lane (Formerly 1223 West Cardinal Lane). The sampling activities at 212 West Cardinal Lane (Formerly 1223 West Cardinal Lane) comprised a soil investigation and IGWA sampling. Details regarding the soil investigations at this site are provided in the *SCDHEC UST Assessment Report – 1223 Cardinal Lane* (MCAS Beaufort, 2009) and in the *SCDHEC UST Assessment Report – 1223 Cardinal Lane* (MCAS Beaufort, 2019). The UST Assessment Reports are provided in Appendix B. Details regarding the IGWA sampling activities at this site are provided in the *Technical Memorandum Groundwater Investigations December 2019* (Resolution Consultants, 2020).

2.1 UST Removal and Soil Sampling

In August 2009 and February 2019, two 280 gallon heating oil USTs were removed at 212 West Cardinal Lane (Formerly 1223 West Cardinal Lane). Tank 1 was removed on August 25, 2009 from the front grassed area. Tank 2 was removed on February 13, 2019 from underneath the front concrete walk, adjacent to the driveway. The former UST locations are indicated on the figures of the UST Assessment Reports (Appendix B). The USTs were removed and properly disposed of (i.e., shipped offsite for recycling or transported to a landfill). There was no visual evidence (i.e., staining or sheen) of petroleum impact at the time of the Tank 1 UST removal. Staining was observed during the removal of Tank 2, indicating potential petroleum impact. According to the UST Assessment Reports (Appendix B), the depths to the bases of the USTs were 5'3" bgs (Tank 1) and 5'10" bgs (Tank 2) and a single soil sample was collected for each from those depths. The samples were collected from the fill port side of the former UST to represent a worst case scenario and shipped to an offsite laboratory for analysis of the petroleum COPCs. An additional sample was collected from the opposite sidewall (east side) of Tank 2 at a depth of 4'5" bgs, due to the observation of potential petroleum staining. Sampling was performed in accordance with applicable South Carolina regulation R.61-92, Part 280 (SCDHEC, 2017) and assessment guidelines.

2.2 Soil Analytical Results

A summary of the laboratory analytical results and SCDHEC RBSLs is presented in Table 1. A copy of the laboratory analytical data reports are included in the UST Assessment Reports presented in Appendix B. The laboratory analytical data reports include the soil results for the additional PAHs that were analyzed, but do not have associated RBSLs.

The soil sample results were submitted by MCAS Beaufort to SCDHEC utilizing SCDHEC's UST Assessment Report form (Appendix B). The results of the soil sampling at the former UST locations (Tanks 1 and 2) were used by MCAS Beaufort, in consultation with SCDHEC, to determine a path forward (i.e., additional sampling or NFA) for the property. The soil results collected from the former UST location (Tank 1) at 212 West Cardinal Lane (Formerly 1223 West Cardinal Lane) were less than the SCDHEC RBSLs, which indicated the subsurface was not impacted by COPCs associated with the former UST at concentrations that presented a potential risk to human health and the environment. The soil results collected from the former UST location (Tank 2) at 212 West Cardinal Lane (Formerly 1223 West Cardinal Lane) were greater than the SCDHEC RBSLs, which indicated further investigation was required. In a letter dated

June 12, 2019, SCDHEC requested an IGWA for 212 West Cardinal Lane (Formerly 1223 West Cardinal Lane) to determine if the groundwater was impacted by petroleum COPCs. SCDHEC's request letter is provided in Appendix D.

2.3 Initial Groundwater Sampling

On December 9, 2019, a single temporary monitoring well was installed at 212 West Cardinal Lane (Formerly 1223 West Cardinal Lane), in accordance with the South Carolina Well Standards and Regulations (R.61-71.H-I, updated June 24, 2016). In order to provide data that can be used to determine whether COPCs are migrating to underlying groundwater, the monitoring well was placed in the same general location as the former heating oil UST (Tank 2). The former UST location is indicated on Figure 2 of the UST Assessment Report (Appendix B). Further details are provided in the *Technical Memorandum Groundwater Investigations December 2019* (Resolution Consultants, 2020).

The sampling strategy for this phase of the investigation required a one-time sampling event of the temporary monitoring well. Following well installation and development, a groundwater sample was collected using low-flow methods and shipped to an offsite laboratory for analysis of the petroleum COPCs. Upon completion of groundwater sampling, the temporary well was abandoned in accordance with the South Carolina Well Standards and Regulations R.61-71 (SCDHEC, 2016). Field forms are provided in the *Technical Memorandum Groundwater Investigations December 2019* (Resolution Consultants, 2020).

2.4 Initial Groundwater Analytical Results

A summary of the laboratory analytical results and SCDHEC RBSLs is presented in Table 2. A copy of the laboratory analytical data report is included in Appendix C.

The groundwater results collected from 212 West Cardinal Lane (Formerly 1223 West Cardinal Lane) were less than the SCDHEC RBSLs and the site specific groundwater VISLs (Table 2), which indicated that the groundwater was not impacted by COPCs associated with the former UST (Tank 2) at concentrations that present a potential risk to human health and the environment.

3.0 PROPERTY STATUS

Based on the analytical results for soil (Tank 1) and groundwater (Tank 2), SCDHEC made the determination that NFA was required for 212 West Cardinal Lane (Formerly 1223 West Cardinal Lane). These NFA determinations were obtained in letters dated March 25, 2010 (Tank 1) and February 24, 2020 (Tank 2). SCDHEC's NFA letters are provided in Appendix D.

4.0 REFERENCES

Marine Corps Air Station Beaufort, 2009. *South Carolina Department of Health and Environmental Control (SCDHEC) Underground Storage Tank Assessment Report – 1223 Cardinal Lane, Laurel Bay Military Housing Area*, November 2009.

Marine Corps Air Station Beaufort, 2019. *South Carolina Department of Health and Environmental Control (SCDHEC) Underground Storage Tank Assessment Report – 1223 Cardinal Lane, Laurel Bay Military Housing Area*, May 2019.

Resolution Consultants, 2020. *Technical Memorandum Groundwater Investigations December 2019, Multiple Properties, Laurel Bay Military Housing Area, Marine Corps Air Station Beaufort, Beaufort, SC,* January 2020.

South Carolina Department of Health and Environmental Control Bureau of Land and Waste Management, 2013. *Quality Assurance Program Plan for the Underground Storage Tank Management* Division*, Revision 2.0*, April 2013.

South Carolina Department of Health and Environmental Control Bureau of Land and Waste Management, 2015. *Quality Assurance Program Plan for the Underground Storage Tank Management* Division*, Revision 3.0*, May 2015.

South Carolina Department of Health and Environmental Control Bureau of Land and Waste Management, 2016. *Quality Assurance Program Plan for the Underground Storage Tank Management* Division*, Revision 3.1*, February 2016.

South Carolina Department of Health and Environmental Control Bureau of Water, 2016. *R.61-71, Well Standards*, June 2016.

South Carolina Department of Health and Environmental Control Bureau of Land and Waste Management, 2017. *R.61-92, Part 280, Underground Storage Tank Control Regulations*, March 2017.

South Carolina Department of Health and Environmental Control Bureau of Land and Waste Management, 2018. *Underground Storage Tank Assessment Instructions for Permanent Closure and Change-In-Service*, March 2018.

Tables

Table 1
Laboratory Analytical Results - Soil
212 West Cardinal Lane (Formerly 1223 West Cardinal Lane)
Laurel Bay Military Housing Area
Marine Corps Air Station Beaufort
Beaufort, South Carolina

Constituent	SCDHEC RBSLs [1]	Results Sample Collected 08/25/09 and 02/13/19		
		Tank 1 08/25/09	Tank 2 02/13/19	Tank 2 - East Sidewall 02/13/19
Volatile Organic Compounds Analyzed by EPA Method 8260B (mg/kg)				
Benzene	0.003	ND	ND	ND
Ethylbenzene	1.15	ND	ND	ND
Naphthalene	0.036	ND	ND	ND
Toluene	0.627	ND	ND	ND
Xylenes, Total	13.01	ND	ND	ND
Semivolatile Organic Compounds Analyzed by EPA Method 8270D (mg/kg)				
Benzo(a)anthracene	0.066	ND	**0.088**	**0.015**
Benzo(b)fluoranthene	0.066	ND	**0.067**	**0.013**
Benzo(k)fluoranthene	0.066	ND	**0.029**	**0.0062**
Chrysene	0.066	ND	**0.085**	**0.014**
Dibenz(a,h)anthracene	0.066	ND	**0.0044**	ND

Notes:

[1] South Carolina Risk-Based Screening Levels from the Quality Assurance Program Plan for the Underground Storage Tank Management Division, Revision 1.0 (SCDHEC, May 2001) and Revision 3.1 (SCDHEC, February 2016).

Bold font indicates the analyte was detected.
Bold font and shading indicates the concentration exceeds the SCDHEC RBSL.
EPA - United States Environmental Protection Agency
mg/kg - milligram per kilogram
ND - not detected at the reporting limit (or method detection limit if shown on the laboratory report). The laboratory report is provided in Appendix B.
RBSL - Risk-Based Screening Level
SCDHEC - South Carolina Department Of Health and Environmental Control

Table 2
Laboratory Analytical Results - Groundwater
212 West Cardinal Lane (Formerly 1223 West Cardinal Lane)
Laurel Bay Military Housing Area
Marine Corps Air Station Beaufort
Beaufort, South Carolina

Constituent	SCDHEC RBSLs [1]	Site-Specific Groundwater VISLs[2]	Results Sample Collected 12/09/19
Volatile Organic Compounds Analyzed by EPA Method 8260B (µg/L)			
Benzene	5	16.24	ND
Ethylbenzene	700	45.95	**0.73**
Naphthalene	25	29.33	**16**
Toluene	1000	105,445	ND
Xylenes, Total	10,000	2,133	**1.7**
Semivolatile Organic Compounds Analyzed by EPA Method 8270E (µg/L)			
Benzo(a)anthracene	10	NA	ND
Benzo(b)fluoranthene	10	NA	ND
Benzo(k)fluoranthene	10	NA	ND
Chrysene	10	NA	ND
Dibenz(a,h)anthracene	10	NA	ND

Notes:

[1] South Carolina Risk-Based Screening Levels from the Quality Assurance Program Plan for the Underground Storage Tank Management Division, Revision 3.1 (SCDHEC, February 2016).

[2] Site-specific groundwater VISLs were calculated using the EPA JE Model Spreadsheets (Version 3.1, February 2004) and conservative modeling inputs representative of a small single-story house with an 8 foot ceiling. Site-specific groundwater VISLs were developed based on a target risk level of $1x10^{-6}$, a target hazard quotient of 1 (per target organ), and a default residential exposure scenario, assuming exposure for 24 hours/day, 350 days/year, for 26 years. Modeling was performed for a range of depths to groundwater for application as appropriate in different areas of the Laurel Bay Military Housing Area. The most conservative levels are presented for comparison. Refer to Appendix H of the Uniform Federal Policy Sampling Analysis and Sampling Plan for Vapor Media, Revision 4 (Resolution Consultants, April 2017) for additional information.

Bold font indicates the analyte was detected.

Bold font and shading indicates the concentration exceeds the SCDHEC RBSL and/or the Site-Specific Groundwater VISL.

EPA - United States Environmental Protection Agency

JE - Johnson & Ettinger

NA - not applicable

ND - not detected at the reporting limit (or method detection limit if shown on the laboratory report). The groundwater laboratory report is provided in Appendix C.

RBSL - Risk-Based Screening Level

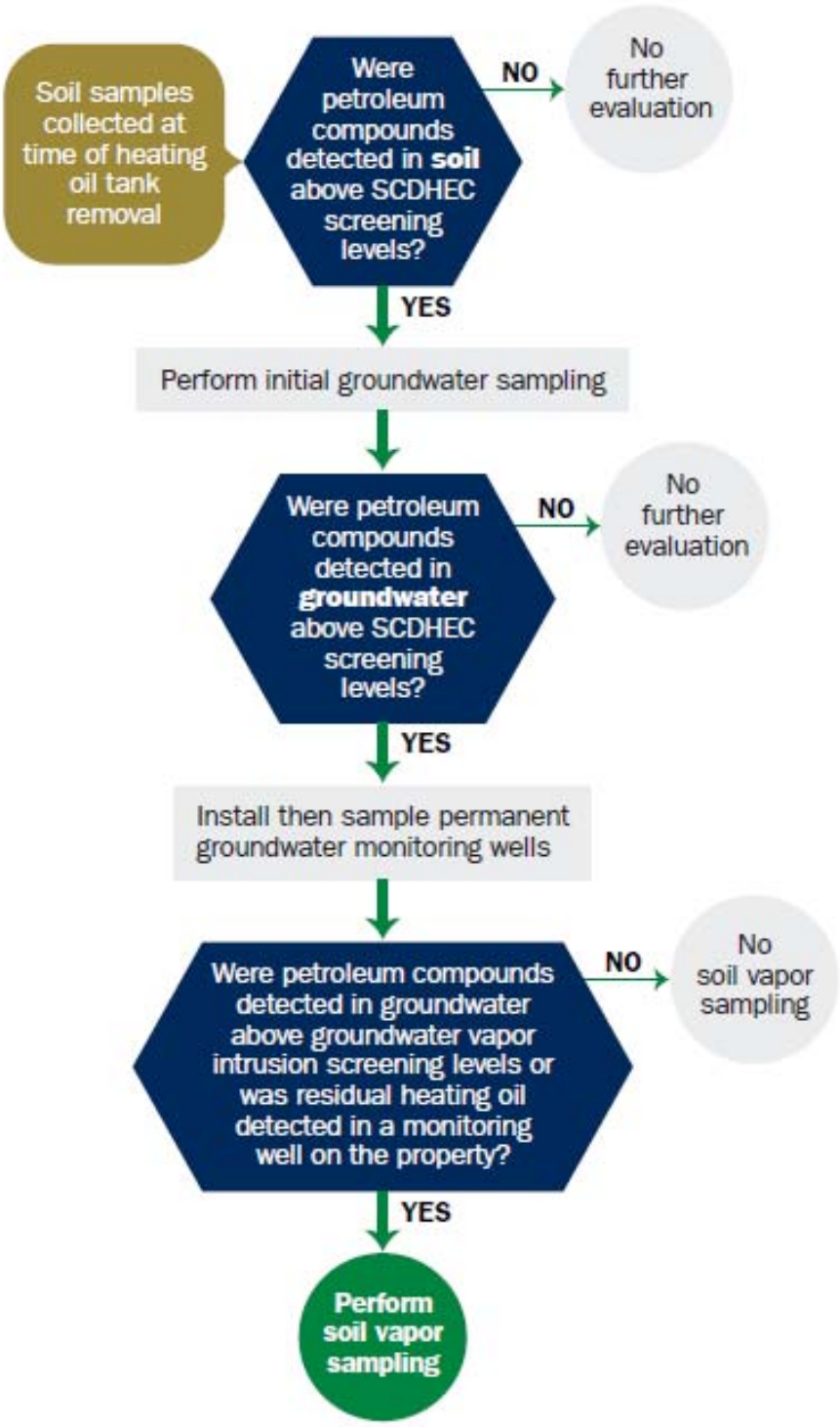
SCDHEC - South Carolina Department Of Health and Environmental Control

µg/L - micrograms per liter

VISL - Vapor Intrusion Screening Level

Appendix A
Multi-Media Selection Process for LBMH

CDM - AECOM
Multimedia Joint Venture



Appendix A - Multi-Media Selection Process for LBMH

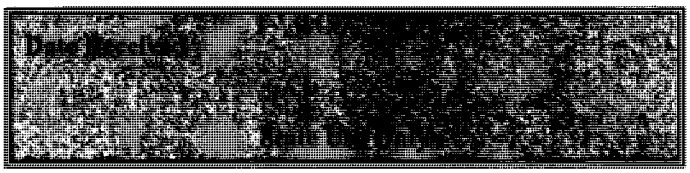
Appendix B
UST Assessment Reports

CDM - AECOM
Multimedia Joint Venture

Attachment 1

South Carolina Department of Health and Environmental Control (SCDHEC)

Underground Storage Tank (UST) Assessment Report



Submit Completed Form To:
UST Program
SCDHEC
2600 Bull Street
Columbia, South Carolina 29201
Telephone (803) 896-7957

I. OWNERSHIP OF UST (S)

MCAS Beaufort, Commanding Officer Attn: NREAO (Craig Ehde)
Owner Name (Corporation, Individual, Public Agency, Other)

P.O. Box 55001
Mailing Address

Beaufort,	South Carolina	29904-5001
City	State	Zip Code

843	228-7317	Craig Ehde
Area Code	Telephone Number	Contact Person

II. SITE IDENTIFICATION AND LOCATION

Permit I.D. #
Laurel Bay Military Housing Area, Marine Corps Air Station, Beaufort, SC
Facility Name or Company Site Identifier

1223 Cardinal Lane, Laurel Bay Military Housing Area
Street Address or State Road (as applicable)

Beaufort,	Beaufort
City	County

Attachment 2

III. INSURANCE INFORMATION

Insurance Statement

The petroleum release reported to DHEC on _____ at Permit ID Number _____ may qualify to receive state monies to pay for appropriate site rehabilitation activities. Before participation is allowed in the State Clean-up fund, written confirmation of the existence or non-existence of an environmental insurance policy is required. **This section must be completed.**

Is there now, or has there ever been an insurance policy or other financial mechanism that covers this UST release? **YES**____ **NO**_____ (check one)

If you answered **YES** to the above question, please complete the following information:

My policy provider is:_____
The policy deductible is: _____
The policy limit is: _____

If you have this type of insurance, please include a copy of the policy with this report.

IV. REQUEST FOR SUPERB FUNDING

I **DO** / DO **NOT** wish to participate in the SUPERB Program. (Circle one.)

V. CERTIFICATION (To be signed by the UST owner)

I certify that I have personally examined and am familiar with the information submitted in this and all attached documents; and that based on my inquiry of those individuals responsible for obtaining this information, I believe that the submitted information is true, accurate, and complete.

_____
Name (Type or print.)

_____
Signature

To be completed by Notary Public:

Sworn before me this _____ day of_____, 20____

_____
(Name)

Notary Public for the state of_____.
Please affix State seal if you are commissioned outside South Carolina

VI. UST INFORMATION

A.	Product...(ex. Gas, Kerosene).....	1223 Cardinal				
B.	Capacity..(ex. 1k, 2k).....	Heating oil				
C.	Age.....	280 gal				
D.	Construction Material..(ex. Steel, FRP).....	Late 1950s				
E.	Month/Year of Last Use.....	Steel				
F.	Depth (ft.) To Base of Tank.....	Mid 1980s				
G.	Spill Prevention Equipment Y/N.....	5'3"				
H.	Overfill Prevention Equipment Y/N.....	No				
I.	Method of Closure Removed/Filled.....	No				
J.	Date Tanks Removed/Filled.....	Removed				
K.	Visible Corrosion or Pitting Y/N.....	8/25/09				
L.	Visible Holes Y/N.....	Yes				
		Yes				

M. Method of disposal for any USTs removed from the ground (attach disposal manifests)
UST 1223Cardinal was removed from the ground and disposed of at a Subtitle "D" landfill. See Attachment "A".

N. Method of disposal for any liquid petroleum, sludges, or wastewaters removed from the USTs (attach disposal manifests)
UST 1223Cardinal had been previously filled with sand by others.

O. If any corrosion, pitting, or holes were observed, describe the location and extent for each UST
Corrosion, pitting and holes were found throughout the tank.

VII. PIPING INFORMATION

A. Construction Material..(ex. Steel, FRP).....	1223 Cardinal				
B. Distance from UST to Dispenser.....	Steel & Copper				
C. Number of Dispensers.....	N/A				
D. Type of System Pressure or Suction.....	N/A				
E. Was Piping Removed from the Ground? Y/N	Suction				
F. Visible Corrosion or Pitting Y/N.....	Yes				
G. Visible Holes Y/N.....	Yes				
H. Age.....	No				
	Late 1950s				

I. If any corrosion, pitting, or holes were observed, describe the location and extent for each piping run.

Corrosion and pitting were found on the surface of the steel vent pipe. Copper supply and return lines were sound.

VIII. BRIEF SITE DESCRIPTION AND HISTORY

The USTs at the residences are constructed of single wall steel and formerly contained fuel oil for heating. These USTs were installed in the late 1950s and last used in the mid 1980s.

IX. SITE CONDITIONS

	Yes	No	Unk
A. Were any petroleum-stained or contaminated soils found in the UST excavation, soil borings, trenches, or monitoring wells? If yes, indicate depth and location on the site map.		X	
B. Were any petroleum odors detected in the excavation, soil borings, trenches, or monitoring wells? If yes, indicate location on site map and describe the odor (strong, mild, etc.)		X	
C. Was water present in the UST excavation, soil borings, or trenches? If yes, how far below land surface (indicate location and depth)?		X	
D. Did contaminated soils remain stockpiled on site after closure? If yes, indicate the stockpile location on the site map. Name of DHEC representative authorizing soil removal:		X	
E. Was a petroleum sheen or free product detected on any excavation or boring waters? If yes, indicate location and thickness.		X	

X. SAMPLE INFORMATION

A. SCDHEC Lab Certification Number 84009001

B.

Sample #	Location	Sample Type (Soil/Water)	Soil Type (Sand/Clay)	Depth*	Date/Time of Collection	Collected by	OVA #
1223 Cardinal	Excav at fill end	Soil	Sandy	5'3"	8/25/09 1030 hrs	P. Shaw	
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

* = Depth Below the Surrounding Land Surface

XI. SAMPLING METHODOLOGY

Provide a detailed description of the methods used to collect and store the samples. Also include the preservative used for each sample. Please use the space provided below.

Sampling was performed in accordance with SC DHEC R.61-92 Part 280 and SC DHEC Assessment Guidelines. Sample containers were prepared by the testing laboratory. The grab method was utilized to fill the sample containers leaving as little head space as possible and immediately capped. Soil samples were extracted from area below tank. The samples were marked, logged, and immediately placed in a sample cooler packed with ice to maintain an approximate temperature of 4 degrees Centigrade. Tools were thoroughly cleaned and decontaminated with the seven step decon process after each use. The samples remained in custody of SBG-EEG, Inc. until they were transferred to Test America Incorporated for analysis as documented in the Chain of Custody Record.

XII. RECEPTORS

	Yes	No
A. Are there any lakes, ponds, streams, or wetlands located within 1000 feet of the UST system? *Stormwater drainage canal ~ If yes, indicate type of receptor, distance, and direction on site map.	*X 170'	
B. Are there any public, private, or irrigation water supply wells within 1000 feet of the UST system? If yes, indicate type of well, distance, and direction on site map.		X
C. Are there any underground structures (e.g., basements) Located within 100 feet of the UST system? If yes, indicate type of structure, distance, and direction on site map.		X
D. Are there any underground utilities (e.g., telephone, electricity, gas, water, sewer, storm drain) located within 100 feet of the UST system that could potentially come in contact with the contamination? *Sewer and water If yes, indicate the type of utility, distance, and direction on the site map.	*X	
E. Has contaminated soil been identified at a depth less than 3 feet below land surface in an area that is not capped by asphalt or concrete? If yes, indicate the area of contaminated soil on the site map.		X

XIII. SITE MAP

You must supply a scaled site map. It should include all buildings, road names, utilities, tank and dispenser island locations, labeled sample locations, extent of excavation, and any other pertinent information.

(Attach Site Map Here)

SBG-EEG, Inc.
Small Business Group, Inc.
10179 Hwy 78
Ladson, SC 29456

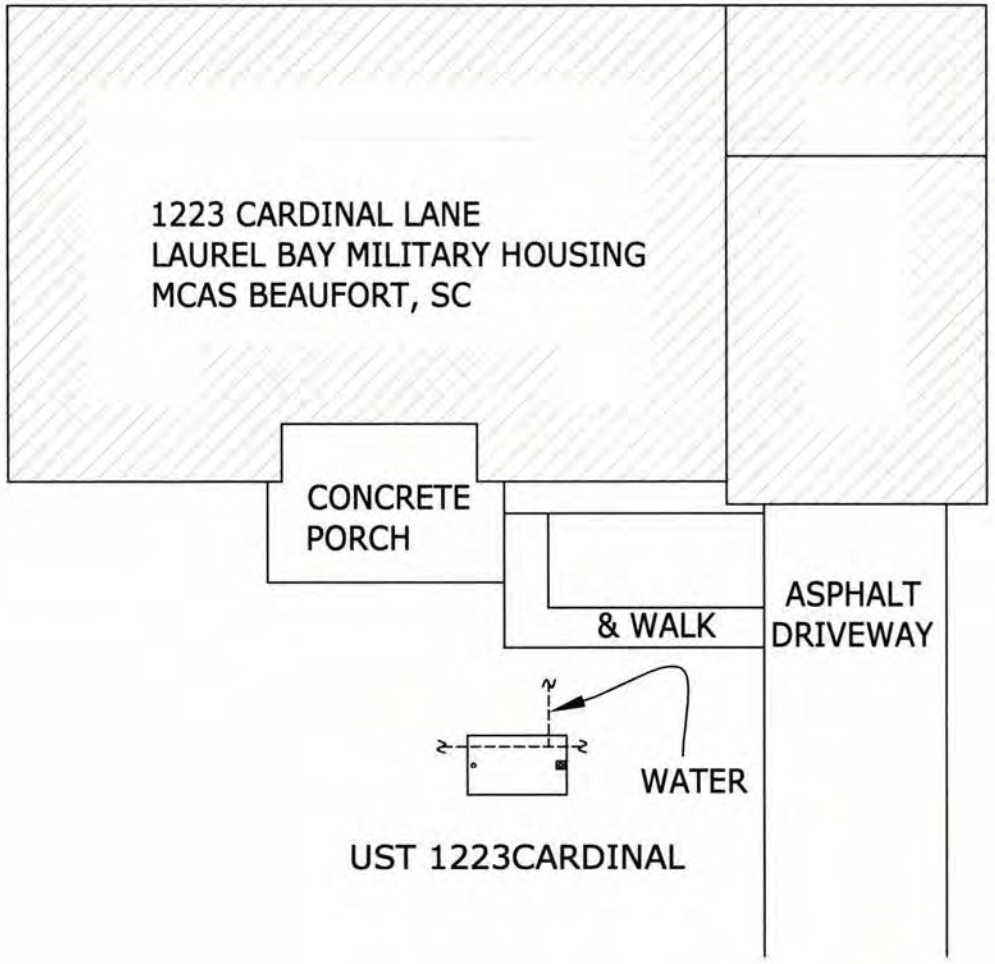
Ph. (843) 879-0400

Drawn By: L. DiAsio

Dwg Date: Oct 2009

FIGURE 1: LOCATION MAP
1223 CARDINAL LANE, LAUREL BAY
MCAS BEAUFORT SC

STORMWATER DRAINAGE
CANAL ≈ 170'



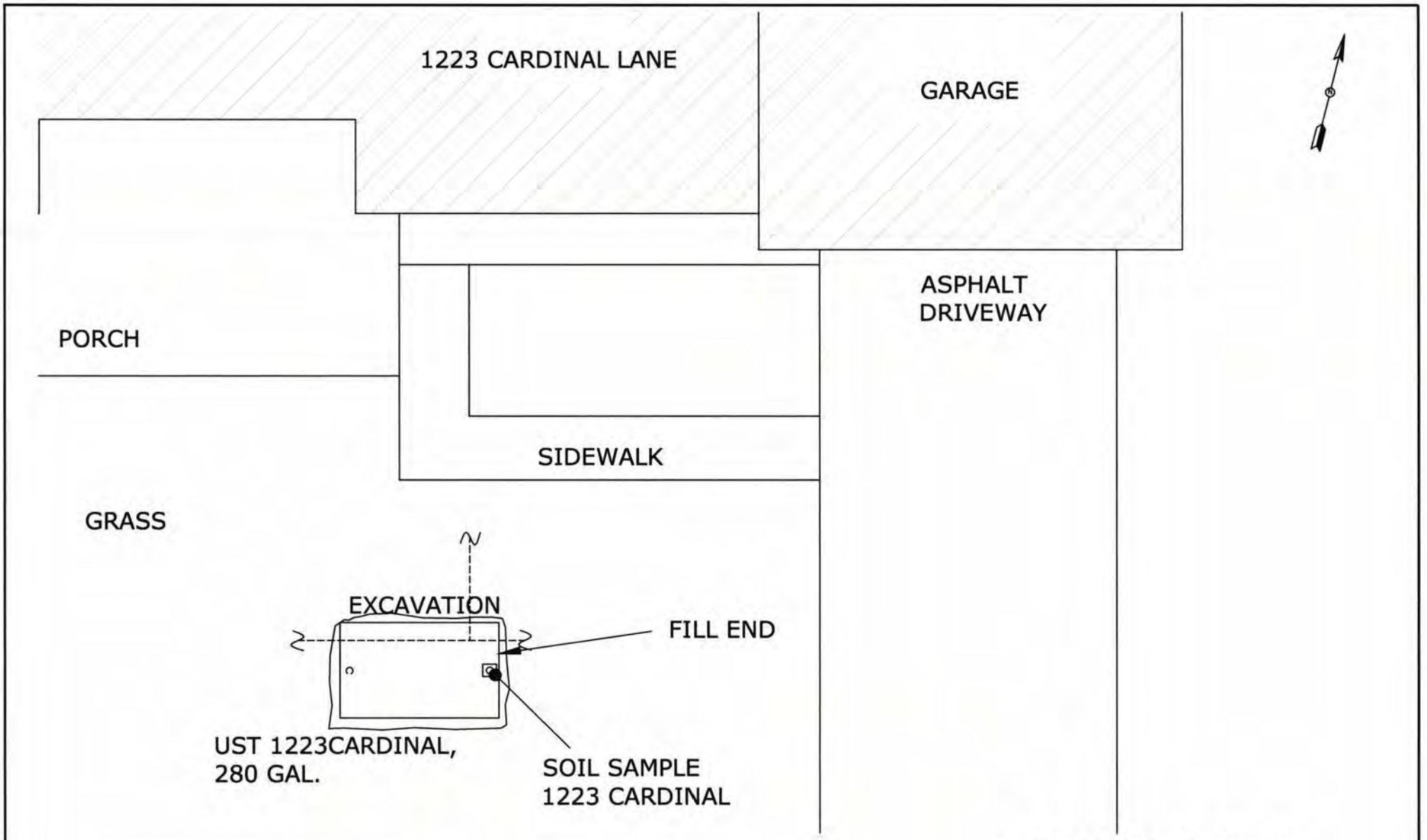
GRAPHIC SCALE

0 5' 10' 20'

SBG-EEG
10179 HWY 78
LADSON, SC 29456
ph. (843) 879-0400

FIGURE 2 SITE MAP
1223 CARDINAL LANE, LAUREL BAY
MCAS BEAUFORT SC

SCALE: GRAPHIC | DWG DATE OCT 2009



SBG-EEG
10179 HWY 78
LADSON, SC 29456
ph. (843) 879-0400

FIGURE 3 UST SAMPLE LOCATIONS
1223 CARDINAL LANE, LAUREL BAY
MCAS BEAUFORT SC

SCALE: GRAPHIC | DWG DATE OCT 2009

Picture 1: Location of UST 1223Cardinal.

Picture 2: UST 1223Cardinal removal in progress.

XIV. SUMMARY OF ANALYSIS RESULTS

Enter the soil analytical data for each soil boring for all COC in the table below and on the following page.

CoC UST	1223Cardinal						
Benzene	ND						
Toluene	ND						
Ethylbenzene	ND						
Xylenes	ND						
Naphthalene	ND						
Benzo (a) anthracene	ND						
Benzo (b) fluoranthene	ND						
Benzo (k) fluoranthene	ND						
Chrysene	ND						
Dibenz (a, h) anthracene	ND						
TPH (EPA 3550)							

CoC							
Benzene							
Toluene							
Ethylbenzene							
Xylenes							
Naphthalene							
Benzo (a) anthracene							
Benzo (b) fluoranthene							
Benzo (k) fluoranthene							
Chrysene							
Dibenz (a, h) anthracene							
TPH (EPA 3550)							

SUMMARY OF ANALYSIS RESULTS (cont'd)

Enter the ground water analytical data for each sample for all CoC in the table below. If free product is present, indicate the measured thickness to the nearest 0.01 feet.

CoC	RBSL (µg/l)	W-1	W-2	W -3	W -4
Free Product Thickness	None				
Benzene	5				
Toluene	1,000				
Ethylbenzene	700				
Xylenes	10,000				
Total BTEX	N/A				
MTBE	40				
Naphthalene	25				
Benzo (a) anthracene	10				
Benzo (b) flouranthene	10				
Benzo (k) flouranthene	10				
Chrysene	10				
Dibenz (a, h) anthracene	10				
EDB	.05				
1,2-DCA	5				
Lead	Site specific				

XV. ANALYTICAL RESULTS

You must submit the laboratory report and chain-of-custody form for the samples. These samples must be analyzed by a South Carolina certified laboratory.

(Attach Certified Analytical Results and Chain-of-Custody Here)
(Please see Form #4)

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
2960 Foster Creighton Road Nashville, TN 37204 * 800-765-0980 * Fax 615-726-3404

September 14, 2009 2:05:14PM

Client: EEG - Small Business Group, Inc. (2449)
10179 Highway 78
Ladson, SC 29456
Attn: Tom McElwee

Work Order: NSH2536
Project Name: Laurel Bay Housing Project
Project Nbr: [none]
P/O Nbr: 0829
Date Received: 08/28/09

SAMPLE IDENTIFICATION	LAB NUMBER	COLLECTION DATE AND TIME
1227 Dove	NSH2536-01	08/25/09 15:00
1225 Dove	NSH2536-02	08/25/09 15:30
1223 Cardinal	NSH2536-03	08/25/09 10:30
1224 Cardinal	NSH2536-04	08/25/09 09:20
1219 Cardinal	NSH2536-05	08/24/09 13:45
1218 Cardinal	NSH2536-06	08/24/09 11:55
1215 Cardinal	NSH2536-07	08/24/09 10:30
1214 Cardinal	NSH2536-08	08/24/09 10:15

An executed copy of the chain of custody, the project quality control data, and the sample receipt form are also included as an addendum to this report. If you have any questions relating to this analytical report, please contact your Laboratory Project Manager at 1-800-765-0980. Any opinions, if expressed, are outside the scope of the Laboratory's accreditation.

South Carolina Certification Number: 84009001

The Chain(s) of Custody, 2 pages, are included and are an integral part of this report.

These results relate only to the items tested. This report shall not be reproduced except in full and with permission of the laboratory.

All solids results are reported in wet weight unless specifically stated.
Estimated uncertainty is available upon request.
This report has been electronically signed.
Report Approved By:

Ken A. Hayes

Senior Project Manager

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Client	EEG - Small Business Group, Inc. (2449)	Work Order:	NSH2536
	10179 Highway 78	Project Name:	Laurel Bay Housing Project
	Ladson, SC 29456	Project Number:	[none]
Attn	Tom McElwee	Received:	08/28/09 08:00

ANALYTICAL REPORT

Analyte	Result	Flag	Units	MRL	Dilution Factor	Analysis Date/Time	Method	Analyst	Batch
Sample ID: NSH2536-01 (1227 Dove - Soil) Sampled: 08/25/09 15:00									
General Chemistry Parameters									
% Dry Solids	**94.9**		%	0.500	1	09/10/09 11:04	SW-846	AJK	9091140
Selected Volatile Organic Compounds by EPA Method 8260B									
Benzene	ND		mg/kg dry	0.00215	1	09/07/09 18:46	SW846 8260B	KxC	9084866
Ethylbenzene	ND		mg/kg dry	0.00215	1	09/07/09 18:46	SW846 8260B	KxC	9084866
Naphthalene	ND		mg/kg dry	0.00538	1	09/07/09 18:46	SW846 8260B	KxC	9084866
Toluene	ND		mg/kg dry	0.00215	1	09/07/09 18:46	SW846 8260B	KxC	9084866
Xylenes, total	ND		mg/kg dry	0.00538	1	09/07/09 18:46	SW846 8260B	KxC	9084866
Surr: 1,2-Dichloroethane-d4 (67-138%)	*87 %*					*09/07/09 18:46*	*SW846 8260B*	*KxC*	*9084866*
Surr: Dibromofluoromethane (75-125%)	*93 %*					*09/07/09 18:46*	*SW846 8260B*	*KxC*	*9084866*
Surr: Toluene-d8 (76-129%)	*92 %*					*09/07/09 18:46*	*SW846 8260B*	*KxC*	*9084866*
Surr: 4-Bromofluorobenzene (67-147%)	*100 %*					*09/07/09 18:46*	*SW846 8260B*	*KxC*	*9084866*
Polyaromatic Hydrocarbons by EPA 8270D									
Acenaphthene	ND		mg/kg dry	0.0701	1	09/10/09 05:59	SW846 8270D	jlf	9090545
Acenaphthylene	ND		mg/kg dry	0.0701	1	09/10/09 05:59	SW846 8270D	jlf	9090545
Anthracene	ND		mg/kg dry	0.0701	1	09/10/09 05:59	SW846 8270D	jlf	9090545
Benzo (a) anthracene	ND		mg/kg dry	0.0701	1	09/10/09 05:59	SW846 8270D	jlf	9090545
Benzo (a) pyrene	ND		mg/kg dry	0.0701	1	09/10/09 05:59	SW846 8270D	jlf	9090545
Benzo (b) fluoranthene	ND		mg/kg dry	0.0701	1	09/10/09 05:59	SW846 8270D	jlf	9090545
Benzo (g,h,i) perylene	ND		mg/kg dry	0.0701	1	09/10/09 05:59	SW846 8270D	jlf	9090545
Benzo (k) fluoranthene	ND		mg/kg dry	0.0701	1	09/10/09 05:59	SW846 8270D	jlf	9090545
Chrysene	ND		mg/kg dry	0.0701	1	09/10/09 05:59	SW846 8270D	jlf	9090545
Dibenz (a,h) anthracene	ND		mg/kg dry	0.0701	1	09/10/09 05:59	SW846 8270D	jlf	9090545
Fluoranthene	ND		mg/kg dry	0.0701	1	09/10/09 05:59	SW846 8270D	jlf	9090545
Fluorene	ND		mg/kg dry	0.0701	1	09/10/09 05:59	SW846 8270D	jlf	9090545
Indeno (1,2,3-cd) pyrene	ND		mg/kg dry	0.0701	1	09/10/09 05:59	SW846 8270D	jlf	9090545
Naphthalene	ND		mg/kg dry	0.0701	1	09/10/09 05:59	SW846 8270D	jlf	9090545
Phenanthrene	ND		mg/kg dry	0.0701	1	09/10/09 05:59	SW846 8270D	jlf	9090545
Pyrene	ND		mg/kg dry	0.0701	1	09/10/09 05:59	SW846 8270D	jlf	9090545
1-Methylnaphthalene	ND		mg/kg dry	0.0701	1	09/10/09 05:59	SW846 8270D	jlf	9090545
2-Methylnaphthalene	ND		mg/kg dry	0.0701	1	09/10/09 05:59	SW846 8270D	jlf	9090545
Surr: Terphenyl-d14 (18-120%)	*61 %*					*09/10/09 05:59*	*SW846 8270D*	*jlf*	*9090545*
Surr: 2-Fluorobiphenyl (14-120%)	*53 %*					*09/10/09 05:59*	*SW846 8270D*	*jlf*	*9090545*
Surr: Nitrobenzene-d5 (17-120%)	*46 %*					*09/10/09 05:59*	*SW846 8270D*	*jlf*	*9090545*

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
2960 Foster Creighton Road Nashville, TN 37204 * 800-765-0980 * Fax 615-726-3404

Client	EEG - Small Business Group, Inc. (2449)	Work Order:	NSH2536
	10179 Highway 78	Project Name:	Laurel Bay Housing Project
	Ladson, SC 29456	Project Number:	[none]
Attn	Tom McElwee	Received:	08/28/09 08:00

ANALYTICAL REPORT

Analyte	Result	Flag	Units	MRL	Dilution Factor	Analysis Date/Time	Method	Analyst	Batch
Sample ID: NSH2536-02 (1225 Dove - Soil) Sampled: 08/25/09 15:30									
General Chemistry Parameters									
% Dry Solids	93.2		%	0.500	1	09/10/09 11:04	SW-846	AJK	9091140
Selected Volatile Organic Compounds by EPA Method 8260B									
Benzene	ND		mg/kg dry	0.00231	1	09/07/09 19:17	SW846 8260B	KxC	9084866
Ethylbenzene	ND		mg/kg dry	0.00231	1	09/07/09 19:17	SW846 8260B	KxC	9084866
Naphthalene	ND		mg/kg dry	0.00578	1	09/07/09 19:17	SW846 8260B	KxC	9084866
Toluene	ND		mg/kg dry	0.00231	1	09/07/09 19:17	SW846 8260B	KxC	9084866
Xylenes, total	ND		mg/kg dry	0.00578	1	09/07/09 19:17	SW846 8260B	KxC	9084866
Surr: 1,2-Dichloroethane-d4 (67-138%)	*90 %*					*09/07/09 19:17*	*SW846 8260B*	*KxC*	*9084866*
Surr: Dibromofluoromethane (75-125%)	*94 %*					*09/07/09 19:17*	*SW846 8260B*	*KxC*	*9084866*
Surr: Toluene-d8 (76-129%)	*93 %*					*09/07/09 19:17*	*SW846 8260B*	*KxC*	*9084866*
Surr: 4-Bromofluorobenzene (67-147%)	*103 %*					*09/07/09 19:17*	*SW846 8260B*	*KxC*	*9084866*
Polyaromatic Hydrocarbons by EPA 8270D									
Acenaphthene	ND		mg/kg dry	0.0702	1	09/10/09 17:56	SW846 8270D	jlf	9090545
Acenaphthylene	ND		mg/kg dry	0.0702	1	09/10/09 17:56	SW846 8270D	jlf	9090545
Anthracene	ND		mg/kg dry	0.0702	1	09/10/09 17:56	SW846 8270D	jlf	9090545
Benzo (a) anthracene	ND		mg/kg dry	0.0702	1	09/10/09 17:56	SW846 8270D	jlf	9090545
Benzo (a) pyrene	ND		mg/kg dry	0.0702	1	09/10/09 17:56	SW846 8270D	jlf	9090545
Benzo (b) fluoranthene	ND		mg/kg dry	0.0702	1	09/10/09 17:56	SW846 8270D	jlf	9090545
Benzo (g,h,i) perylene	ND		mg/kg dry	0.0702	1	09/10/09 17:56	SW846 8270D	jlf	9090545
Benzo (k) fluoranthene	ND		mg/kg dry	0.0702	1	09/10/09 17:56	SW846 8270D	jlf	9090545
Chrysene	ND		mg/kg dry	0.0702	1	09/10/09 17:56	SW846 8270D	jlf	9090545
Dibenz (a,h) anthracene	ND		mg/kg dry	0.0702	1	09/10/09 17:56	SW846 8270D	jlf	9090545
Fluoranthene	ND		mg/kg dry	0.0702	1	09/10/09 17:56	SW846 8270D	jlf	9090545
Fluorene	ND		mg/kg dry	0.0702	1	09/10/09 17:56	SW846 8270D	jlf	9090545
Indeno (1,2,3-cd) pyrene	ND		mg/kg dry	0.0702	1	09/10/09 17:56	SW846 8270D	jlf	9090545
Naphthalene	ND		mg/kg dry	0.0702	1	09/10/09 17:56	SW846 8270D	jlf	9090545
Phenanthrene	ND		mg/kg dry	0.0702	1	09/10/09 17:56	SW846 8270D	jlf	9090545
Pyrene	ND		mg/kg dry	0.0702	1	09/10/09 17:56	SW846 8270D	jlf	9090545
1-Methylnaphthalene	ND		mg/kg dry	0.0702	1	09/10/09 17:56	SW846 8270D	jlf	9090545
2-Methylnaphthalene	ND		mg/kg dry	0.0702	1	09/10/09 17:56	SW846 8270D	jlf	9090545
Surr: Terphenyl-d14 (18-120%)	*57 %*					*09/10/09 17:56*	*SW846 8270D*	*jlf*	*9090545*
Surr: 2-Fluorobiphenyl (14-120%)	*56 %*					*09/10/09 17:56*	*SW846 8270D*	*jlf*	*9090545*
Surr: Nitrobenzene-d5 (17-120%)	*54 %*					*09/10/09 17:56*	*SW846 8270D*	*jlf*	*9090545*

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Client	EEG - Small Business Group, Inc. (2449)	Work Order:	NSH2536
	10179 Highway 78	Project Name:	Laurel Bay Housing Project
	Ladson, SC 29456	Project Number:	[none]
Attn	Tom McElwee	Received:	08/28/09 08:00

ANALYTICAL REPORT

Analyte	Result	Flag	Units	MRL	Dilution Factor	Analysis Date/Time	Method	Analyst	Batch
Sample ID: NSH2536-03 (1223 Cardinal - Soil) Sampled: 08/25/09 10:30									
General Chemistry Parameters									
% Dry Solids	**80.3**		%	0.500	1	09/10/09 11:04	SW-846	AJK	9091140
Selected Volatile Organic Compounds by EPA Method 8260B									
Benzene	ND		mg/kg dry	0.00231	1	09/07/09 19:47	SW846 8260B	KxC	9084866
Ethylbenzene	ND		mg/kg dry	0.00231	1	09/07/09 19:47	SW846 8260B	KxC	9084866
Naphthalene	ND		mg/kg dry	0.00578	1	09/07/09 19:47	SW846 8260B	KxC	9084866
Toluene	ND		mg/kg dry	0.00231	1	09/07/09 19:47	SW846 8260B	KxC	9084866
Xylenes, total	ND		mg/kg dry	0.00578	1	09/07/09 19:47	SW846 8260B	KxC	9084866
Surr: 1,2-Dichloroethane-d4 (67-138%)	*90 %*					*09/07/09 19:47*	*SW846 8260B*	*KxC*	*9084866*
Surr: Dibromofluoromethane (75-125%)	*94 %*					*09/07/09 19:47*	*SW846 8260B*	*KxC*	*9084866*
Surr: Toluene-d8 (76-129%)	*99 %*					*09/07/09 19:47*	*SW846 8260B*	*KxC*	*9084866*
Surr: 4-Bromofluorobenzene (67-147%)	*127 %*					*09/07/09 19:47*	*SW846 8260B*	*KxC*	*9084866*
Polyaromatic Hydrocarbons by EPA 8270D									
Acenaphthene	ND		mg/kg dry	0.0824	1	09/10/09 21:32	SW846 8270D	jlf	9090545
Acenaphthylene	ND		mg/kg dry	0.0824	1	09/10/09 21:32	SW846 8270D	jlf	9090545
Anthracene	ND		mg/kg dry	0.0824	1	09/10/09 21:32	SW846 8270D	jlf	9090545
Benzo (a) anthracene	ND		mg/kg dry	0.0824	1	09/10/09 21:32	SW846 8270D	jlf	9090545
Benzo (a) pyrene	ND		mg/kg dry	0.0824	1	09/10/09 21:32	SW846 8270D	jlf	9090545
Benzo (b) fluoranthene	ND		mg/kg dry	0.0824	1	09/10/09 21:32	SW846 8270D	jlf	9090545
Benzo (g,h,i) perylene	ND		mg/kg dry	0.0824	1	09/10/09 21:32	SW846 8270D	jlf	9090545
Benzo (k) fluoranthene	ND		mg/kg dry	0.0824	1	09/10/09 21:32	SW846 8270D	jlf	9090545
Chrysene	ND		mg/kg dry	0.0824	1	09/10/09 21:32	SW846 8270D	jlf	9090545
Dibenz (a,h) anthracene	ND		mg/kg dry	0.0824	1	09/10/09 21:32	SW846 8270D	jlf	9090545
Fluoranthene	ND		mg/kg dry	0.0824	1	09/10/09 21:32	SW846 8270D	jlf	9090545
Fluorene	ND		mg/kg dry	0.0824	1	09/10/09 21:32	SW846 8270D	jlf	9090545
Indeno (1,2,3-cd) pyrene	ND		mg/kg dry	0.0824	1	09/10/09 21:32	SW846 8270D	jlf	9090545
Naphthalene	ND		mg/kg dry	0.0824	1	09/10/09 21:32	SW846 8270D	jlf	9090545
Phenanthrene	ND		mg/kg dry	0.0824	1	09/10/09 21:32	SW846 8270D	jlf	9090545
Pyrene	ND		mg/kg dry	0.0824	1	09/10/09 21:32	SW846 8270D	jlf	9090545
1-Methylnaphthalene	ND		mg/kg dry	0.0824	1	09/10/09 21:32	SW846 8270D	jlf	9090545
2-Methylnaphthalene	ND		mg/kg dry	0.0824	1	09/10/09 21:32	SW846 8270D	jlf	9090545
Surr: Terphenyl-d14 (18-120%)	*53 %*					*09/10/09 21:32*	*SW846 8270D*	*jlf*	*9090545*
Surr: 2-Fluorobiphenyl (14-120%)	*50 %*					*09/10/09 21:32*	*SW846 8270D*	*jlf*	*9090545*
Surr: Nitrobenzene-d5 (17-120%)	*46 %*					*09/10/09 21:32*	*SW846 8270D*	*jlf*	*9090545*

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Client	EEG - Small Business Group, Inc. (2449)	Work Order:	NSH2536
	10179 Highway 78	Project Name:	Laurel Bay Housing Project
	Ladson, SC 29456	Project Number:	[none]
Attn	Tom McElwee	Received:	08/28/09 08:00

ANALYTICAL REPORT

Analyte	Result	Flag	Units	MRL	Dilution Factor	Analysis Date/Time	Method	Analyst	Batch
Sample ID: NSH2536-04 (1224 Cardinal - Soil) Sampled: 08/25/09 09:20									
General Chemistry Parameters									
% Dry Solids	**79.4**		%	0.500	1	09/10/09 11:04	SW-846	AJK	9091140
Selected Volatile Organic Compounds by EPA Method 8260B									
Benzene	ND	RL1	mg/kg dry	0.117	50	09/07/09 18:15	SW846 8260B	KxC	9084866
Ethylbenzene	ND	RL1	mg/kg dry	0.117	50	09/07/09 18:15	SW846 8260B	KxC	9084866
Naphthalene	**0.00743**		mg/kg dry	0.00586	1	09/07/09 17:45	SW846 8260B	KxC	9084866
Toluene	**0.207**		mg/kg dry	0.117	50	09/07/09 18:15	SW846 8260B	KxC	9084866
Xylenes, total	ND	RL1	mg/kg dry	0.294	50	09/07/09 18:15	SW846 8260B	KxC	9084866
Surr: 1,2-Dichloroethane-d4 (67-138%)	*122 %*					*09/07/09 17:45*	*SW846 8260B*	*KxC*	*9084866*
Surr: 1,2-Dichloroethane-d4 (67-138%)	*81 %*					*09/07/09 18:15*	*SW846 8260B*	*KxC*	*9084866*
Surr: Dibromofluoromethane (75-125%)	*117 %*					*09/07/09 17:45*	*SW846 8260B*	*KxC*	*9084866*
Surr: Dibromofluoromethane (75-125%)	*88 %*					*09/07/09 18:15*	*SW846 8260B*	*KxC*	*9084866*
Surr: Toluene-d8 (76-129%)	*167 %*	*ZX*				*09/07/09 17:45*	*SW846 8260B*	*KxC*	*9084866*
Surr: Toluene-d8 (76-129%)	*92 %*					*09/07/09 18:15*	*SW846 8260B*	*KxC*	*9084866*
Surr: 4-Bromofluorobenzene (67-147%)	*155 %*	*ZX*				*09/07/09 17:45*	*SW846 8260B*	*KxC*	*9084866*
Surr: 4-Bromofluorobenzene (67-147%)	*109 %*					*09/07/09 18:15*	*SW846 8260B*	*KxC*	*9084866*
Polyaromatic Hydrocarbons by EPA 8270D									
Acenaphthene	ND		mg/kg dry	4.17	50	09/11/09 21:54	SW846 8270D	jlf	9090545
Acenaphthylene	ND		mg/kg dry	4.17	50	09/11/09 21:54	SW846 8270D	jlf	9090545
Anthracene	ND		mg/kg dry	4.17	50	09/11/09 21:54	SW846 8270D	jlf	9090545
Benzo (a) anthracene	ND		mg/kg dry	4.17	50	09/11/09 21:54	SW846 8270D	jlf	9090545
Benzo (a) pyrene	ND		mg/kg dry	4.17	50	09/11/09 21:54	SW846 8270D	jlf	9090545
Benzo (b) fluoranthene	ND		mg/kg dry	4.17	50	09/11/09 21:54	SW846 8270D	jlf	9090545
Benzo (g,h,i) perylene	ND		mg/kg dry	4.17	50	09/11/09 21:54	SW846 8270D	jlf	9090545
Benzo (k) fluoranthene	ND		mg/kg dry	4.17	50	09/11/09 21:54	SW846 8270D	jlf	9090545
Chrysene	ND		mg/kg dry	4.17	50	09/11/09 21:54	SW846 8270D	jlf	9090545
Dibenz (a,h) anthracene	ND		mg/kg dry	4.17	50	09/11/09 21:54	SW846 8270D	jlf	9090545
Fluoranthene	ND		mg/kg dry	4.17	50	09/11/09 21:54	SW846 8270D	jlf	9090545
Fluorene	ND		mg/kg dry	4.17	50	09/11/09 21:54	SW846 8270D	jlf	9090545
Indeno (1,2,3-cd) pyrene	ND		mg/kg dry	4.17	50	09/11/09 21:54	SW846 8270D	jlf	9090545
Naphthalene	ND		mg/kg dry	4.17	50	09/11/09 21:54	SW846 8270D	jlf	9090545
Phenanthrene	ND		mg/kg dry	4.17	50	09/11/09 21:54	SW846 8270D	jlf	9090545
Pyrene	ND		mg/kg dry	4.17	50	09/11/09 21:54	SW846 8270D	jlf	9090545
1-Methylnaphthalene	ND		mg/kg dry	4.17	50	09/11/09 21:54	SW846 8270D	jlf	9090545
2-Methylnaphthalene	ND		mg/kg dry	4.17	50	09/11/09 21:54	SW846 8270D	jlf	9090545
Surr: Terphenyl-d14 (18-120%)	*3 %*	*ZX*				*09/11/09 21:54*	*SW846 8270D*	*jlf*	*9090545*
Surr: 2-Fluorobiphenyl (14-120%)	*21 %*					*09/11/09 21:54*	*SW846 8270D*	*jlf*	*9090545*
Surr: Nitrobenzene-d5 (17-120%)	*59 %*					*09/11/09 21:54*	*SW846 8270D*	*jlf*	*9090545*

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Client	EEG - Small Business Group, Inc. (2449)	Work Order:	NSH2536
	10179 Highway 78	Project Name:	Laurel Bay Housing Project
	Ladson, SC 29456	Project Number:	[none]
Attn	Tom McElwee	Received:	08/28/09 08:00

ANALYTICAL REPORT

Analyte	Result	Flag	Units	MRL	Dilution Factor	Analysis Date/Time	Method	Analyst	Batch
Sample ID: NSH2536-05 (1219 Cardinal - Soil) Sampled: 08/24/09 13:45									
General Chemistry Parameters									
% Dry Solids	**83.0**		%	0.500	1	09/10/09 11:04	SW-846	AJK	9091140
Selected Volatile Organic Compounds by EPA Method 8260B									
Benzene	ND		mg/kg dry	0.00217	1	09/07/09 15:41	SW846 8260B	KxC	9084866
Ethylbenzene	**0.127**		mg/kg dry	0.110	50	09/07/09 16:43	SW846 8260B	KxC	9084866
Naphthalene	**0.0160**		mg/kg dry	0.00542	1	09/07/09 15:41	SW846 8260B	KxC	9084866
Toluene	**1.67**		mg/kg dry	0.110	50	09/07/09 16:43	SW846 8260B	KxC	9084866
Xylenes, total	**0.568**		mg/kg dry	0.276	50	09/07/09 16:43	SW846 8260B	KxC	9084866
Surr: 1,2-Dichloroethane-d4 (67-138%)	*134 %*					*09/07/09 15:41*	*SW846 8260B*	*KxC*	*9084866*
Surr: 1,2-Dichloroethane-d4 (67-138%)	*82 %*					*09/07/09 16:43*	*SW846 8260B*	*KxC*	*9084866*
Surr: Dibromofluoromethane (75-125%)	*121 %*					*09/07/09 15:41*	*SW846 8260B*	*KxC*	*9084866*
Surr: Dibromofluoromethane (75-125%)	*89 %*					*09/07/09 16:43*	*SW846 8260B*	*KxC*	*9084866*
Surr: Toluene-d8 (76-129%)	*215 %*	*ZX*				*09/07/09 15:41*	*SW846 8260B*	*KxC*	*9084866*
Surr: Toluene-d8 (76-129%)	*99 %*					*09/07/09 16:43*	*SW846 8260B*	*KxC*	*9084866*
Surr: 4-Bromofluorobenzene (67-147%)	*259 %*	*ZX*				*09/07/09 15:41*	*SW846 8260B*	*KxC*	*9084866*
Surr: 4-Bromofluorobenzene (67-147%)	*106 %*					*09/07/09 16:43*	*SW846 8260B*	*KxC*	*9084866*
Polyaromatic Hydrocarbons by EPA 8270D									
Acenaphthene	ND		mg/kg dry	0.320	2	09/10/09 22:20	SW846 8270D	jlf	9090545
Acenaphthylene	ND		mg/kg dry	0.320	2	09/10/09 22:20	SW846 8270D	jlf	9090545
Anthracene	ND		mg/kg dry	0.320	2	09/10/09 22:20	SW846 8270D	jlf	9090545
Benzo (a) anthracene	**0.394**		mg/kg dry	0.320	2	09/10/09 22:20	SW846 8270D	jlf	9090545
Benzo (a) pyrene	**0.383**		mg/kg dry	0.320	2	09/10/09 22:20	SW846 8270D	jlf	9090545
Benzo (b) fluoranthene	**0.525**		mg/kg dry	0.320	2	09/10/09 22:20	SW846 8270D	jlf	9090545
Benzo (g,h,i) perylene	ND		mg/kg dry	0.320	2	09/10/09 22:20	SW846 8270D	jlf	9090545
Benzo (k) fluoranthene	**0.358**		mg/kg dry	0.320	2	09/10/09 22:20	SW846 8270D	jlf	9090545
Chrysene	**0.642**		mg/kg dry	0.320	2	09/10/09 22:20	SW846 8270D	jlf	9090545
Dibenz (a,h) anthracene	ND		mg/kg dry	0.320	2	09/10/09 22:20	SW846 8270D	jlf	9090545
Fluoranthene	**0.778**		mg/kg dry	0.320	2	09/10/09 22:20	SW846 8270D	jlf	9090545
Fluorene	ND		mg/kg dry	0.320	2	09/10/09 22:20	SW846 8270D	jlf	9090545
Indeno (1,2,3-cd) pyrene	ND		mg/kg dry	0.320	2	09/10/09 22:20	SW846 8270D	jlf	9090545
Naphthalene	ND		mg/kg dry	0.320	2	09/10/09 22:20	SW846 8270D	jlf	9090545
Phenanthrene	ND		mg/kg dry	0.320	2	09/10/09 22:20	SW846 8270D	jlf	9090545
Pyrene	**0.956**		mg/kg dry	0.320	2	09/10/09 22:20	SW846 8270D	jlf	9090545
1-Methylnaphthalene	ND		mg/kg dry	0.320	2	09/10/09 22:20	SW846 8270D	jlf	9090545
2-Methylnaphthalene	ND		mg/kg dry	0.320	2	09/10/09 22:20	SW846 8270D	jlf	9090545
Surr: Terphenyl-d14 (18-120%)	*19 %*					*09/10/09 22:20*	*SW846 8270D*	*jlf*	*9090545*
Surr: 2-Fluorobiphenyl (14-120%)	*26 %*					*09/10/09 22:20*	*SW846 8270D*	*jlf*	*9090545*
Surr: Nitrobenzene-d5 (17-120%)	*47 %*					*09/10/09 22:20*	*SW846 8270D*	*jlf*	*9090545*

TestAmerica
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Client	EEG - Small Business Group, Inc. (2449)	Work Order:	NSH2536
	10179 Highway 78	Project Name:	Laurel Bay Housing Project
	Ladson, SC 29456	Project Number:	[none]
Attn	Tom McElwee	Received:	08/28/09 08:00

ANALYTICAL REPORT

Analyte	Result	Flag	Units	MRL	Dilution Factor	Analysis Date/Time	Method	Analyst	Batch
Sample ID: NSH2536-06 (1218 Cardinal - Soil) Sampled: 08/24/09 11:55									
General Chemistry Parameters									
% Dry Solids	**87.6**		%	0.500	1	09/10/09 11:04	SW-846	AJK	9091140
Selected Volatile Organic Compounds by EPA Method 8260B									
Benzene	ND		mg/kg dry	0.00209	1	09/07/09 13:44	SW846 8260B	CMM	9091127
Ethylbenzene	ND		mg/kg dry	0.00209	1	09/07/09 13:44	SW846 8260B	CMM	9091127
Naphthalene	**0.0111**	B	mg/kg dry	0.00523	1	09/07/09 13:44	SW846 8260B	CMM	9091127
Toluene	ND		mg/kg dry	0.00209	1	09/07/09 13:44	SW846 8260B	CMM	9091127
Xylenes, total	ND		mg/kg dry	0.00523	1	09/07/09 13:44	SW846 8260B	CMM	9091127
Surr: 1,2-Dichloroethane-d4 (67-138%)	*85 %*					*09/07/09 13:44*	*SW846 8260B*	*CMM*	*9091127*
Surr: Dibromofluoromethane (75-125%)	*95 %*					*09/07/09 13:44*	*SW846 8260B*	*CMM*	*9091127*
Surr: Toluene-d8 (76-129%)	*101 %*					*09/07/09 13:44*	*SW846 8260B*	*CMM*	*9091127*
Surr: 4-Bromofluorobenzene (67-147%)	*135 %*					*09/07/09 13:44*	*SW846 8260B*	*CMM*	*9091127*
Polyaromatic Hydrocarbons by EPA 8270D									
Acenaphthene	ND		mg/kg dry	0.375	1	09/10/09 22:44	SW846 8270D	jlf	9090545
Acenaphthylene	ND		mg/kg dry	0.375	1	09/10/09 22:44	SW846 8270D	jlf	9090545
Anthracene	**0.685**		mg/kg dry	0.375	1	09/10/09 22:44	SW846 8270D	jlf	9090545
Benzo (a) anthracene	**5.47**		mg/kg dry	0.375	1	09/10/09 22:44	SW846 8270D	jlf	9090545
Benzo (a) pyrene	**2.38**		mg/kg dry	0.375	1	09/10/09 22:44	SW846 8270D	jlf	9090545
Benzo (b) fluoranthene	**3.46**		mg/kg dry	0.375	1	09/10/09 22:44	SW846 8270D	jlf	9090545
Benzo (g,h,i) perylene	**3.21**		mg/kg dry	0.375	1	09/10/09 22:44	SW846 8270D	jlf	9090545
Benzo (k) fluoranthene	**2.54**		mg/kg dry	0.375	1	09/10/09 22:44	SW846 8270D	jlf	9090545
Chrysene	**5.13**		mg/kg dry	0.375	1	09/10/09 22:44	SW846 8270D	jlf	9090545
Dibenz (a,h) anthracene	**0.751**		mg/kg dry	0.375	1	09/10/09 22:44	SW846 8270D	jlf	9090545
Fluoranthene	**9.33**		mg/kg dry	0.375	1	09/10/09 22:44	SW846 8270D	jlf	9090545
Fluorene	ND		mg/kg dry	0.375	1	09/10/09 22:44	SW846 8270D	jlf	9090545
Indeno (1,2,3-cd) pyrene	**2.53**		mg/kg dry	0.375	1	09/10/09 22:44	SW846 8270D	jlf	9090545
Naphthalene	ND		mg/kg dry	0.375	1	09/10/09 22:44	SW846 8270D	jlf	9090545
Phenanthrene	**2.32**		mg/kg dry	0.375	1	09/10/09 22:44	SW846 8270D	jlf	9090545
Pyrene	**6.65**		mg/kg dry	0.375	1	09/10/09 22:44	SW846 8270D	jlf	9090545
1-Methylnaphthalene	ND		mg/kg dry	0.375	1	09/10/09 22:44	SW846 8270D	jlf	9090545
2-Methylnaphthalene	ND		mg/kg dry	0.375	1	09/10/09 22:44	SW846 8270D	jlf	9090545
Surr: Terphenyl-d14 (18-120%)	*332 %*	*ZX*				*09/10/09 22:44*	*SW846 8270D*	*jlf*	*9090545*
Surr: 2-Fluorobiphenyl (14-120%)	*320 %*	*ZX*				*09/10/09 22:44*	*SW846 8270D*	*jlf*	*9090545*
Surr: Nitrobenzene-d5 (17-120%)	*294 %*	*ZX*				*09/10/09 22:44*	*SW846 8270D*	*jlf*	*9090545*

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Client	EEG - Small Business Group, Inc. (2449)	Work Order:	NSH2536
	10179 Highway 78	Project Name:	Laurel Bay Housing Project
	Ladson, SC 29456	Project Number:	[none]
Attn	Tom McElwee	Received:	08/28/09 08:00

ANALYTICAL REPORT

Analyte	Result	Flag	Units	MRL	Dilution Factor	Analysis Date/Time	Method	Analyst	Batch
Sample ID: NSH2536-07 (1215 Cardinal - Soil) Sampled: 08/24/09 10:30									
General Chemistry Parameters									
% Dry Solids	**88.6**		%	0.500	1	09/10/09 11:04	SW-846	AJK	9091140
Selected Volatile Organic Compounds by EPA Method 8260B									
Benzene	ND		mg/kg dry	0.00247	1	09/07/09 16:12	SW846 8260B	KxC	9084866
Ethylbenzene	ND		mg/kg dry	0.00247	1	09/07/09 16:12	SW846 8260B	KxC	9084866
Naphthalene	**0.0521**		mg/kg dry	0.00617	1	09/07/09 16:12	SW846 8260B	KxC	9084866
Toluene	ND		mg/kg dry	0.00247	1	09/07/09 16:12	SW846 8260B	KxC	9084866
Xylenes, total	ND		mg/kg dry	0.00617	1	09/07/09 16:12	SW846 8260B	KxC	9084866
Surr: 1,2-Dichloroethane-d4 (67-138%)	*94 %*					*09/07/09 16:12*	*SW846 8260B*	*KxC*	*9084866*
Surr: Dibromofluoromethane (75-125%)	*96 %*					*09/07/09 16:12*	*SW846 8260B*	*KxC*	*9084866*
Surr: Toluene-d8 (76-129%)	*114 %*					*09/07/09 16:12*	*SW846 8260B*	*KxC*	*9084866*
Surr: 4-Bromofluorobenzene (67-147%)	*149 %*	*ZX*				*09/07/09 16:12*	*SW846 8260B*	*KxC*	*9084866*
Polyaromatic Hydrocarbons by EPA 8270D									
Acenaphthene	ND		mg/kg dry	0.746	10	09/11/09 22:17	SW846 8270D	jlf	9090545
Acenaphthylene	ND		mg/kg dry	0.746	10	09/11/09 22:17	SW846 8270D	jlf	9090545
Anthracene	ND		mg/kg dry	0.746	10	09/11/09 22:17	SW846 8270D	jlf	9090545
Benzo (a) anthracene	ND		mg/kg dry	0.746	10	09/11/09 22:17	SW846 8270D	jlf	9090545
Benzo (a) pyrene	ND		mg/kg dry	0.746	10	09/11/09 22:17	SW846 8270D	jlf	9090545
Benzo (b) fluoranthene	ND		mg/kg dry	0.746	10	09/11/09 22:17	SW846 8270D	jlf	9090545
Benzo (g,h,i) perylene	ND		mg/kg dry	0.746	10	09/11/09 22:17	SW846 8270D	jlf	9090545
Benzo (k) fluoranthene	ND		mg/kg dry	0.746	10	09/11/09 22:17	SW846 8270D	jlf	9090545
Chrysene	ND		mg/kg dry	0.746	10	09/11/09 22:17	SW846 8270D	jlf	9090545
Dibenz (a,h) anthracene	ND		mg/kg dry	0.746	10	09/11/09 22:17	SW846 8270D	jlf	9090545
Fluoranthene	ND		mg/kg dry	0.746	10	09/11/09 22:17	SW846 8270D	jlf	9090545
Fluorene	ND		mg/kg dry	0.746	10	09/11/09 22:17	SW846 8270D	jlf	9090545
Indeno (1,2,3-cd) pyrene	ND		mg/kg dry	0.746	10	09/11/09 22:17	SW846 8270D	jlf	9090545
Naphthalene	ND		mg/kg dry	0.746	10	09/11/09 22:17	SW846 8270D	jlf	9090545
Phenanthrene	ND		mg/kg dry	0.746	10	09/11/09 22:17	SW846 8270D	jlf	9090545
Pyrene	ND		mg/kg dry	0.746	10	09/11/09 22:17	SW846 8270D	jlf	9090545
1-Methylnaphthalene	**4.82**		mg/kg dry	0.746	10	09/11/09 22:17	SW846 8270D	jlf	9090545
2-Methylnaphthalene	**7.04**		mg/kg dry	0.746	10	09/11/09 22:17	SW846 8270D	jlf	9090545
Surr: Terphenyl-d14 (18-120%)	*119 %*					*09/11/09 22:17*	*SW846 8270D*	*jlf*	*9090545*
Surr: 2-Fluorobiphenyl (14-120%)	*115 %*					*09/11/09 22:17*	*SW846 8270D*	*jlf*	*9090545*
Surr: Nitrobenzene-d5 (17-120%)	*112 %*					*09/11/09 22:17*	*SW846 8270D*	*jlf*	*9090545*

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Client	EEG - Small Business Group, Inc. (2449)	Work Order:	NSH2536
	10179 Highway 78	Project Name:	Laurel Bay Housing Project
	Ladson, SC 29456	Project Number:	[none]
Attn	Tom McElwee	Received:	08/28/09 08:00

ANALYTICAL REPORT

Analyte	Result	Flag	Units	MRL	Dilution Factor	Analysis Date/Time	Method	Analyst	Batch
Sample ID: NSH2536-08 (1214 Cardinal - Soil) Sampled: 08/24/09 10:15									
General Chemistry Parameters									
% Dry Solids	**88.7**		%	0.500	1	09/10/09 11:04	SW-846	AJK	9091140
Selected Volatile Organic Compounds by EPA Method 8260B									
Benzene	ND		mg/kg dry	0.00241	1	09/07/09 14:47	SW846 8260B	CMM	9091127
Ethylbenzene	ND		mg/kg dry	0.00241	1	09/07/09 14:47	SW846 8260B	CMM	9091127
Naphthalene	ND		mg/kg dry	0.00602	1	09/07/09 14:47	SW846 8260B	CMM	9091127
Toluene	ND		mg/kg dry	0.00241	1	09/07/09 14:47	SW846 8260B	CMM	9091127
Xylenes, total	ND		mg/kg dry	0.00602	1	09/07/09 14:47	SW846 8260B	CMM	9091127
Surr: 1,2-Dichloroethane-d4 (67-138%)	*89 %*					*09/07/09 14:47*	*SW846 8260B*	*CMM*	*9091127*
Surr: Dibromofluoromethane (75-125%)	*95 %*					*09/07/09 14:47*	*SW846 8260B*	*CMM*	*9091127*
Surr: Toluene-d8 (76-129%)	*103 %*					*09/07/09 14:47*	*SW846 8260B*	*CMM*	*9091127*
Surr: 4-Bromofluorobenzene (67-147%)	*135 %*					*09/07/09 14:47*	*SW846 8260B*	*CMM*	*9091127*
Polyaromatic Hydrocarbons by EPA 8270D									
Acenaphthene	ND		mg/kg dry	0.0747	1	09/10/09 23:32	SW846 8270D	jlf	9090545
Acenaphthylene	ND		mg/kg dry	0.0747	1	09/10/09 23:32	SW846 8270D	jlf	9090545
Anthracene	ND		mg/kg dry	0.0747	1	09/10/09 23:32	SW846 8270D	jlf	9090545
Benzo (a) anthracene	ND		mg/kg dry	0.0747	1	09/10/09 23:32	SW846 8270D	jlf	9090545
Benzo (a) pyrene	ND		mg/kg dry	0.0747	1	09/10/09 23:32	SW846 8270D	jlf	9090545
Benzo (b) fluoranthene	ND		mg/kg dry	0.0747	1	09/10/09 23:32	SW846 8270D	jlf	9090545
Benzo (g,h,i) perylene	**0.212**		mg/kg dry	0.0747	1	09/10/09 23:32	SW846 8270D	jlf	9090545
Benzo (k) fluoranthene	ND		mg/kg dry	0.0747	1	09/10/09 23:32	SW846 8270D	jlf	9090545
Chrysene	ND		mg/kg dry	0.0747	1	09/10/09 23:32	SW846 8270D	jlf	9090545
Dibenz (a,h) anthracene	ND		mg/kg dry	0.0747	1	09/10/09 23:32	SW846 8270D	jlf	9090545
Fluoranthene	ND		mg/kg dry	0.0747	1	09/10/09 23:32	SW846 8270D	jlf	9090545
Fluorene	ND		mg/kg dry	0.0747	1	09/10/09 23:32	SW846 8270D	jlf	9090545
Indeno (1,2,3-cd) pyrene	**0.192**		mg/kg dry	0.0747	1	09/10/09 23:32	SW846 8270D	jlf	9090545
Naphthalene	ND		mg/kg dry	0.0747	1	09/10/09 23:32	SW846 8270D	jlf	9090545
Phenanthrene	ND		mg/kg dry	0.0747	1	09/10/09 23:32	SW846 8270D	jlf	9090545
Pyrene	ND		mg/kg dry	0.0747	1	09/10/09 23:32	SW846 8270D	jlf	9090545
1-Methylnaphthalene	ND		mg/kg dry	0.0747	1	09/10/09 23:32	SW846 8270D	jlf	9090545
2-Methylnaphthalene	ND		mg/kg dry	0.0747	1	09/10/09 23:32	SW846 8270D	jlf	9090545
Surr: Terphenyl-d14 (18-120%)	*72 %*					*09/10/09 23:32*	*SW846 8270D*	*jlf*	*9090545*
Surr: 2-Fluorobiphenyl (14-120%)	*70 %*					*09/10/09 23:32*	*SW846 8270D*	*jlf*	*9090545*
Surr: Nitrobenzene-d5 (17-120%)	*75 %*					*09/10/09 23:32*	*SW846 8270D*	*jlf*	*9090545*

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Client	EEG - Small Business Group, Inc. (2449)	Work Order:	NSH2536
	10179 Highway 78	Project Name:	Laurel Bay Housing Project
	Ladson, SC 29456	Project Number:	[none]
Attn	Tom McElwee	Received:	08/28/09 08:00

SAMPLE EXTRACTION DATA

Parameter	Batch	Lab Number	Wt/Vol Extracted	Extracted Vol	Date	Analyst	Extraction Method
Polyaromatic Hydrocarbons by EPA 8270D							
SW846 8270D	9090545	NSH2536-01	30.22	1.00	09/05/09 09:00	AJF	EPA 3550C
SW846 8270D	9090545	NSH2536-02	30.73	1.00	09/05/09 09:00	AJF	EPA 3550C
SW846 8270D	9090545	NSH2536-03	30.39	1.00	09/05/09 09:00	AJF	EPA 3550C
SW846 8270D	9090545	NSH2536-04	30.36	1.00	09/05/09 09:00	AJF	EPA 3550C
SW846 8270D	9090545	NSH2536-04RE1	30.36	1.00	09/05/09 09:00	AJF	EPA 3550C
SW846 8270D	9090545	NSH2536-05	30.31	2.00	09/05/09 09:00	AJF	EPA 3550C
SW846 8270D	9090545	NSH2536-06	30.57	5.00	09/05/09 09:00	AJF	EPA 3550C
SW846 8270D	9090545	NSH2536-07	30.40	1.00	09/05/09 09:00	AJF	EPA 3550C
SW846 8270D	9090545	NSH2536-07RE1	30.40	1.00	09/05/09 09:00	AJF	EPA 3550C
SW846 8270D	9090545	NSH2536-08	30.33	1.00	09/05/09 09:00	AJF	EPA 3550C
Selected Volatile Organic Compounds by EPA Method 8260B							
SW846 8260B	9084866	NSH2536-01	4.90	5.00	08/25/09 15:00	CHH	EPA 5035
SW846 8260B	9084866	NSH2536-02	4.64	5.00	08/25/09 15:30	CHH	EPA 5035
SW846 8260B	9084866	NSH2536-03	5.39	5.00	08/25/09 10:30	CHH	EPA 5035
SW846 8260B	9084866	NSH2536-04	3.55	5.00	08/25/09 09:20	CHH	EPA 5035
SW846 8260B	9084866	NSH2536-04RE1	5.37	5.00	08/25/09 09:20	CHH	EPA 5035
SW846 8260B	9084866	NSH2536-04RE2	5.36	5.00	08/25/09 09:20	CHH	EPA 5035
SW846 8260B	9091127	NSH2536-05	5.78	5.00	08/24/09 13:45	CHH	EPA 5035
SW846 8260B	9084866	NSH2536-05RE1	5.56	5.00	08/24/09 13:45	CHH	EPA 5035
SW846 8260B	9084866	NSH2536-05RE2	5.46	5.00	08/24/09 13:45	CHH	EPA 5035
SW846 8260B	9091127	NSH2536-06	5.46	5.00	08/24/09 11:55	CHH	EPA 5035
SW846 8260B	9091127	NSH2536-07	4.73	5.00	08/24/09 10:30	CHH	EPA 5035
SW846 8260B	9084866	NSH2536-07RE1	4.57	5.00	08/24/09 10:30	CHH	EPA 5035
SW846 8260B	9091127	NSH2536-08	4.68	5.00	08/24/09 10:15	CHH	EPA 5035

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Client	EEG - Small Business Group, Inc. (2449)	Work Order:	NSH2536
	10179 Highway 78	Project Name:	Laurel Bay Housing Project
	Ladson, SC 29456	Project Number:	[none]
Attn	Tom McElwee	Received:	08/28/09 08:00

PROJECT QUALITY CONTROL DATA
Blank

Analyte	Blank Value	Q	Units	Q.C. Batch	Lab Number	Analyzed Date/Time
Selected Volatile Organic Compounds by EPA Method 8260B						
9084866-BLK1						
Benzene	<0.000670		mg/kg wet	9084866	9084866-BLK1	09/07/09 15:10
Ethylbenzene	<0.000670		mg/kg wet	9084866	9084866-BLK1	09/07/09 15:10
Naphthalene	<0.00170		mg/kg wet	9084866	9084866-BLK1	09/07/09 15:10
Toluene	<0.000400		mg/kg wet	9084866	9084866-BLK1	09/07/09 15:10
Xylenes, total	<0.00130		mg/kg wet	9084866	9084866-BLK1	09/07/09 15:10
Surrogate: 1,2-Dichloroethane-d4	104%			9084866	9084866-BLK1	09/07/09 15:10
Surrogate: Dibromofluoromethane	94%			9084866	9084866-BLK1	09/07/09 15:10
Surrogate: Toluene-d8	102%			9084866	9084866-BLK1	09/07/09 15:10
Surrogate: 4-Bromofluorobenzene	107%			9084866	9084866-BLK1	09/07/09 15:10
9091127-BLK1						
Benzene	<0.000670		mg/kg wet	9091127	9091127-BLK1	09/07/09 12:40
Ethylbenzene	<0.000670		mg/kg wet	9091127	9091127-BLK1	09/07/09 12:40
Naphthalene	0.00337	B	mg/kg wet	9091127	9091127-BLK1	09/07/09 12:40
Toluene	<0.000400		mg/kg wet	9091127	9091127-BLK1	09/07/09 12:40
Xylenes, total	<0.00130		mg/kg wet	9091127	9091127-BLK1	09/07/09 12:40
Surrogate: 1,2-Dichloroethane-d4	97%			9091127	9091127-BLK1	09/07/09 12:40
Surrogate: Dibromofluoromethane	100%			9091127	9091127-BLK1	09/07/09 12:40
Surrogate: Toluene-d8	103%			9091127	9091127-BLK1	09/07/09 12:40
Surrogate: 4-Bromofluorobenzene	124%			9091127	9091127-BLK1	09/07/09 12:40
Polyaromatic Hydrocarbons by EPA 8270D						
9090545-BLK1						
Acenaphthene	<0.0320		mg/kg wet	9090545	9090545-BLK1	09/10/09 04:26
Acenaphthylene	<0.0310		mg/kg wet	9090545	9090545-BLK1	09/10/09 04:26
Anthracene	<0.0330		mg/kg wet	9090545	9090545-BLK1	09/10/09 04:26
Benzo (a) anthracene	<0.0380		mg/kg wet	9090545	9090545-BLK1	09/10/09 04:26
Benzo (a) pyrene	<0.0300		mg/kg wet	9090545	9090545-BLK1	09/10/09 04:26
Benzo (b) fluoranthene	<0.0300		mg/kg wet	9090545	9090545-BLK1	09/10/09 04:26
Benzo (g,h,i) perylene	<0.0300		mg/kg wet	9090545	9090545-BLK1	09/10/09 04:26
Benzo (k) fluoranthene	<0.0300		mg/kg wet	9090545	9090545-BLK1	09/10/09 04:26
Chrysene	<0.0400		mg/kg wet	9090545	9090545-BLK1	09/10/09 04:26
Dibenz (a,h) anthracene	<0.0310		mg/kg wet	9090545	9090545-BLK1	09/10/09 04:26
Fluoranthene	<0.0340		mg/kg wet	9090545	9090545-BLK1	09/10/09 04:26
Fluorene	<0.0360		mg/kg wet	9090545	9090545-BLK1	09/10/09 04:26
Indeno (1,2,3-cd) pyrene	<0.0310		mg/kg wet	9090545	9090545-BLK1	09/10/09 04:26
Naphthalene	<0.0410		mg/kg wet	9090545	9090545-BLK1	09/10/09 04:26
Phenanthrene	<0.0340		mg/kg wet	9090545	9090545-BLK1	09/10/09 04:26
Pyrene	<0.0410		mg/kg wet	9090545	9090545-BLK1	09/10/09 04:26
1-Methylnaphthalene	<0.0320		mg/kg wet	9090545	9090545-BLK1	09/10/09 04:26
2-Methylnaphthalene	<0.0330		mg/kg wet	9090545	9090545-BLK1	09/10/09 04:26

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Client	EEG - Small Business Group, Inc. (2449)	Work Order:	NSH2536
	10179 Highway 78	Project Name:	Laurel Bay Housing Project
	Ladson, SC 29456	Project Number:	[none]
Attn	Tom McElwee	Received:	08/28/09 08:00

PROJECT QUALITY CONTROL DATA
Blank - Cont.

Analyte	Blank Value	Q	Units	Q.C. Batch	Lab Number	Analyzed Date/Time
Polyaromatic Hydrocarbons by EPA 8270D						
9090545-BLK1						
Surrogate: Terphenyl-d14	71%			9090545	9090545-BLK1	09/10/09 04:26
Surrogate: 2-Fluorobiphenyl	60%			9090545	9090545-BLK1	09/10/09 04:26
Surrogate: Nitrobenzene-d5	49%			9090545	9090545-BLK1	09/10/09 04:26

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Client	EEG - Small Business Group, Inc. (2449)	Work Order:	NSH2536
	10179 Highway 78	Project Name:	Laurel Bay Housing Project
	Ladson, SC 29456	Project Number:	[none]
Attn	Tom McElwee	Received:	08/28/09 08:00

PROJECT QUALITY CONTROL DATA
Duplicate

Analyte	Orig. Val.	Duplicate	Q	Units	RPD	Limit	Batch	Sample Duplicated	% Rec.	Analyzed Date/Time
General Chemistry Parameters										
9091140-DUP1										
% Dry Solids	92.8	92.4		%	0.4	20	9091140	NSH2507-03		09/10/09 11:04

Client	EEG - Small Business Group, Inc. (2449)	Work Order:	NSH2536
	10179 Highway 78	Project Name:	Laurel Bay Housing Project
	Ladson, SC 29456	Project Number:	[none]
Attn	Tom McElwee	Received:	08/28/09 08:00

PROJECT QUALITY CONTROL DATA
LCS

Analyte	Known Val.	Analyzed Val	Q	Units	% Rec.	Target Range	Batch	Analyzed Date/Time
Selected Volatile Organic Compounds by EPA Method 8260B								
9084866-BS1								
Benzene	50.0	44.5		ug/kg	89%	78 - 126	9084866	09/07/09 13:40
Ethylbenzene	50.0	46.4		ug/kg	93%	79 - 130	9084866	09/07/09 13:40
Naphthalene	50.0	47.2		ug/kg	94%	72 - 150	9084866	09/07/09 13:40
Toluene	50.0	45.3		ug/kg	91%	76 - 126	9084866	09/07/09 13:40
Xylenes, total	150	138		ug/kg	92%	80 - 130	9084866	09/07/09 13:40
Surrogate: 1,2-Dichloroethane-d4	50.0	52.1			104%	67 - 138	9084866	09/07/09 13:40
Surrogate: Dibromofluoromethane	50.0	47.8			96%	75 - 125	9084866	09/07/09 13:40
Surrogate: Toluene-d8	50.0	50.5			101%	76 - 129	9084866	09/07/09 13:40
Surrogate: 4-Bromofluorobenzene	50.0	54.0			108%	67 - 147	9084866	09/07/09 13:40
9091127-BS1								
Benzene	50.0	52.8		ug/kg	106%	78 - 126	9091127	09/07/09 11:34
Ethylbenzene	50.0	59.7		ug/kg	119%	79 - 130	9091127	09/07/09 11:34
Naphthalene	50.0	52.3		ug/kg	105%	72 - 150	9091127	09/07/09 11:34
Toluene	50.0	57.5		ug/kg	115%	76 - 126	9091127	09/07/09 11:34
Xylenes, total	150	180		ug/kg	120%	80 - 130	9091127	09/07/09 11:34
Surrogate: 1,2-Dichloroethane-d4	50.0	47.3			95%	67 - 138	9091127	09/07/09 11:34
Surrogate: Dibromofluoromethane	50.0	49.6			99%	75 - 125	9091127	09/07/09 11:34
Surrogate: Toluene-d8	50.0	52.4			105%	76 - 129	9091127	09/07/09 11:34
Surrogate: 4-Bromofluorobenzene	50.0	45.6			91%	67 - 147	9091127	09/07/09 11:34
Polyaromatic Hydrocarbons by EPA 8270D								
9090545-BS1								
Acenaphthene	1.67	1.28		mg/kg wet	77%	49 - 120	9090545	09/10/09 04:49
Acenaphthylene	1.67	1.29		mg/kg wet	77%	52 - 120	9090545	09/10/09 04:49
Anthracene	1.67	1.45		mg/kg wet	87%	58 - 120	9090545	09/10/09 04:49
Benzo (a) anthracene	1.67	1.33		mg/kg wet	80%	57 - 120	9090545	09/10/09 04:49
Benzo (a) pyrene	1.67	1.38		mg/kg wet	83%	55 - 120	9090545	09/10/09 04:49
Benzo (b) fluoranthene	1.67	1.46		mg/kg wet	88%	51 - 123	9090545	09/10/09 04:49
Benzo (g,h,i) perylene	1.67	1.31		mg/kg wet	79%	49 - 121	9090545	09/10/09 04:49
Benzo (k) fluoranthene	1.67	1.07		mg/kg wet	64%	42 - 129	9090545	09/10/09 04:49
Chrysene	1.67	1.32		mg/kg wet	79%	55 - 120	9090545	09/10/09 04:49
Dibenz (a,h) anthracene	1.67	1.34		mg/kg wet	80%	50 - 123	9090545	09/10/09 04:49
Fluoranthene	1.67	1.23		mg/kg wet	74%	58 - 120	9090545	09/10/09 04:49
Fluorene	1.67	1.29		mg/kg wet	77%	54 - 120	9090545	09/10/09 04:49
Indeno (1,2,3-cd) pyrene	1.67	1.33		mg/kg wet	80%	50 - 122	9090545	09/10/09 04:49
Naphthalene	1.67	1.14		mg/kg wet	68%	28 - 120	9090545	09/10/09 04:49
Phenanthrene	1.67	1.30		mg/kg wet	78%	56 - 120	9090545	09/10/09 04:49
Pyrene	1.67	1.33		mg/kg wet	80%	56 - 120	9090545	09/10/09 04:49
1-Methylnaphthalene	1.67	1.07		mg/kg wet	64%	36 - 120	9090545	09/10/09 04:49
2-Methylnaphthalene	1.67	1.09		mg/kg wet	66%	36 - 120	9090545	09/10/09 04:49

2960 Foster Creighton Road Nashville, TN 37204 * 800-765-0980 * Fax 615-726-3404

Client	EEG - Small Business Group, Inc. (2449)	Work Order:	NSH2536
	10179 Highway 78	Project Name:	Laurel Bay Housing Project
	Ladson, SC 29456	Project Number:	[none]
Attn	Tom McElwee	Received:	08/28/09 08:00

PROJECT QUALITY CONTROL DATA
LCS - Cont.

Analyte	Known Val.	Analyzed Val	Q	Units	% Rec.	Target Range	Batch	Analyzed Date/Time
Polyaromatic Hydrocarbons by EPA 8270D								
9090545-BS1								
Surrogate: Terphenyl-d14	1.67	1.19			71%	18 - 120	9090545	09/10/09 04:49
Surrogate: 2-Fluorobiphenyl	1.67	1.06			63%	14 - 120	9090545	09/10/09 04:49
Surrogate: Nitrobenzene-d5	1.67	0.947			57%	17 - 120	9090545	09/10/09 04:49

2960 Foster Creighton Road Nashville, TN 37204 * 800-765-0980 * Fax 615-726-3404

Client	EEG - Small Business Group, Inc. (2449)	Work Order:	NSH2536
	10179 Highway 78	Project Name:	Laurel Bay Housing Project
	Ladson, SC 29456	Project Number:	[none]
Attn	Tom McElwee	Received:	08/28/09 08:00

PROJECT QUALITY CONTROL DATA

LCS Dup

Analyte	Orig. Val.	Duplicate	Q	Units	Spike Conc	% Rec.	Target Range	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
Selected Volatile Organic Compounds by EPA Method 8260B												
9084866-BSD1												
Benzene		45.8		ug/kg	50.0	92%	78 - 126	3	50	9084866		09/07/09 13:07
Ethylbenzene		46.9		ug/kg	50.0	94%	79 - 130	1	50	9084866		09/07/09 13:07
Naphthalene		49.8		ug/kg	50.0	100%	72 - 150	5	50	9084866		09/07/09 13:07
Toluene		45.4		ug/kg	50.0	91%	76 - 126	0.3	50	9084866		09/07/09 13:07
Xylenes, total		139		ug/kg	150	93%	80 - 130	0.7	50	9084866		09/07/09 13:07
Surrogate: 1,2-Dichloroethane-d4		53.4		ug/kg	50.0	107%	67 - 138			9084866		09/07/09 13:07
Surrogate: Dibromofluoromethane		48.0		ug/kg	50.0	96%	75 - 125			9084866		09/07/09 13:07
Surrogate: Toluene-d8		49.5		ug/kg	50.0	99%	76 - 129			9084866		09/07/09 13:07
Surrogate: 4-Bromofluorobenzene		52.6		ug/kg	50.0	105%	67 - 147			9084866		09/07/09 13:07
9091127-BSD1												
Benzene		54.9		ug/kg	50.0	110%	78 - 126	4	50	9091127		09/07/09 11:03
Ethylbenzene		61.7		ug/kg	50.0	123%	79 - 130	3	50	9091127		09/07/09 11:03
Naphthalene		54.9		ug/kg	50.0	110%	72 - 150	5	50	9091127		09/07/09 11:03
Toluene		58.1		ug/kg	50.0	116%	76 - 126	1	50	9091127		09/07/09 11:03
Xylenes, total		186		ug/kg	150	124%	80 - 130	3	50	9091127		09/07/09 11:03
Surrogate: 1,2-Dichloroethane-d4		48.6		ug/kg	50.0	97%	67 - 138			9091127		09/07/09 11:03
Surrogate: Dibromofluoromethane		49.4		ug/kg	50.0	99%	75 - 125			9091127		09/07/09 11:03
Surrogate: Toluene-d8		52.1		ug/kg	50.0	104%	76 - 129			9091127		09/07/09 11:03
Surrogate: 4-Bromofluorobenzene		44.9		ug/kg	50.0	90%	67 - 147			9091127		09/07/09 11:03

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Client	EEG - Small Business Group, Inc. (2449)	Work Order:	NSH2536
	10179 Highway 78	Project Name:	Laurel Bay Housing Project
	Ladson, SC 29456	Project Number:	[none]
Attn	Tom McElwee	Received:	08/28/09 08:00

PROJECT QUALITY CONTROL DATA
Matrix Spike

Analyte	Orig. Val.	MS Val	Q	Units	Spike Conc	% Rec.	Target Range	Batch	Sample Spiked	Analyzed Date/Time
Selected Volatile Organic Compounds by EPA Method 8260B										
9084866-MS1										
Benzene	ND	2.21		mg/kg dry	2.76	80%	42 - 141	9084866	NSH2536-05RE2	09/07/09 20:18
Ethylbenzene	0.127	2.42		mg/kg dry	2.76	83%	21 - 165	9084866	NSH2536-05RE2	09/07/09 20:18
Naphthalene	0.678	2.72		mg/kg dry	2.76	74%	10 - 160	9084866	NSH2536-05RE2	09/07/09 20:18
Toluene	1.67	2.39	M2	mg/kg dry	2.76	26%	45 - 145	9084866	NSH2536-05RE2	09/07/09 20:18
Xylenes, total	0.568	7.05		mg/kg dry	8.27	78%	31 - 159	9084866	NSH2536-05RE2	09/07/09 20:18
Surrogate: 1,2-Dichloroethane-d4		40.4		ug/kg	50.0	81%	67 - 138	9084866	NSH2536-05RE2	09/07/09 20:18
Surrogate: Dibromofluoromethane		45.4		ug/kg	50.0	91%	75 - 125	9084866	NSH2536-05RE2	09/07/09 20:18
Surrogate: Toluene-d8		47.9		ug/kg	50.0	96%	76 - 129	9084866	NSH2536-05RE2	09/07/09 20:18
Surrogate: 4-Bromofluorobenzene		55.6		ug/kg	50.0	111%	67 - 147	9084866	NSH2536-05RE2	09/07/09 20:18
9091127-MS1										
Benzene	ND	47.5		ug/kg	50.0	95%	42 - 141	9091127	NSH2536-08	09/07/09 17:49
Ethylbenzene	ND	53.9		ug/kg	50.0	108%	21 - 165	9091127	NSH2536-08	09/07/09 17:49
Naphthalene	5.06	26.0		ug/kg	50.0	42%	10 - 160	9091127	NSH2536-08	09/07/09 17:49
Toluene	0.437	54.7		ug/kg	50.0	109%	45 - 145	9091127	NSH2536-08	09/07/09 17:49
Xylenes, total	0.484	153		ug/kg	150	102%	31 - 159	9091127	NSH2536-08	09/07/09 17:49
Surrogate: 1,2-Dichloroethane-d4		43.9		ug/kg	50.0	88%	67 - 138	9091127	NSH2536-08	09/07/09 17:49
Surrogate: Dibromofluoromethane		49.4		ug/kg	50.0	99%	75 - 125	9091127	NSH2536-08	09/07/09 17:49
Surrogate: Toluene-d8		54.1		ug/kg	50.0	108%	76 - 129	9091127	NSH2536-08	09/07/09 17:49
Surrogate: 4-Bromofluorobenzene		50.4		ug/kg	50.0	101%	67 - 147	9091127	NSH2536-08	09/07/09 17:49

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Client	EEG - Small Business Group, Inc. (2449)	Work Order:	NSH2536
	10179 Highway 78	Project Name:	Laurel Bay Housing Project
	Ladson, SC 29456	Project Number:	[none]
Attn	Tom McElwee	Received:	08/28/09 08:00

PROJECT QUALITY CONTROL DATA

Matrix Spike Dup

Analyte	Orig. Val.	Duplicate	Q	Units	Spike Conc	% Rec.	Target Range	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
Selected Volatile Organic Compounds by EPA Method 8260B												
9084866-MSD1												
Benzene	ND	2.23		mg/kg dry	2.76	81%	42 - 141	0.9	50	9084866	NSH2536-05R E2	09/07/09 20:49
Ethylbenzene	0.127	2.38		mg/kg dry	2.76	82%	21 - 165	2	50	9084866	NSH2536-05R E2	09/07/09 20:49
Naphthalene	0.678	2.75		mg/kg dry	2.76	75%	10 - 160	1	50	9084866	NSH2536-05R E2	09/07/09 20:49
Toluene	1.67	2.24	M2	mg/kg dry	2.76	21%	45 - 145	6	50	9084866	NSH2536-05R E2	09/07/09 20:49
Xylenes, total	0.568	6.84		mg/kg dry	8.27	76%	31 - 159	3	50	9084866	NSH2536-05R E2	09/07/09 20:49
Surrogate: 1,2-Dichloroethane-d4		40.8		ug/kg	50.0	82%	67 - 138			9084866	NSH2536-05R E2	09/07/09 20:49
Surrogate: Dibromofluoromethane		45.0		ug/kg	50.0	90%	75 - 125			9084866	NSH2536-05R E2	09/07/09 20:49
Surrogate: Toluene-d8		47.0		ug/kg	50.0	94%	76 - 129			9084866	NSH2536-05R E2	09/07/09 20:49
Surrogate: 4-Bromofluorobenzene		54.9		ug/kg	50.0	110%	67 - 147			9084866	NSH2536-05R E2	09/07/09 20:49
9091127-MSD1												
Benzene	ND	45.4		ug/kg	50.0	91%	42 - 141	5	50	9091127	NSH2536-08	09/07/09 18:20
Ethylbenzene	ND	46.5		ug/kg	50.0	93%	21 - 165	15	50	9091127	NSH2536-08	09/07/09 18:20
Naphthalene	4.65	25.3		ug/kg	50.0	41%	10 - 160	3	50	9091127	NSH2536-08	09/07/09 18:20
Toluene	0.402	48.6		ug/kg	50.0	96%	45 - 145	12	50	9091127	NSH2536-08	09/07/09 18:20
Xylenes, total	0.446	130		ug/kg	150	87%	31 - 159	16	50	9091127	NSH2536-08	09/07/09 18:20
Surrogate: 1,2-Dichloroethane-d4		44.4		ug/kg	50.0	89%	67 - 138			9091127	NSH2536-08	09/07/09 18:20
Surrogate: Dibromofluoromethane		50.0		ug/kg	50.0	100%	75 - 125			9091127	NSH2536-08	09/07/09 18:20
Surrogate: Toluene-d8		52.8		ug/kg	50.0	106%	76 - 129			9091127	NSH2536-08	09/07/09 18:20
Surrogate: 4-Bromofluorobenzene		57.7		ug/kg	50.0	115%	67 - 147			9091127	NSH2536-08	09/07/09 18:20

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Client	EEG - Small Business Group, Inc. (2449)	Work Order:	NSH2536
	10179 Highway 78	Project Name:	Laurel Bay Housing Project
	Ladson, SC 29456	Project Number:	[none]
Attn	Tom McElwee	Received:	08/28/09 08:00

CERTIFICATION SUMMARY

TestAmerica Nashville

Method	Matrix	AIHA	Nelac	South Carolina
SW846 8260B	Soil	N/A	X	X
SW846 8270D	Soil		X	X
SW-846	Soil			

2960 Foster Creighton Road Nashville, TN 37204 * 800-765-0980 * Fax 615-726-3404

Client	EEG - Small Business Group, Inc. (2449)	Work Order:	NSH2536
	10179 Highway 78	Project Name:	Laurel Bay Housing Project
	Ladson, SC 29456	Project Number:	[none]
Attn	Tom McElwee	Received:	08/28/09 08:00

DATA QUALIFIERS AND DEFINITIONS

B	Analyte was detected in the associated Method Blank.
M2	The MS and/or MSD were below the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
RL1	Reporting limit raised due to sample matrix effects.
ZX	Due to sample matrix effects, the surrogate recovery was outside the acceptance limits.
ND	Not detected at the reporting limit (or method detection limit if shown)

METHOD MODIFICATION NOTES

NSH2536
09/14/09 23:59

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Nashville Division
2960 Foster Creighton
Nashville, TN 37204

Phone: 615-726-0177
Toll Free: 800-765-0980
Fax: 615-726-3404

To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes?

Compliance Monitoring? Yes ____ No ____

Enforcement Action? Yes ____ No ____

Client Name/Account #: EEG # 2449
Address: 10179 Highway 78
City/State/Zip: Ladson, SC 29456
Project Manager: Tom McElwee email: mcelwee@eeginc.net
Telephone Number: 843.412.2097 **Fax No.:** 843-879-0401
Sampler Name: (Print) Heath Shaw
Sampler Signature:

Site State: SC
PO#: 0829
TA Quote #:
Project ID: Laurel Bay Housing Project
Project #:

	Sample ID / Description	Date Sampled	Time Sampled	No. of Containers Shipped	Grab	Composite	Field Filtered	Preservative: Ice	Preservative: HNO_3 (Red Label)	Preservative: HCl (Blue Label)	Preservative: NaOH (Orange Label)	Preservative: H_2SO_4 Plastic (Yellow Label)	Preservative: H_2SO_4 Glass (Yellow Label)	Preservative: None (Black Label)	Preservative: Other (Specify)	Matrix: Groundwater	Matrix: Wastewater	Matrix: Drinking Water	Matrix: Sludge	Matrix: Soil	Matrix: Other (specify)	Analyze For: BTEX + Napth - 8260B	Analyze For: PAH - 8270C	RUSH TAT (Pre-Schedule)
01	1227 Door	8/25/09	1500	5	X				2					2	1					X		W	i	
02	1225 Door	8/25/09	1530	5	X				2					2	1					X		W	i	
03	1223 Cardinal	8/24/09	1030	5	X				2					2	1					X		W	i	
04	1224 Cardinal	8/25/09	0920	5	X				2					2	1					X		W	i	
05	1219 Cardinal	8/24/09	1345	5	X				2					2	1					X		W	i	
06	1218 Cardinal	8/24/09	1155	5	X				2					2	1					X		W	i	
07	1215 Cardinal	8/24/09	1030	5	X				2					2	1					X		W	i	
08	1214 Cardinal	8/24/09	1015	5	X				2					2	1					X		W	i	

Special Instructions:

Method of Shipment: FEDEX

Relinquished by:	Date	Time	Received by:	Date	Time
	8/27/09	1900	FedEx		
Relinquished by:	Date	Time	Received by TestAmerica:	Date	Time
				8/29	8:00

Laboratory Comments:
Temperature Upon Receipt:
VOCs Free of Headspace? Y

ATTACHMENT A

NON-HAZARDOUS MANIFEST

WASTE MANAGEMENT

CWMI

Please print or type. *(Form designed for use on elite (12-pitch) typewriter.)*

NON-HAZARDOUS MANIFEST

1. Generator's US EPA ID No. | Manifest Document No.

2. Page 1 of 1

3. Generator's Name and Mailing Address
MCAS, Beaufort
Laurel Bay Housing
Beaufort SC 29904

4. Generator's Phone 843 228-6460

A. Manifest Number **WMNA** 10885420

B. State Generator's ID

5. Transporter 1 Company Name: EEG, Inc.

6. US EPA ID Number

C. State Transporter's ID

D. Transporter's Phone 843 679-0411

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
HICKORY HILL LANDFILL
ROUTE 1, BOX 121
RIDGELAND SC 29936

10. US EPA ID Number

G. State Facility's ID

H. Facility's Phone 843 987-4843

11. Description of Waste Materials	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt./Vol.	I. Misc. Comments
a. Heating Oil Tank filled with Sand WM Profile # 102655SC	001		7.12	TN	
b. WM Profile #					
c. WM Profile #					
d. WM Profile #					

J. Additional Descriptions for Materials Listed Above

Landfill _____ Solidification _____

Bio Remediation _____

K. Disposal Location

Cell Level

Grid

15. Special Handling Instructions and Additional Information

Grm USTs from
1) 1218 ✓ Cardinal
2) 1219 ✓ Cardinal
3) 1224 ✓ Cardinal
4) 1223 ✓ Cardinal
5) 1225 ✓ ~~Cardinal~~ HHB Done
6) 1227 ~~Cardinal~~ HHB Done

Purchase Order #

EMERGENCY CONTACT:

16. GENERATOR'S CERTIFICATION:

I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.

Printed/Typed Name: W.G. Dukes, J.. | Signature "On behalf of" | Month Day Year: 09 18 09

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: James Baldwin | Signature: James Baldwin | Month Day Year: 09 18 09

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Month Day Year

19. Certificate of Final Treatment/Disposal

I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.

20. Facitilty Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.

Printed/Typed Name: Jan Collins | Signature: Jan Collins | Month Day Year: 09 18 09

CWM - NHM - 1 - 5/97

#2 - GENERATOR #1 COPY

South Carolina Department of Health and Environmental Control (SCDHEC)

Underground Storage Tank (UST) Assessment Report

Date Received State Use Only

Submit Completed Form To:
UST Program
SCDHEC
2600 Bull Street
Columbia, South Carolina 29201
Telephone (803) 896-7957

I. OWNERSHIP OF UST (S)

MCAS Beaufort, Commanding Officer Attn: NREAO (Craig Ehde)
Owner Name (Corporation, Individual, Public Agency, Other)

P.O. Box 55001
Mailing Address

Beaufort,	South Carolina	29904-5001
City	State	Zip Code

843	228-7317	Craig Ehde
Area Code	Telephone Number	Contact Person

II. SITE IDENTIFICATION AND LOCATION

Permit I.D. #
Laurel Bay Military Housing Area, Marine Corps Air Station, Beaufort, SC
Facility Name or Company Site Identifier

212 Cardinal Lane, Laurel Bay Military Housing Area (formerly 1223)
Street Address or State Road (as applicable)

Beaufort,	Beaufort
City	County

III. INSURANCE INFORMATION

Insurance Statement

The petroleum release reported to DHEC on _____ at Permit ID Number _____ may qualify to receive state monies to pay for appropriate site rehabilitation activities. Before participation is allowed in the State Clean-up fund, written confirmation of the existence or non-existence of an environmental insurance policy is required. **This section must be completed.**

Is there now, or has there ever been an insurance policy or other financial mechanism that covers this UST release? **YES**____ **NO**_____ (check one)

If you answered **YES** to the above question, please complete the following information:

My policy provider is:_____
The policy deductible is: _____
The policy limit is: _____

If you have this type of insurance, please include a copy of the policy with this report.

IV. REQUEST FOR SUPERB FUNDING

I **DO** / DO **NOT** wish to participate in the SUPERB Program. (Circle one.)

V. CERTIFICATION (To be signed by the UST owner)

I certify that I have personally examined and am familiar with the information submitted in this and all attached documents; and that based on my inquiry of those individuals responsible for obtaining this information, I believe that the submitted information is true, accurate, and complete.

_____
Name (Type or print.)

_____
Signature

To be completed by Notary Public:

Sworn before me this _____ day of_____, 20____

_____
(Name)

Notary Public for the state of_____.
Please affix State seal if you are commissioned outside South Carolina

VI. UST INFORMATION

A. Product...(ex. Gas, Kerosene).....	1223-2 Cardinal				
B. Capacity..(ex. 1k, 2k).....	Heating oil				
C. Age.....	280 gal				
D. Construction Material..(ex. Steel, FRP).....	Late 1950s				
E. Month/Year of Last Use.....	Steel				
F. Depth (ft.) To Base of Tank.....	Mid 1980s				
G. Spill Prevention Equipment Y/N.....	5'10"				
H. Overfill Prevention Equipment Y/N.....	No				
I. Method of Closure Removed/Filled.....	No				
J. Date Tanks Removed/Filled.....	Removed				
K. Visible Corrosion or Pitting Y/N.....	2/13/19				
L. Visible Holes Y/N.....	Yes				
	Yes				

M. Method of disposal for any USTs removed from the ground (attach disposal manifests)

UST 1223-2 Cardinal was emptied of fluids, removed from the ground and disposed of at a Subtitle "D" landfill. See Attachment "A".

N. Method of disposal for any liquid petroleum, sludges, or wastewaters removed from the USTs (attach disposal manifests)

Contaminated water was purged from the tank by AECOM. These wastes will be properly manifested and disposed of with similar petroleum wastes. Manifests will be provided under separate cover following transportation and disposal activities.

O. If any corrosion, pitting, or holes were observed, describe the location and extent for each UST

Corrosion, pitting and holes were found throughout the tank.

VII. PIPING INFORMATION

A. Construction Material..(ex. Steel, FRP).....	1223-2 Cardinal				
B. Distance from UST to Dispenser.....	Steel & Copper				
C. Number of Dispensers.....	N/A				
D. Type of System Pressure or Suction…….	N/A				
E. Was Piping Removed from the Ground? Y/N	Suction				
F. Visible Corrosion or Pitting Y/N.....	Yes				
G. Visible Holes Y/N.....	Yes				
H. Age.....	No				
	Late 1950s				

I. If any corrosion, pitting, or holes were observed, describe the location and extent for each piping run.

Corrosion and pitting were found on the surface of the steel vent pipe. Copper supply and return lines were sound.

VIII. BRIEF SITE DESCRIPTION AND HISTORY

The USTs at the residences are constructed of single wall steel and formerly contained fuel oil for heating. These USTs were installed in the late 1950s and last used in the mid 1980s.

IX. SITE CONDITIONS

	Yes	No	Unk
A. Were any petroleum-stained or contaminated soils found in the UST excavation, soil borings, trenches, or monitoring wells? If yes, indicate depth and location on the site map.		X	
B. Were any petroleum odors detected in the excavation, soil borings, trenches, or monitoring wells? If yes, indicate location on site map and describe the odor (strong, mild, etc.)		X	
C. Was water present in the UST excavation, soil borings, or trenches? If yes, how far below land surface (indicate location and depth)?		X	
D. Did contaminated soils remain stockpiled on site after closure? If yes, indicate the stockpile location on the site map. Name of DHEC representative authorizing soil removal:		X	
E. Was a petroleum sheen or free product detected on any excavation or boring waters? If yes, indicate location and thickness.		X	

X. SAMPLE INFORMATION

A. SCDHEC Lab Certification Number 32010001

B. 1223 Cardinal

Sample #	Location	Sample Type (Soil/Water)	Soil Type (Sand/Clay)	Depth*	Date/Time of Collection	Collected by	OVA #
BEALB1223SB02E	East Sidewall	Soil	Sandy	4.5	02/13/19 1150hr	Reibling	
BEALB1223SB02	Fill port	Soil	Sandy	4.5	02/13/19 1140hr	Reibling	
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

* = Depth Below the Surrounding Land Surface

XI. SAMPLING METHODOLOGY

Provide a detailed description of the methods used to collect and store the samples. Also include the preservative used for each sample. Please use the space provided below.

Sampling was performed in accordance with SC DHEC R.61-92 Part 280 and SC DHEC Assessment Guidelines. Sample containers were prepared by the testing laboratory. The grab method was utilized to fill the sample containers leaving as little head space as possible and immediately capped. Soil samples were extracted from area beneath the fill port side of the tank and from the east sidewall. The samples were marked, logged, and immediately placed in a sample cooler packed with ice to maintain an approximate temperature of 4 degrees Centigrade. Tools were thoroughly cleaned and decontaminated with the seven step decon process after each use. The samples remained in custody of AECOM until they were transferred to Shealy Environmental Laboratory for analysis as documented in the Chain of Custody Record.

XII. RECEPTORS

	Yes	No
A. Are there any lakes, ponds, streams, or wetlands located within 1000 feet of the UST system? *Stormwater drainage canal ~ If yes, indicate type of receptor, distance, and direction on site map.	*X 170'	
B. Are there any public, private, or irrigation water supply wells within 1000 feet of the UST system? If yes, indicate type of well, distance, and direction on site map.		X
C. Are there any underground structures (e.g., basements) Located within 100 feet of the UST system? If yes, indicate type of structure, distance, and direction on site map.		X
D. Are there any underground utilities (e.g., telephone, electricity, gas, water, sewer, storm drain) located within 100 feet of the UST system that could potentially come in contact with the contamination? *Sewer and water If yes, indicate the type of utility, distance, and direction on the site map.	*X	
E. Has contaminated soil been identified at a depth less than 3 feet below land surface in an area that is not capped by asphalt or concrete? If yes, indicate the area of contaminated soil on the site map.		X

XIII. SITE MAP

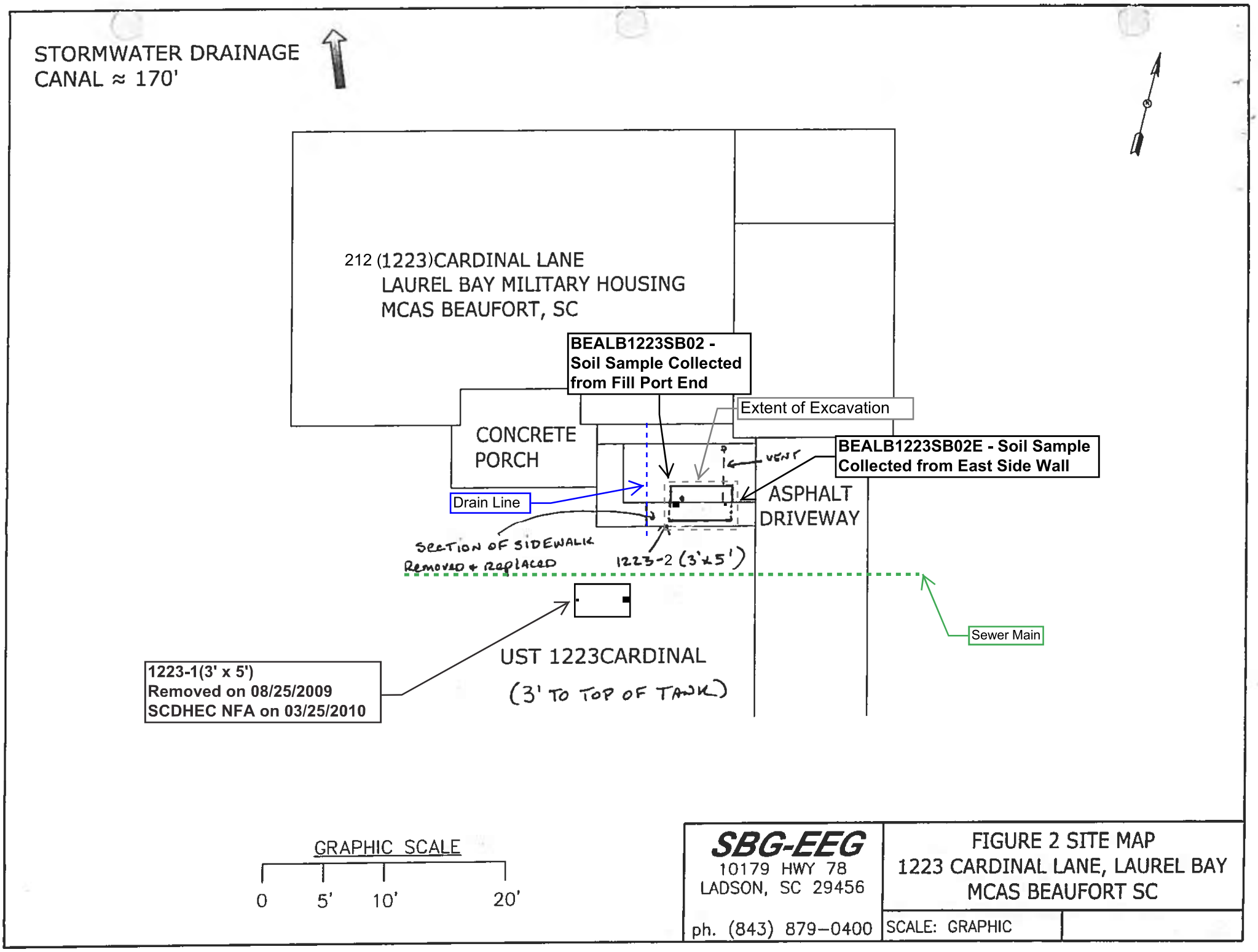
You must supply a <u>scaled</u> site map. It should include all buildings, road names, utilities, tank and dispenser island locations, labeled sample locations, extent of excavation, and any other pertinent information.

(Attach Site Map Here)

SBG-EEG, Inc.
Small Business Group, Inc.
10179 Hwy 78
Ladson, SC 29456

Ph. (843) 879-0400

FIGURE 1: LOCATION MAP
1223 CARDINAL LANE, LAUREL BAY
MCAS BEAUFORT SC


STORMWATER DRAINAGE
CANAL ≈ 170'
212 (1223)CARDINAL LANE
LAUREL BAY MILITARY HOUSING
MCAS BEAUFORT, SC
BEALB1223SB02 - Soil Sample Collected from Fill Port End
Extent of Excavation
CONCRETE PORCH
VENT
BEALB1223SB02E - Soil Sample Collected from East Side Wall
Drain Line
ASPHALT DRIVEWAY
SECTION OF SIDEWALK Removed & Replaced
1223-2 (3'x5')
Sewer Main
UST 1223CARDINAL
(3' TO TOP OF TANK)
1223-1(3' x 5')
Removed on 08/25/2009
SCDHEC NFA on 03/25/2010
GRAPHIC SCALE
0
5'
10'
20'
SBG-EEG
10179 HWY 78
LADSON, SC 29456
ph. (843) 879-0400
FIGURE 2 SITE MAP
1223 CARDINAL LANE, LAUREL BAY
MCAS BEAUFORT SC
SCALE: GRAPHIC

1223 Cardinal

Proximity of tank to sidewalk

During excavation

Rusted condition of tank

Refurbished area and new sidewalk

XIV. SUMMARY OF ANALYSIS RESULTS

Enter the soil analytical data for each soil boring for all COC in the table below and on the following page.

CoC	BEALB1223SB02ESO20190213	BEALB1223SB02SO20190213					
Benzene	<4.6	<5					
Toluene	<4.6	<5					
Ethylbenzene	<4.6	<5					
Xylenes	<9.6	<10					
Naphthalene	<4.6	<5					
Benzo (a) anthracene	15	88					
Benzo (b) fluoranthene	13	67					
Benzo (k) fluoranthene	6.2	29					
Chrysene	14	85					
Dibenz (a, h) anthracene	<4.6	4.4					
TPH (EPA 3550)							

CoC								
Benzene								
Toluene								
Ethylbenzene								
Xylenes								
Naphthalene								
Benzo (a) anthracene								
Benzo (b) fluoranthene								
Benzo (k) fluoranthene								
Chrysene								
Dibenz (a, h) anthracene								
TPH (EPA 3550)								

SUMMARY OF ANALYSIS RESULTS (cont'd)

Enter the ground water analytical data for each sample for all CoC in the table below. If free product is present, indicate the measured thickness to the nearest 0.01 feet.

CoC	RBSL (µg/l)	W-1	W-2	W -3	W -4
Free Product Thickness	None				
Benzene	5				
Toluene	1,000				
Ethylbenzene	700				
Xylenes	10,000				
Total BTEX	N/A				
MTBE	40				
Naphthalene	25				
Benzo (a) anthracene	10				
Benzo (b) flouranthene	10				
Benzo (k) flouranthene	10				
Chrysene	10				
Dibenz (a, h) anthracene	10				
EDB	.05				
1,2-DCA	5				
Lead	Site specific				

XV. ANALYTICAL RESULTS

You must submit the laboratory report and chain-of-custody form for the samples. These samples must be analyzed by a South Carolina certified laboratory.

(Attach Certified Analytical Results and Chain-of-Custody Here)
(Please see Form #4)

SHEALY ENVIRONMENTAL SERVICES, INC.

Report of Analysis

AECOM
4016 Salt Pointe Parkway
North Charleston, SC 29405
Attention: Shawn Dolan

Project Name: WE-52 LBMH, MCAS Beaufort SC

Project Number: 60541602.7

Lot Number:**UB14086**

Date Completed:03/01/2019

N. Saikaly

03/01/2019 3:29 PM
Approved and released by:
Project Manager: Nisreen Saikaly

The electronic signature above is the equivalent of a handwritten signature.

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Case Narrative
AECOM
Lot Number: UB14086

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), applicable Shealy standard operating procedures (SOPs), the 2003 NELAC standard, and Shealy policies. Additionally, the DoD QSM version 5.1 has been followed for these samples. Any exceptions to the QAMP, SOPs, NELAC standards, the DoD QSM, or policies are qualified on the results page or discussed below.

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W" qualifier

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

Volatile Organic Compounds

Surrogate recovery for the following sample was outside control limits: UB14086-001. Re-extraction and/or re-analysis was performed with concurring results. Sample was initially analyzed at 100X and had over range hit of Naphthalene. The sample was reanalyzed at 500X.

Semivolatile Organic Compounds

The following samples were diluted due to the nature of the sample matrix: UB14086-001, UB14086-002, UB14086-003. The LOQ has been elevated to reflect the dilution. Dilutions greater than 5X impact the surrogate recoveries, thus negating their usefulness concerning quality control. The sample results are reported and no corrective action is required.

The matrix spike and matrix spike duplicate (MS/MSD) recoveries in batch 86640 were outside acceptance criteria. All other QC criteria for the batch was within acceptance criteria and method control limits. The MS/MSD recovery results are attributed to matrix interference. The associated sample results were reported and no corrective action was required.

Sample Summary
AECOM
Lot Number: UB14086

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	BEALB1066SB02SO20190212	Solid	02/12/2019 1030	02/14/2019
002	BEALB1066SB03SO20190212	Solid	02/12/2019 0930	02/14/2019
003	BEALB1066SB03SO20190212-a	Solid	02/12/2019 0930	02/14/2019
004	BEALB1066SB02SO20190212-d	Aqueous	02/12/2019 1040	02/14/2019
005	BEALB1223SB02SO20190213	Solid	02/13/2019 1140	02/14/2019
006	BEALB1223SB02ESO20190213	Solid	02/13/2019 1150	02/14/2019
007	BEALB1066SB03SO20190212-c	Aqueous	02/12/2019 0930	02/14/2019

(7 samples)

Detection Summary

AECOM

Lot Number: UB14086

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	BEALB1066SB02SO20190212	Solid	Benzene	8260B	520	JQ	ug/kg	6
001	BEALB1066SB02SO20190212	Solid	Ethylbenzene	8260B	12000	Q	ug/kg	6
001	BEALB1066SB02SO20190212	Solid	Naphthalene	8260B	41000	Q	ug/kg	6
001	BEALB1066SB02SO20190212	Solid	Xylenes (total)	8260B	20000	Q	ug/kg	6
005	BEALB1223SB02SO20190213	Solid	Benzo(a)anthracene	8270D (SIM)	88		ug/kg	15
005	BEALB1223SB02SO20190213	Solid	Benzo(b)fluoranthene	8270D (SIM)	67		ug/kg	15
005	BEALB1223SB02SO20190213	Solid	Benzo(k)fluoranthene	8270D (SIM)	29		ug/kg	15
005	BEALB1223SB02SO20190213	Solid	Chrysene	8270D (SIM)	85		ug/kg	15
005	BEALB1223SB02SO20190213	Solid	Dibenzo(a,h)anthracene	8270D (SIM)	4.4	J	ug/kg	15
006	BEALB1223SB02ESO20190213	Solid	Benzo(a)anthracene	8270D (SIM)	15		ug/kg	17
006	BEALB1223SB02ESO20190213	Solid	Benzo(b)fluoranthene	8270D (SIM)	13		ug/kg	17
006	BEALB1223SB02ESO20190213	Solid	Benzo(k)fluoranthene	8270D (SIM)	6.2	J	ug/kg	17
006	BEALB1223SB02ESO20190213	Solid	Chrysene	8270D (SIM)	14		ug/kg	17

(13 detections)

Volatile Organic Compounds by GC/MS

Client: AECOM
Laboratory ID: UB14086-001
Description: BEALB1066SB02SO20190212
Matrix: Solid
Date Sampled: 02/12/2019 1030
% Solids: 77.8 02/16/2019 0133
Date Received: 02/14/2019

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035 High	8260B	2	02/19/2019 1152	JM1		98061	5.45
2	5035 High	8260B	10	02/20/2019 1453	JM1		98233	5.45

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	LOD	DL	Units	Run
Benzene	71-43-2	8260B	520	JQ	730	12	290	ug/kg	1
Ethylbenzene	100-41-4	8260B	12000	Q	730	12	290	ug/kg	1
Naphthalene	91-20-3	8260B	41000	Q	3700	59	1500	ug/kg	2
Toluene	108-88-3	8260B	12	UQ	730	12	290	ug/kg	1
Xylenes (total)	1330-20-7	8260B	20000	Q	1500	24	590	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
Bromofluorobenzene		106	79-119		118	79-119
Dibromofluoromethane		113	78-119		117	78-119
1,2-Dichloroethane-d4		107	71-136		112	71-136
Toluene-d8	N	118	85-116	N	128	85-116

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
Q = Surrogate failure
U = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
L = LCS/LCSD failure
H = Out of holding time
W = Reported on wet weight basis
LOD = Limit of Detection
S = MS/MSD failure

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Semivolatile Organic Compounds by GC/MS

Client: AECOM
Description: BEALB1066SB02SO20190212
Date Sampled: 02/12/2019 1030
Date Received: 02/14/2019

Laboratory ID: UB14086-001
Matrix: Solid
% Solids: 77.8 02/16/2019 0133

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3550C	8270D (SIM)	10	02/26/2019 1617	NCM	02/19/2019 1543	98046

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	LOD	DL	Units	Run
Benzo(a)anthracene	56-55-3	8270D (SIM)	25	UQS	42	25	7.5	ug/kg	1
Benzo(b)fluoranthene	205-99-2	8270D (SIM)	13	UQ	42	13	6.4	ug/kg	1
Benzo(k)fluoranthene	207-08-9	8270D (SIM)	13	UQ	42	13	6.1	ug/kg	1
Chrysene	218-01-9	8270D (SIM)	13	UQS	42	13	5.7	ug/kg	1
Dibenzo(a,h)anthracene	53-70-3	8270D (SIM)	25	UQ	42	25	6.5	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Fluoranthene-d10	N	257	37-135
2-Methylnaphthalene-d10	N	487	17-119

LOQ = Limit of Quantitation
U = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
LOD = Limit of Detection
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Volatile Organic Compounds by GC/MS

Client: AECOM
Laboratory ID: UB14086-002
Description: BEALB1066SB03SO20190212
Matrix: Solid
Date Sampled: 02/12/2019 0930
% Solids: 77.7 02/16/2019 0133
Date Received: 02/14/2019

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	5035	8260B	1	02/22/2019 1802	JM1		98466

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	LOD	DL	Units	Run
Benzene	71-43-2	8260B	4.3	U	5.4	4.3	2.1	ug/kg	2
Ethylbenzene	100-41-4	8260B	4.3	U	5.4	4.3	2.1	ug/kg	2
Naphthalene	91-20-3	8260B	4.3	U	5.4	4.3	2.1	ug/kg	2
Toluene	108-88-3	8260B	4.3	U	5.4	4.3	2.1	ug/kg	2
Xylenes (total)	1330-20-7	8260B	8.8	U	11	8.8	4.3	ug/kg	2

Surrogate	Q	Run 2 % Recovery	Acceptance Limits
Bromofluorobenzene		94	79-119
Dibromofluoromethane		95	78-119
1,2-Dichloroethane-d4		89	71-136
Toluene-d8		106	85-116

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
Q = Surrogate failure
U = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
L = LCS/LCSD failure
H = Out of holding time
W = Reported on wet weight basis
LOD = Limit of Detection
S = MS/MSD failure

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Semivolatile Organic Compounds by GC/MS

Client: AECOM
Laboratory ID: UB14086-002
Description: BEALB1066SB03SO20190212
Matrix: Solid
Date Sampled: 02/12/2019 0930
% Solids: 77.7 02/16/2019 0133
Date Received: 02/14/2019

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3550C	8270D (SIM)	5	02/26/2019 1511	NCM	02/19/2019 1543	98046

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	LOD	DL	Units	Run
Benzo(a)anthracene	56-55-3	8270D (SIM)	13	U	21	13	3.8	ug/kg	1
Benzo(b)fluoranthene	205-99-2	8270D (SIM)	6.4	U	21	6.4	3.2	ug/kg	1
Benzo(k)fluoranthene	207-08-9	8270D (SIM)	6.4	U	21	6.4	3.1	ug/kg	1
Chrysene	218-01-9	8270D (SIM)	6.4	U	21	6.4	2.9	ug/kg	1
Dibenzo(a,h)anthracene	53-70-3	8270D (SIM)	13	U	21	13	3.3	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Fluoranthene-d10		39	37-135
2-Methylnaphthalene-d10		71	17-119

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
Q = Surrogate failure
U = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
L = LCS/LCSD failure
H = Out of holding time
W = Reported on wet weight basis
LOD = Limit of Detection
S = MS/MSD failure

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Volatile Organic Compounds by GC/MS

Client: AECOM
Laboratory ID: UB14086-003
Description: BEALB1066SB03SO20190212-a
Matrix: Solid
Date Sampled: 02/12/2019 0930
% Solids: 79.0 02/16/2019 0133
Date Received: 02/14/2019

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5035	8260B	1	02/18/2019 0122	KGT		97809

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	LOD	DL	Units	Run
Benzene	71-43-2	8260B	4.2	U	5.2	4.2	2.1	ug/kg	1
Ethylbenzene	100-41-4	8260B	4.2	U	5.2	4.2	2.1	ug/kg	1
Naphthalene	91-20-3	8260B	4.2	U	5.2	4.2	2.1	ug/kg	1
Toluene	108-88-3	8260B	4.2	U	5.2	4.2	2.1	ug/kg	1
Xylenes (total)	1330-20-7	8260B	8.0	U	10	8.0	4.1	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		86	79-119
Dibromofluoromethane		97	78-119
1,2-Dichloroethane-d4		87	71-136
Toluene-d8		103	85-116

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
Q = Surrogate failure
U = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
L = LCS/LCSD failure
H = Out of holding time
W = Reported on wet weight basis
LOD = Limit of Detection
S = MS/MSD failure

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Semivolatile Organic Compounds by GC/MS

Client: AECOM
Laboratory ID: UB14086-003
Description: BEALB1066SB03SO20190212-a
Matrix: Solid
Date Sampled: 02/12/2019 0930
% Solids: 79.0 02/16/2019 0133
Date Received: 02/14/2019

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3550C	8270D (SIM)	2	02/26/2019 1538	NCM	02/19/2019 1543	98046

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	LOD	DL	Units	Run
Benzo(a)anthracene	56-55-3	8270D (SIM)	4.9	U	8.1	4.9	1.5	ug/kg	1
Benzo(b)fluoranthene	205-99-2	8270D (SIM)	2.5	U	8.1	2.5	1.2	ug/kg	1
Benzo(k)fluoranthene	207-08-9	8270D (SIM)	2.5	U	8.1	2.5	1.2	ug/kg	1
Chrysene	218-01-9	8270D (SIM)	2.5	U	8.1	2.5	1.1	ug/kg	1
Dibenzo(a,h)anthracene	53-70-3	8270D (SIM)	4.9	U	8.1	4.9	1.3	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Fluoranthene-d10		87	37-135
2-Methylnaphthalene-d10		72	17-119

LOQ = Limit of Quantitation	B = Detected in the method blank	E = Quantitation of compound exceeded the calibration range	DL = Detection Limit	Q = Surrogate failure
U = Not detected at or above the LOQ	N = Recovery is out of criteria	P = The RPD between two GC columns exceeds 40%	J = Estimated result < LOQ and ≥ DL	L = LCS/LCSD failure
H = Out of holding time	W = Reported on wet weight basis	LOD = Limit of Detection		S = MS/MSD failure

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Volatile Organic Compounds by GC/MS

Client: AECOM
Laboratory ID: UB14086-004
Description: BEALB1066SB02SO20190212-d
Matrix: Aqueous
Date Sampled: 02/12/2019 1040
Date Received: 02/14/2019

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/19/2019 1616	BWS		98028

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	LOD	DL	Units	Run
Benzene	71-43-2	8260B	0.80	U	1.0	0.80	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	0.80	U	1.0	0.80	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	0.80	U	1.0	0.80	0.40	ug/L	1
Naphthalene	91-20-3	8260B	0.80	U	1.0	0.80	0.40	ug/L	1
Toluene	108-88-3	8260B	0.80	U	1.0	0.80	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260B	0.80	U	1.0	0.80	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		94	85-114
Dibromofluoromethane		96	80-119
1,2-Dichloroethane-d4		103	81-118
Toluene-d8		95	89-112

LOQ = Limit of Quantitation
U = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
LOD = Limit of Detection
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

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Semivolatile Organic Compounds by GC/MS

Client: AECOM
Laboratory ID: UB14086-004
Description: BEALB1066SB02SO20190212-d
Matrix: Aqueous
Date Sampled: 02/12/2019 1040
Date Received: 02/14/2019

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	02/18/2019 1417	CMP2	02/15/2019 1748	97720

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	LOD	DL	Units	Run
Benzo(a)anthracene	56-55-3	8270D	0.10	U	0.20	0.10	0.040	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	0.10	U	0.20	0.10	0.040	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	0.10	U	0.20	0.10	0.040	ug/L	1
Chrysene	218-01-9	8270D	0.10	U	0.20	0.10	0.040	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	0.10	U	0.20	0.10	0.040	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Nitrobenzene-d5		78	44-120
2-Fluorobiphenyl		66	44-119
Terphenyl-d14		94	50-134

LOQ = Limit of Quantitation
U = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
LOD = Limit of Detection
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

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Volatile Organic Compounds by GC/MS

Client: AECOM
Description: BEALB1223SB02SO20190213
Date Sampled: 02/13/2019 1140
Date Received: 02/14/2019

Laboratory ID: UB14086-005
Matrix: Solid
% Solids: 77.8 02/16/2019 0133

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5035	8260B	1	02/18/2019 0144	KGT		97809

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	LOD	DL	Units	Run
Benzene	71-43-2	8260B	5.0	U	6.3	5.0	2.5	ug/kg	1
Ethylbenzene	100-41-4	8260B	5.0	U	6.3	5.0	2.5	ug/kg	1
Naphthalene	91-20-3	8260B	5.0	U	6.3	5.0	2.5	ug/kg	1
Toluene	108-88-3	8260B	5.0	U	6.3	5.0	2.5	ug/kg	1
Xylenes (total)	1330-20-7	8260B	10	U	13	10	5.0	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		92	79-119
Dibromofluoromethane		96	78-119
1,2-Dichloroethane-d4		90	71-136
Toluene-d8		105	85-116

LOQ = Limit of Quantitation
U = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
LOD = Limit of Detection
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

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Semivolatile Organic Compounds by GC/MS

Client: AECOM
Laboratory ID: UB14086-005
Description: BEALB1223SB02SO20190213
Matrix: Solid
Date Sampled: 02/13/2019 1140
% Solids: 77.8 02/16/2019 0133
Date Received: 02/14/2019

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3550C	8270D (SIM)	5	02/26/2019 1417	NCM	02/19/2019 1543	98046

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	LOD	DL	Units	Run
Benzo(a)anthracene	56-55-3	8270D (SIM)	88		21	13	3.7	ug/kg	1
Benzo(b)fluoranthene	205-99-2	8270D (SIM)	67		21	6.4	3.2	ug/kg	1
Benzo(k)fluoranthene	207-08-9	8270D (SIM)	29		21	6.4	3.0	ug/kg	1
Chrysene	218-01-9	8270D (SIM)	85		21	6.4	2.8	ug/kg	1
Dibenzo(a,h)anthracene	53-70-3	8270D (SIM)	4.4	J	21	13	3.2	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Fluoranthene-d10		56	37-135
2-Methylnaphthalene-d10		74	17-119

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
Q = Surrogate failure
U = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
L = LCS/LCSD failure
H = Out of holding time
W = Reported on wet weight basis
LOD = Limit of Detection
S = MS/MSD failure

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Volatile Organic Compounds by GC/MS

Client: AECOM
Laboratory ID: UB14086-006
Description: BEALB1223SB02ESO20190213
Matrix: Solid
Date Sampled: 02/13/2019 1150
% Solids: 85.9 02/16/2019 0133
Date Received: 02/14/2019

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5035	8260B	1	02/18/2019 0206	KGT		97809

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	LOD	DL	Units	Run
Benzene	71-43-2	8260B	4.6	U	5.8	4.6	2.3	ug/kg	1
Ethylbenzene	100-41-4	8260B	4.6	U	5.8	4.6	2.3	ug/kg	1
Naphthalene	91-20-3	8260B	4.6	U	5.8	4.6	2.3	ug/kg	1
Toluene	108-88-3	8260B	4.6	U	5.8	4.6	2.3	ug/kg	1
Xylenes (total)	1330-20-7	8260B	9.6	U	12	9.6	4.6	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		90	79-119
Dibromofluoromethane		96	78-119
1,2-Dichloroethane-d4		89	71-136
Toluene-d8		100	85-116

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
Q = Surrogate failure
U = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
L = LCS/LCSD failure
H = Out of holding time
W = Reported on wet weight basis
LOD = Limit of Detection
S = MS/MSD failure

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Semivolatile Organic Compounds by GC/MS

Client: AECOM
Laboratory ID: UB14086-006
Description: BEALB1223SB02ESO20190213
Matrix: Solid
Date Sampled: 02/13/2019 1150
% Solids: 85.9 02/16/2019 0133
Date Received: 02/14/2019

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3550C	8270D (SIM)	2	02/27/2019 1016	NCM	02/19/2019 1543	98046

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	LOD	DL	Units	Run
Benzo(a)anthracene	56-55-3	8270D (SIM)	15		7.6	4.6	1.4	ug/kg	1
Benzo(b)fluoranthene	205-99-2	8270D (SIM)	13		7.6	2.3	1.1	ug/kg	1
Benzo(k)fluoranthene	207-08-9	8270D (SIM)	6.2	J	7.6	2.3	1.1	ug/kg	1
Chrysene	218-01-9	8270D (SIM)	14		7.6	2.3	1.0	ug/kg	1
Dibenzo(a,h)anthracene	53-70-3	8270D (SIM)	4.6	U	7.6	4.6	1.2	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Fluoranthene-d10		103	37-135
2-Methylnaphthalene-d10		102	17-119

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
Q = Surrogate failure
U = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
L = LCS/LCSD failure
H = Out of holding time
W = Reported on wet weight basis
LOD = Limit of Detection
S = MS/MSD failure

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Volatile Organic Compounds by GC/MS

Client: AECOM
Laboratory ID: UB14086-007
Description: BEALB1066SB03SO20190212-c
Matrix: Aqueous
Date Sampled: 02/12/2019 0930
Date Received: 02/14/2019

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/19/2019 1314	BWS		98028

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	LOD	DL	Units	Run
Benzene	71-43-2	8260B	0.80	U	1.0	0.80	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	0.80	U	1.0	0.80	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	0.80	U	1.0	0.80	0.40	ug/L	1
Naphthalene	91-20-3	8260B	0.80	U	1.0	0.80	0.40	ug/L	1
Toluene	108-88-3	8260B	0.80	U	1.0	0.80	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260B	0.80	U	1.0	0.80	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		92	85-114
Dibromofluoromethane		96	80-119
1,2-Dichloroethane-d4		102	81-118
Toluene-d8		96	89-112

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
Q = Surrogate failure
U = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
L = LCS/LCSD failure
H = Out of holding time
W = Reported on wet weight basis
LOD = Limit of Detection
S = MS/MSD failure

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QC Summary

Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ97809-001
Batch: 97809
Analytical Method: 8260B

Matrix: Solid
Prep Method: 5035

Parameter	Result	Q	Dil	LOQ	LOD	DL	Units	Analysis Date
Benzene	4.0	U	1	5.0	4.0	2.0	ug/kg	02/17/2019 2118
Ethylbenzene	4.0	U	1	5.0	4.0	2.0	ug/kg	02/17/2019 2118
Naphthalene	4.0	U	1	5.0	4.0	2.0	ug/kg	02/17/2019 2118
Toluene	4.0	U	1	5.0	4.0	2.0	ug/kg	02/17/2019 2118
Xylenes (total)	8.0	U	1	10	8.0	4.0	ug/kg	02/17/2019 2118

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		86	79-119
Dibromofluoromethane		97	78-119
1,2-Dichloroethane-d4		88	71-136
Toluene-d8		87	85-116

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
U = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ97809-002
Batch: 97809
Analytical Method: 8260B

Matrix: Solid
Prep Method: 5035

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Benzene	50	51		1	101	77-121	02/17/2019 2033
Ethylbenzene	50	59		1	117	76-122	02/17/2019 2033
Naphthalene	50	59		1	118	62-129	02/17/2019 2033
Toluene	50	53		1	105	77-121	02/17/2019 2033
Xylenes (total)	100	110		1	109	78-124	02/17/2019 2033

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		90	79-119
Dibromofluoromethane		93	78-119
1,2-Dichloroethane-d4		86	71-136
Toluene-d8		93	85-116

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
U = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - LCSD

Sample ID: UQ97809-003
Batch: 97809
Analytical Method: 8260B

Matrix: Solid
Prep Method: 5035

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Benzene	50	48		1	97	4.5	77-121	20	02/17/2019 2056
Ethylbenzene	50	55		1	109	7.2	76-122	20	02/17/2019 2056
Naphthalene	50	57		1	113	4.6	62-129	20	02/17/2019 2056
Toluene	50	46		1	92	14	77-121	20	02/17/2019 2056
Xylenes (total)	100	100		1	103	5.8	78-124	20	02/17/2019 2056

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		85	79-119
Dibromofluoromethane		95	78-119
1,2-Dichloroethane-d4		90	71-136
Toluene-d8		88	85-116

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
U = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ98028-001
Batch: 98028
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	LOD	DL	Units	Analysis Date
Benzene	0.80	U	1	1.0	0.80	0.40	ug/L	02/19/2019 1143
Ethylbenzene	0.80	U	1	1.0	0.80	0.40	ug/L	02/19/2019 1143
Methyl tertiary butyl ether (MTBE)	0.80	U	1	1.0	0.80	0.40	ug/L	02/19/2019 1143
Naphthalene	0.80	U	1	1.0	0.80	0.40	ug/L	02/19/2019 1143
Toluene	0.80	U	1	1.0	0.80	0.40	ug/L	02/19/2019 1143
Xylenes (total)	0.80	U	1	1.0	0.80	0.40	ug/L	02/19/2019 1143

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		96	85-114
Dibromofluoromethane		96	80-119
1,2-Dichloroethane-d4		104	81-118
Toluene-d8		97	89-112

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
U = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ98028-002
Batch: 98028
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Benzene	50	47		1	93	79-120	02/19/2019 1022
Ethylbenzene	50	51		1	102	79-121	02/19/2019 1022
Methyl tertiary butyl ether (MTBE)	50	48		1	96	71-124	02/19/2019 1022
Naphthalene	50	55		1	111	61-128	02/19/2019 1022
Toluene	50	49		1	99	80-121	02/19/2019 1022
Xylenes (total)	100	100		1	104	79-121	02/19/2019 1022

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		97	85-114
Dibromofluoromethane		95	80-119
1,2-Dichloroethane-d4		98	81-118
Toluene-d8		97	89-112

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
U = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ98061-001
Batch: 98061
Analytical Method: 8260B

Matrix: Solid
Prep Method: 5035 High

Parameter	Result	Q	Dil	LOQ	LOD	DL	Units	Analysis Date
Benzene	4.0	U	1	250	4.0	100	ug/kg	02/20/2019 1137
Ethylbenzene	4.0	U	1	250	4.0	100	ug/kg	02/20/2019 1137
Toluene	4.0	U	1	250	4.0	100	ug/kg	02/20/2019 1137
Xylenes (total)	8.0	U	1	500	8.0	200	ug/kg	02/20/2019 1137

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		97	79-119
Dibromofluoromethane		92	78-119
1,2-Dichloroethane-d4		86	71-136
Toluene-d8		97	85-116

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
U = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ98061-002
Batch: 98061
Analytical Method: 8260B

Matrix: Solid
Prep Method: 5035 High

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Benzene	2500	2500		1	98	77-121	02/20/2019 1114
Ethylbenzene	2500	3000		1	118	76-122	02/20/2019 1114
Toluene	2500	2800		1	111	77-121	02/20/2019 1114
Xylenes (total)	5000	5800		1	116	78-124	02/20/2019 1114

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		101	79-119
Dibromofluoromethane		97	78-119
1,2-Dichloroethane-d4		90	71-136
Toluene-d8		103	85-116

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
U = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ98233-001
Batch: 98233
Analytical Method: 8260B

Matrix: Solid
Prep Method: 5035 High

Parameter	Result	Q	Dil	LOQ	LOD	DL	Units	Analysis Date
Naphthalene	4.0	U	1	250	4.0	100	ug/kg	02/20/2019 1137

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		97	79-119
Dibromofluoromethane		92	78-119
1,2-Dichloroethane-d4		86	71-136
Toluene-d8		97	85-116

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
U = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ98233-002
Batch: 98233
Analytical Method: 8260B

Matrix: Solid
Prep Method: 5035 High

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Naphthalene	2500	2700		1	110	62-129	02/20/2019 1114

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		101	79-119
Dibromofluoromethane		97	78-119
1,2-Dichloroethane-d4		90	71-136
Toluene-d8		103	85-116

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
U = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ98466-001
Batch: 98466
Analytical Method: 8260B

Matrix: Solid
Prep Method: 5035

Parameter	Result	Q	Dil	LOQ	LOD	DL	Units	Analysis Date
Benzene	4.0	U	1	5.0	4.0	2.0	ug/kg	02/22/2019 1623
Ethylbenzene	4.0	U	1	5.0	4.0	2.0	ug/kg	02/22/2019 1623
Naphthalene	4.0	U	1	5.0	4.0	2.0	ug/kg	02/22/2019 1623
Toluene	4.0	U	1	5.0	4.0	2.0	ug/kg	02/22/2019 1623
Xylenes (total)	8.0	U	1	10	8.0	4.0	ug/kg	02/22/2019 1623

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		102	79-119
Dibromofluoromethane		97	78-119
1,2-Dichloroethane-d4		90	71-136
Toluene-d8		99	85-116

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
U = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ98466-002
Batch: 98466
Analytical Method: 8260B

Matrix: Solid
Prep Method: 5035

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Benzene	50	52		1	105	77-121	02/22/2019 1522
Ethylbenzene	50	54		1	108	76-122	02/22/2019 1522
Naphthalene	50	51		1	103	62-129	02/22/2019 1522
Toluene	50	54		1	108	77-121	02/22/2019 1522
Xylenes (total)	100	110		1	107	78-124	02/22/2019 1522

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		101	79-119
Dibromofluoromethane		96	78-119
1,2-Dichloroethane-d4		90	71-136
Toluene-d8		102	85-116

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
U = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - LCSD

Sample ID: UQ98466-003
Batch: 98466
Analytical Method: 8260B

Matrix: Solid
Prep Method: 5035

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Benzene	50	49		1	98	6.2	77-121	20	02/22/2019 1602
Ethylbenzene	50	51		1	102	6.3	76-122	20	02/22/2019 1602
Naphthalene	50	49		1	98	4.8	62-129	20	02/22/2019 1602
Toluene	50	51		1	102	5.7	77-121	20	02/22/2019 1602
Xylenes (total)	100	100		1	103	3.6	78-124	20	02/22/2019 1602

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		103	79-119
Dibromofluoromethane		99	78-119
1,2-Dichloroethane-d4		90	71-136
Toluene-d8		103	85-116

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
U = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Semivolatile Organic Compounds by GC/MS - MB

Sample ID: UQ97720-001
Batch: 97720
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 02/15/2019 1748

Parameter	Result	Q	Dil	LOQ	LOD	DL	Units	Analysis Date
Benzo(a)anthracene	0.10	U	1	0.20	0.10	0.040	ug/L	02/18/2019 1136
Benzo(b)fluoranthene	0.10	U	1	0.20	0.10	0.040	ug/L	02/18/2019 1136
Benzo(k)fluoranthene	0.10	U	1	0.20	0.10	0.040	ug/L	02/18/2019 1136
Chrysene	0.10	U	1	0.20	0.10	0.040	ug/L	02/18/2019 1136
Dibenzo(a,h)anthracene	0.10	U	1	0.20	0.10	0.040	ug/L	02/18/2019 1136

Surrogate	Q	% Rec	Acceptance Limit
Nitrobenzene-d5		60	44-120
2-Fluorobiphenyl		54	44-119
Terphenyl-d14		96	50-134

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
U = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Semivolatile Organic Compounds by GC/MS - LCS

Sample ID: UQ97720-002
Batch: 97720
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 02/15/2019 1748

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Benzo(a)anthracene	8.0	6.5		1	81	58-125	02/18/2019 1159
Benzo(b)fluoranthene	8.0	6.2		1	77	53-131	02/18/2019 1159
Benzo(k)fluoranthene	8.0	6.5		1	81	57-129	02/18/2019 1159
Chrysene	8.0	6.7		1	84	59-123	02/18/2019 1159
Dibenzo(a,h)anthracene	8.0	6.3		1	78	51-134	02/18/2019 1159

Surrogate	Q	% Rec	Acceptance Limit
Nitrobenzene-d5		74	44-120
2-Fluorobiphenyl		67	44-119
Terphenyl-d14		96	50-134

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
U = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Semivolatile Organic Compounds by GC/MS - MS

Sample ID: UB14086-004MS
Batch: 97720
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 02/15/2019 1748

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Benzo(a)anthracene	ND	16	13		1	83	58-125	02/18/2019 1440
Benzo(b)fluoranthene	ND	16	13		1	80	53-131	02/18/2019 1440
Benzo(k)fluoranthene	ND	16	14		1	87	57-129	02/18/2019 1440
Chrysene	ND	16	14		1	86	59-123	02/18/2019 1440
Dibenzo(a,h)anthracene	ND	16	14		1	85	51-134	02/18/2019 1440

Surrogate	Q	% Rec	Acceptance Limit
Nitrobenzene-d5		70	44-120
2-Fluorobiphenyl		55	44-119
Terphenyl-d14		98	50-134

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
U = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Semivolatile Organic Compounds by GC/MS - MSD

Sample ID: UB14086-004MD
Batch: 97720
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 02/15/2019 1748

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Benzo(a)anthracene	ND	16	13		1	80	3.8	58-125	40	02/18/2019 1503
Benzo(b)fluoranthene	ND	16	12		1	77	3.3	53-131	40	02/18/2019 1503
Benzo(k)fluoranthene	ND	16	13		1	82	6.0	57-129	40	02/18/2019 1503
Chrysene	ND	16	14		1	85	1.9	59-123	40	02/18/2019 1503
Dibenzo(a,h)anthracene	ND	16	13		1	83	2.8	51-134	40	02/18/2019 1503

Surrogate	Q	% Rec	Acceptance Limit
Nitrobenzene-d5		69	44-120
2-Fluorobiphenyl		57	44-119
Terphenyl-d14		93	50-134

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
U = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Semivolatile Organic Compounds by GC/MS - MB

Sample ID: UQ98046-001
Batch: 98046
Analytical Method: 8270D (SIM)

Matrix: Solid
Prep Method: 3550C
Prep Date: 02/19/2019 1543

Parameter	Result	Q	Dil	LOQ	LOD	DL	Units	Analysis Date
Benzo(a)anthracene	2.0	U	1	3.3	2.0	0.59	ug/kg	02/26/2019 1323
Benzo(b)fluoranthene	1.0	U	1	3.3	1.0	0.50	ug/kg	02/26/2019 1323
Benzo(k)fluoranthene	1.0	U	1	3.3	1.0	0.48	ug/kg	02/26/2019 1323
Chrysene	1.0	U	1	3.3	1.0	0.45	ug/kg	02/26/2019 1323
Dibenzo(a,h)anthracene	2.0	U	1	3.3	2.0	0.51	ug/kg	02/26/2019 1323

Surrogate	Q	% Rec	Acceptance Limit
Fluoranthene-d10		105	37-135
2-Methylnaphthalene-d10		83	17-119

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
U = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Semivolatile Organic Compounds by GC/MS - LCS

Sample ID: UQ98046-002
Batch: 98046
Analytical Method: 8270D (SIM)

Matrix: Solid
Prep Method: 3550C
Prep Date: 02/19/2019 1543

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Benzo(a)anthracene	20	19		1	96	54-122	02/26/2019 1350
Benzo(b)fluoranthene	20	20		1	99	53-128	02/26/2019 1350
Benzo(k)fluoranthene	20	20		1	99	56-123	02/26/2019 1350
Chrysene	20	18		1	91	57-118	02/26/2019 1350
Dibenzo(a,h)anthracene	20	19		1	95	50-129	02/26/2019 1350

Surrogate	Q	% Rec	Acceptance Limit
Fluoranthene-d10		111	37-135
2-Methylnaphthalene-d10		80	17-119

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
U = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Semivolatile Organic Compounds by GC/MS - MS

Sample ID: UB14086-001MS
Batch: 98046
Analytical Method: 8270D (SIM)

Matrix: Solid
Prep Method: 3550C
Prep Date: 02/19/2019 1543

Parameter	Sample Amount (ug/kg)	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Benzo(a)anthracene	ND	25	36	N	10	142	54-122	02/26/2019 1644
Benzo(b)fluoranthene	ND	25	15		10	61	53-128	02/26/2019 1644
Benzo(k)fluoranthene	ND	25	14		10	58	56-123	02/26/2019 1644
Chrysene	ND	25	58	N	10	231	57-118	02/26/2019 1644
Dibenzo(a,h)anthracene	ND	25	15		10	61	50-129	02/26/2019 1644

Surrogate	Q	% Rec	Acceptance Limit
Fluoranthene-d10	N	272	37-135
2-Methylnaphthalene-d10	N	1470	17-119

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
U = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Semivolatile Organic Compounds by GC/MS - MSD

Sample ID: UB14086-001MD
Batch: 98046
Analytical Method: 8270D (SIM)

Matrix: Solid
Prep Method: 3550C
Prep Date: 02/19/2019 1543

Parameter	Sample Amount (ug/kg)	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Benzo(a)anthracene	ND	25	34	N	10	135	3.6	54-122	20	02/26/2019 1711
Benzo(b)fluoranthene	ND	25	16		10	64	5.4	53-128	20	02/26/2019 1711
Benzo(k)fluoranthene	ND	25	16		10	61	7.3	56-123	20	02/26/2019 1711
Chrysene	ND	25	57	N	10	224	1.8	57-118	20	02/26/2019 1711
Dibenzo(a,h)anthracene	ND	25	17		10	68	12	50-129	20	02/26/2019 1711

Surrogate	Q	% Rec	Acceptance Limit
Fluoranthene-d10	N	305	37-135
2-Methylnaphthalene-d10	N	2310	17-119

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
U = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Chain of Custody
and
Miscellaneous Documents

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

SHEALY ENVIRONMENTAL SERVICES, INC.

SHEALY **Chain of Custody Record**

SHEALY ENVIRONMENTAL SERVICES, INC.
106 Vantage Point Drive • West Columbia, SC 29172
Telephone No. 803-791-9700 Fax No. 803-791-9111
www.shealylab.com

Number 89696

Client: AECOM	Report to Contact: Doria Cullom	Telephone No. / E-mail: 8643145364 / Doria.Cullom@aecom.com	Quote No.
Address: 4016 Salt Pointe Pkwy	Sampler's Signature: x	Analysis (Attach list if more space is needed)	Page 1 of 1
City: North Charleston	State: SC	Zip Code: 29405	Printed Name: Brian Reibling
Project Name: WE52: LBMH, MCAS Beaufort, SC.			
Project No.: 60541602.7	P.O. No.: Non-PO		

Sample ID / Description (Containers for each sample may be combined on one line.)	Date 2019	Time	# Grab / # Composite	Matrix: Aqueous	Matrix: Solid	Matrix: Non-Aqueous	No of Containers by Preservative Type: Unpres	HNO3	H2SO4	HCl	NaOH	ZnAc/NaOH	8260 TCL + Naphthalene	8270 PAHs
BEALB10665B02502019 0212	2/12	1030	6		X		6						X	X
BEALB10665B02502019 0212-MS		1030			X								X	X
BEALB10665B02502019 0212-MSD		1030			X								X	X
BEALB10665B03502019 0212		0930			X								X	X
BEALB10665B03502019 0212-B		0930			X								X	X
BEALB10665B02502019 0212-D		1040		X			2			3			X	X
BEALB12235B02502019 0213	2/13	1140			X		6						X	X
BEALB12235B02ES02619 0213		1150			X								X	X
BEALB10665B03502019 0212-C	2/12	0930		X						2			X	

UB14086

NES

Remarks / Cooler I.D.

Turn Around Time Required (Prior lab approval required for expedited TAT.) ☒ Standard ☐ Rush (Specify)

Sample Disposal ☐ Return to Client ☒ Disposal by Lab

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

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished by	2/13/2019	1800	1. Received by: FedEx	2/13/19	1800
2. Relinquished by	Date	Time	2. Received by	Date	Time
3. Relinquished by	Date	Time	3. Received by	Date	Time
4. Relinquished by: FedEx	Date: 2-14-19	Time: 1010	4. Laboratory received by: Brian Brown	Date 2.14.19	Time 1010

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on Ice (Circle) (Yes) No Ice Pack Receipt Temp. 1.4 °C

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: F-AD-133 Effective Date: 08-01-2014

Shealy Environmental Services, Inc.
Document Number: ME0018C-14

Page 1 of 1
Effective Date: 8/2/2018

Sample Receipt Checklist (SRC)

Client: AECOM Cooler Inspected by/date: ETB / 2.14.19 Lot #: UB140186

Means of receipt: ☐ SESI ☐ Client ☐ UPS ☑ FedEx ☐ Other:			
☑ Yes	☐ No		1. Were custody seals present on the cooler?
☑ Yes	☐ No	☐ NA	2. If custody seals were present, were they intact and unbroken?
pH Strip ID: NA Chlorine Strip ID: NA Tested by: NA			
Original temperature upon receipt / Derived (Corrected) temperature upon receipt: 1.4 / 1.4 °C / / °C / / °C / / °C ETB %Solid Snap-Cup ID: 18-2489			
Method: ☑ Temperature Blank ☐ Against Bottles IR Gun ID: 5 IR Gun Correction Factor: 0 °C			
Method of coolant: ☑ Wet Ice ☐ Ice Packs ☐ Dry Ice ☐ None			
☐ Yes	☐ No	☑ NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
☑ Yes	☐ No	☐ NA	4. Is the commercial courier's packing slip attached to this form?
☑ Yes	☐ No		5. Were proper custody procedures (relinquished/received) followed?
☑ Yes	☐ No		6. Were sample IDs listed on the COC?
☑ Yes	☐ No		7. Were sample IDs listed on all sample containers?
☑ Yes	☐ No		8. Was collection date & time listed on the COC?
☑ Yes	☐ No		9. Was collection date & time listed on all sample containers?
☑ Yes	☐ No		10. Did all container label information (ID, date, time) agree with the COC?
☑ Yes	☐ No		11. Were tests to be performed listed on the COC?
☑ Yes	☐ No		12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)?
☑ Yes	☐ No		13. Was adequate sample volume available?
☐ Yes	☑ No		14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
☐ Yes	☑ No		15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
☐ Yes	☑ No	☐ NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼"or 6mm in diameter) in any of the VOA vials?
☐ Yes	☐ No	☑ NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
☐ Yes	☐ No	☑ NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
☐ Yes	☐ No	☑ NA	19. Were all applicable NH_3/TKN/cyanide/phenol/625 (< 0.5mg/L) samples free of residual chlorine?
☐ Yes	☐ No	☑ NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?
☐ Yes	☐ No		21. Was the quote number listed on the container label? If yes, Quote #

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) NA were received incorrectly preserved and were adjusted accordingly in sample receiving with NA mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # _____.
Time of preservation NA. If more than one preservative is needed, please note in the comments below.

Sample(s) NA were received with bubbles >6 mm in diameter.

Samples(s) NA were received with TRC > 0.5 mg/L (If #19 is *no*) and were adjusted accordingly in sample receiving with sodium thiosulfate ($Na_2S_2O_3$) with Shealy ID: _____.

SR barcode labels applied by: ETB Date: 2.14.19

Comments:

ATTACHMENT A

Waste Disposal Documentation

NON-HAZARDOUS MANIFEST

WASTE MANAGEMENT

NON-HAZARDOUS MANIFEST

1. Generator's US EPA ID No. | Manifest Doc No. | 2. Page 1 of

GENERATOR

3. Generator's Mailing Address
MCAS BEAUFORT
LAUREL BAY HOUSING
BEAUFORT, SC 29904
4. Generator's Phone 843-228-6461

Generator's Site Address (if different than mailing):
212 Cardinal (1223 Cardinal)
38 Gardenia (1006 Gardenia)

A. Manifest Number: 8676468

B. State Generator's ID: SC175D216169

5. Transporter 1 Company Name: SBG

6. US EPA ID Number

C. State Transporter's ID

D. Transporter's Phone: 843-412-2097

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name & Site Address
HICKORY HILL LANDFILL
2621 LOW COUNTRY DRIVE
RIDGELAND, SC 29936

10. US EPA ID Number

G. State Facility ID: 272401-1101

H. State Facility Phone: 843-548-6004

11. Description of Waste Materials	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt./Vol.	I. Misc. Comments
a HEATING OIL TANKS FREE OF LIQUID WM Profile # 102655SC	3	EA	3	EA	8676468
		TNK	2.23	TON	
b. WM Profile #					
c. WM Profile #					
d. WM Profile #					

J. Additional Descriptions for Materials Listed Above
3EA HEATING OIL TANKS FROM
212 CARDINAL (1EA) + 38 GARDENIA (2EA)

K. Disposal Location
Cell | Level
Grid

15. Special Handling Instructions and Additional Information
BEAUFORT COUNTY

Purchase Order # | EMERGENCY CONTACT / PHONE NO.:

16. GENERATOR'S CERTIFICATION
I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations.

Printed Name	Signature "On behalf of"	Month	Day	Year
Corey Jackson		2	14	19

TRANSPORTER

17. Transporter 1 Acknowledgment of Receipt of Materials

Printed Name	Signature	Month	Day	Year
James Baldwin	James Baldwin	2	14	19

18. Transporter 2 Acknowledgment of Receipt of Materials

Printed Name	Signature	Month	Day	Year

FACILITY

19. Certificate of Final Treatment/Disposal
I certify, on behalf of the listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.

20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.

Printed Name	Signature	Month	Day	Year
JoAnn Cofield	JoAnn Cofield	2	14	19

Appendix C
Laboratory Analytical Report - Groundwater

CDM - AECOM
Multimedia Joint Venture

Volatile Organic Compounds by GC/MS

Client: **AECOM**
Laboratory ID: **UL11098-002**
Description: **BEALB1223TW02WG20191209**
Matrix: **Aqueous**
Date Sampled: **12/09/2019 1650**
Date Received: **12/11/2019**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	12/14/2019 1946	ECB		39382

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	LOD	DL	Units	Run
Benzene	71-43-2	8260D	0.80	U	1.0	0.80	0.40	ug/L	1
Ethylbenzene	**100-41-4**	**8260D**	**0.73**	**J**	**1.0**	0.80	**0.40**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260D**	**16**		**1.0**	0.80	**0.40**	**ug/L**	**1**
Toluene	108-88-3	8260D	0.80	U	1.0	0.80	0.40	ug/L	1
Xylenes (total)	**1330-20-7**	**8260D**	**1.7**		**1.0**	0.80	**0.40**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		108	85-114
Dibromofluoromethane		101	80-119
1,2-Dichloroethane-d4		97	81-118
Toluene-d8		101	89-112

LOQ = Limit of Quantitation	B = Detected in the method blank	E = Quantitation of compound exceeded the calibration range	DL = Detection Limit	Q = Surrogate failure
U = Not detected at or above the LOQ	N = Recovery is out of criteria	P = The RPD between two GC columns exceeds 40%	J = Estimated result < LOQ and ≥ DL	L = LCS/LCSD failure
H = Out of holding time	W = Reported on wet weight basis	LOD = Limit of Detection		S = MS/MSD failure

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Semivolatile Organic Compounds by GC/MS

Client: **AECOM**
Laboratory ID: **UL11098-002**
Description: **BEALB1223TW02WG20191209**
Matrix: **Aqueous**
Date Sampled: **12/09/2019 1650**
Date Received: **12/11/2019**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270E	1	12/17/2019 1710	JCG	12/15/2019 2003	39061

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	LOD	DL	Units	Run
Benzo(a)anthracene	56-55-3	8270E	0.10	U	0.20	0.10	0.040	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270E	0.10	U	0.20	0.10	0.040	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270E	0.10	U	0.20	0.10	0.040	ug/L	1
Chrysene	218-01-9	8270E	0.10	U	0.20	0.10	0.040	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270E	0.10	U	0.20	0.10	0.040	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		55	44-119
Nitrobenzene-d5		50	44-120
Terphenyl-d14		82	50-134

LOQ = Limit of Quantitation
U = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
LOD = Limit of Detection
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

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Appendix D
Regulatory Correspondence

CDM - AECOM
Multimedia Joint Venture

dhec
Healthy People. Healthy Communities.

June 12, 2019

Commanding Officer
Attention: NREAO Mr. Christopher L. Vaigneur
United State Marine Corps Air Station (MCAS)
Post Office Box 55001
Beaufort, SC 29904-5001

RE: Review Draft Final UST Removal Completion Report dated May 2019
Laurel Bay Military Housing Area

Dear Mr. Vaigneur,

The South Carolina Department of Health and Environmental Control (DHEC) received the above referenced report on May 13, 2019. The regulatory authority for the investigation and cleanup of releases from these tank systems is the South Carolina Pollution Control Act (S.C. Code Ann. §48-1-10 et seq., as amended). DHEC has reviewed the report. Based on this review, DHEC has generated the following comment:

1. Although there is no indication of soil contamination at 1066 Gardenia Drive – Tank 3; DHEC does not agree with the NFA recommendation due to the potential impact to groundwater associated with 1066 Gardenia - Tank 2. DHEC will update the status of Tank 3 once the groundwater investigation of Tank 2 is complete.

As recommended, since submitted analytical results indicate that petroleum constituents are above established Risk Based Screening Levels, further investigation is warranted at two tank sites (1066 Gardenia Drive – Tank 2 and 1223 Cardinal Lane – Tank 2). DHEC requests that a groundwater sampling proposal be generated to determine if there has been an impact to groundwater at these two tank locations.

No change to this document is necessary and DHEC considers this report to be final.

Please note that DHEC's decision is based on information provided by MCAS to date. Any information found to be contradictory to this decision may require additional action. Furthermore, DHEC retains the right to request further investigation if deemed necessary. If you have any questions, please contact Kent Krieg at kriegkm@dhec.sc.gov or 803-898-0255.

Sincerely,

Lisa Appel

Lisa Appel, Project Manager
RCRA Federal Facilities Section

cc: Bryan Beck, NAVFAC MIDLANT (via email)
Craig Ehde, NREAO (via email)
Shawn Dolan, Resolution Consultants (via email)
Reahnita Tuten, EQC Region 8 (via email)

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

Promoting and protecting the health of the public and the environment.

Bureau of Land and Waste Management
Division of Waste Management

March 25, 2010

Commanding Officer
Attention: NREAO Mr. William A. Drawdy
United States Marine Corp Air Station
Post Office Box 55001
Beaufort, SC 29904-5001

RE: No Further Action
Laurel Bay Underground Storage Tank Assessment Report for:

- 1475 Cardinal
- 1227 Dove
- 1225 Dove
- 1223 Cardinal
- 1409 Eagle
- 1423 Albatross

Dear Mr. Drawdy,

The South Carolina Department of Health and Environmental Control (the Department) received the above referenced Underground Storage Tanks (USTs) Assessment Report on November 13, 2009 for the addresses listed above.

The Department has reviewed the referenced assessment report and agrees there is no indication of soil or groundwater contamination on this property, and therefore no further investigation is required at this time.

Please note that the Department's decision is based on information provided by the Marine Corp Air Station (MCAS) to date. Any information found to be contradictory to this decision may require additional action. Furthermore, the Department retains the right to request further investigation if deemed necessary.

If you have any questions, please contact me at picketcn@dhec.sc.gov or 803-896-4131.

Sincerely,

Christi Pickett
Corrective Action Engineering Section
Bureau of Land and Waste Management
South Carolina Department of Health and Environmental Control

cc: Laurel Rhoten (via email)
Craig Ehde (via email)

dhec
Healthy People. Healthy Communities.

February 24, 2020

Commanding Officer
Attention: NREAO Mr. Christopher L. Vaigneur
United States Marine Corps Air Station
Post Office Box 55001
Beaufort, SC 29904-5001

RE: Approval Draft Final Technical Memo – Groundwater Investigations December 2019
Laurel Bay Military Housing Area, Multiple Properties, Beaufort, SC
(CDM - AECOM Multimedia JV, dated January 2020)

Dear Mr. Vaigneur,

The South Carolina Department of Health and Environmental Control (DHEC) received the above referenced document on January 30, 2020. The regulatory authority for the investigation and cleanup of releases from these tank systems is the South Carolina Pollution Control Act (S.C. Code Ann. §48-1-10 et seq., as amended).

Based on its review, DHEC did not generate any comments and approves this document as Final. DHEC agrees with the recommendations, including no further action (NFA) for the following two (2) properties:

- 38 Gardenia Drive (formerly 1066 Gardenia)
- 212 Cardinal Lane (formerly 1223 Cardinal)

Please note that DHEC's decision is based on information provided by the Marine Corps Air Station (MCAS) to date. Any information found to be contradictory to this may require additional action. Furthermore, DHEC retains the right to request further investigation if it is deemed necessary. If you have any questions, please contact Kent Krieg at kriegkm@dhec.sc.gov or 803-898-0255.

Sincerely,

Lisa Appel

Lisa Appel, Project Manager
RCRA Federal Facilities Section
Division of Waste Management

cc: Bryan Beck, NAVFAC MIDLANT (via email)
Craig Ehde, NREAO (via email)
Shawn Dolan, AECOM (via email)
Reahnita Tuten, EQC Region 8 (via email)