

**SUMMARY REPORT**  
**337 ELDERBERRY DRIVE (FORMERLY 432 ELDERBERRY DRIVE)**  
**LAUREL BAY MILITARY HOUSING AREA**  
**MARINE CORPS AIR STATION BEAUFORT**  
**BEAUFORT, SC**

**Revision: 0**  
**Prepared for:**

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

**and**



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

**JUNE 2021**

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**Norfolk, Virginia 23511-3095**

**Prepared by:**



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

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

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### **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 337 Elderberry Drive (Formerly 432 Elderberry Drive). This NFA determination indicates that there are no unacceptable risks to human health or the environment for the petroleum constituents associated with the home heating oil USTs. The following information is included in this report:

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

### **1.1 Background Information**

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

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

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

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

## **1.2 UST Removal and Assessment Process**

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

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

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

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

The results of the soil sampling at each former UST location were used to determine if a potential for groundwater contamination exists (i.e., soil results greater than RBSLs) and subsequently to select properties for follow-up initial groundwater assessment (IGWA) sampling. The results of the IGWA sampling (if necessary) are used to determine the presence or absence of the aforementioned COPCs in groundwater and identify whether former UST locations will require additional delineation of COPCs in groundwater. In order to delineate the extent of impact to groundwater, permanent wells are installed and a sampling program is established for those former UST locations where IGWA sampling has indicated the presence of COPCs in excess of the SCDHEC RBSLs for groundwater. Groundwater analytical results are also compared to the site specific groundwater vapor intrusion screening levels (VISLs) to evaluate the potential for vapor intrusion and the necessity for an investigation associated with this media. A multi-media investigation selection process tree, applicable to the LBMH UST investigations, is presented as Appendix A.

## **2.0 SAMPLING ACTIVITIES AND RESULTS**

The following section presents the sampling activities and associated results for 337 Elderberry Drive (Formerly 432 Elderberry Drive). Details regarding the soil investigation at this site are provided in the *SCDHEC UST Assessment Report – 432 Elderberry Drive* (MCAS Beaufort, 2015). 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 – November and December 2015* (Resolution Consultants, 2016). The laboratory report that includes the pertinent IGWA analytical results for this site is presented in Appendix C.

### **2.1 UST Removal and Soil Sampling**

On October 15, 2014, a single 280 gallon heating oil UST was removed from underneath the edge of the garage and the side landscaped bed area at 337 Elderberry Drive (Formerly 432 Elderberry Drive). The former UST location is indicated on Figures 1 and 2 of the UST Assessment Report (Appendix B). The UST was removed, cleaned, and shipped offsite for

recycling. 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 4'9" 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 337 Elderberry Drive (Formerly 432 Elderberry Drive) were greater than the SCDHEC RBSLs, which indicated further investigation was required. In a letter dated July 1, 2015, SCDHEC requested an IGWA for 337 Elderberry Drive (Formerly 432 Elderberry Drive) to determine if the groundwater was impacted by petroleum COPCs. SCDHEC's request letter is provided in Appendix D.

## **2.3 Groundwater Sampling**

On November 12, 2015, a temporary monitoring well was installed at 337 Elderberry Drive (Formerly 432 Elderberry Drive), 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 1 and 2 of the UST Assessment Report (Appendix B). Further



details are provided in the *Initial Groundwater Investigation Report – November and December 2015* (Resolution Consultants, 2016).

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 (SCDHEC, 2016). Field forms are provided in the *Initial Groundwater Investigation Report – November and December 2015* (Resolution Consultants, 2016).

## **2.4 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 337 Elderberry Drive (Formerly 432 Elderberry Drive) were less than the SCDHEC RBSLs and the site specific groundwater VISLs (Table 2), which indicated that the groundwater was not impacted by COPCs associated with the former UST at concentrations that present a potential risk to human health and the environment.

## **3.0 PROPERTY STATUS**

Based on the analytical results for groundwater, SCDHEC made the determination that NFA was required for 337 Elderberry Drive (Formerly 432 Elderberry Drive). This NFA determination was obtained in a letter dated June 8, 2016. SCDHEC's NFA letter is provided in Appendix D.

## **4.0 REFERENCES**

Marine Corps Air Station Beaufort, 2015. *South Carolina Department of Health and Environmental Control (SCDHEC) Underground Storage Tank Assessment Report – 432 Elderberry Drive, Laurel Bay Military Housing Area*, March 2015.

Resolution Consultants, 2016. *Initial Groundwater Investigation Report – November and December 2015 for Laurel Bay Military Housing Area, Multiple Properties, Laurel Bay Military Housing Area, Marine Corps Air Station Beaufort, Beaufort, South Carolina*, April 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**  
**337 Elderberry Drive (Formerly 432 Elderberry Drive)**  
**Laurel Bay Military Housing Area**  
**Marine Corps Air Station Beaufort**  
**Beaufort, South Carolina**

Constituent	SCDHEC RBSLs <sup>(1)</sup>	Results Sample Collected 10/15/14
<b>Volatile Organic Compounds Analyzed by EPA Method 8260B (mg/kg)</b>		
Benzene	0.003	ND
Ethylbenzene	1.15	<b>0.0546</b>
Naphthalene	0.036	<b>1.98</b>
Toluene	0.627	ND
Xylenes, Total	13.01	<b>0.195</b>
<b>Semivolatile Organic Compounds Analyzed by EPA Method 8270D (mg/kg)</b>		
Benzo(a)anthracene	0.66	ND
Benzo(b)fluoranthene	0.66	ND
Benzo(k)fluoranthene	0.66	ND
Chrysene	0.66	ND
Dibenz(a,h)anthracene	0.66	ND

**Notes:**

<sup>(1)</sup> South Carolina Risk-Based Screening Levels from the Quality Assurance Program Plan for the Underground Storage Tank Management Division, Revision 3.0 and 3.1 (SCDHEC, May 2015 and SCDHEC, February 2016) and the Underground Storage Tank Assessment Guidelines (SCDHEC, February 2006).

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 - Groundwater**  
**337 Elderberry Drive (Formerly 432 Elderberry Drive)**  
**Laurel Bay Military Housing Area**  
**Marine Corps Air Station Beaufort**  
**Beaufort, South Carolina**

Constituent	SCDHEC RBSLs <sup>(1)</sup>	Site-Specific Groundwater VISLs (µg/L) <sup>(2)</sup>	Results Sample Collected 11/13/15
<b>Volatile Organic Compounds Analyzed by EPA Method 8260B (µg/L)</b>			
Benzene	5	16.24	ND
Ethylbenzene	700	45.95	<b>0.40</b>
Naphthalene	25	29.33	<b>6.1</b>
Toluene	1000	105,445	<b>0.31</b>
Xylenes, Total	10,000	2,133	<b>1.7</b>
<b>Semivolatile Organic Compounds Analyzed by EPA Method 8270D (µg/L)</b>			
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:**

<sup>(1)</sup> 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).

<sup>(2)</sup> 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  $1 \times 10^{-6}$ , a target hazard quotient of 1 (per target organ), and a default residential exposure scenario, assuming exposure for 24 hours/day, 350 days/year, for 26 years. Modeling was performed for a range of depths to groundwater for application as appropriate in different areas of the Laurel Bay Military Housing Area. The most conservative levels are presented for comparison. Refer to Appendix H of the Uniform Federal Policy Sampling Analysis and Sampling Plan for Vapor Media, Revision 4 (Resolution Consultants, April 2017) for additional information.

Bold font indicates the analyte was detected.

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

EPA - United States Environmental Protection Agency

JE - Johnson & Ettinger

NA - Not Applicable

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

RBSL - Risk-Based Screening Level

SCDHEC - South Carolina Department Of Health and Environmental Control

µg/L - micrograms per liter

VISL - Vapor Intrusion Screening Level

**Appendix A**  
**Multi-Media Selection Process for LBMH**



Appendix A - Multi-Media Selection Process for LBMH

**Appendix B**  
**UST Assessment Report**



South Carolina Department of Health and Environmental Control (SCDHEC)  
**Underground Storage Tank (UST) Assessment Report**



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

SC DHEC - Bureau of  
 Land & Waste Management

**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	
432 Elderberry Drive, Laurel Bay Military Housing Area	
Street Address or State Road (as applicable)	
Beaufort,	Beaufort
City	County

### III. INSURANCE INFORMATION

#### Insurance Statement

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

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

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

My policy provider is: \_\_\_\_\_

The policy deductible is: \_\_\_\_\_

The policy limit is: \_\_\_\_\_

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

### IV. REQUEST FOR SUPERB FUNDING

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

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

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

\_\_\_\_\_  
Name (Type or print.)

\_\_\_\_\_  
Signature

#### To be completed by Notary Public:

Sworn before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_

\_\_\_\_\_  
(Name)

Notary Public for the state of \_\_\_\_\_  
*Please affix State seal if you are commissioned outside South Carolina*

## VI. UST INFORMATION

A. Product...(ex. Gas, Kerosene).....

B. Capacity...(ex. 1k, 2k).....

C. Age.....

D. Construction Material...(ex. Steel, FRP).....

E. Month/Year of Last Use.....

F. Depth (ft.) To Base of Tank.....

G. Spill Prevention Equipment Y/N.....

H. Overfill Prevention Equipment Y/N.....

I. Method of Closure Removed/Filled.....

J. Date Tanks Removed/Filled.....

K. Visible Corrosion or Pitting Y/N.....

L. Visible Holes Y/N.....

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

UST 432Elderberry was removed from the ground, cleaned and recycled.  
See Attachment "A".

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

Contaminated water was pumped from UST 432Elderberry and disposed by  
MCAS.

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.

432 Elderberry				
Heating oil				
280 gal				
Late 1950s				
Steel				
Mid 1980s				
4'9"				
No				
No				
Removed				
10/15/2014				
Yes				
Yes				

## VII. PIPING INFORMATION

A. Construction Material..(ex. Steel, FRP).....	432 Elderberry				
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				
I. If any corrosion, pitting, or holes were observed, describe the location and extent for each piping run.	Late 1950s				

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

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## 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.

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## IX. SITE CONDITIONS

	Yes	No	Unk
<p>A. Were any petroleum-stained or contaminated soils found in the UST excavation, soil borings, trenches, or monitoring wells?</p> <p>If yes, indicate depth and location on the site map.</p>		X	
<p>B. Were any petroleum odors detected in the excavation, soil borings, trenches, or monitoring wells?</p> <p>If yes, indicate location on site map and describe the odor (strong, mild, etc.)</p>		X	
<p>C. Was water present in the UST excavation, soil borings, or trenches?</p> <p>If yes, how far below land surface (indicate location and depth)?</p>		X	
<p>D. Did contaminated soils remain stockpiled on site after closure?</p> <p>If yes, indicate the stockpile location on the site map.</p> <p>Name of DHEC representative authorizing soil removal:</p>		X	
<p>E. Was a petroleum sheen or free product detected on any excavation or boring waters?</p> <p>If yes, indicate location and thickness.</p>		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 #
432 Elderby	Excav at fill end	Soil	Sandy	4'9"	10/15/14 1445 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.

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## XII. RECEPTORS

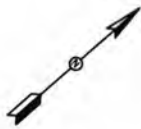
	Yes	No
<p>A. Are there any lakes, ponds, streams, or wetlands located within 1000 feet of the UST system?</p> <p style="text-align: right;">*Stormwater drainage canal</p> <p>If yes, indicate type of receptor, distance, and direction on site map.</p>	*X	
<p>B. Are there any public, private, or irrigation water supply wells within 1000 feet of the UST system?</p> <p>If yes, indicate type of well, distance, and direction on site map.</p>		X
<p>C. Are there any underground structures (e.g., basements) Located within 100 feet of the UST system?</p> <p>If yes, indicate type of structure, distance, and direction on site map.</p>		X
<p>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?</p> <p style="text-align: right;">*Sewer, water, electricity cable, fiber optic &amp; geothermal</p> <p>If yes, indicate the type of utility, distance, and direction on the site map.</p>	*X	
<p>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?</p> <p>If yes, indicate the area of contaminated soil on the site map.</p>		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)



STORMWATER DRAINAGE CANAL  $\approx$  640'

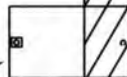


432 ELDERBERRY DRIVE  
LAUREL BAY MILITARY HOUSING  
MCAS BEAUFORT, SC

TREE

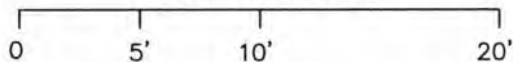


UST 432ELDERBERRY



UST 432ELDERBERRY WAS  
21" BELOW GRADE

GRAPHIC SCALE



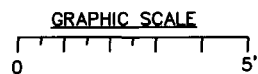
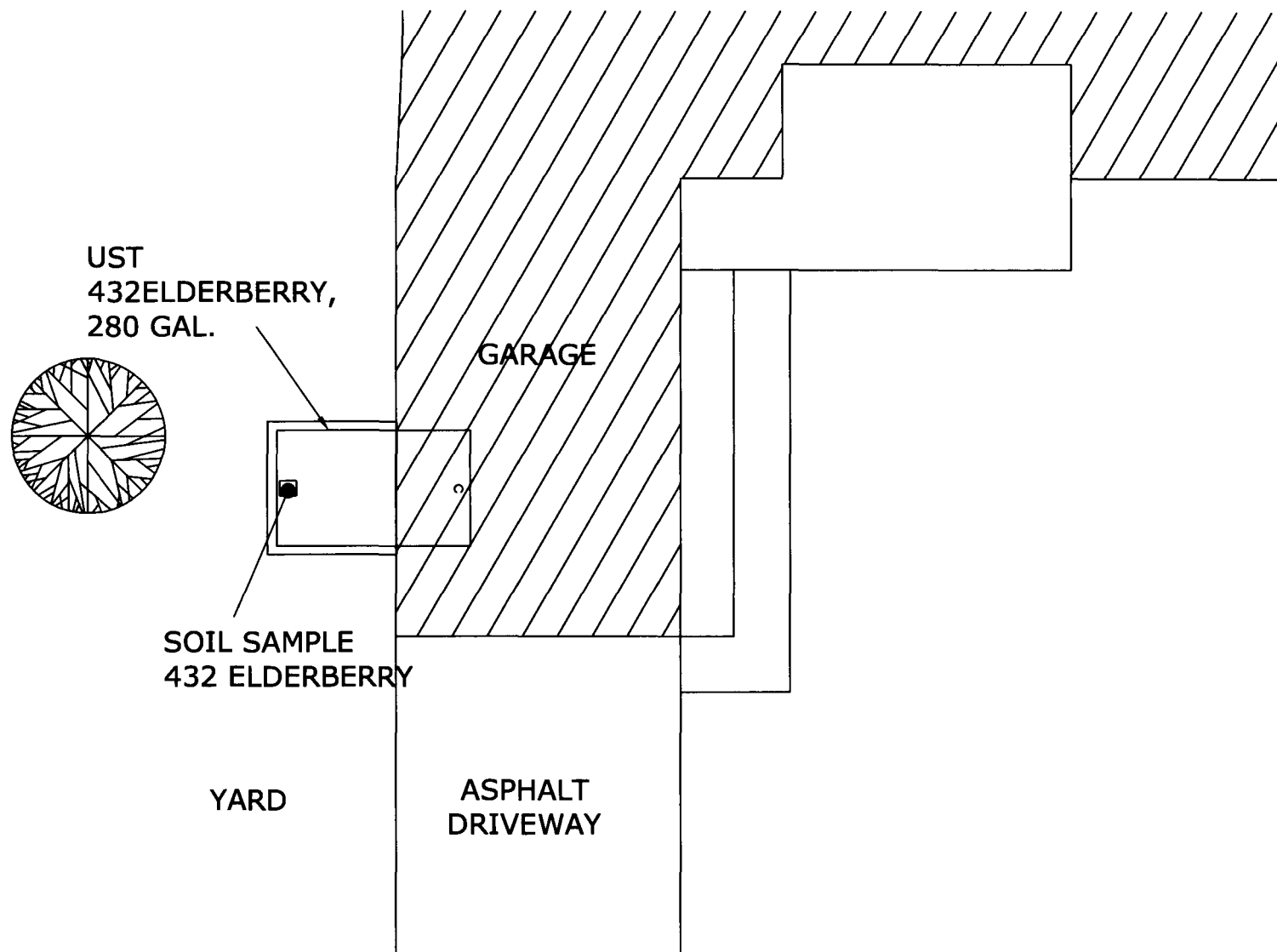
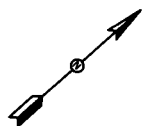
***SBG-EEG***

7301 RIVERS AVE., SUITE 245  
N. CHARLESTON SC 29406-9643  
(843) 573-7140

FIGURE 1 SITE MAP  
432 ELDERBERRY DRIVE, LAUREL BAY  
MCAS BEAUFORT SC

SCALE: GRAPHIC

DWG DATE OCT 2014



***SBG-EEG***

7301 RIVERS AVE., SUITE 245  
N. CHARLESTON SC 29406-9643  
(843) 573-7140

FIGURE 2 UST SAMPLE LOCATIONS  
432 ELDERBERRY DRIVE, LAUREL BAY  
MCAS BEAUFORT SC

SCALE: GRAPHIC

DWG DATE OCT 2014



Picture 1: Location of UST 432Elderberry.



Picture 2: UST 432Elderberry tank pit.



Picture 3: Site at completion of work.

#### 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.

<b>CoC</b>	<b>UST</b>	<b>432Elderberry</b>						
<b>Benzene</b>		ND						
<b>Toluene</b>		ND						
<b>Ethylbenzene</b>		0.0546 mg/kg						
<b>Xylenes</b>		0.195 mg/kg						
<b>Naphthalene</b>		1.98 mg/kg						
<b>Benzo (a) anthracene</b>		ND						
<b>Benzo (b) fluoranthene</b>		ND						
<b>Benzo (k) fluoranthene</b>		ND						
<b>Chrysene</b>		ND						
<b>Dibenz (a, h) anthracene</b>		ND						
<b>TPH (EPA 3550)</b>								

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

### 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 Drive  
Nashville, TN 37204  
Tel: (615)726-0177

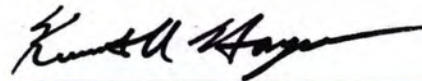
TestAmerica Job ID: 490-64150-1

Client Project/Site: Laurel Bay Housing Project

For:

Small Business Group Inc.  
10179 Highway 78  
Ladson, South Carolina 29456

Attn: Tom McElwee



Authorized for release by:  
10/27/2014 4:10:16 PM

Ken Hayes, Project Manager II  
(615)301-5035  
[ken.hayes@testamericainc.com](mailto:ken.hayes@testamericainc.com)

### LINKS

Review your project  
results through

TotalAccess

Have a Question?



Visit us at:

[www.testamericainc.com](http://www.testamericainc.com)

*The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*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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## Sample Summary

Client: Small Business Group Inc.  
Project/Site: Laurel Bay Housing Project

TestAmerica Job ID: 490-64150-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
490-64150-1	473 Dogwood	Soil	10/14/14 13:30	10/17/14 08:30
490-64150-2	432 Elderberry	Soil	10/15/14 14:45	10/17/14 08:30
490-64150-3	435 Elderberry	Soil	10/16/14 09:00	10/17/14 08:30

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## Case Narrative

Client: Small Business Group Inc.  
Project/Site: Laurel Bay Housing Project

TestAmerica Job ID: 490-64150-1

**Job ID: 490-64150-1**

**Laboratory: TestAmerica Nashville**

### Narrative

#### Job Narrative 490-64150-1

#### Comments

No additional comments.

#### Receipt

The samples were received on 10/17/2014 8:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.3° C.

#### GC/MS VOA

Method(s) 8260B: Surrogate recovery for the following sample(s) was outside control limits: 432 Elderberry (490-64150-2), 473 Dogwood (490-64150-1). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method(s) 8260B: Internal standard responses were outside of acceptance limits for the following sample(s): 432 Elderberry (490-64150-2). The sample(s) shows evidence of matrix interference.

Method(s) 8260B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with batch 199569. (LCS 490-199569/5)

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

#### GC/MS Semi VOA

Method(s) 8270D: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with batch 199770.

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

#### Organic Prep

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

#### VOA Prep

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

## Definitions/Glossary

Client: Small Business Group Inc.  
Project/Site: Laurel Bay Housing Project

TestAmerica Job ID: 490-64150-1

### Qualifiers

#### GC/MS VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits
*	ISTD response or retention time outside acceptable limits

#### GC/MS Semi VOA

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

### Glossary

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

# Client Sample Results

Client: Small Business Group Inc.  
Project/Site: Laurel Bay Housing Project

TestAmerica Job ID: 490-64150-1

Client Sample ID: 473 Dogwood

Date Collected: 10/14/14 13:30

Date Received: 10/17/14 08:30

Lab Sample ID: 490-64150-1

Matrix: Soil

Percent Solids: 68.6

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00304	0.00102	mg/Kg	☐	10/19/14 19:09	10/21/14 10:02	1
Ethylbenzene	ND		0.00304	0.00102	mg/Kg	☐	10/19/14 19:09	10/21/14 10:02	1
Naphthalene	0.456		0.00759	0.00258	mg/Kg	☑	10/19/14 19:09	10/21/14 10:02	1
Toluene	ND		0.00304	0.00112	mg/Kg	☐	10/19/14 19:09	10/21/14 10:02	1
Xylenes, Total	ND		0.00455	0.00102	mg/Kg	☐	10/19/14 19:09	10/21/14 10:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	110		70 - 130	10/19/14 19:09	10/21/14 10:02	1
4-Bromofluorobenzene (Surr)	267	X	70 - 130	10/19/14 19:09	10/21/14 10:02	1
Dibromofluoromethane (Surr)	97		70 - 130	10/19/14 19:09	10/21/14 10:02	1
Toluene-d8 (Surr)	98		70 - 130	10/19/14 19:09	10/21/14 10:02	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.217		0.0669	0.00999	mg/Kg	☑	10/21/14 15:28	10/22/14 20:16	1
Acenaphthylene	0.145		0.0669	0.00899	mg/Kg	☑	10/21/14 15:28	10/22/14 20:16	1
Anthracene	0.0796		0.0669	0.00899	mg/Kg	☑	10/21/14 15:28	10/22/14 20:16	1
Benzo[a]anthracene	ND		0.0669	0.0150	mg/Kg	☐	10/21/14 15:28	10/22/14 20:16	1
Benzo[a]pyrene	ND		0.0669	0.0120	mg/Kg	☐	10/21/14 15:28	10/22/14 20:16	1
Benzo[b]fluoranthene	ND		0.0669	0.0120	mg/Kg	☑	10/21/14 15:28	10/22/14 20:16	1
Benzo[g,h,i]perylene	ND		0.0669	0.00899	mg/Kg	☑	10/21/14 15:28	10/22/14 20:16	1
Benzo[k]fluoranthene	ND		0.0669	0.0140	mg/Kg	☐	10/21/14 15:28	10/22/14 20:16	1
1-Methylnaphthalene	4.04		0.335	0.0699	mg/Kg	☐	10/21/14 15:28	10/23/14 16:46	5
Pyrene	0.0735		0.0669	0.0120	mg/Kg	☐	10/21/14 15:28	10/22/14 20:16	1
Phenanthrene	1.09		0.0669	0.00899	mg/Kg	☐	10/21/14 15:28	10/22/14 20:16	1
Chrysene	ND		0.0669	0.00899	mg/Kg	☑	10/21/14 15:28	10/22/14 20:16	1
Dibenz(a,h)anthracene	ND		0.0669	0.00699	mg/Kg	☑	10/21/14 15:28	10/22/14 20:16	1
Fluoranthene	0.0387	J	0.0669	0.00899	mg/Kg	☑	10/21/14 15:28	10/22/14 20:16	1
Fluorene	0.497		0.0669	0.0120	mg/Kg	☐	10/21/14 15:28	10/22/14 20:16	1
Indeno[1,2,3-cd]pyrene	ND		0.0669	0.00999	mg/Kg	☐	10/21/14 15:28	10/22/14 20:16	1
Naphthalene	0.220		0.0669	0.00899	mg/Kg	☑	10/21/14 15:28	10/22/14 20:16	1
2-Methylnaphthalene	6.35		0.335	0.0799	mg/Kg	☐	10/21/14 15:28	10/23/14 16:46	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	67		29 - 120	10/21/14 15:28	10/22/14 20:16	1
Terphenyl-d14 (Surr)	80		13 - 120	10/21/14 15:28	10/22/14 20:16	1
Nitrobenzene-d5 (Surr)	60		27 - 120	10/21/14 15:28	10/22/14 20:16	1

## General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	69		0.10	0.10	%			10/20/14 10:18	1

TestAmerica Nashville



# Client Sample Results

Client: Small Business Group Inc.  
Project/Site: Laurel Bay Housing Project

TestAmerica Job ID: 490-64150-1

Client Sample ID: 432 Elderberry

Date Collected: 10/15/14 14:45

Date Received: 10/17/14 08:30

Lab Sample ID: 490-64150-2

Matrix: Soil

Percent Solids: 79.0

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00218	0.000730	mg/Kg	☒	10/19/14 19:09	10/21/14 10:30	1
Ethylbenzene	0.0546		0.00218	0.000730	mg/Kg	☒	10/19/14 19:09	10/21/14 10:30	1
Naphthalene	1.98		0.317	0.108	mg/Kg	☒	10/19/14 19:05	10/21/14 17:52	1
Toluene	ND		0.00218	0.000807	mg/Kg	☒	10/19/14 19:09	10/21/14 10:30	1
Xylenes, Total	0.195		0.00327	0.000730	mg/Kg	☒	10/19/14 19:09	10/21/14 10:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		70 - 130	10/19/14 19:09	10/21/14 10:30	1
1,2-Dichloroethane-d4 (Surr)	94		70 - 130	10/19/14 19:05	10/21/14 17:52	1
4-Bromofluorobenzene (Surr)	432	X *	70 - 130	10/19/14 19:09	10/21/14 10:30	1
4-Bromofluorobenzene (Surr)	112		70 - 130	10/19/14 19:05	10/21/14 17:52	1
Dibromofluoromethane (Surr)	93		70 - 130	10/19/14 19:09	10/21/14 10:30	1
Dibromofluoromethane (Surr)	94		70 - 130	10/19/14 19:05	10/21/14 17:52	1
Toluene-d8 (Surr)	109		70 - 130	10/19/14 19:09	10/21/14 10:30	1
Toluene-d8 (Surr)	104		70 - 130	10/19/14 19:05	10/21/14 17:52	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.652		0.0668	0.00998	mg/Kg	☒	10/21/14 15:28	10/22/14 20:39	1
Acenaphthylene	0.299		0.0668	0.00898	mg/Kg	☒	10/21/14 15:28	10/22/14 20:39	1
Anthracene	0.445		0.0668	0.00898	mg/Kg	☒	10/21/14 15:28	10/22/14 20:39	1
Benzo[a]anthracene	ND		0.0668	0.0150	mg/Kg	☒	10/21/14 15:28	10/22/14 20:39	1
Benzo[a]pyrene	ND		0.0668	0.0120	mg/Kg	☒	10/21/14 15:28	10/22/14 20:39	1
Benzo[b]fluoranthene	ND		0.0668	0.0120	mg/Kg	☒	10/21/14 15:28	10/22/14 20:39	1
Benzo[g,h,i]perylene	ND		0.0668	0.00898	mg/Kg	☒	10/21/14 15:28	10/22/14 20:39	1
Benzo[k]fluoranthene	ND		0.0668	0.0140	mg/Kg	☒	10/21/14 15:28	10/22/14 20:39	1
1-Methylnaphthalene	5.44		0.334	0.0698	mg/Kg	☒	10/21/14 15:28	10/23/14 17:09	5
Pyrene	0.201		0.0668	0.0120	mg/Kg	☒	10/21/14 15:28	10/22/14 20:39	1
Phenanthrene	3.99		0.334	0.0449	mg/Kg	☒	10/21/14 15:28	10/23/14 17:09	5
Chrysene	ND		0.0668	0.00898	mg/Kg	☒	10/21/14 15:28	10/22/14 20:39	1
Dibenz(a,h)anthracene	ND		0.0668	0.00698	mg/Kg	☒	10/21/14 15:28	10/22/14 20:39	1
Fluoranthene	0.0570	J	0.0668	0.00898	mg/Kg	☒	10/21/14 15:28	10/22/14 20:39	1
Fluorene	1.44		0.0668	0.0120	mg/Kg	☒	10/21/14 15:28	10/22/14 20:39	1
Indeno[1,2,3-cd]pyrene	ND		0.0668	0.00998	mg/Kg	☒	10/21/14 15:28	10/22/14 20:39	1
Naphthalene	0.556		0.0668	0.00898	mg/Kg	☒	10/21/14 15:28	10/22/14 20:39	1
2-Methylnaphthalene	6.45		0.334	0.0798	mg/Kg	☒	10/21/14 15:28	10/23/14 17:09	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	76		29 - 120	10/21/14 15:28	10/22/14 20:39	1
Terphenyl-d14 (Surr)	96		13 - 120	10/21/14 15:28	10/22/14 20:39	1
Nitrobenzene-d5 (Surr)	83		27 - 120	10/21/14 15:28	10/22/14 20:39	1

## General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	79		0.10	0.10	%			10/20/14 10:18	1

TestAmerica Nashville

# Client Sample Results

Client: Small Business Group Inc.  
Project/Site: Laurel Bay Housing Project

TestAmerica Job ID: 490-64150-1

Client Sample ID: 435 Elderberry

Date Collected: 10/16/14 09:00

Date Received: 10/17/14 08:30

Lab Sample ID: 490-64150-3

Matrix: Soil

Percent Solids: 82.1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00217	0.000727	mg/Kg	☐	10/19/14 19:09	10/21/14 10:58	1
Ethylbenzene	0.00253		0.00217	0.000727	mg/Kg	☐	10/19/14 19:09	10/21/14 10:58	1
Naphthalene	ND		0.00542	0.00184	mg/Kg	☐	10/19/14 19:09	10/21/14 10:58	1
Toluene	ND		0.00217	0.000803	mg/Kg	☐	10/19/14 19:09	10/21/14 10:58	1
Xylenes, Total	0.00524		0.00325	0.000727	mg/Kg	☐	10/19/14 19:09	10/21/14 10:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		70 - 130	10/19/14 19:09	10/21/14 10:58	1
4-Bromofluorobenzene (Surr)	126		70 - 130	10/19/14 19:09	10/21/14 10:58	1
Dibromofluoromethane (Surr)	92		70 - 130	10/19/14 19:09	10/21/14 10:58	1
Toluene-d8 (Surr)	104		70 - 130	10/19/14 19:09	10/21/14 10:58	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0663	0.00990	mg/Kg	☐	10/21/14 15:28	10/22/14 21:02	1
Acenaphthylene	ND		0.0663	0.00891	mg/Kg	☐	10/21/14 15:28	10/22/14 21:02	1
Anthracene	ND		0.0663	0.00891	mg/Kg	☐	10/21/14 15:28	10/22/14 21:02	1
Benzo[a]anthracene	ND		0.0663	0.0148	mg/Kg	☐	10/21/14 15:28	10/22/14 21:02	1
Benzo[a]pyrene	ND		0.0663	0.0119	mg/Kg	☐	10/21/14 15:28	10/22/14 21:02	1
Benzo[b]fluoranthene	ND		0.0663	0.0119	mg/Kg	☐	10/21/14 15:28	10/22/14 21:02	1
Benzo[g,h,i]perylene	ND		0.0663	0.00891	mg/Kg	☐	10/21/14 15:28	10/22/14 21:02	1
Benzo[k]fluoranthene	ND		0.0663	0.0139	mg/Kg	☐	10/21/14 15:28	10/22/14 21:02	1
1-Methylnaphthalene	0.0374	J	0.0663	0.0139	mg/Kg	☐	10/21/14 15:28	10/22/14 21:02	1
Pyrene	ND		0.0663	0.0119	mg/Kg	☐	10/21/14 15:28	10/22/14 21:02	1
Phenanthrene	ND		0.0663	0.00891	mg/Kg	☐	10/21/14 15:28	10/22/14 21:02	1
Chrysene	ND		0.0663	0.00891	mg/Kg	☐	10/21/14 15:28	10/22/14 21:02	1
Dibenz(a,h)anthracene	ND		0.0663	0.00693	mg/Kg	☐	10/21/14 15:28	10/22/14 21:02	1
Fluoranthene	ND		0.0663	0.00891	mg/Kg	☐	10/21/14 15:28	10/22/14 21:02	1
Fluorene	ND		0.0663	0.0119	mg/Kg	☐	10/21/14 15:28	10/22/14 21:02	1
Indeno[1,2,3-cd]pyrene	ND		0.0663	0.00990	mg/Kg	☐	10/21/14 15:28	10/22/14 21:02	1
Naphthalene	ND		0.0663	0.00891	mg/Kg	☐	10/21/14 15:28	10/22/14 21:02	1
2-Methylnaphthalene	0.0375	J	0.0663	0.0158	mg/Kg	☐	10/21/14 15:28	10/22/14 21:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	63		29 - 120	10/21/14 15:28	10/22/14 21:02	1
Terphenyl-d14 (Surr)	77		13 - 120	10/21/14 15:28	10/22/14 21:02	1
Nitrobenzene-d5 (Surr)	60		27 - 120	10/21/14 15:28	10/22/14 21:02	1

## General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	82		0.10	0.10	%			10/20/14 10:18	1

TestAmerica Nashville



# QC Sample Results

Client: Small Business Group Inc.  
Project/Site: Laurel Bay Housing Project

TestAmerica Job ID: 490-64150-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: 490-64133-C-1-A MSD

Matrix: Solid

Analysis Batch: 199464

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 199275

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	ND		0.0408	0.03862		mg/Kg	☒	95	31 - 143	3	50
Ethylbenzene	ND		0.0408	0.03560		mg/Kg	☒	87	23 - 161	5	50
Naphthalene	ND		0.0408	0.005966		mg/Kg	☒	15	10 - 176	25	50
Toluene	ND		0.0408	0.03659		mg/Kg	☒	90	30 - 155	10	50
Xylenes, Total	ND		0.0816	0.06394		mg/Kg	☒	78	25 - 162	8	50

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	105		70 - 130
4-Bromofluorobenzene (Surr)	109		70 - 130
Dibromofluoromethane (Surr)	95		70 - 130
Toluene-d8 (Surr)	99		70 - 130

Lab Sample ID: 490-64133-C-1-B MS

Matrix: Solid

Analysis Batch: 199464

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 199275

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	ND		0.0408	0.03966		mg/Kg	☒	97	31 - 143
Ethylbenzene	ND		0.0408	0.03756		mg/Kg	☒	92	23 - 161
Naphthalene	ND		0.0408	0.007656		mg/Kg	☒	19	10 - 176
Toluene	ND		0.0408	0.04037		mg/Kg	☒	99	30 - 155
Xylenes, Total	ND		0.0816	0.06920		mg/Kg	☒	85	25 - 162

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	101		70 - 130
4-Bromofluorobenzene (Surr)	108		70 - 130
Dibromofluoromethane (Surr)	94		70 - 130
Toluene-d8 (Surr)	101		70 - 130

Lab Sample ID: MB 490-199464/6

Matrix: Solid

Analysis Batch: 199464

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00200	0.000670	mg/Kg			10/21/14 02:48	1
Ethylbenzene	ND		0.00200	0.000670	mg/Kg			10/21/14 02:48	1
Naphthalene	ND		0.00500	0.00170	mg/Kg			10/21/14 02:48	1
Toluene	ND		0.00200	0.000740	mg/Kg			10/21/14 02:48	1
Xylenes, Total	ND		0.00300	0.000670	mg/Kg			10/21/14 02:48	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		70 - 130		10/21/14 02:48	1
4-Bromofluorobenzene (Surr)	104		70 - 130		10/21/14 02:48	1
Dibromofluoromethane (Surr)	96		70 - 130		10/21/14 02:48	1
Toluene-d8 (Surr)	102		70 - 130		10/21/14 02:48	1

TestAmerica Nashville

# QC Sample Results

Client: Small Business Group Inc.  
Project/Site: Laurel Bay Housing Project

TestAmerica Job ID: 490-64150-1

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

Lab Sample ID: LCS 490-199464/3

Matrix: Solid

Analysis Batch: 199464

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Benzene	0.0500	0.05702		mg/Kg		114	75 - 127
Ethylbenzene	0.0500	0.05809		mg/Kg		116	80 - 134
Naphthalene	0.0500	0.05094		mg/Kg		102	69 - 150
Toluene	0.0500	0.05681		mg/Kg		114	80 - 132
Xylenes, Total	0.100	0.1159		mg/Kg		116	80 - 137

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	101		70 - 130
4-Bromofluorobenzene (Surr)	104		70 - 130
Dibromofluoromethane (Surr)	97		70 - 130
Toluene-d8 (Surr)	101		70 - 130

Lab Sample ID: LCSD 490-199464/4

Matrix: Solid

Analysis Batch: 199464

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD LCSD		Unit	D	%Rec	%Rec. Limits	RPD	Limit
		Result	Qualifier						
Benzene	0.0500	0.05267		mg/Kg		105	75 - 127	8	50
Ethylbenzene	0.0500	0.05814		mg/Kg		116	80 - 134	0	50
Naphthalene	0.0500	0.04947		mg/Kg		99	69 - 150	3	50
Toluene	0.0500	0.05667		mg/Kg		113	80 - 132	0	50
Xylenes, Total	0.100	0.1134		mg/Kg		113	80 - 137	2	50

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	100		70 - 130
4-Bromofluorobenzene (Surr)	104		70 - 130
Dibromofluoromethane (Surr)	95		70 - 130
Toluene-d8 (Surr)	104		70 - 130

Lab Sample ID: MB 490-199569/8

Matrix: Solid

Analysis Batch: 199569

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Benzene	ND		0.100	0.0340	mg/Kg			10/21/14 16:04	1
Ethylbenzene	ND		0.100	0.0340	mg/Kg			10/21/14 16:04	1
Naphthalene	ND		0.250	0.0850	mg/Kg			10/21/14 16:04	1
Toluene	ND		0.100	0.0370	mg/Kg			10/21/14 16:04	1
Xylenes, Total	ND		0.150	0.0340	mg/Kg			10/21/14 16:04	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	88		70 - 130		10/21/14 16:04	1
4-Bromofluorobenzene (Surr)	105		70 - 130		10/21/14 16:04	1
Dibromofluoromethane (Surr)	89		70 - 130		10/21/14 16:04	1
Toluene-d8 (Surr)	102		70 - 130		10/21/14 16:04	1

TestAmerica Nashville



# QC Sample Results

Client: Small Business Group Inc.  
Project/Site: Laurel Bay Housing Project

TestAmerica Job ID: 490-64150-1

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

Lab Sample ID: LCS 490-199569/5

Matrix: Solid

Analysis Batch: 199569

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	2.50	2.975		mg/Kg		119	75 - 127
Ethylbenzene	2.50	3.229		mg/Kg		129	80 - 134
Naphthalene	2.50	3.025		mg/Kg		121	69 - 150
Toluene	2.50	3.150		mg/Kg		126	80 - 132
Xylenes, Total	5.00	6.399		mg/Kg		128	80 - 137

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	92		70 - 130
4-Bromofluorobenzene (Surr)	103		70 - 130
Dibromofluoromethane (Surr)	92		70 - 130
Toluene-d8 (Surr)	102		70 - 130

Lab Sample ID: LCSD 490-199569/6

Matrix: Solid

Analysis Batch: 199569

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	2.50	2.999		mg/Kg		120	75 - 127	1	50
Ethylbenzene	2.50	3.193		mg/Kg		128	80 - 134	1	50
Naphthalene	2.50	2.972		mg/Kg		119	69 - 150	2	50
Toluene	2.50	3.106		mg/Kg		124	80 - 132	1	50
Xylenes, Total	5.00	6.346		mg/Kg		127	80 - 137	1	50

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	91		70 - 130
4-Bromofluorobenzene (Surr)	104		70 - 130
Dibromofluoromethane (Surr)	92		70 - 130
Toluene-d8 (Surr)	100		70 - 130

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

Lab Sample ID: MB 490-199770/1-A

Matrix: Solid

Analysis Batch: 200033

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 199770

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0670	0.0100	mg/Kg		10/21/14 15:28	10/22/14 16:04	1
Acenaphthylene	ND		0.0670	0.00900	mg/Kg		10/21/14 15:28	10/22/14 16:04	1
Anthracene	ND		0.0670	0.00900	mg/Kg		10/21/14 15:28	10/22/14 16:04	1
Benzo[a]anthracene	ND		0.0670	0.0150	mg/Kg		10/21/14 15:28	10/22/14 16:04	1
Benzo[a]pyrene	ND		0.0670	0.0120	mg/Kg		10/21/14 15:28	10/22/14 16:04	1
Benzo[b]fluoranthene	ND		0.0670	0.0120	mg/Kg		10/21/14 15:28	10/22/14 16:04	1
Benzo[g,h,i]perylene	ND		0.0670	0.00900	mg/Kg		10/21/14 15:28	10/22/14 16:04	1
Benzo[k]fluoranthene	ND		0.0670	0.0140	mg/Kg		10/21/14 15:28	10/22/14 16:04	1
1-Methylnaphthalene	ND		0.0670	0.0140	mg/Kg		10/21/14 15:28	10/22/14 16:04	1
Pyrene	ND		0.0670	0.0120	mg/Kg		10/21/14 15:28	10/22/14 16:04	1
Phenanthrene	ND		0.0670	0.00900	mg/Kg		10/21/14 15:28	10/22/14 16:04	1

TestAmerica Nashville

# QC Sample Results

Client: Small Business Group Inc.  
Project/Site: Laurel Bay Housing Project

TestAmerica Job ID: 490-64150-1

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

Lab Sample ID: MB 490-199770/1-A

Matrix: Solid

Analysis Batch: 200033

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 199770

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Chrysene	ND		0.0670	0.00900	mg/Kg		10/21/14 15:28	10/22/14 16:04	1
Dibenz(a,h)anthracene	ND		0.0670	0.00700	mg/Kg		10/21/14 15:28	10/22/14 16:04	1
Fluoranthene	ND		0.0670	0.00900	mg/Kg		10/21/14 15:28	10/22/14 16:04	1
Fluorene	ND		0.0670	0.0120	mg/Kg		10/21/14 15:28	10/22/14 16:04	1
Indeno[1,2,3-cd]pyrene	ND		0.0670	0.0100	mg/Kg		10/21/14 15:28	10/22/14 16:04	1
Naphthalene	ND		0.0670	0.00900	mg/Kg		10/21/14 15:28	10/22/14 16:04	1
2-Methylnaphthalene	ND		0.0670	0.0160	mg/Kg		10/21/14 15:28	10/22/14 16:04	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2-Fluorobiphenyl (Surr)	79		29 - 120	10/21/14 15:28	10/22/14 16:04	1
Terphenyl-d14 (Surr)	92		13 - 120	10/21/14 15:28	10/22/14 16:04	1
Nitrobenzene-d5 (Surr)	74		27 - 120	10/21/14 15:28	10/22/14 16:04	1

Lab Sample ID: LCS 490-199770/2-A

Matrix: Solid

Analysis Batch: 200033

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 199770

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec.	
		Result	Qualifier				Limits	
Acenaphthylene	1.67	1.455		mg/Kg		87	38 - 120	
Anthracene	1.67	1.438		mg/Kg		86	46 - 124	
Benzo[a]anthracene	1.67	1.469		mg/Kg		88	45 - 120	
Benzo[a]pyrene	1.67	1.436		mg/Kg		86	45 - 120	
Benzo[b]fluoranthene	1.67	1.578		mg/Kg		95	42 - 120	
Benzo[g,h,i]perylene	1.67	1.206		mg/Kg		72	38 - 120	
Benzo[k]fluoranthene	1.67	1.398		mg/Kg		84	42 - 120	
1-Methylnaphthalene	1.67	1.445		mg/Kg		87	32 - 120	
Pyrene	1.67	1.355		mg/Kg		81	43 - 120	
Phenanthrene	1.67	1.409		mg/Kg		85	45 - 120	
Chrysene	1.67	1.348		mg/Kg		81	43 - 120	
Dibenz(a,h)anthracene	1.67	1.424		mg/Kg		85	32 - 128	
Fluoranthene	1.67	1.522		mg/Kg		91	46 - 120	
Fluorene	1.67	1.492		mg/Kg		90	42 - 120	
Indeno[1,2,3-cd]pyrene	1.67	1.098		mg/Kg		66	41 - 121	
Naphthalene	1.67	1.417		mg/Kg		85	32 - 120	
2-Methylnaphthalene	1.67	1.453		mg/Kg		87	28 - 120	

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
2-Fluorobiphenyl (Surr)	74		29 - 120
Terphenyl-d14 (Surr)	82		13 - 120
Nitrobenzene-d5 (Surr)	71		27 - 120

Lab Sample ID: LCSD 490-199770/3-A

Matrix: Solid

Analysis Batch: 200033

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 199770

Analyte	Spike Added	LCSD LCSD		Unit	D	%Rec	%Rec.		RPD	
		Result	Qualifier				Limits		RPD	Limit
Acenaphthylene	1.67	1.482		mg/Kg		89	38 - 120		2	50
Anthracene	1.67	1.493		mg/Kg		90	46 - 124		4	49

TestAmerica Nashville



## QC Sample Results

Client: Small Business Group Inc.  
Project/Site: Laurel Bay Housing Project

TestAmerica Job ID: 490-64150-1

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

Lab Sample ID: LCSD 490-199770/3-A

Matrix: Solid

Analysis Batch: 200033

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 199770

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits		RPD	Limit
Benzo[a]anthracene	1.67	1.524		mg/Kg		91	45 - 120		4	50
Benzo[a]pyrene	1.67	1.483		mg/Kg		89	45 - 120		3	50
Benzo[b]fluoranthene	1.67	1.576		mg/Kg		95	42 - 120		0	50
Benzo[g,h,i]perylene	1.67	1.313		mg/Kg		79	38 - 120		9	50
Benzo[k]fluoranthene	1.67	1.532		mg/Kg		92	42 - 120		9	45
1-Methylnaphthalene	1.67	1.481		mg/Kg		89	32 - 120		2	50
Pyrene	1.67	1.418		mg/Kg		85	43 - 120		4	50
Phenanthrene	1.67	1.454		mg/Kg		87	45 - 120		3	50
Chrysene	1.67	1.448		mg/Kg		87	43 - 120		7	49
Dibenz(a,h)anthracene	1.67	1.463		mg/Kg		88	32 - 128		3	50
Fluoranthene	1.67	1.584		mg/Kg		95	46 - 120		4	50
Fluorene	1.67	1.538		mg/Kg		92	42 - 120		3	50
Indeno[1,2,3-cd]pyrene	1.67	1.406		mg/Kg		84	41 - 121		25	50
Naphthalene	1.67	1.436		mg/Kg		86	32 - 120		1	50
2-Methylnaphthalene	1.67	1.484		mg/Kg		89	28 - 120		2	50

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
2-Fluorobiphenyl (Surr)	77		29 - 120
Terphenyl-d14 (Surr)	87		13 - 120
Nitrobenzene-d5 (Surr)	74		27 - 120

### Method: Moisture - Percent Moisture

Lab Sample ID: 490-64084-B-1 DU

Matrix: Solid

Analysis Batch: 199372

Client Sample ID: Duplicate

Prep Type: Total/NA

Analyte	Sample Sample		DU DU		Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Percent Solids	95		95		%		0.2	20

TestAmerica Nashville

## QC Association Summary

Client: Small Business Group Inc.  
Project/Site: Laurel Bay Housing Project

TestAmerica Job ID: 490-64150-1

### GC/MS VOA

#### Prep Batch: 199275

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-64133-C-1-A MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	
490-64133-C-1-B MS	Matrix Spike	Total/NA	Solid	5035	

#### Prep Batch: 199277

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-64150-2	432 Elderberry	Total/NA	Soil	5035	

#### Prep Batch: 199278

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-64150-1	473 Dogwood	Total/NA	Soil	5035	
490-64150-2	432 Elderberry	Total/NA	Soil	5035	
490-64150-3	435 Elderberry	Total/NA	Soil	5035	

#### Analysis Batch: 199464

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-64133-C-1-A MSD	Matrix Spike Duplicate	Total/NA	Solid	8260B	199275
490-64133-C-1-B MS	Matrix Spike	Total/NA	Solid	8260B	199275
490-64150-1	473 Dogwood	Total/NA	Soil	8260B	199278
490-64150-2	432 Elderberry	Total/NA	Soil	8260B	199278
490-64150-3	435 Elderberry	Total/NA	Soil	8260B	199278
LCS 490-199464/3	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 490-199464/4	Lab Control Sample Dup	Total/NA	Solid	8260B	
MB 490-199464/6	Method Blank	Total/NA	Solid	8260B	

#### Analysis Batch: 199569

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-64150-2	432 Elderberry	Total/NA	Soil	8260B	199277
LCS 490-199569/5	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 490-199569/6	Lab Control Sample Dup	Total/NA	Solid	8260B	
MB 490-199569/8	Method Blank	Total/NA	Solid	8260B	

### GC/MS Semi VOA

#### Prep Batch: 199770

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-64150-1	473 Dogwood	Total/NA	Soil	3550C	
490-64150-2	432 Elderberry	Total/NA	Soil	3550C	
490-64150-3	435 Elderberry	Total/NA	Soil	3550C	
LCS 490-199770/2-A	Lab Control Sample	Total/NA	Solid	3550C	
LCSD 490-199770/3-A	Lab Control Sample Dup	Total/NA	Solid	3550C	
MB 490-199770/1-A	Method Blank	Total/NA	Solid	3550C	

#### Analysis Batch: 200033

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-64150-1	473 Dogwood	Total/NA	Soil	8270D	199770
490-64150-2	432 Elderberry	Total/NA	Soil	8270D	199770
490-64150-3	435 Elderberry	Total/NA	Soil	8270D	199770
LCS 490-199770/2-A	Lab Control Sample	Total/NA	Solid	8270D	199770
LCSD 490-199770/3-A	Lab Control Sample Dup	Total/NA	Solid	8270D	199770
MB 490-199770/1-A	Method Blank	Total/NA	Solid	8270D	199770

TestAmerica Nashville



## QC Association Summary

Client: Small Business Group Inc.  
Project/Site: Laurel Bay Housing Project

TestAmerica Job ID: 490-64150-1

### GC/MS Semi VOA (Continued)

#### Analysis Batch: 200371

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-64150-1	473 Dogwood	Total/NA	Soil	8270D	199770
490-64150-2	432 Elderberry	Total/NA	Soil	8270D	199770

### General Chemistry

#### Analysis Batch: 199372

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-64084-B-1 DU	Duplicate	Total/NA	Solid	Moisture	
490-64115-F-1 MS	Matrix Spike	Total/NA	Solid	Moisture	
490-64115-F-1 MSD	Matrix Spike Duplicate	Total/NA	Solid	Moisture	
490-64150-1	473 Dogwood	Total/NA	Soil	Moisture	
490-64150-2	432 Elderberry	Total/NA	Soil	Moisture	
490-64150-3	435 Elderberry	Total/NA	Soil	Moisture	



## Lab Chronicle

Client: Small Business Group Inc.  
Project/Site: Laurel Bay Housing Project

TestAmerica Job ID: 490-64150-1

### Client Sample ID: 473 Dogwood

Date Collected: 10/14/14 13:30

Date Received: 10/17/14 08:30

### Lab Sample ID: 490-64150-1

Matrix: Soil

Percent Solids: 68.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.803 g	5.0 mL	199278	10/19/14 19:09	JLP	TAL NSH
Total/NA	Analysis	8260B		1	4.803 g	5.0 mL	199464	10/21/14 10:02	JMG	TAL NSH
Total/NA	Prep	3550C			43.79 g	1.00 mL	199770	10/21/14 15:28	RMS	TAL NSH
Total/NA	Analysis	8270D		1	43.79 g	1.00 mL	200033	10/22/14 20:16	SNR	TAL NSH
Total/NA	Prep	3550C			43.79 g	1.00 mL	199770	10/21/14 15:28	RMS	TAL NSH
Total/NA	Analysis	8270D		5	43.79 g	1.00 mL	200371	10/23/14 16:46	SNR	TAL NSH
Total/NA	Analysis	Moisture		1			199372	10/20/14 10:18	RRS	TAL NSH

### Client Sample ID: 432 Elderberry

Date Collected: 10/15/14 14:45

Date Received: 10/17/14 08:30

### Lab Sample ID: 490-64150-2

Matrix: Soil

Percent Solids: 79.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.804 g	5.0 mL	199278	10/19/14 19:09	JLP	TAL NSH
Total/NA	Analysis	8260B		1	5.804 g	5.0 mL	199464	10/21/14 10:30	JMG	TAL NSH
Total/NA	Prep	5035			6.323 g	5.0 mL	199277	10/19/14 19:05	JLP	TAL NSH
Total/NA	Analysis	8260B		1	6.323 g	5.0 mL	199569	10/21/14 17:52	JMG	TAL NSH
Total/NA	Prep	3550C			38.06 g	1.00 mL	199770	10/21/14 15:28	RMS	TAL NSH
Total/NA	Analysis	8270D		1	38.06 g	1.00 mL	200033	10/22/14 20:39	SNR	TAL NSH
Total/NA	Prep	3550C			38.06 g	1.00 mL	199770	10/21/14 15:28	RMS	TAL NSH
Total/NA	Analysis	8270D		5	38.06 g	1.00 mL	200371	10/23/14 17:09	SNR	TAL NSH
Total/NA	Analysis	Moisture		1			199372	10/20/14 10:18	RRS	TAL NSH

### Client Sample ID: 435 Elderberry

Date Collected: 10/16/14 09:00

Date Received: 10/17/14 08:30

### Lab Sample ID: 490-64150-3

Matrix: Soil

Percent Solids: 82.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.612 g	5.0 mL	199278	10/19/14 19:09	JLP	TAL NSH
Total/NA	Analysis	8260B		1	5.612 g	5.0 mL	199464	10/21/14 10:58	JMG	TAL NSH
Total/NA	Prep	3550C			36.89 g	1.00 mL	199770	10/21/14 15:28	RMS	TAL NSH
Total/NA	Analysis	8270D		1	36.89 g	1.00 mL	200033	10/22/14 21:02	SNR	TAL NSH
Total/NA	Analysis	Moisture		1			199372	10/20/14 10:18	RRS	TAL NSH

#### Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

TestAmerica Nashville



## Method Summary

Client: Small Business Group Inc.  
Project/Site: Laurel Bay Housing Project

TestAmerica Job ID: 490-64150-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL NSH
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL NSH
Moisture	Percent Moisture	EPA	TAL NSH

### Protocol References:

EPA = US Environmental Protection Agency

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

### Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

## Certification Summary

Client: Small Business Group Inc.  
Project/Site: Laurel Bay Housing Project

TestAmerica Job ID: 490-64150-1

### Laboratory: TestAmerica Nashville

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

Authority	Program	EPA Region	Certification ID	Expiration Date
North Carolina (WW/SW)	State Program	4	387	12-31-14
The following analytes are included in this report, but certification is not offered by the governing authority:				
Analysis Method	Prep Method	Matrix	Analyte	
Moisture		Soil	Percent Solids	
South Carolina	State Program	4	84009 (001)	02-28-15
The following analytes are included in this report, but certification is not offered by the governing authority:				
Analysis Method	Prep Method	Matrix	Analyte	
8270D	3550C	Soil	1-Methylnaphthalene	
Moisture		Soil	Percent Solids	

## COOLER RECEIPT FORM



490-64150 Chain of Custody

Cooler Received/Opened On 10/17/2014 @ 0830

1. Tracking # 3968 (last 4 digits, FedEx)

Courier: Fed Ex IR Gun ID 17960358

2. Temperature of rep. sample or temp blank when opened: 0.3 Degrees Celsius

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO NA

4. Were custody seals on outside of cooler? YES...NO...NA

If yes, how many and where: 2 front + back

5. Were the seals intact, signed, and dated correctly? YES...NO...NA

6. Were custody papers inside cooler? YES...NO...NA

I certify that I opened the cooler and answered questions 1-6 (Initial) ERA

7. Were custody seals on containers: YES NO and Intact YES...NO...NA

Were these signed and dated correctly? YES...NO...NA

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry Ice Other None

10. Did all containers arrive in good condition (unbroken)? YES...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES...NO...NA

12. Did all container labels and tags agree with custody papers? YES...NO...NA

13a. Were VOA vials received? YES...NO...NA

b. Was there any observable headspace present in any VOA vial? YES...NO...NA

14. Was there a Trip Blank in this cooler? YES...NO...NA If multiple coolers, sequence # 1

I certify that I unloaded the cooler and answered questions 7-14 (Initial) ADH

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES...NO...NA

b. Did the bottle labels indicate that the correct preservatives were used YES...NO...NA

16. Was residual chlorine present? YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (Initial) ADH

17. Were custody papers properly filled out (Ink, signed, etc)? YES...NO...NA

18. Did you sign the custody papers in the appropriate place? YES...NO...NA

19. Were correct containers used for the analysis requested? YES...NO...NA

20. Was sufficient amount of sample sent in each container? YES...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (Initial) ADH

I certify that I attached a label with the unique LIMS number to each container (Initial) ADH

21. Were there Non-Conformance issues at login? YES...NO... Was a NCM generated? YES...NO...# 0



# 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

Client Name/Account #: EEG - SBG # 2449

Address: 10179 Highway 78

City/State/Zip: Ladson, SC 29456

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

Telephone Number: 843.412.2087

Sampler Name: (Print) Pratt Shaw

Sampler Signature: [Signature]

Loc: 490

**64150**

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

Yes ☐ No ☐

Compliance Monitoring?

Yes ☐ No ☐

Enforcement Action?

Site State: SC

PO#: 1406

TA Quote #:

Project ID: Laurel Bay Housing Project

Project #:

Sample ID / Description	Date Sampled	Time Sampled	No. of Containers Shipped	Grab	Composite	Field Filtered	Ice	HNO <sub>3</sub> (Red Label)	H <sub>2</sub> O <sub>2</sub> (Orange Label)	NaOH (Yellow Label)	H <sub>2</sub> SO <sub>4</sub> Plastic (Yellow Label)	H <sub>2</sub> SO <sub>4</sub> Glass (Yellow Label)	None (Black Label)	Other (Specify)	Groundwater	Wastewater	Drinking Water	Sludge	Soil	Other (Specify)	PAH - 8270D	BTEX + Napth - 8260	Analyze For:	RUSH TAT (Pre-Schedule)	Standard TAT	Fax Results	Send QC with report
4735 Dorewood	10/14/14	1330	5	X																		X	X				
4337 Elderberry	10/15/14	1445	5	X																		X	X				
4335 Elderberry	10/16/14	0900	5	X																		X	X				

Special Instructions: [Signature]

Relinquished by: [Signature] Date: 10/16/14 Time: 0945

Relinquished by: [Signature] Date: 10/17/14 Time: 8:30

Method of Shipment: FEDEX

Received by: [Signature] Date: 10/17/14 Time: 8:30

Received by: [Signature] Date: 10/17/14 Time: 8:30

Laboratory Comments: Temperature Upon Receipt: 0.3 VOCs Free of Headspace? Y N

\* 4337 Entered in Error, should have read 432. [Signature] 11/4/14

## Login Sample Receipt Checklist

Client: Small Business Group Inc.

Job Number: 490-64150-1

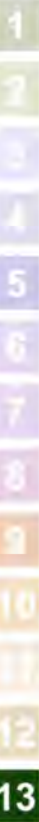
Login Number: 64150

List Source: TestAmerica Nashville

List Number: 1

Creator: Huskey, Adam

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ATTACHMENT A

# UST Certificate of Disposal

## **CONTRACTOR**

Small Business Group, Inc.  
10179 Highway 78  
Ladson, SC 29456

TEL (843) 879-0403  
FAX (843) 879-0401

## **TANK ID & LOCATION**

UST 432Eldereberry, 432 Elderberry Drive, Laurel Bay Housing Area, MCAS Beaufort, S.C.

## **DISPOSAL LOCATION**

Coastal Auto Salvage Co., Inc.  
130 Laurel Bay Road  
Beaufort, S.C. 29906

### **TYPE OF TANK**

### **SIZE (GAL)**

Steel

280

## **CLEANING/DISPOSAL METHOD**

The tank and piping were unearthed, cut open, cleaned with a pressure washer, cut into sections, and recycled.

## **DISPOSAL CERTIFICATION**

I certify that the above tank, piping and equipment has been properly cleaned and disposed of.

T.L. V. Dree , 11/5/14  
(Name) (Date)

**Appendix C**  
**Laboratory Analytical Report - Groundwater**



# Volatile Organic Compounds by GC/MS

Client: <b>AECOM - Resolution Consultants</b>	Laboratory ID: <b>QK13041-011</b>
Description: <b>BEALB432TW01WG20151113</b>	Matrix: <b>Aqueous</b>
Date Sampled: <b>11/13/2015 0935</b>	
Date Received: <b>11/13/2015</b>	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	11/25/2015 1527	ALL		90579

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	0.40	J	5.0	0.51	0.21	ug/L	1
Naphthalene	91-20-3	8260B	6.1		5.0	0.96	0.14	ug/L	1
Toluene	108-88-3	8260B	0.31	J	5.0	0.48	0.24	ug/L	1
Xylenes (total)	1330-20-7	8260B	1.7	J	5.0	0.57	0.32	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		102	75-120
1,2-Dichloroethane-d4		98	70-120
Toluene-d8		96	85-120
Dibromofluoromethane		97	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: <b>AECOM - Resolution Consultants</b>	Laboratory ID: <b>QK13041-011</b>
Description: <b>BEALB432TW01WG20151113</b>	Matrix: <b>Aqueous</b>
Date Sampled: <b>11/13/2015 0935</b>	
Date Received: <b>11/13/2015</b>	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D (SIM)	1	11/25/2015 1142	RBH	11/18/2015 1236	89918

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		60	15-139
Fluoranthene-d10		84	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

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# Volatile Organic Compounds by GC/MS

Client: <b>AECOM - Resolution Consultants</b>	Laboratory ID: <b>QK13041-011</b>
Description: <b>BEALB432TW01WG20151113</b>	Matrix: <b>Aqueous</b>
Date Sampled: <b>11/13/2015 0935</b>	
Date Received: <b>11/13/2015</b>	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	11/25/2015 1527	ALL		90579

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	0.40	J	5.0	0.51	0.21	ug/L	1
Naphthalene	91-20-3	8260B	6.1		5.0	0.96	0.14	ug/L	1
Toluene	108-88-3	8260B	0.31	J	5.0	0.48	0.24	ug/L	1
Xylenes (total)	1330-20-7	8260B	1.7	J	5.0	0.57	0.32	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		102	75-120
1,2-Dichloroethane-d4		98	70-120
Toluene-d8		96	85-120
Dibromofluoromethane		97	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: <b>AECOM - Resolution Consultants</b>	Laboratory ID: <b>QK13041-011</b>
Description: <b>BEALB432TW01WG20151113</b>	Matrix: <b>Aqueous</b>
Date Sampled: <b>11/13/2015 0935</b>	
Date Received: <b>11/13/2015</b>	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D (SIM)	1	11/25/2015 1142	RBH	11/18/2015 1236	89918

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		60	15-139
Fluoranthene-d10		84	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**

### **Regulatory Correspondence**



Catherine E. Heigel, Director

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

July 1, 2015

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 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](mailto: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)  
Bryan Beck (via email)



Catherine E. Heigel, Director

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

**Attachment to:** Krieg to Drawdy  
Subject: IGWA  
Dated 7/1/2015

**Laurel Bay Underground Storage Tank Assessment Reports for: (97 addresses/110 tanks)**

118 Banyan	343 Ash Tank 2
126 Banyan	344 Ash Tank 2
127 Banyan	347 Ash Tank 2
130 Banyan Tank 1	378 Aspen Tank 2
141 Laurel Bay	379 Aspen
151 Laurel Bay	382 Aspen Tank 1
224 Cypress	382 Aspen Tank 2
227 Cypress	394 Acorn Tank 2
256 Beech Tank 2	400 Elderberry
257 Beech Tank 1	432 Elderberry
257 Beech Tank 2	436 Elderberry
264 Beech	473 Dogwood Tank 2
265 Beech Tank 2	482 Laurel Bay
265 Beech Tank 3	517 Laurel Bay
275 Birch	586 Aster
277 Birch Tank 1	632 Dahlia
285 Birch	639 Dahlia Tank 2
292 Birch Tank 3	643 Dahlia Tank 1
297 Birch	644 Dahlia Tank 1
301 Ash	644 Dahlia Tank 2
306 Ash	646 Dahlia Tank 1
310 Ash Tank 1	646 Dahlia Tank 2
313 Ash	665 Camellia
315 Ash Tank 2	699 Abelia
316 Ash	744 Blue Bell
319 Ash	745 Blue Bell Tank 1
320 Ash	747 Blue Bell Tank 1
321 Ash	747 Blue Bell Tank 2
329 Ash	747 Blue Bell Tank 3
330 Ash Tank 2	749 Blue Bell Tank 1
331 Ash	749 Blue Bell Tank 2
332 Ash	751 Blue Bell
333 Ash	762 Althea
335 Ash Tank 1	765 Althea Tank 2
335 Ash Tank 2	766 Althea Tank 4
341 Ash	767 Althea Tank 1
342 Ash Tank 1	768 Althea Tank 2
342 Ash Tank 2	768 Althea Tank 3

**Laurel Bay Underground Storage Tank Assessment Reports for: (98 addresses/110 tanks) cont.**

768 Althea Tank 4	1067 Gardenia
769 Althea Tank 1	1077 Heather
769 Althea Tank 2	1081 Heather
775 Althea	1101 Iris Tank 2
819 Azalea	1104 Iris
840 Azalea	1105 Iris Tank 2
878 Cobia	1124 Iris Tank 2
891 Cobia	1142 Iris Tank 2
913 Barracuda	1146 Iris Tank 2
916 Barracuda	1218 Cardinal
923 Albacore	1240 Dove
1004 Bobwhite	1266 Dove
1022 Foxglove	1292 Eagle
1031 Foxglove	1299 Eagle Tank 1
1034 Foxglove Tank 2	1302 Eagle
1061 Gardenia Tank 3	1336 Albatross
1064 Gardenia	1351 Cardinal





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

June 8, 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-November and December 2015  
Laurel Bay Military Housing Area Multiple Properties  
Dated April 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 attached addresses on May 2, 2016. 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 15 stated addresses. For the remaining 80 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](mailto: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-November and December 2015**

### Specific Property Recommendations

Dated June 8, 2016

## Draft Final Initial Groundwater Investigation Report for (95 addresses)

### Permanent Monitoring Well Investigation recommendation (15 addresses)

130 Banyan Drive	473 Dogwood Drive
256 Beech Street	747 Blue Bell Lane
285 Birch Drive	749 Blue Bell Lane
292 Birch Drive	775 Althea Street
330 Ash Street	1034 Foxglove Street
331 Ash Street	1104 Iris Lane
335 Ash Street	1124 Iris Lane
342 Ash Street	

**No Further Action recommendation (80 addresses)**

118 Banyan Drive	644 Dahlia Drive
126 Banyan Drive	646 Dahlia Drive
127 Banyan Drive	665 Camellia Drive
141 Laurel Bay Blvd	699 Abelia Street
151 Laurel Bay Blvd	744 Blue Bell Lane
224 Cypress Street	745 Blue Bell Lane
227 Cypress Street	751 Blue Bell Lane
257 Beech Street	762 Althea Street
264 Beech Street	765 Althea Street
265 Beech Street	766 Althea Street
275 Birch Drive	767 Althea Street
277 Birch Drive	768 Althea Street
297 Birch Drive	769 Althea Street
301 Ash Street	819 Azalea Drive
306 Ash Street	840 Azalea Drive
310 Ash Street	878 Cobia Drive
313 Ash Street	891 Cobia Drive
315 Ash Street	913 Barracuda Drive
316 Ash Street	916 Barracuda Drive
319 Ash Street	923 Wren Lane
320 Ash Street	1004 Bobwhite Drive
321 Ash Street	1022 Foxglove Street
329 Ash Street	1031 Foxglove Street
332 Ash Street	1061 Gardenia Drive
333 Ash Street	1064 Gardenia Drive
341 Ash Street	1067 Gardenia Drive
347 Ash Street	1077 Heather Street
378 Aspen Street	1081 Heather Street
379 Aspen Street	1101 Iris Lane
382 Aspen Street	1105 Iris Lane
394 Acorn Street	1142 Iris Lane
400 Elderberry Drive	1146 Iris Lane
432 Elderberry Drive	1218 Cardinal Lane
436 Elderberry Drive	1240 Dove Lane
482 Laurel Bay Blvd	1266 Dove Lane
517 Laurel Bay Blvd	1292 Eagle Lane
586 Aster Street	1299 Eagle Lane
632 Dahlia Drive	1302 Eagle Lane
639 Dahlia Drive	1336 Albatross Drive
643 Dahlia Drive	1351 Cardinal Lane