SUMMARY REPORT
403 WEST LAUREL BAY BOULEVARD (FORMERLY 518 WEST LAUREL BAY BOULEVARD)
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 202**1**

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Prepared by:

CDM - AECOM Multimedia Joint Venture
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Contract Number: N62470-14-D-9016
CTO WE52
JUNE 202**1**

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List of Acronyms

bgs	below ground surface
BTEX	benzene, toluene, ethylbenzene, and xylenes
CTO	Contract Task Order
COPC	constituents of potential concern
ft	feet
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 403 West Laurel Bay Boulevard (Formerly 518 West Laurel Bay Boulevard). 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 heating oil 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, February 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, February 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, April 2013) and were revised again in Revision 3.0 (SCDHEC, May 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 from permanent wells 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 403 West Laurel Bay Boulevard (Formerly 518 West Laurel Bay Boulevard). The sampling activities at 403 West Laurel Bay Boulevard (Formerly 518 West Laurel Bay Boulevard) comprised a soil investigation, IGWA sampling and installation and sampling of a permanent well. Details regarding the soil investigation at this site are provided in the *SCDHEC UST Assessment Report – 518 Laurel Bay Boulevard* (MCAS Beaufort, 2012). The UST Assessment Report is provided in Appendix B. Details regarding the IGWA sampling activities at this site are provided in the *Initial Groundwater Investigation Report – May and June 2015* (Resolution Consultants, 2015). The laboratory report that includes the pertinent IGWA analytical results for this site is

presented in Appendix C. Details regarding the permanent well installation and sampling activities at this site are provided in the *Groundwater Assessment Report – June and July 2016* (Resolution Consultants, 2016). The laboratory report that includes the pertinent groundwater analytical results for this site is presented in Appendix D.

2.1 UST Removal and Soil Sampling

On January 19, 2012, a single 280 gallon heating oil UST was removed from the front landscaped bed area adjacent to the driveway at 403 West Laurel Bay Boulevard (Formerly 518 West Laurel Bay Boulevard). The former UST location is indicated on Figures 2 and 3 of the UST Assessment Report (Appendix B). The UST was 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 UST removal. According to the UST Assessment Report (Appendix B), the depth to the base of the UST was 5'11" bgs and a single soil sample was collected from that depth. The sample was collected from the fill port side of the former UST to represent a worst case scenario.

Following UST removal, a soil sample was collected from the base of the excavation and shipped to an offsite laboratory for analysis of the petroleum COPCs. 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 report is included in the UST Assessment Report presented in Appendix B. The laboratory analytical data report includes 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 location 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 403 West Laurel Bay Boulevard (Formerly 518 West Laurel Bay Boulevard) were greater than the SCDHEC RBSLs, which indicated further investigation was required. In a letter dated May 15, 2014, SCDHEC requested an IGWA for 403 West Laurel Bay Boulevard (Formerly 518 West

Laurel Bay Boulevard) to determine if the groundwater was impacted by petroleum COPCs. SCDHEC's request letter is provided in Appendix E.

2.3 Initial Groundwater Sampling

On June 9, 2015, a temporary monitoring well was installed at 403 West Laurel Bay Boulevard (Formerly 518 West Laurel Bay Boulevard), 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. The former UST location is indicated on Figures 2 and 3 of the UST Assessment Report (Appendix B). Further details are provided in the *Initial Groundwater Investigation Report – May and June 2015* (Resolution Consultants, 2015).

The sampling strategy for this phase of the investigation required a one-time sampling event of the temporarily installed monitoring well. Following well installation and development, groundwater samples were 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.H-I (SCDHEC, 2016). Field forms are provided in the *Initial Groundwater Investigation Report – May and June 2015* (Resolution Consultants, 2015).

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 403 West Laurel Bay Boulevard (Formerly 518 West Laurel Bay Boulevard) were greater than the SCDHEC RBSLs and the site specific groundwater VISLs (Table 2), which indicated further investigation was required. In a letter dated February 22, 2016, SCDHEC requested a permanent well be installed for 403 West Laurel Bay Boulevard (Formerly 518 West Laurel Bay Boulevard) to confirm the impact to groundwater detected in the temporary well sample. SCDHEC's request letter is provided in Appendix E.

2.5 Permanent Well Groundwater Sampling

On July 8, 2016, a permanent monitoring well was installed at 403 West Laurel Bay Boulevard (Formerly 518 West Laurel Bay Boulevard), 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 and the IGWA sample location. The former UST location is indicated on Figures 2 and 3 of the UST Assessment Report (Appendix B). Further details are provided in the *Groundwater Assessment Report – June and July 2016* (Resolution Consultants, 2016).

The sampling strategy for this phase of the investigation required a one-time sampling event of the permanent monitoring well. Following well installation and development, groundwater samples were collected using low-flow methods and shipped to an offsite laboratory for analysis of the petroleum COPCs. Field forms are provided in the *Groundwater Assessment Report – June and July 2016* (Resolution Consultants, 2016).

2.6 Permanent Well Groundwater Analytical Results

A summary of the laboratory analytical results and SCDHEC RBSLs is presented in Table 3. A copy of the laboratory analytical data report is included in Appendix D.

The groundwater results collected from 403 West Laurel Bay Boulevard (Formerly 518 West Laurel Bay Boulevard) were less than the SCDHEC RBSLs and the site specific groundwater VISLs (Table 3), which indicated that the groundwater was not impacted by COPCs associated with the former UST at concentrations that present a potential risk to human health and the environment.

3.0 PROPERTY STATUS

Based on the analytical results for groundwater collected from the permanent monitoring well, SCDHEC made the determination that NFA was required for 403 West Laurel Bay Boulevard (Formerly 518 West Laurel Bay Boulevard). This NFA determination was obtained in a letter dated March 9, 2017. SCDHEC's NFA letter is provided in Appendix E.

4.0 REFERENCES

Marine Corps Air Station Beaufort, 2012. *South Carolina Department of Health and Environmental Control (SCDHEC) Underground Storage Tank Assessment Report – 518 Laurel Bay Boulevard, Laurel Bay Military Housing Area*, April 2012.

Resolution Consultants, 2015. *Initial Groundwater Investigation Report – May and June 2015 for Laurel Bay Military Housing Area, Multiple Properties, Marine Corps Air Station Beaufort, Beaufort, South Carolina*, October 2015.

Resolution Consultants, 2016. *Groundwater Assessment Report – June and July 2016 for Laurel Bay Military Housing Area, Multiple Properties, Marine Corps Air Station Beaufort, Beaufort, South Carolina*, December 2016.

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 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.

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

Tables

Table 1
Laboratory Analytical Results - Soil
403 West Laurel Bay Boulevard (Formerly 518 West Laurel Bay Boulevard)
Laurel Bay Military Housing Area
Marine Corps Air Station Beaufort
Beaufort, South Carolina

Constituent	SCDHEC RBSLs [1]	Results Sample Collected 01/19/12
Volatile Organic Compounds Analyzed by EPA Method 8260B (mg/kg)		
Benzene	0.003	ND
Ethylbenzene	1.15	0.843
Naphthalene	0.036	**9.46**
Toluene	0.627	0.0105
Xylenes, Total	13.01	0.958
Semivolatile Organic Compounds Analyzed by EPA Method 8270D (mg/kg)		
Benzo(a)anthracene	0.066	**1.08**
Benzo(b)fluoranthene	0.066	**0.899**
Benzo(k)fluoranthene	0.066	**0.673**
Chrysene	0.066	**1.58**
Dibenz(a,h)anthracene	0.066	**0.634**

Notes:

[1] South Carolina Risk-Based Screening Levels from the Quality Assurance Program Plan for the Underground Storage Tank Management Division, Revision 1.1 (SCDHEC, February 2011).

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 - milligrams per kilogram

ND - not detected at the reporting limit (or method detection limit if shown on the laboratory report). The soil 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 - Initial Groundwater
403 West Laurel Bay Boulevard (Formerly 518 West Laurel Bay Boulevard)
Laurel Bay Military Housing Area
Marine Corps Air Station Beaufort
Beaufort, South Carolina

Constituent	SCDHEC RBSLs [1]	Site-Specific Groundwater VISLs (µg/L)[2]	Results Sample Collected 06/10/15
Volatile Organic Compounds Analyzed by EPA Method 8260B (µg/L)			
Benzene	5	16.24	ND
Ethylbenzene	700	45.95	**2.6**
Naphthalene	25	29.33	**47**
Toluene	1000	105,445	ND
Xylenes, Total	10,000	2,133	**4.1**
Semivolatile Organic Compounds Analyzed by EPA Method 8270D (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 3.0 (SCDHEC, May 2015).

(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

Table 3
Laboratory Analytical Results - Permanent Well Groundwater
403 West Laurel Bay Boulevard (Formerly 518 West Laurel Bay Boulevard)
Laurel Bay Military Housing Area
Marine Corps Air Station Beaufort
Beaufort, South Carolina

Constituent	SCDHEC RBSLs [1]	Site-Specific Groundwater VISLs (µg/L)[2]	Results Sample Collected 07/26/16
Volatile Organic Compounds Analyzed by EPA Method 8260B (µg/L)			
Benzene	5	16.24	ND
Ethylbenzene	700	45.95	**1.5**
Naphthalene	25	29.33	**20**
Toluene	1000	105,445	ND
Xylenes, Total	10,000	2,133	**2.6**
Semivolatile Organic Compounds Analyzed by EPA Method 8270D (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 D.

RBSL - Risk-Based Screening Level

SCDHEC - South Carolina Department Of Health and Environmental Control

µg/L - micrograms per liter

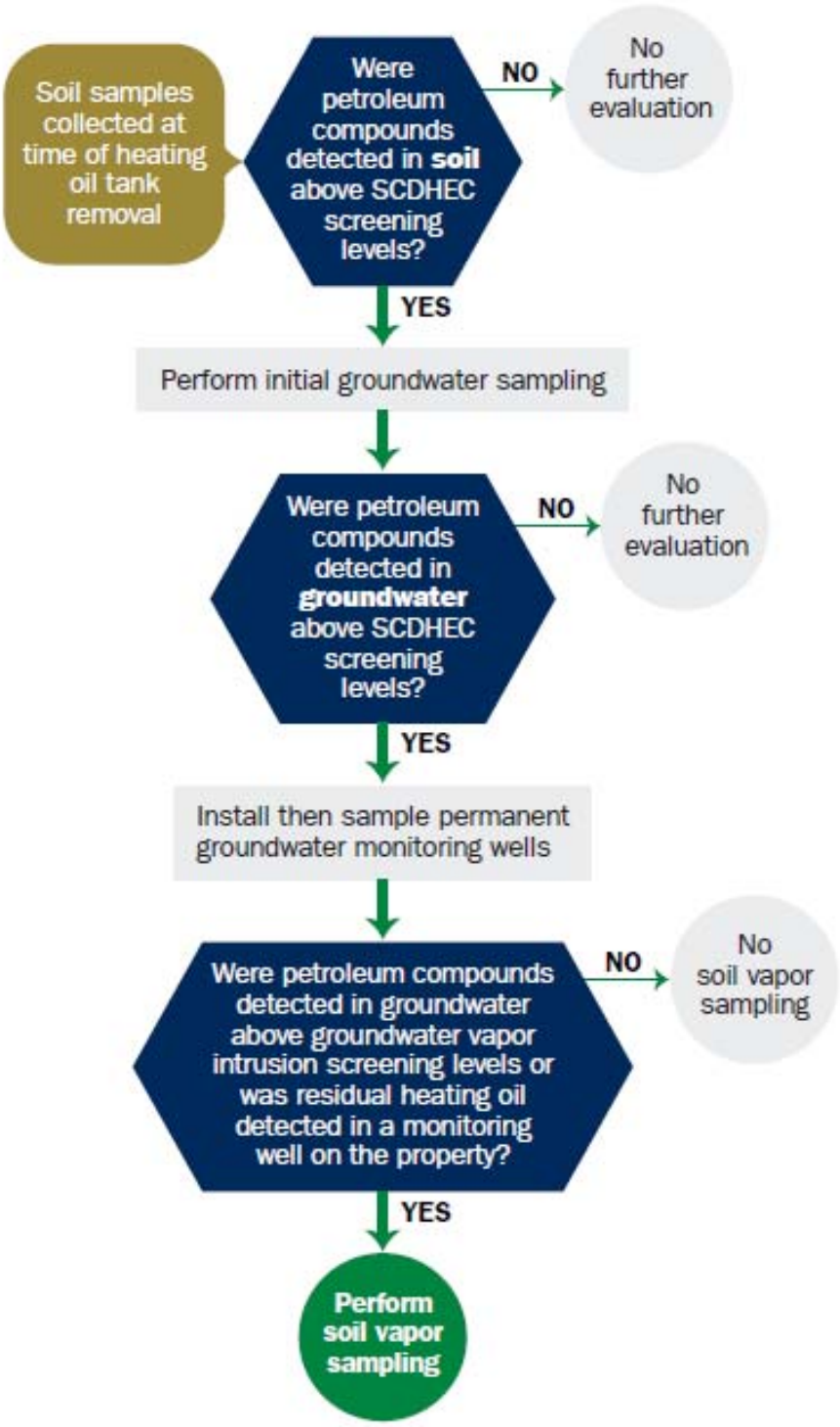
VISL - Vapor Intrusion Screening Level

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 Report

CDM - AECOM
Multimedia Joint Venture

Attachment 1

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

518 Laurel Bay Blvd., 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).....	518 LaurelBB				
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.....	5'11"				
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.....	1/19/12				
L.	Visible Holes Y/N.....	Yes				
		Yes				

M. Method of disposal for any USTs removed from the ground (attach disposal manifests)
UST 518LaurelBB was removed from the ground and disposed 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 518LaurelBB 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).....	518 LaurelBB				
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.....	No				
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 84009

B.

Sample #	Location	Sample Type (Soil/Water)	Soil Type (Sand/Clay)	Depth*	Date/Time of Collection	Collected by	OVA #
518 LaurelBB	Excav at fill end	Soil	Sandy	5'11"	1/19/12 1200 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.

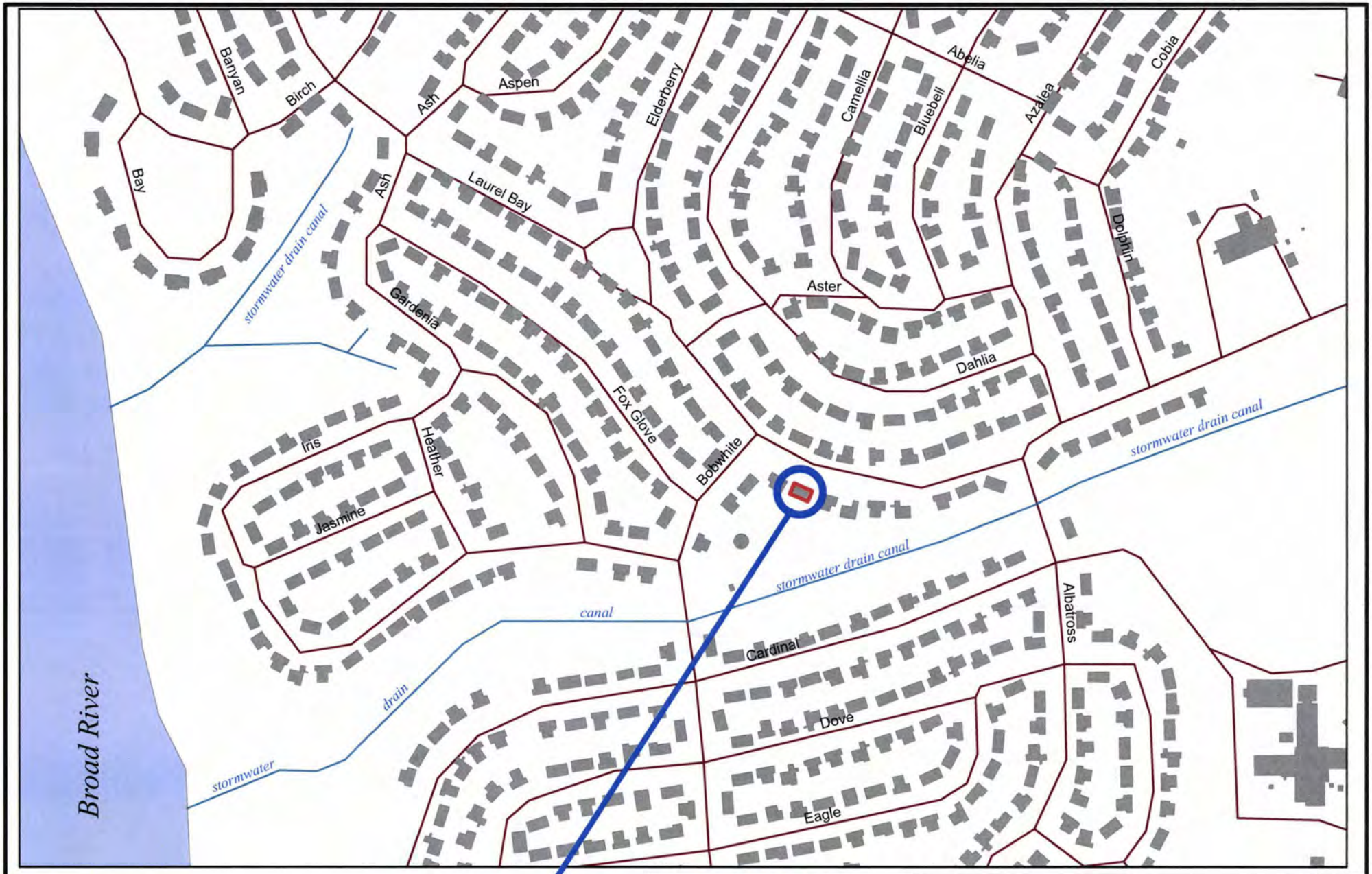
XII. RECEPTORS

	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 ~290'	
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, water, electricity cable & fiber optic 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)



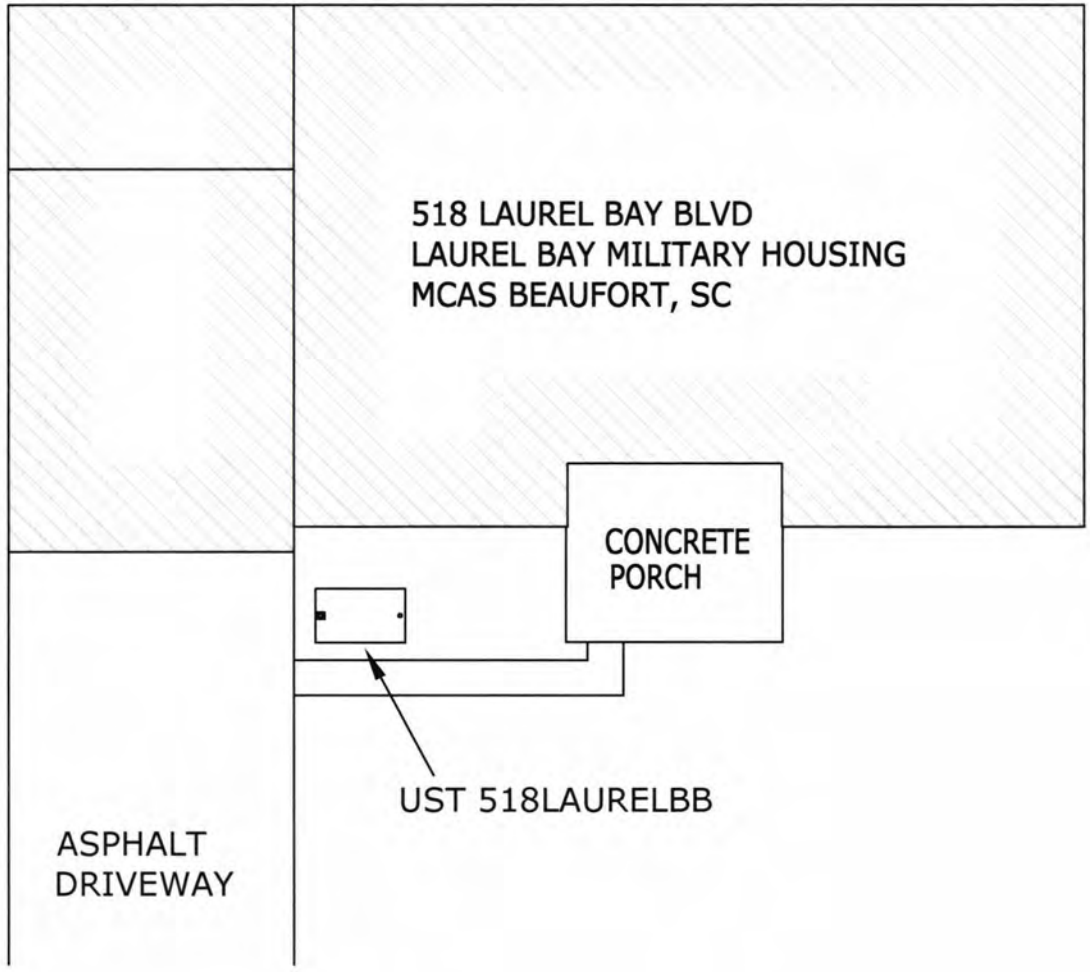
SBG-EEG, Inc.
7301 Rivers Ave., Suite 245
N. Charleston SC 29406-9643
Ph. (843) 573-7140

Drawn By: L. DiAsio

Dwg Date: FEB 2012

FIGURE 1: LOCATION MAP
518 LAUREL BAY BLVD
LAUREL BAY, BEAUFORT SC

STORMWATER DRAINAGE
CANAL ≈ 290'

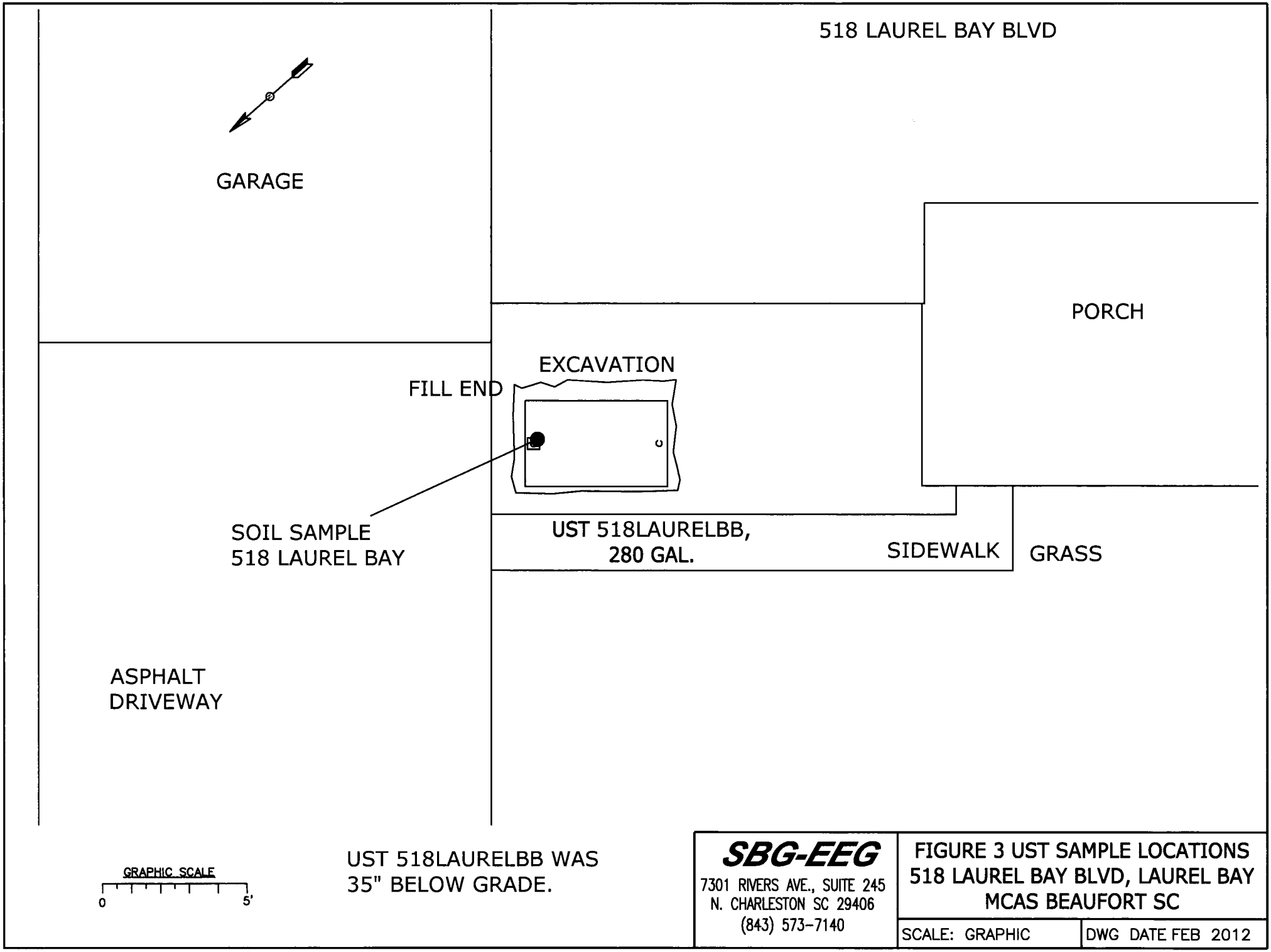


GRAPHIC SCALE
0 5' 10' 20'

SBG-EEG
7301 RIVERS AVE., SUITE 245
N. CHARLESTON SC 29406
(843) 573-7140

FIGURE 2 SITE MAP
518 LAUREL BAY BLVD, LAUREL BAY
MCAS BEAUFORT SC

SCALE: GRAPHIC | DWG DATE FEB 2012



SBG-EEG
7301 RIVERS AVE., SUITE 245
N. CHARLESTON SC 29406
(843) 573-7140

FIGURE 3 UST SAMPLE LOCATIONS
518 LAUREL BAY BLVD, LAUREL BAY
MCAS BEAUFORT SC

SCALE: GRAPHIC | DWG DATE FEB 2012

Picture 1: Location of UST 518LaurelBB.

Picture 2: UST 518LaurelBB excavation.

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	518LaurelBB						
Benzene	ND						
Toluene	0.0105 mg/kg						
Ethylbenzene	0.843 mg/kg						
Xylenes	0.958 mg/kg						
Naphthalene	9.46 mg/kg						
Benzo (a) anthracene	1.08 mg/kg						
Benzo (b) fluoranthene	0.899 mg/kg						
Benzo (k) fluoranthene	0.673 mg/kg						
Chrysene	1.58 mg/kg						
Dibenz (a, h) anthracene	0.634 mg/kg						
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

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Nashville
2960 Foster Creighton Road
Nashville, TN 37204
Tel: 800-765-0980

TestAmerica Job ID: NWA3573
Client Project/Site: [none]
Client Project Description: Laurel Bay Housing Project

For:
EEG - Small Business Group, Inc. (2449)
10179 Highway 78
Ladson, SC 29456

Attn: Tom McElwee

Authorized for release by:
2/6/2012 3:50:28 PM

Ken A. Hayes
Senior Project Manager
ken.hayes@testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Chain of Custody 20

Sample Summary

Client: EEG - Small Business Group, Inc. (2449)
Project/Site: [none]

TestAmerica Job ID: NWA3573

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
NWA3573-01	1349 Cardinal	Soil	01/16/12 15:00	01/21/12 08:30
NWA3573-02	334 Ash	Soil	01/18/12 16:15	01/21/12 08:30
NWA3573-03	518 Laurel Bay	Soil	01/19/12 12:00	01/21/12 08:30

Definitions/Glossary

Client: EEG - Small Business Group, Inc. (2449)
Project/Site: [none]

TestAmerica Job ID: NWA3573

Qualifiers

GCMS Volatiles

Qualifier	Qualifier Description
ZX	Due to sample matrix effects, the surrogate recovery was outside the acceptance limits.

GCMS Semivolatiles

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client Sample ID: 1349 Cardinal
Date Collected: 01/16/12 15:00
Date Received: 01/21/12 08:30

Lab Sample ID: NWA3573-01
Matrix: Soil
Percent Solids: 87

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00259	0.00142	mg/kg dry	☼	01/16/12 15:00	01/24/12 20:18	1.00
Ethylbenzene	ND		0.00259	0.00142	mg/kg dry	☼	01/16/12 15:00	01/24/12 20:18	1.00
Naphthalene	ND		0.00647	0.00323	mg/kg dry	☼	01/16/12 15:00	01/24/12 20:18	1.00
Toluene	ND		0.00259	0.00142	mg/kg dry	☼	01/16/12 15:00	01/24/12 20:18	1.00
Xylenes, total	ND		0.00647	0.00323	mg/kg dry	☼	01/16/12 15:00	01/24/12 20:18	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*102*		*70 - 130*	*01/16/12 15:00*	*01/24/12 20:18*	*1.00*
Dibromofluoromethane	*99*		*70 - 130*	*01/16/12 15:00*	*01/24/12 20:18*	*1.00*
Toluene-d8	*100*		*70 - 130*	*01/16/12 15:00*	*01/24/12 20:18*	*1.00*
4-Bromofluorobenzene	*105*		*70 - 130*	*01/16/12 15:00*	*01/24/12 20:18*	*1.00*

Method: SW846 8270D - Polyaromatic Hydrocarbons by EPA 8270D

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0762	0.0387	mg/kg dry	☼	01/24/12 09:05	01/24/12 22:51	1.00
Acenaphthylene	ND		0.0762	0.0387	mg/kg dry	☼	01/24/12 09:05	01/24/12 22:51	1.00
Anthracene	ND		0.0762	0.0387	mg/kg dry	☼	01/24/12 09:05	01/24/12 22:51	1.00
Benzo (a) anthracene	ND		0.0762	0.0387	mg/kg dry	☼	01/24/12 09:05	01/24/12 22:51	1.00
Benzo (a) pyrene	ND		0.0762	0.0387	mg/kg dry	☼	01/24/12 09:05	01/24/12 22:51	1.00
Benzo (b) fluoranthene	ND		0.0762	0.0387	mg/kg dry	☼	01/24/12 09:05	01/24/12 22:51	1.00
Benzo (g,h,i) perylene	ND		0.0762	0.0387	mg/kg dry	☼	01/24/12 09:05	01/24/12 22:51	1.00
Benzo (k) fluoranthene	ND		0.0762	0.0387	mg/kg dry	☼	01/24/12 09:05	01/24/12 22:51	1.00
Chrysene	ND		0.0762	0.0387	mg/kg dry	☼	01/24/12 09:05	01/24/12 22:51	1.00
Dibenz (a,h) anthracene	ND		0.0762	0.0387	mg/kg dry	☼	01/24/12 09:05	01/24/12 22:51	1.00
Fluoranthene	ND		0.0762	0.0387	mg/kg dry	☼	01/24/12 09:05	01/24/12 22:51	1.00
Fluorene	ND		0.0762	0.0387	mg/kg dry	☼	01/24/12 09:05	01/24/12 22:51	1.00
Indeno (1,2,3-cd) pyrene	ND		0.0762	0.0387	mg/kg dry	☼	01/24/12 09:05	01/24/12 22:51	1.00
Naphthalene	ND		0.0762	0.0387	mg/kg dry	☼	01/24/12 09:05	01/24/12 22:51	1.00
Phenanthrene	ND		0.0762	0.0387	mg/kg dry	☼	01/24/12 09:05	01/24/12 22:51	1.00
Pyrene	ND		0.0762	0.0387	mg/kg dry	☼	01/24/12 09:05	01/24/12 22:51	1.00
1-Methylnaphthalene	ND		0.0762	0.0387	mg/kg dry	☼	01/24/12 09:05	01/24/12 22:51	1.00
2-Methylnaphthalene	ND		0.0762	0.0387	mg/kg dry	☼	01/24/12 09:05	01/24/12 22:51	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*82*		*18 - 120*	*01/24/12 09:05*	*01/24/12 22:51*	*1.00*
2-Fluorobiphenyl	*58*		*14 - 120*	*01/24/12 09:05*	*01/24/12 22:51*	*1.00*
Nitrobenzene-d5	*58*		*17 - 120*	*01/24/12 09:05*	*01/24/12 22:51*	*1.00*

Method: SW-846 - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Dry Solids	**87.0**		0.500	0.500	%		01/24/12 15:50	01/25/12 08:57	1.00

Client Sample ID: 334 Ash

Date Collected: 01/18/12 16:15
Date Received: 01/21/12 08:30

Lab Sample ID: NWA3573-02

Matrix: Soil
Percent Solids: 85.1

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00220	0.00121	mg/kg dry		01/18/12 16:15	01/24/12 20:49	1.00
Ethylbenzene	ND		0.00220	0.00121	mg/kg dry		01/18/12 16:15	01/24/12 20:49	1.00
Naphthalene	ND		0.00550	0.00275	mg/kg dry		01/18/12 16:15	01/24/12 20:49	1.00
Toluene	ND		0.00220	0.00121	mg/kg dry		01/18/12 16:15	01/24/12 20:49	1.00
Xylenes, total	ND		0.00550	0.00275	mg/kg dry		01/18/12 16:15	01/24/12 20:49	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*99*		*70 - 130*	*01/18/12 16:15*	*01/24/12 20:49*	*1.00*
Dibromofluoromethane	*102*		*70 - 130*	*01/18/12 16:15*	*01/24/12 20:49*	*1.00*
Toluene-d8	*104*		*70 - 130*	*01/18/12 16:15*	*01/24/12 20:49*	*1.00*
4-Bromofluorobenzene	*123*		*70 - 130*	*01/18/12 16:15*	*01/24/12 20:49*	*1.00*

Method: SW846 8270D - Polyaromatic Hydrocarbons by EPA 8270D

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0775	0.0393	mg/kg dry		01/24/12 09:05	01/24/12 23:12	1.00
Acenaphthylene	ND		0.0775	0.0393	mg/kg dry		01/24/12 09:05	01/24/12 23:12	1.00
Anthracene	ND		0.0775	0.0393	mg/kg dry		01/24/12 09:05	01/24/12 23:12	1.00
Benzo (a) anthracene	ND		0.0775	0.0393	mg/kg dry		01/24/12 09:05	01/24/12 23:12	1.00
Benzo (a) pyrene	ND		0.0775	0.0393	mg/kg dry		01/24/12 09:05	01/24/12 23:12	1.00
Benzo (b) fluoranthene	ND		0.0775	0.0393	mg/kg dry		01/24/12 09:05	01/24/12 23:12	1.00
Benzo (g,h,i) perylene	ND		0.0775	0.0393	mg/kg dry		01/24/12 09:05	01/24/12 23:12	1.00
Benzo (k) fluoranthene	ND		0.0775	0.0393	mg/kg dry		01/24/12 09:05	01/24/12 23:12	1.00
Chrysene	ND		0.0775	0.0393	mg/kg dry		01/24/12 09:05	01/24/12 23:12	1.00
Dibenz (a,h) anthracene	ND		0.0775	0.0393	mg/kg dry		01/24/12 09:05	01/24/12 23:12	1.00
Fluoranthene	ND		0.0775	0.0393	mg/kg dry		01/24/12 09:05	01/24/12 23:12	1.00
Fluorene	ND		0.0775	0.0393	mg/kg dry		01/24/12 09:05	01/24/12 23:12	1.00
Indeno (1,2,3-cd) pyrene	ND		0.0775	0.0393	mg/kg dry		01/24/12 09:05	01/24/12 23:12	1.00
Naphthalene	ND		0.0775	0.0393	mg/kg dry		01/24/12 09:05	01/24/12 23:12	1.00
Phenanthrene	ND		0.0775	0.0393	mg/kg dry		01/24/12 09:05	01/24/12 23:12	1.00
Pyrene	ND		0.0775	0.0393	mg/kg dry		01/24/12 09:05	01/24/12 23:12	1.00
1-Methylnaphthalene	ND		0.0775	0.0393	mg/kg dry		01/24/12 09:05	01/24/12 23:12	1.00
2-Methylnaphthalene	ND		0.0775	0.0393	mg/kg dry		01/24/12 09:05	01/24/12 23:12	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*78*		*18 - 120*	*01/24/12 09:05*	*01/24/12 23:12*	*1.00*
2-Fluorobiphenyl	*58*		*14 - 120*	*01/24/12 09:05*	*01/24/12 23:12*	*1.00*
Nitrobenzene-d5	*57*		*17 - 120*	*01/24/12 09:05*	*01/24/12 23:12*	*1.00*

Method: SW-846 - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Dry Solids	**85.1**		0.500	0.500	%		01/24/12 15:50	01/25/12 08:57	1.00

Client Sample ID: 518 Laurel Bay
Date Collected: 01/19/12 12:00
Date Received: 01/21/12 08:30

Lab Sample ID: NWA3573-03
Matrix: Soil
Percent Solids: 85.2

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00214	0.00118	mg/kg dry	☼	01/19/12 12:00	01/24/12 21:20	1.00
Toluene	**0.0105**		0.00214	0.00118	mg/kg dry	☼	01/19/12 12:00	01/24/12 21:20	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*107*		*70 - 130*	*01/19/12 12:00*	*01/24/12 21:20*	*1.00*
Dibromofluoromethane	*109*		*70 - 130*	*01/19/12 12:00*	*01/24/12 21:20*	*1.00*
Toluene-d8	*705*	*ZX*	*70 - 130*	*01/19/12 12:00*	*01/24/12 21:20*	*1.00*
4-Bromofluorobenzene	*656*	*ZX*	*70 - 130*	*01/19/12 12:00*	*01/24/12 21:20*	*1.00*

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B - RE1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	**0.843**		0.0556	0.0306	mg/kg dry	☼	01/19/12 12:00	01/24/12 21:52	50.0
Xylenes, total	**0.958**		0.139	0.0695	mg/kg dry	☼	01/19/12 12:00	01/24/12 21:52	50.0

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*96*		*70 - 130*	*01/19/12 12:00*	*01/24/12 21:52*	*50.0*
Dibromofluoromethane	*91*		*70 - 130*	*01/19/12 12:00*	*01/24/12 21:52*	*50.0*
Toluene-d8	*111*		*70 - 130*	*01/19/12 12:00*	*01/24/12 21:52*	*50.0*
4-Bromofluorobenzene	*115*		*70 - 130*	*01/19/12 12:00*	*01/24/12 21:52*	*50.0*

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B - RE2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	**9.46**		1.39	0.695	mg/kg dry	☼	01/19/12 12:00	01/25/12 14:35	500

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*95*		*70 - 130*	*01/19/12 12:00*	*01/25/12 14:35*	*500*
Dibromofluoromethane	*92*		*70 - 130*	*01/19/12 12:00*	*01/25/12 14:35*	*500*
Toluene-d8	*104*		*70 - 130*	*01/19/12 12:00*	*01/25/12 14:35*	*500*
4-Bromofluorobenzene	*103*		*70 - 130*	*01/19/12 12:00*	*01/25/12 14:35*	*500*

Method: SW846 8270D - Polyaromatic Hydrocarbons by EPA 8270D - RE1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	**2.34**		0.782	0.397	mg/kg dry	☼	01/24/12 09:05	01/26/12 00:23	10.0
Acenaphthylene	**1.10**		0.782	0.397	mg/kg dry	☼	01/24/12 09:05	01/26/12 00:23	10.0
Anthracene	ND		0.782	0.397	mg/kg dry	☼	01/24/12 09:05	01/26/12 00:23	10.0
Benzo (a) anthracene	**1.08**		0.782	0.397	mg/kg dry	☼	01/24/12 09:05	01/26/12 00:23	10.0
Benzo (a) pyrene	**0.626**	**J**	0.782	0.397	mg/kg dry	☼	01/24/12 09:05	01/26/12 00:23	10.0
Benzo (b) fluoranthene	**0.899**		0.782	0.397	mg/kg dry	☼	01/24/12 09:05	01/26/12 00:23	10.0
Benzo (g,h,i) perylene	ND		0.782	0.397	mg/kg dry	☼	01/24/12 09:05	01/26/12 00:23	10.0
Benzo (k) fluoranthene	**0.673**	**J**	0.782	0.397	mg/kg dry	☼	01/24/12 09:05	01/26/12 00:23	10.0
Chrysene	**1.58**		0.782	0.397	mg/kg dry	☼	01/24/12 09:05	01/26/12 00:23	10.0
Dibenz (a,h) anthracene	**0.634**	**J**	0.782	0.397	mg/kg dry	☼	01/24/12 09:05	01/26/12 00:23	10.0
Fluoranthene	**2.10**		0.782	0.397	mg/kg dry	☼	01/24/12 09:05	01/26/12 00:23	10.0
Fluorene	**5.15**		0.782	0.397	mg/kg dry	☼	01/24/12 09:05	01/26/12 00:23	10.0
Indeno (1,2,3-cd) pyrene	**0.513**	**J**	0.782	0.397	mg/kg dry	☼	01/24/12 09:05	01/26/12 00:23	10.0
Naphthalene	**12.5**		0.782	0.397	mg/kg dry	☼	01/24/12 09:05	01/26/12 00:23	10.0
Phenanthrene	**9.59**		0.782	0.397	mg/kg dry	☼	01/24/12 09:05	01/26/12 00:23	10.0
Pyrene	**3.22**		0.782	0.397	mg/kg dry	☼	01/24/12 09:05	01/26/12 00:23	10.0
1-Methylnaphthalene	**34.6**		0.782	0.397	mg/kg dry	☼	01/24/12 09:05	01/26/12 00:23	10.0

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*83*		*18 - 120*	*01/24/12 09:05*	*01/26/12 00:23*	*10.0*

Client: EEG - Small Business Group, Inc. (2449)
Project/Site: [none]

TestAmerica Job ID: NWA3573

Client Sample ID: 518 Laurel Bay
Date Collected: 01/19/12 12:00
Date Received: 01/21/12 08:30

Lab Sample ID: NWA3573-03
Matrix: Soil
Percent Solids: 85.2

Method: SW846 8270D - Polyaromatic Hydrocarbons by EPA 8270D - RE1 (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*49*		*14 - 120*	*01/24/12 09:05*	*01/26/12 00:23*	*10.0*
Nitrobenzene-d5	*97*		*17 - 120*	*01/24/12 09:05*	*01/26/12 00:23*	*10.0*

Method: SW846 8270D - Polyaromatic Hydrocarbons by EPA 8270D - RE2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	59.7		3.91	1.98	mg/kg dry	☼	01/24/12 09:05	01/27/12 00:12	50.0

Method: SW-846 - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Dry Solids	85.2		0.500	0.500	%		01/24/12 15:50	01/25/12 08:57	1.00

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B

Lab Sample ID: 12A5222-BLK1
Matrix: Soil
Analysis Batch: V001366

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 12A5222_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00200	0.00110	mg/kg wet		01/24/12 10:16	01/24/12 13:31	1.00
Ethylbenzene	ND		0.00200	0.00110	mg/kg wet		01/24/12 10:16	01/24/12 13:31	1.00
Naphthalene	ND		0.00500	0.00250	mg/kg wet		01/24/12 10:16	01/24/12 13:31	1.00
Toluene	ND		0.00200	0.00110	mg/kg wet		01/24/12 10:16	01/24/12 13:31	1.00
Xylenes, total	ND		0.00500	0.00250	mg/kg wet		01/24/12 10:16	01/24/12 13:31	1.00

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*99*		*70 - 130*	*01/24/12 10:16*	*01/24/12 13:31*	*1.00*
Dibromofluoromethane	*104*		*70 - 130*	*01/24/12 10:16*	*01/24/12 13:31*	*1.00*
Toluene-d8	*100*		*70 - 130*	*01/24/12 10:16*	*01/24/12 13:31*	*1.00*
4-Bromofluorobenzene	*99*		*70 - 130*	*01/24/12 10:16*	*01/24/12 13:31*	*1.00*

Lab Sample ID: 12A5222-BLK2
Matrix: Soil
Analysis Batch: V001366

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 12A5222_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.100	0.0550	mg/kg wet		01/24/12 10:16	01/24/12 14:02	50.0
Ethylbenzene	ND		0.100	0.0550	mg/kg wet		01/24/12 10:16	01/24/12 14:02	50.0
Naphthalene	ND		0.250	0.125	mg/kg wet		01/24/12 10:16	01/24/12 14:02	50.0
Toluene	ND		0.100	0.0550	mg/kg wet		01/24/12 10:16	01/24/12 14:02	50.0
Xylenes, total	ND		0.250	0.125	mg/kg wet		01/24/12 10:16	01/24/12 14:02	50.0

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*98*		*70 - 130*	*01/24/12 10:16*	*01/24/12 14:02*	*50.0*
Dibromofluoromethane	*104*		*70 - 130*	*01/24/12 10:16*	*01/24/12 14:02*	*50.0*
Toluene-d8	*100*		*70 - 130*	*01/24/12 10:16*	*01/24/12 14:02*	*50.0*
4-Bromofluorobenzene	*99*		*70 - 130*	*01/24/12 10:16*	*01/24/12 14:02*	*50.0*

Lab Sample ID: 12A5222-BS1
Matrix: Soil
Analysis Batch: V001366

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 12A5222_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	50.0	54.8		ug/kg		110	75 - 127
Ethylbenzene	50.0	57.1		ug/kg		114	80 - 134
Naphthalene	50.0	56.7		ug/kg		113	69 - 150
Toluene	50.0	55.7		ug/kg		111	80 - 132
Xylenes, total	150	171		ug/kg		114	80 - 137

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4	*99*		*70 - 130*
Dibromofluoromethane	*103*		*70 - 130*
Toluene-d8	*101*		*70 - 130*
4-Bromofluorobenzene	*100*		*70 - 130*

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B (Continued)

Lab Sample ID: 12A5222-MS1
Matrix: Soil
Analysis Batch: V001366

Client Sample ID: 518 Laurel Bay
Prep Type: Total
Prep Batch: 12A5222_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	ND		1.39	1.75		mg/kg dry	☼	126	31 - 143
Ethylbenzene	0.843		1.39	2.64		mg/kg dry	☼	129	23 - 161
Naphthalene	9.02		1.39	10.5		mg/kg dry	☼	106	10 - 176
Toluene	ND		1.39	1.79		mg/kg dry	☼	129	30 - 155
Xylenes, total	0.958		4.17	6.31		mg/kg dry	☼	128	25 - 162

Surrogate	*Matrix Spike %Recovery*	*Matrix Spike Qualifier*	*Limits*
1,2-Dichloroethane-d4	*94*		*70 - 130*
Dibromofluoromethane	*97*		*70 - 130*
Toluene-d8	*112*		*70 - 130*
4-Bromofluorobenzene	*117*		*70 - 130*

Lab Sample ID: 12A5222-MSD1
Matrix: Soil
Analysis Batch: V001366

Client Sample ID: 518 Laurel Bay
Prep Type: Total
Prep Batch: 12A5222_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	ND		1.39	1.53		mg/kg dry	☼	110	31 - 143	13	50
Ethylbenzene	0.843		1.39	2.28		mg/kg dry	☼	103	23 - 161	15	50
Naphthalene	9.02		1.39	9.96		mg/kg dry	☼	67	10 - 176	5	50
Toluene	ND		1.39	1.48		mg/kg dry	☼	107	30 - 155	19	50
Xylenes, total	0.958		4.17	5.36		mg/kg dry	☼	106	25 - 162	16	50

Surrogate	*Matrix Spike Dup %Recovery*	*Matrix Spike Dup Qualifier*	*Limits*
1,2-Dichloroethane-d4	*94*		*70 - 130*
Dibromofluoromethane	*98*		*70 - 130*
Toluene-d8	*108*		*70 - 130*
4-Bromofluorobenzene	*115*		*70 - 130*

Lab Sample ID: 12A6446-BLK1
Matrix: Soil
Analysis Batch: V001371

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 12A6446_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00200	0.00110	mg/kg wet		01/25/12 10:25	01/25/12 12:30	1.00
Ethylbenzene	ND		0.00200	0.00110	mg/kg wet		01/25/12 10:25	01/25/12 12:30	1.00
Naphthalene	ND		0.00500	0.00250	mg/kg wet		01/25/12 10:25	01/25/12 12:30	1.00
Toluene	ND		0.00200	0.00110	mg/kg wet		01/25/12 10:25	01/25/12 12:30	1.00
Xylenes, total	ND		0.00500	0.00250	mg/kg wet		01/25/12 10:25	01/25/12 12:30	1.00

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*96*		*70 - 130*	*01/25/12 10:25*	*01/25/12 12:30*	*1.00*
Dibromofluoromethane	*96*		*70 - 130*	*01/25/12 10:25*	*01/25/12 12:30*	*1.00*
Toluene-d8	*102*		*70 - 130*	*01/25/12 10:25*	*01/25/12 12:30*	*1.00*
4-Bromofluorobenzene	*103*		*70 - 130*	*01/25/12 10:25*	*01/25/12 12:30*	*1.00*

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B (Continued)

Lab Sample ID: 12A6446-BLK2
Matrix: Soil
Analysis Batch: V001371

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 12A6446_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.100	0.0550	mg/kg wet		01/25/12 10:25	01/25/12 13:01	50.0
Ethylbenzene	ND		0.100	0.0550	mg/kg wet		01/25/12 10:25	01/25/12 13:01	50.0
Naphthalene	ND		0.250	0.125	mg/kg wet		01/25/12 10:25	01/25/12 13:01	50.0
Toluene	ND		0.100	0.0550	mg/kg wet		01/25/12 10:25	01/25/12 13:01	50.0
Xylenes, total	ND		0.250	0.125	mg/kg wet		01/25/12 10:25	01/25/12 13:01	50.0

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*95*		*70 - 130*	*01/25/12 10:25*	*01/25/12 13:01*	*50.0*
Dibromofluoromethane	*96*		*70 - 130*	*01/25/12 10:25*	*01/25/12 13:01*	*50.0*
Toluene-d8	*103*		*70 - 130*	*01/25/12 10:25*	*01/25/12 13:01*	*50.0*
4-Bromofluorobenzene	*101*		*70 - 130*	*01/25/12 10:25*	*01/25/12 13:01*	*50.0*

Lab Sample ID: 12A6446-BS1
Matrix: Soil
Analysis Batch: V001371

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 12A6446_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	50.0	53.8		ug/kg		108	75 - 127
Ethylbenzene	50.0	56.9		ug/kg		114	80 - 134
Naphthalene	50.0	60.6		ug/kg		121	69 - 150
Toluene	50.0	57.2		ug/kg		114	80 - 132
Xylenes, total	150	170		ug/kg		113	80 - 137

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4	*97*		*70 - 130*
Dibromofluoromethane	*96*		*70 - 130*
Toluene-d8	*102*		*70 - 130*
4-Bromofluorobenzene	*101*		*70 - 130*

Lab Sample ID: 12A6446-MS1
Matrix: Soil
Analysis Batch: V001371

Client Sample ID: Matrix Spike
Prep Type: Total
Prep Batch: 12A6446_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	ND		0.0450	0.0478		mg/kg wet		106	31 - 143
Ethylbenzene	ND		0.0450	0.0478		mg/kg wet		106	23 - 161
Naphthalene	ND		0.0450	0.0360		mg/kg wet		80	10 - 176
Toluene	ND		0.0450	0.0487		mg/kg wet		108	30 - 155
Xylenes, total	ND		0.135	0.145		mg/kg wet		107	25 - 162

Surrogate	*Matrix Spike %Recovery*	*Matrix Spike Qualifier*	*Limits*
1,2-Dichloroethane-d4	*96*		*70 - 130*
Dibromofluoromethane	*94*		*70 - 130*
Toluene-d8	*102*		*70 - 130*
4-Bromofluorobenzene	*103*		*70 - 130*

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B (Continued)

Lab Sample ID: 12A6446-MSD1
Matrix: Soil
Analysis Batch: V001371

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total
Prep Batch: 12A6446_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	ND		0.0420	0.0435		mg/kg wet		104	31 - 143	10	50
Ethylbenzene	ND		0.0420	0.0423		mg/kg wet		101	23 - 161	12	50
Naphthalene	ND		0.0420	0.0316		mg/kg wet		75	10 - 176	13	50
Toluene	ND		0.0420	0.0428		mg/kg wet		102	30 - 155	13	50
Xylenes, total	ND		0.126	0.127		mg/kg wet		101	25 - 162	13	50

Surrogate	*Matrix Spike Dup %Recovery*	*Matrix Spike Dup Qualifier*	*Limits*
1,2-Dichloroethane-d4	*96*		*70 - 130*
Dibromofluoromethane	*96*		*70 - 130*
Toluene-d8	*100*		*70 - 130*
4-Bromofluorobenzene	*104*		*70 - 130*

Method: SW846 8270D - Polyaromatic Hydrocarbons by EPA 8270D

Lab Sample ID: 12A5304-BLK1
Matrix: Soil
Analysis Batch: 12A5304

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 12A5304_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0670	0.0340	mg/kg wet		01/24/12 09:05	01/24/12 21:51	1.00
Acenaphthylene	ND		0.0670	0.0340	mg/kg wet		01/24/12 09:05	01/24/12 21:51	1.00
Anthracene	ND		0.0670	0.0340	mg/kg wet		01/24/12 09:05	01/24/12 21:51	1.00
Benzo (a) anthracene	ND		0.0670	0.0340	mg/kg wet		01/24/12 09:05	01/24/12 21:51	1.00
Benzo (a) pyrene	ND		0.0670	0.0340	mg/kg wet		01/24/12 09:05	01/24/12 21:51	1.00
Benzo (b) fluoranthene	ND		0.0670	0.0340	mg/kg wet		01/24/12 09:05	01/24/12 21:51	1.00
Benzo (g,h,i) perylene	ND		0.0670	0.0340	mg/kg wet		01/24/12 09:05	01/24/12 21:51	1.00
Benzo (k) fluoranthene	ND		0.0670	0.0340	mg/kg wet		01/24/12 09:05	01/24/12 21:51	1.00
Chrysene	ND		0.0670	0.0340	mg/kg wet		01/24/12 09:05	01/24/12 21:51	1.00
Dibenz (a,h) anthracene	ND		0.0670	0.0340	mg/kg wet		01/24/12 09:05	01/24/12 21:51	1.00
Fluoranthene	ND		0.0670	0.0340	mg/kg wet		01/24/12 09:05	01/24/12 21:51	1.00
Fluorene	ND		0.0670	0.0340	mg/kg wet		01/24/12 09:05	01/24/12 21:51	1.00
Indeno (1,2,3-cd) pyrene	ND		0.0670	0.0340	mg/kg wet		01/24/12 09:05	01/24/12 21:51	1.00
Naphthalene	ND		0.0670	0.0340	mg/kg wet		01/24/12 09:05	01/24/12 21:51	1.00
Phenanthrene	ND		0.0670	0.0340	mg/kg wet		01/24/12 09:05	01/24/12 21:51	1.00
Pyrene	ND		0.0670	0.0340	mg/kg wet		01/24/12 09:05	01/24/12 21:51	1.00
1-Methylnaphthalene	ND		0.0670	0.0340	mg/kg wet		01/24/12 09:05	01/24/12 21:51	1.00
2-Methylnaphthalene	ND		0.0670	0.0340	mg/kg wet		01/24/12 09:05	01/24/12 21:51	1.00

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*83*		*18 - 120*	*01/24/12 09:05*	*01/24/12 21:51*	*1.00*
2-Fluorobiphenyl	*57*		*14 - 120*	*01/24/12 09:05*	*01/24/12 21:51*	*1.00*
Nitrobenzene-d5	*56*		*17 - 120*	*01/24/12 09:05*	*01/24/12 21:51*	*1.00*

Lab Sample ID: 12A5304-BS1
Matrix: Soil
Analysis Batch: 12A5304

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 12A5304_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	1.67	1.20		mg/kg wet		72	36 - 120

Method: SW846 8270D - Polyaromatic Hydrocarbons by EPA 8270D (Continued)

Lab Sample ID: 12A5304-BS1
Matrix: Soil
Analysis Batch: 12A5304

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 12A5304_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthylene	1.67	1.08		mg/kg wet		65	38 - 120
Anthracene	1.67	1.25		mg/kg wet		75	46 - 124
Benzo (a) anthracene	1.67	1.26		mg/kg wet		75	45 - 120
Benzo (a) pyrene	1.67	1.27		mg/kg wet		76	45 - 120
Benzo (b) fluoranthene	1.67	1.18		mg/kg wet		71	42 - 120
Benzo (g,h,i) perylene	1.67	1.24		mg/kg wet		74	38 - 120
Benzo (k) fluoranthene	1.67	1.13		mg/kg wet		68	42 - 120
Chrysene	1.67	1.23		mg/kg wet		74	43 - 120
Dibenz (a,h) anthracene	1.67	1.07		mg/kg wet		64	32 - 128
Fluoranthene	1.67	1.25		mg/kg wet		75	46 - 120
Fluorene	1.67	1.25		mg/kg wet		75	42 - 120
Indeno (1,2,3-cd) pyrene	1.67	1.15		mg/kg wet		69	41 - 121
Naphthalene	1.67	1.29		mg/kg wet		78	32 - 120
Phenanthrene	1.67	1.23		mg/kg wet		74	45 - 120
Pyrene	1.67	1.22		mg/kg wet		73	43 - 120
1-Methylnaphthalene	1.67	0.938		mg/kg wet		56	32 - 120
2-Methylnaphthalene	1.67	1.18		mg/kg wet		71	28 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Terphenyl-d14	*74*		*18 - 120*
2-Fluorobiphenyl	*60*		*14 - 120*
Nitrobenzene-d5	*60*		*17 - 120*

Lab Sample ID: 12A5304-MS1
Matrix: Soil
Analysis Batch: 12A5304

Client Sample ID: 1349 Cardinal
Prep Type: Total
Prep Batch: 12A5304_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	ND		1.89	1.20		mg/kg dry	☼	63	19 - 120
Acenaphthylene	ND		1.89	1.08		mg/kg dry	☼	57	25 - 120
Anthracene	ND		1.89	1.24		mg/kg dry	☼	66	28 - 125
Benzo (a) anthracene	ND		1.89	1.26		mg/kg dry	☼	67	23 - 120
Benzo (a) pyrene	ND		1.89	1.27		mg/kg dry	☼	67	15 - 128
Benzo (b) fluoranthene	ND		1.89	1.31		mg/kg dry	☼	69	12 - 133
Benzo (g,h,i) perylene	ND		1.89	1.22		mg/kg dry	☼	65	22 - 120
Benzo (k) fluoranthene	ND		1.89	1.05		mg/kg dry	☼	56	28 - 120
Chrysene	ND		1.89	1.21		mg/kg dry	☼	64	20 - 120
Dibenz (a,h) anthracene	ND		1.89	1.08		mg/kg dry	☼	57	12 - 128
Fluoranthene	ND		1.89	1.30		mg/kg dry	☼	69	10 - 143
Fluorene	ND		1.89	1.24		mg/kg dry	☼	66	20 - 120
Indeno (1,2,3-cd) pyrene	ND		1.89	1.15		mg/kg dry	☼	61	22 - 121
Naphthalene	ND		1.89	1.32		mg/kg dry	☼	70	10 - 120
Phenanthrene	ND		1.89	1.25		mg/kg dry	☼	66	21 - 122
Pyrene	ND		1.89	1.19		mg/kg dry	☼	63	20 - 123
1-Methylnaphthalene	ND		1.89	0.935		mg/kg dry	☼	50	10 - 120
2-Methylnaphthalene	ND		1.89	1.17		mg/kg dry	☼	62	13 - 120

Surrogate	*Matrix Spike %Recovery*	*Matrix Spike Qualifier*	*Limits*
Terphenyl-d14	*64*		*18 - 120*

Method: SW846 8270D - Polyaromatic Hydrocarbons by EPA 8270D (Continued)

Lab Sample ID: 12A5304-MS1
Matrix: Soil
Analysis Batch: 12A5304

Client Sample ID: 1349 Cardinal
Prep Type: Total
Prep Batch: 12A5304_P

Surrogate	*Matrix Spike %Recovery*	*Matrix Spike Qualifier*	*Limits*
2-Fluorobiphenyl	*51*		*14 - 120*
Nitrobenzene-d5	*50*		*17 - 120*

Lab Sample ID: 12A5304-MSD1
Matrix: Soil
Analysis Batch: 12A5304

Client Sample ID: 1349 Cardinal
Prep Type: Total
Prep Batch: 12A5304_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acenaphthene	ND		1.91	1.32		mg/kg dry	☼	69	19 - 120	10	50
Acenaphthylene	ND		1.91	1.22		mg/kg dry	☼	64	25 - 120	12	50
Anthracene	ND		1.91	1.38		mg/kg dry	☼	72	28 - 125	11	49
Benzo (a) anthracene	ND		1.91	1.38		mg/kg dry	☼	72	23 - 120	9	50
Benzo (a) pyrene	ND		1.91	1.39		mg/kg dry	☼	73	15 - 128	10	50
Benzo (b) fluoranthene	ND		1.91	1.46		mg/kg dry	☼	76	12 - 133	11	50
Benzo (g,h,i) perylene	ND		1.91	1.34		mg/kg dry	☼	70	22 - 120	9	50
Benzo (k) fluoranthene	ND		1.91	1.17		mg/kg dry	☼	61	28 - 120	10	45
Chrysene	ND		1.91	1.33		mg/kg dry	☼	69	20 - 120	9	49
Dibenz (a,h) anthracene	ND		1.91	1.20		mg/kg dry	☼	63	12 - 128	11	50
Fluoranthene	ND		1.91	1.43		mg/kg dry	☼	75	10 - 143	10	50
Fluorene	ND		1.91	1.41		mg/kg dry	☼	74	20 - 120	13	50
Indeno (1,2,3-cd) pyrene	ND		1.91	1.26		mg/kg dry	☼	66	22 - 121	9	50
Naphthalene	ND		1.91	1.49		mg/kg dry	☼	78	10 - 120	13	50
Phenanthrene	ND		1.91	1.37		mg/kg dry	☼	72	21 - 122	9	50
Pyrene	ND		1.91	1.32		mg/kg dry	☼	69	20 - 123	10	50
1-Methylnaphthalene	ND		1.91	1.04		mg/kg dry	☼	54	10 - 120	11	50
2-Methylnaphthalene	ND		1.91	1.34		mg/kg dry	☼	70	13 - 120	13	50

Surrogate	*Matrix Spike Dup %Recovery*	*Matrix Spike Dup Qualifier*	*Limits*
Terphenyl-d14	*68*		*18 - 120*
2-Fluorobiphenyl	*56*		*14 - 120*
Nitrobenzene-d5	*57*		*17 - 120*

Method: SW-846 - General Chemistry Parameters

Lab Sample ID: 12A5758-DUP1
Matrix: Soil
Analysis Batch: 12A5758

Client Sample ID: Duplicate
Prep Type: Total
Prep Batch: 12A5758_P

Analyte	Sample Result	Sample Qualifier	Duplicate Result	Duplicate Qualifier	Unit	D	RPD	RPD Limit
% Dry Solids	81.4		80.8		%		0.8	20

QC Association Summary

Client: EEG - Small Business Group, Inc. (2449)
Project/Site: [none]

TestAmerica Job ID: NWA3573

GCMS Volatiles

Analysis Batch: V001366

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12A5222-BLK1	Method Blank	Total	Soil	SW846 8260B	12A5222_P
12A5222-BLK2	Method Blank	Total	Soil	SW846 8260B	12A5222_P
12A5222-BS1	Lab Control Sample	Total	Soil	SW846 8260B	12A5222_P
12A5222-MS1	518 Laurel Bay	Total	Soil	SW846 8260B	12A5222_P
12A5222-MSD1	518 Laurel Bay	Total	Soil	SW846 8260B	12A5222_P
NWA3573-01	1349 Cardinal	Total	Soil	SW846 8260B	12A5222_P
NWA3573-02	334 Ash	Total	Soil	SW846 8260B	12A5222_P
NWA3573-03	518 Laurel Bay	Total	Soil	SW846 8260B	12A5222_P
NWA3573-03 - RE1	518 Laurel Bay	Total	Soil	SW846 8260B	12A5222_P

Analysis Batch: V001371

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12A6446-BLK1	Method Blank	Total	Soil	SW846 8260B	12A6446_P
12A6446-BLK2	Method Blank	Total	Soil	SW846 8260B	12A6446_P
12A6446-BS1	Lab Control Sample	Total	Soil	SW846 8260B	12A6446_P
12A6446-MS1	Matrix Spike	Total	Soil	SW846 8260B	12A6446_P
12A6446-MSD1	Matrix Spike Duplicate	Total	Soil	SW846 8260B	12A6446_P
NWA3573-03 - RE2	518 Laurel Bay	Total	Soil	SW846 8260B	12A6446_P

Prep Batch: 12A5222_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12A5222-BLK1	Method Blank	Total	Soil	EPA 5035	
12A5222-BLK2	Method Blank	Total	Soil	EPA 5035	
12A5222-BS1	Lab Control Sample	Total	Soil	EPA 5035	
12A5222-MS1	518 Laurel Bay	Total	Soil	EPA 5035	
12A5222-MSD1	518 Laurel Bay	Total	Soil	EPA 5035	
NWA3573-01	1349 Cardinal	Total	Soil	EPA 5035	
NWA3573-02	334 Ash	Total	Soil	EPA 5035	
NWA3573-03	518 Laurel Bay	Total	Soil	EPA 5035	
NWA3573-03 - RE1	518 Laurel Bay	Total	Soil	EPA 5035	

Prep Batch: 12A6446_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12A6446-BLK1	Method Blank	Total	Soil	EPA 5035	
12A6446-BLK2	Method Blank	Total	Soil	EPA 5035	
12A6446-BS1	Lab Control Sample	Total	Soil	EPA 5035	
12A6446-MS1	Matrix Spike	Total	Soil	EPA 5035	
12A6446-MSD1	Matrix Spike Duplicate	Total	Soil	EPA 5035	
NWA3573-03 - RE2	518 Laurel Bay	Total	Soil	EPA 5035	

GCMS Semivolatiles

Analysis Batch: 12A5304

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12A5304-BLK1	Method Blank	Total	Soil	SW846 8270D	12A5304_P
12A5304-BS1	Lab Control Sample	Total	Soil	SW846 8270D	12A5304_P
12A5304-MS1	1349 Cardinal	Total	Soil	SW846 8270D	12A5304_P
12A5304-MSD1	1349 Cardinal	Total	Soil	SW846 8270D	12A5304_P
NWA3573-01	1349 Cardinal	Total	Soil	SW846 8270D	12A5304_P
NWA3573-02	334 Ash	Total	Soil	SW846 8270D	12A5304_P
NWA3573-03 - RE2	518 Laurel Bay	Total	Soil	SW846 8270D	12A5304_P

GCMS Semivolatiles (Continued)

Analysis Batch: V001286

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
NWA3573-03 - RE1	518 Laurel Bay	Total	Soil	SW846 8270D	12A5304_P

Prep Batch: 12A5304_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12A5304-BLK1	Method Blank	Total	Soil	EPA 3550C	
12A5304-BS1	Lab Control Sample	Total	Soil	EPA 3550C	
12A5304-MS1	1349 Cardinal	Total	Soil	EPA 3550C	
12A5304-MSD1	1349 Cardinal	Total	Soil	EPA 3550C	
NWA3573-01	1349 Cardinal	Total	Soil	EPA 3550C	
NWA3573-02	334 Ash	Total	Soil	EPA 3550C	
NWA3573-03 - RE1	518 Laurel Bay	Total	Soil	EPA 3550C	
NWA3573-03 - RE2	518 Laurel Bay	Total	Soil	EPA 3550C	

Extractions

Analysis Batch: 12A5758

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12A5758-DUP1	Duplicate	Total	Soil	SW-846	12A5758_P
NWA3573-01	1349 Cardinal	Total	Soil	SW-846	12A5758_P
NWA3573-02	334 Ash	Total	Soil	SW-846	12A5758_P
NWA3573-03	518 Laurel Bay	Total	Soil	SW-846	12A5758_P

Prep Batch: 12A5758_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12A5758-DUP1	Duplicate	Total	Soil	% Solids	
NWA3573-01	1349 Cardinal	Total	Soil	% Solids	
NWA3573-02	334 Ash	Total	Soil	% Solids	
NWA3573-03	518 Laurel Bay	Total	Soil	% Solids	

Lab Chronicle

Client: EEG - Small Business Group, Inc. (2449)
Project/Site: [none]

TestAmerica Job ID: NWA3573

Client Sample ID: 1349 Cardinal

Lab Sample ID: NWA3573-01

Date Collected: 01/16/12 15:00
Matrix: Soil
Date Received: 01/21/12 08:30
Percent Solids: 87

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	EPA 5035		1.13	12A5222_P	01/16/12 15:00	AAN	TAL NSH
Total	Analysis	SW846 8260B		1.00	V001366	01/24/12 20:18	KKK H	TAL NSH
Total	Prep	EPA 3550C		0.989	12A5304_P	01/24/12 09:05	MWT	TAL NSH
Total	Analysis	SW846 8270D		1.00	12A5304	01/24/12 22:51	KJP	TAL NSH
Total	Prep	% Solids		1.00	12A5758_P	01/24/12 15:50	RRS	TAL NSH
Total	Analysis	SW-846		1.00	12A5758	01/25/12 08:57	RRS	TAL NSH

Client Sample ID: 334 Ash

Lab Sample ID: NWA3573-02

Date Collected: 01/18/12 16:15
Matrix: Soil
Date Received: 01/21/12 08:30
Percent Solids: 85.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	EPA 5035		0.936	12A5222_P	01/18/12 16:15	AAN	TAL NSH
Total	Analysis	SW846 8260B		1.00	V001366	01/24/12 20:49	KKK H	TAL NSH
Total	Prep	EPA 3550C		0.985	12A5304_P	01/24/12 09:05	MWT	TAL NSH
Total	Analysis	SW846 8270D		1.00	12A5304	01/24/12 23:12	KJP	TAL NSH
Total	Prep	% Solids		1.00	12A5758_P	01/24/12 15:50	RRS	TAL NSH
Total	Analysis	SW-846		1.00	12A5758	01/25/12 08:57	RRS	TAL NSH

Client Sample ID: 518 Laurel Bay

Lab Sample ID: NWA3573-03

Date Collected: 01/19/12 12:00
Matrix: Soil
Date Received: 01/21/12 08:30
Percent Solids: 85.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	EPA 5035		0.912	12A5222_P	01/19/12 12:00	AAN	TAL NSH
Total	Analysis	SW846 8260B		1.00	V001366	01/24/12 21:20	KKK H	TAL NSH
Total	Prep	EPA 5035	RE1	0.474	12A5222_P	01/19/12 12:00	AAN	TAL NSH
Total	Analysis	SW846 8260B	RE1	50.0	V001366	01/24/12 21:52	KKK H	TAL NSH
Total	Prep	EPA 5035	RE2	0.474	12A6446_P	01/19/12 12:00	AAN	TAL NSH
Total	Analysis	SW846 8260B	RE2	500	V001371	01/25/12 14:35	KKK H	TAL NSH
Total	Prep	EPA 3550C	RE1	0.995	12A5304_P	01/24/12 09:05	MWT	TAL NSH
Total	Analysis	SW846 8270D	RE1	10.0	V001286	01/26/12 00:23	KJP	TAL NSH
Total	Prep	EPA 3550C	RE2	0.995	12A5304_P	01/24/12 09:05	MWT	TAL NSH
Total	Analysis	SW846 8270D	RE2	50.0	12A5304	01/27/12 00:12	KJP	TAL NSH
Total	Prep	% Solids		1.00	12A5758_P	01/24/12 15:50	RRS	TAL NSH
Total	Analysis	SW-846		1.00	12A5758	01/25/12 08:57	RRS	TAL NSH

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Road, Nashville, TN 37204, TEL 800-765-0980

Method Summary

Client: EEG - Small Business Group, Inc. (2449)
Project/Site: [none]

TestAmerica Job ID: NWA3573

Method	Method Description	Protocol	Laboratory
SW-846	General Chemistry Parameters		TAL NSH
SW846 8260B	Volatile Organic Compounds by EPA Method 8260B		TAL NSH
SW846 8270D	Polyaromatic Hydrocarbons by EPA 8270D		TAL NSH

Protocol References:

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Road, Nashville, TN 37204, TEL 800-765-0980

Certification Summary

Client: EEG - Small Business Group, Inc. (2449)
Project/Site: [none]

TestAmerica Job ID: NWA3573

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Nashville		ACIL		393
TestAmerica Nashville	A2LA	ISO/IEC 17025		0453.07
TestAmerica Nashville	A2LA	WY UST		453.07
TestAmerica Nashville	Alabama	State Program	4	41150
TestAmerica Nashville	Alaska	Alaska UST	10	UST-087
TestAmerica Nashville	Arizona	State Program	9	AZ0473
TestAmerica Nashville	Arkansas	State Program	6	88-0737
TestAmerica Nashville	California	NELAC	9	1168CA
TestAmerica Nashville	Canada (CALA)	Canada (CALA)		3744
TestAmerica Nashville	Colorado	State Program	8	N/A
TestAmerica Nashville	Connecticut	State Program	1	PH-0220
TestAmerica Nashville	Florida	NELAC	4	E87358
TestAmerica Nashville	Illinois	NELAC	5	200010
TestAmerica Nashville	Iowa	State Program	7	131
TestAmerica Nashville	Kansas	NELAC	7	E-10229
TestAmerica Nashville	Kentucky	Kentucky UST	4	19
TestAmerica Nashville	Kentucky	State Program	4	90038
TestAmerica Nashville	Louisiana	NELAC	6	30613
TestAmerica Nashville	Louisiana	NELAC	6	LA110014
TestAmerica Nashville	Maryland	State Program	3	316
TestAmerica Nashville	Massachusetts	State Program	1	M-TN032
TestAmerica Nashville	Mississippi	State Program	4	N/A
TestAmerica Nashville	Montana	MT DEQ UST	8	NA
TestAmerica Nashville	New Hampshire	NELAC	1	2963
TestAmerica Nashville	New Jersey	NELAC	2	TN965
TestAmerica Nashville	New York	NELAC	2	11342
TestAmerica Nashville	North Carolina	North Carolina DENR	4	387
TestAmerica Nashville	North Dakota	State Program	8	R-146
TestAmerica Nashville	Ohio	OVAP	5	CL0033
TestAmerica Nashville	Oklahoma	State Program	6	9412
TestAmerica Nashville	Oregon	NELAC	10	TN200001
TestAmerica Nashville	Pennsylvania	NELAC	3	68-00585
TestAmerica Nashville	Rhode Island	State Program	1	LAO00268
TestAmerica Nashville	South Carolina	State Program	4	84009
TestAmerica Nashville	South Carolina	State Program	4	84009
TestAmerica Nashville	Tennessee	State Program	4	2008
TestAmerica Nashville	Texas	NELAC	6	T104704077-09-TX
TestAmerica Nashville	USDA	USDA		S-48469
TestAmerica Nashville	Utah	NELAC	8	TAN
TestAmerica Nashville	Virginia	NELAC Secondary AB	3	460152
TestAmerica Nashville	Virginia	State Program	3	00323
TestAmerica Nashville	Washington	State Program	10	C789
TestAmerica Nashville	West Virginia	West Virginia DEP	3	219
TestAmerica Nashville	Wisconsin	State Program	5	998020430

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

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 - SBG # 2449

Address: 10179 Highway 78

City/State/Zip: Ladson, SC 29456

Site State: SC

Project Manager: Tom McElwee email: mcelwee@eeginc.net

PO#: 1027

Telephone Number: 843.412.2097 Fax No.: (843) 879-0401

TA Quote #:

Sampler Name: (Print) PRATH SHAW

Project ID: Laurel Bay Housing Project

Sampler Signature:

Project #:

Sample ID / Description	Date Sampled	Time Sampled	No. of Containers Shipped	Grab	Composite	Field Filtered	Preservative: Ice	HNO3 (Red Label)	HCl (Blue Label)	NaOH (Orange Label)	H2SO4 Plastic (Yellow Label)	H2SO4 Glass (Yellow Label)	None (Black Label)	Other (Specify) Methanol	Matrix: Groundwater	Wastewater	Drinking Water	Sludge	Soil	Other (specify):	Analyze For: BTEX + Napth - 8260B	PAH - 8270D									RUSH TAT (Pre-Schedule)
1349 CARDINAL	1/16/12	1500	5	X					2				2	1					X		X	X									
334 Ash	1/18/12	1615	5	X					2				2	1					X		X	X									
518 Laurel Bay	1/19/12	1200	5	X					2				2	1					X		X	X									

NWA3573
02/06/12 23:59

Special Instructions:

Method of Shipment: FEDEX

Relinquished by:	Date	Time	Received by:	Date	Time
	1/20/12	1000	Fedex		
Relinquished by:	Date	Time	Received by TestAmerica:	Date	Time
				1-21-12	8:30

Laboratory Comments:
Temperature Upon Receipt: 1.0
VOCs Free of Headspace? Y

ATTACHMENT A

NON-HAZARDOUS MANIFEST

WM STE WASTE MANAGEMENT

NON-HAZARDOUS MANIFEST	1. Generator's US EPA ID No.	Manifest Doc No.	2. Page 1 of 1	

GENERATOR

3. Generator's Mailing Address:	Generator's Site Address (If different than mailing):	A. Manifest Number	
MCAS, BEAUFORT LAUREL BAY HOUSING BEAUFORT, SC 29907 **4. Generator's Phone** 843-228-6461		WMNA	00316823
		B. State Generator's ID	

5. Transporter 1 Company Name	6. US EPA ID Number	C. State Transporter's ID	
EEG, INC.		D. Transporter's Phone	843-879-0411
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	10. US EPA ID Number	G. State Facility ID	
HICKORY HILL LANDFILL 2621 LOW COUNTRY ROAD RIDGELAND, SC 29936		H. State Facility Phone	843-987-4643

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 FILLED WITH SAND WM Profile # 102655SC					
b. WM Profile #					
c. WM Profile #					
d. WM Profile #					

J. Additional Descriptions for Materials Listed Above	K. Disposal Location			
	Cell		Level	
	Grid			

15. Special Handling Instructions and Additional Information
UST's from 1) 1349 Cardinal 2) 518 Laurel Bay ✓ 3) 325 Ash-2 ✓ 4) 371 Aspen ✓ 5) 1452 Cardinal ✓ 6) 377 Aspen

Purchase Order # EMERGENCY CONTACT / PHONE NO.:

16. GENERATOR'S CERTIFICATE:
I hereby certify that the above-described materials are not hazardous wastes as defined by 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
Timothy Whaley	Timothy Whaley	02	29	12

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed Name	Signature	Month	Day	Year
James Baldwin	James Baldwin	3	1	12

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed Name	Signature	Month	Day	Year

FACILITY

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

Printed Name	Signature	Month	Day	Year
Toni Cofield	Toni Cofield	3	1	12

White- TREATMENT, STORAGE, DISPOSAL FACILITY COPY Blue- GENERATOR #2 COPY Yellow- GENERATOR #1 COPY

Pink- FACILITY USE ONLY Gold- TRANSPORTER #1 COPY

Appendix C

Laboratory Analytical Report - Initial Groundwater

CDM - AECOM

Multimedia Joint Venture

Volatile Organic Compounds by GC/MS

Client: **AECOM - Resolution Consultants**
Laboratory ID: **QF10006-013**
Description: **BEALB518TW01WG20150610**
Matrix: **Aqueous**
Date Sampled: **06/10/2015 0915**
Date Received: **06/11/2015**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	06/16/2015 0401	PMM2		77325

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	LOD	DL	Units	Run
Benzene	71-43-2	8260B	0.45	U	5.0	0.45	0.21	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**2.6**	**J**	**5.0**	0.51	**0.21**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**47**		**5.0**	0.96	**0.14**	**ug/L**	**1**
Toluene	108-88-3	8260B	0.48	U	5.0	0.48	0.24	ug/L	1
Xylenes (total)	**1330-20-7**	**8260B**	**4.1**	**J**	**5.0**	0.57	**0.19**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		88	75-120
1,2-Dichloroethane-d4		97	70-120
Toluene-d8		88	85-120
Dibromofluoromethane		90	85-115

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
Q = Surrogate failure
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
L = LCS/LCSD failure
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
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 (SIM)

Client: **AECOM - Resolution Consultants**
Laboratory ID: **QF10006-013**
Description: **BEALB518TW01WG20150610**
Matrix: **Aqueous**
Date Sampled: **06/10/2015 0915**
Date Received: **06/11/2015**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D (SIM)	1	06/19/2015 1903	RBH	06/11/2015 1657	77073

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	LOD	DL	Units	Run
Benzo(a)anthracene	56-55-3	8270D (SIM)	0.040	U	0.20	0.040	0.019	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D (SIM)	0.040	U	0.20	0.040	0.019	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D (SIM)	0.040	U	0.20	0.040	0.024	ug/L	1
Chrysene	218-01-9	8270D (SIM)	0.040	U	0.20	0.040	0.021	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D (SIM)	0.080	U	0.20	0.080	0.040	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Methylnaphthalene-d10		74	15-139
Fluoranthene-d10		71	23-154

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
Q = Surrogate failure
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
L = LCS/LCSD failure
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
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

Appendix D

Laboratory Analytical Report – Permanent Well Groundwater

CDM - AECOM

Multimedia Joint Venture

Volatile Organic Compounds by GC/MS

Client: AECOM - Resolution Consultants
Laboratory ID: RG27006-018
Description: BEALB518MW01WG20160726
Matrix: Aqueous
Date Sampled: 07/26/2016 1440
Date Received: 07/27/2016

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	07/28/2016 0122	ECP		18488

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	1.5		1.0	0.80	0.40	ug/L	1
Naphthalene	91-20-3	8260B	20		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	2.6		1.0	0.80	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		101	85-114
Dibromofluoromethane		95	80-119
1,2-Dichloroethane-d4		99	81-118
Toluene-d8		104	89-112

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
Q = Surrogate failure
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
L = LCS/LCSD failure
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
S = MS/MSD failure

Semivolatile Organic Compounds by GC/MS

Client: AECOM - Resolution Consultants
Laboratory ID: RG27006-018
Description: BEALB518MW01WG20160726
Matrix: Aqueous
Date Sampled: 07/26/2016 1440
Date Received: 07/27/2016

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	08/03/2016 1855	RBH	08/01/2016 1236	18706

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	0.16	J	0.20	0.10	0.040	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	0.15	J	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	0.15	J	0.20	0.10	0.040	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Nitrobenzene-d5		67	44-120
2-Fluorobiphenyl		63	44-119
Terphenyl-d14		86	50-134

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
Q = Surrogate failure
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
L = LCS/LCSD failure
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
S = MS/MSD failure

Appendix E
Regulatory Correspondence

CDM - AECOM
Multimedia Joint Venture

D H E C

PROMOTE PROTECT PROSPER

Catherine B. Templeton, Director

May 15, 2014

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

RE: IGWA
Laurel Bay Underground Storage Tank Assessment Reports for:
See attached sheet

Dear Mr. Drawdy,

The South Carolina Department of Health and Environmental Control (the Department) received the above referenced Underground Storage Tank Assessment Reports for the addresses listed above. 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).

The Department has reviewed the referenced assessment reports. The submitted analytical results indicate that petroleum constituents are above established Risk-Based Screening Levels and additional investigation is warranted. Specifically, the Department requests that a groundwater sampling proposal be generated to determine if there has been an impact to groundwater at this site.

Please note that the Department's decision is based on information provided by the Marine Corps 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 kriegkm@dhec.sc.gov or 803-898-0255.

Sincerely,

Kent Krieg
Department of Defense Corrective Action Section
Bureau of Land and Waste Management
South Carolina Department of Health and Environmental Control

Cc: Russell Berry (via email)
Craig Ehde (via email)

Attachment to: Krieg to Drawdy
Subject: IGWA
Dated 5/15/2014

Laurel Bay Underground Storage Tank Assessment Reports for: (121 addresses/139 tanks)

137 Laurel Bay Tank 2	387 Acorn
139 Laurel Bay	392 Acorn Tank 2
229 Cypress Tank 2	396 Acorn Tank 1
261 Beech Tank 1	396 Acorn Tank 2
261 Beech Tank 3	430 Elderberry
273 Birch Tank 1	433 Elderberry
273 Birch Tank 2	439 Elderberry
273 Birch Tank 3	440 Elderberry
276 Birch Tank 2	442 Elderberry
278 Birch Tank 2	443 Elderberry
291 Birch Tank 2	444 Elderberry Tank 1
300 Ash	445 Elderberry
304 Ash	446 Elderberry
314 Ash Tank 1	448 Elderberry
314 Ash Tank 2	449 Elderberry
322 Ash Tank 2	451 Elderberry
323 Ash	453 Elderberry
324 Ash	456 Elderberry Tank 1
325 Ash Tank 1	456 Elderberry Tank 2
325 Ash Tank 2	458 Elderberry Tank 1
326 Ash	458 Elderberry Tank 3
336 Ash	464 Dogwood
339 Ash	466 Dogwood
343 Ash Tank 1	467 Dogwood
344 Ash Tank 1	468 Dogwood
348 Ash	469 Dogwood
349 Ash Tank 1	471 Dogwood Tank 2
353 Ash Tank 1	471 Dogwood Tank 3
362 Aspen	475 Dogwood Tank 1
376 Aspen	475 Dogwood Tank 2
380 Aspen	516 Laurel Bay Tank 1 (UST#03747)
383 Aspen Tank 2	518 Laurel Bay

Laurel Bay Underground Storage Tank Assessment Reports for: (121 addresses/139 tanks) cont.

531 Laurel Bay	1219 Cardinal
532 Laurel Bay	1272 Albatross
635 Dahlia Tank 2	1305 Eagle
638 Dahlia	1353 Cardinal
640 Dahlia Tank 1	1356 Cardinal
640 Dahlia Tank 2	1357 Cardinal
645 Dahlia	1359 Cardinal
647 Dahlia	1360 Cardinal
648 Dahlia Tank 2	1361 Cardinal
650 Dahlia Tank 1	1368 Cardinal
650 Dahlia Tank 2	1370 Cardinal Tank 1
652 Dahlia Tank 1	1377 Dove
652 Dahlia Tank 2	1381 Dove
760 Althea	1382 Dove
763 Althea	1384 Dove
771 Althea	1385 Dove
927 Albacore	1389 Dove
1015 Foxglove	1391 Dove
1046 Gardenia	1392 Dove
1062 Gardenia Tank 2	1393 Dove Tank 1
1070 Heather	1393 Dove Tank 2
1072 Heather	1406 Eagle
1102 Iris Tank 1	1407 Eagle Tank 1
1107 Iris	1411 Eagle Tank 1
1126 Iris	1411 Eagle Tank 2
1129 Iris	1412 Eagle
1132 Iris	1413 Albatross
1133 Iris Tank 1	1414 Albatross
1138 Iris	1422 Albatross
1144 Iris Tank 1	1425 Albatross
1144 Iris Tank 2	1426 Albatross
1148 Iris Tank 1	1432 Dove
1148 Iris Tank 2	1434 Dove
1161 Jasmine	1436 Dove
1167 Jasmine	1438 Dove Tank 1
1170 Jasmine	1440 Dove
1190 Bobwhite	1442 Dove Tank 1
1192 Bobwhite	

D H E C
PROMOTE PROTECT PROSPER
Catherine E. Heigel, Director
Promoting and protecting the health of the public and the environment

Division of Waste Management
Bureau of Land and Waste Management

February 22, 2016

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

RE: Approval and Concurrence with Draft Final Initial Groundwater Investigation Report-May and June 2015
Laurel Bay Military Housing Area Multiple Properties
Dated October 2015

Dear Mr. Drawdy,

The South Carolina Department of Health and Environmental Control (the Department) received groundwater data in the above referenced Groundwater Investigation Report for the addresses attached. 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).

Per the Department's request, groundwater samples were collected from the attached referenced addresses. The Department reviewed the groundwater data and previous investigations and it agrees with the conclusions and recommendations included in the document. To further assess the impact to groundwater, permanent wells should be installed at the 52 stated addresses. For the remaining 91 addresses, there is no indication of contamination on the 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 Corps 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 petruslb@dhec.sc.gov or 803-898-0294.

Sincerely,

Laurel Petrus
RCRA Federal Facilities Section

Attachment: Specific Property Recommendations

Cc: Russell Berry, EQC Region 8 (via email)
Shawn Dolan, Resolution Consultants (via email)
Bryan Beck, NAVFAC MIDATLANTIC (via email)
Craig Ehde (via email)

Attachment to: Petrus to Drawdy
Subject: Draft Final Initial Groundwater Investigation Report-May and June 2015
Specific Property Recommendations
Dated February 22, 2016

Draft Final Initial Groundwater Investigation Report for (143 addresses)

Permanent Monitoring Well Investigation recommendation (52 addresses)	
273 Birch Drive	1192 Bobwhite Drive
325 Ash Street	1194 Bobwhite Drive
326 Ash Street	1272 Albatross Drive
336 Ash Street	1352 Cardinal Lane
343 Ash Street	1356 Cardinal Lane
353 Ash Street	1359 Cardinal Lane
430 Elderberry Drive	1360 Cardinal Lane
440 Elderberry Drive	1362 Cardinal Lane
456 Elderberry Drive	1370 Cardinal Lane
458 Elderberry Drive	1382 Dove Lane
468 Dogwood Drive	1384 Dove lane
518 Laurel Bay Blvd	1385 Dove Lane
635 Dahlia Drive	1389 Dove Lane
638 Dahlia Drive	1392 Dove Lane
640 Dahlia Drive	1393 Dove Lane
647 Dahlia Drive	1407 Eagle Lane
648 Dahlia Drive	1411 Eagle Lane
650 Dahlia Drive	1418 Albatross Drive
652 Dahlia Drive	1420 Albatross Drive
760 Althea Street	1426 Albatross Drive
1102 Iris Lane	1429 Albatross Drive
1132 Iris Lane	1434 Dove Lane
1133 Iris Lane	1436 Dove Lane
1144 Iris Lane	1440 Dove Lane
1148 Iris Lane	1442 Dove Lane
1186 Bobwhite Drive	1444 Dove Lane
No Further Action recommendation (91 addresses):	
137 Laurel Bay Blvd	771 Althea Street
139 Laurel Bay Blvd	927 Albacore Street
229 Cypress Street	1015 Foxglove Street
261 Beech Street	1046 Gardenia Drive
276 Birch Drive	1062 Gardenia Drive
278 Birch Drive	1070 Heather Street
291 Birch Drive	1072 Heather Street

300 Ash Street	1107 Iris Lane
304 Ash Street	1126 Iris Lane
314 Ash Street	1129 Iris Lane
322 Ash Street	1138 Iris Lane
323 Ash Street	1161 Jasmine Street
324 Ash Street	1167 Jasmine Street
339 Ash Street	1170 Jasmine Street
344 Ash Street	1190 Bobwhite Drive
348 Ash Street	1219 Cardinal Lane
349 Ash Street	1305 Eagle Lane
362 Aspen Street	1353 Cardinal Lane
376 Aspen Street	1354 Cardinal Lane
380 Aspen Street	1357 Cardinal Lane
383 Aspen Street	1361 Cardinal Lane
387 Acorn Drive	1364 Cardinal Lane
392 Acorn Drive	1368 Cardinal Lane
396 Acorn Drive	1377 Dove Lane
433 Elderberry Drive	1381 Dove Lane
439 Elderberry Drive	1391 Dove Lane
442 Elderberry Drive	1403 Eagle Lane
443 Elderberry Drive	1404 Eagle Lane
444 Elderberry Drive	1405 Eagle Lane
445 Elderberry Drive	1406 Eagle Lane
446 Elderberry Drive	1408 Eagle Lane
448 Elderberry Drive	1410 Eagle Lane
449 Elderberry Drive	1412 Eagle Lane
451 Elderberry Drive	1413 Albatross Drive
453 Elderberry Drive	1414 Albatross Drive
464 Dogwood Drive	1417 Albatross Drive
466 Dogwood Drive	1421 Albatross Drive
467 Dogwood Drive	1422 Albatross Drive
469 Dogwood Drive	1425 Albatross Drive
471 Dogwood Drive	1427 Albatross Drive
475 Dogwood Drive	1430 Dove Lane
516 Laurel Bay Blvd	1432 Dove Lane
531 Laurel Bay Blvd	1438 Dove Lane
532 Laurel Bay Blvd	1453 Cardinal Lane
645 Dahlia Drive	1455 Cardinal Lane
763 Althea Street	

dhec
Healthy People. Healthy Communities.

March 9, 2017

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

RE: Tank Removal Report 434 Elderberry Drive, October 2013 and
Draft Final Groundwater Assessment Report June and July 2016

Dear Mr. Drawdy:

The South Carolina Department of Health and Environmental Control (the Department) received groundwater data from permanent monitoring well installations in the Draft Final Groundwater Assessment Report June and July 2016 , Laurel Bay Military Housing Area for the addresses shown in the attachment. The Department also reviewed the tank removal report for 434 Elderberry. The tank was removed in 2013. 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).

The tank removal report for 434 Elderberry Drive indicates no soil contamination was found on the property. No Further investigation is required at this time at 434 Elderberry Drive.

Per the Department's request, groundwater samples were collected from the attached referenced addresses. The Department reviewed the groundwater data and previous investigations and it agrees with the conclusions and recommendations included in the document. To further assess the impact to groundwater, groundwater monitoring should begin at the fifteen stated addresses. For the remaining twelve addresses, there is no indication of contamination on the 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 Corps 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 petruslb@dhec.sc.gov or 803-898-0294.

Sincerely,

Laurel Petrus, Environmental Engineer Associate
Bureau of Land and Waste Management

Cc: Russell Berry, EQC Region 8
Shawn Dolan, Resolution Consultants
Bryan Beck, NAVFAC MIDLANT

Attachment to: Petrus to Drawdy
Dated March 9, 2017

Draft Final Initial Groundwater Assessment Report for (27 addresses)

Groundwater Monitoring recommendation (15 addresses)	
273 Birch Drive	456 Elderberry Drive
325 Ash Steet	458 Elderberry Drive
326 Ash Street	648 Dahlia Drive
330 Ash Street	650 Dahlia Drive
336 Ash Street	1132 Iris Lane
343 Ash Street	1144 Iris Lane
353 Ash Street	1148 Iris Lane
440 Elderberry Drive	
No Further Action recommendation (12 addresses):	
430 Elderberry Drive	647 Dahlia Drive
468 Dogwood Drive	652 Dahlia Drive
518 Laurel Bay Blvd	760 Althea Street
635 Dahlia Drive	1102 iris Lane
638 Dahlia Drive	1133 Iris Lane
640 Dahlia Drive	1272 Albatross Drive

Tank Removal Report October 2013 (1 address)

No Further Action
434 Elderberry Drive