

SUMMARY REPORT  
58 ALBACORE STREET (FORMERLY 929 ALBACORE STREET)  
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
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 58 Albacore Street (Formerly 929 Albacore Street). 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 58 Albacore Street (Formerly 929 Albacore Street). Details regarding the soil investigation at this site are provided in the *SCDHEC UST Assessment Report – 929 Albacore Street* (MCAS Beaufort, 2014). The UST Assessment Report is provided in Appendix B.

### 2.1 UST Removal and Soil Sampling

On January 14, 2014, a single 280 gallon heating oil UST was removed from the back yard adjacent to the patio area at 58 Albacore Street (Formerly 929 Albacore Street). 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 6'3" 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 58 Albacore Street (Formerly 929 Albacore Street) were less than the SCDHEC RBSLs, which indicated the subsurface was not impacted by COPCs associated with the former UST at concentrations that presented a potential risk to human health and the environment.

## 3.0 PROPERTY STATUS

Based on the analytical results for soil, SCDHEC made the determination that NFA was required for 58 Albacore Street (Formerly 929 Albacore Street). This NFA determination was obtained in a letter dated October 1, 2014. SCDHEC's NFA letter is provided in Appendix C.

## 4.0 REFERENCES

Marine Corps Air Station Beaufort, 2014. *South Carolina Department of Health and Environmental Control (SCDHEC) Underground Storage Tank Assessment Report – 929 Albacore Street, Laurel Bay Military Housing Area*, September 2014.

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.

## Table

**Table 1**  
**Laboratory Analytical Results - Soil**  
**58 Albacore Street (Formerly 929 Albacore Street)**  
**Laurel Bay Military Housing Area**  
**Marine Corps Air Station Beaufort**  
**Beaufort, South Carolina**

Constituent	SCDHEC RBSLs <sup>(1)</sup>	Results Sample Collected 01/14/14
<b>Volatile Organic Compounds Analyzed by EPA Method 8260B (mg/kg)</b>		
Benzene	0.003	ND
Ethylbenzene	1.15	ND
Naphthalene	0.036	ND
Toluene	0.627	ND
Xylenes, Total	13.01	ND
<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 2.0 (SCDHEC, April 2013).

Bold font indicates the analyte was detected.

Bold font and shading indicates the concentration exceeds the SCDHEC RBSL.

EPA - United States Environmental Protection Agency

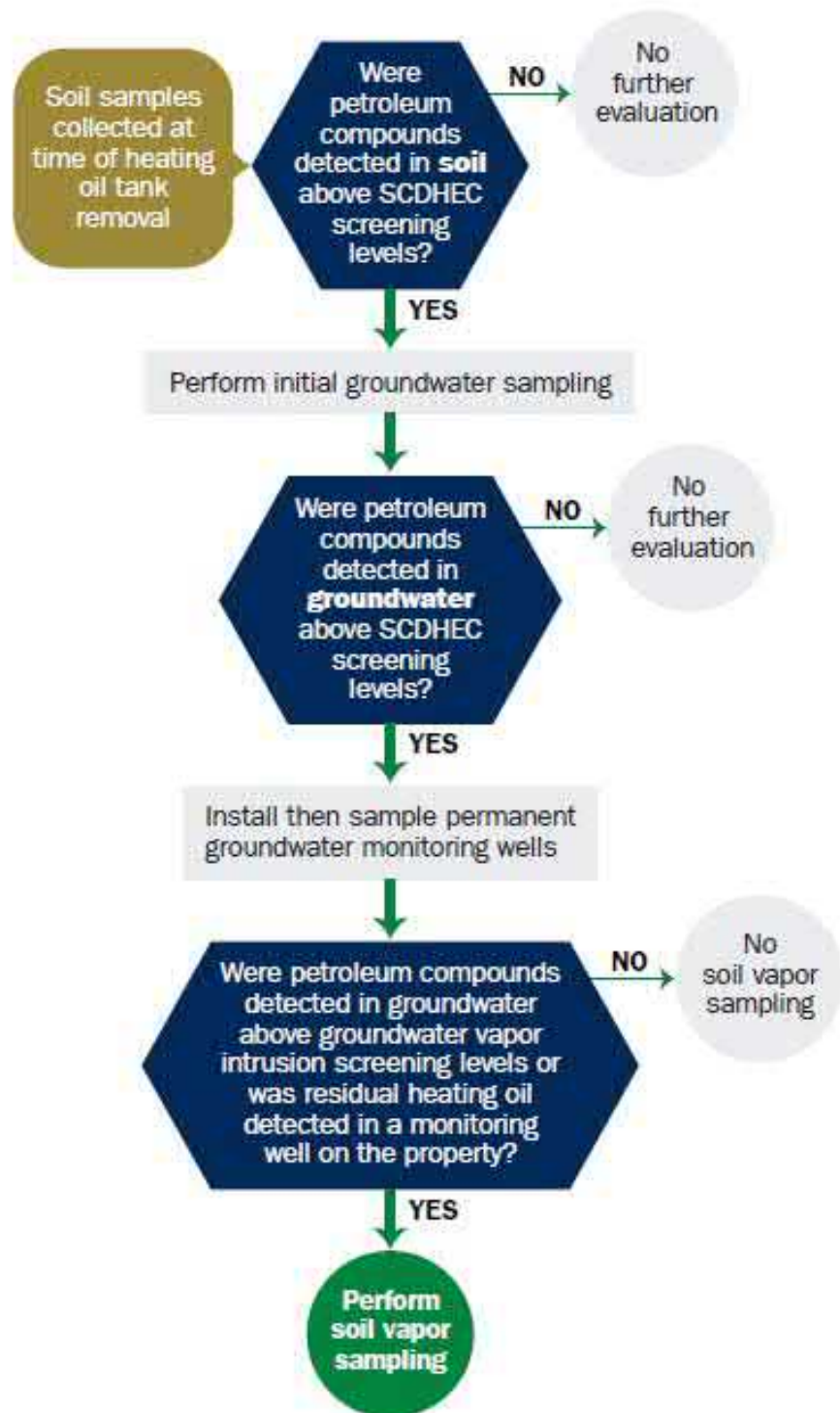
mg/kg - milligram per kilogram

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

RBSL - Risk-Based Screening Level

SCDHEC - South Carolina Department Of Health and Environmental Control

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



Appendix A - Multi-Media Selection Process for LBMH

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

Rec'd 9/11/14

Attachment 1

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

<p>Date Received</p>   <p>State Use Only</p>
---

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	
929 Albacore Street, 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).....

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 929Albacore 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 929Albacore 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.

929Albacore				
Heating oil				
280 gal				
Late 1950s				
Steel				
Mid 1980s				
6'3"				
No				
No				
Removed				
1/14/2014				
Yes				
Yes				

## VII. PIPING INFORMATION

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

B. Distance from UST to Dispenser.....

C. Number of Dispensers.....

D. Type of System Pressure or Suction.....

E. Was Piping Removed from the Ground? Y/N

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

G. Visible Holes Y/N.....

H. Age.....

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

929Albacore				
Steel & Copper				
N/A				
N/A				
Suction				
No				
Yes				
No				
Late 1950s				

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
<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 #
929 Albacore	Excav at fill end	Soil	Sandy	6'3"	1/14/14 1400 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

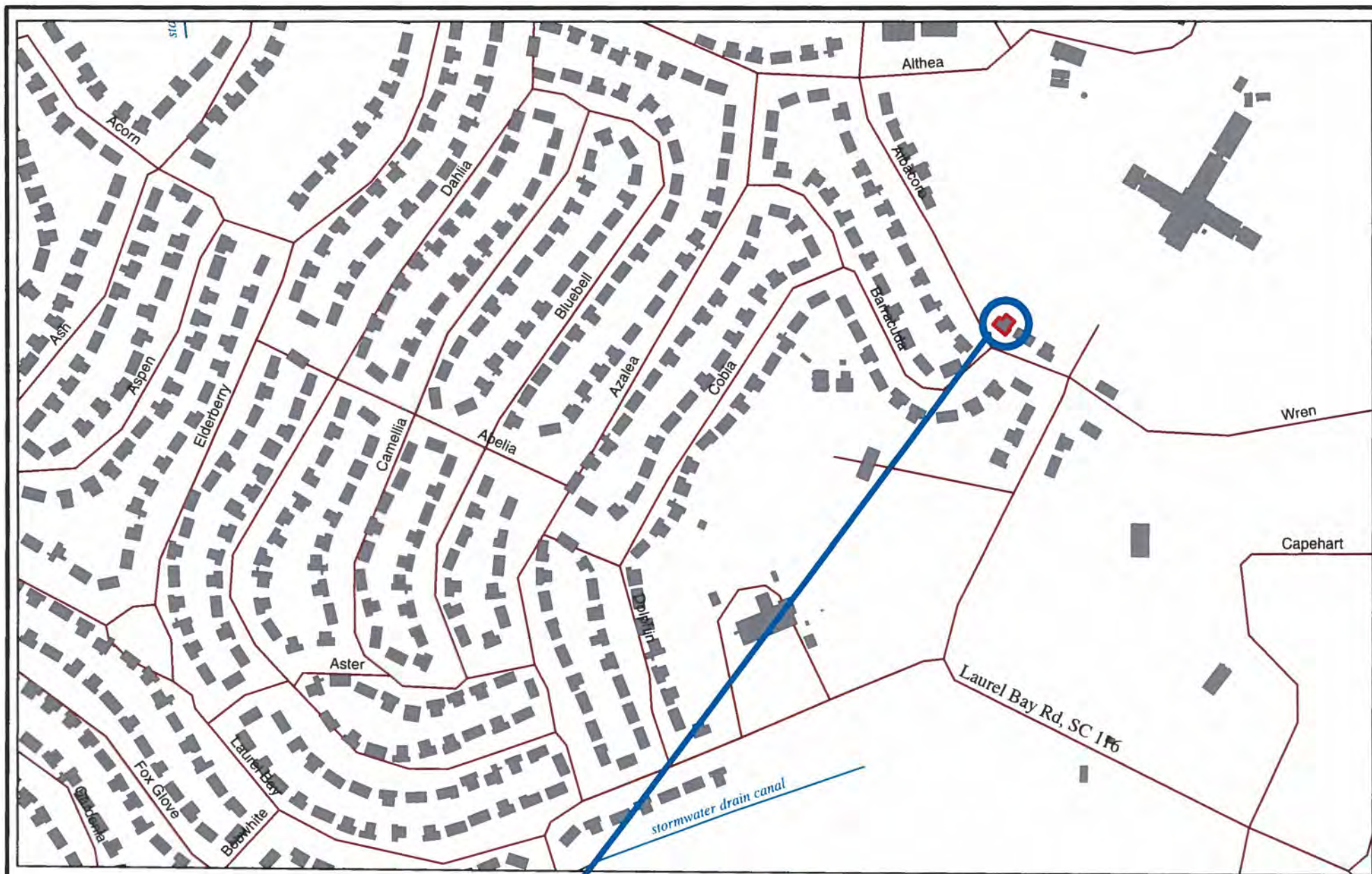
	Yes	No
<p>A. Are there any lakes, ponds, streams, or wetlands located within 1000 feet of the UST system?</p> <p style="text-align: right;">*X</p> <p style="text-align: right;">*Stormwater canal</p> <p>If yes, indicate type of receptor, distance, and direction on site map.</p>	*X	
<p>B. Are there any 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;">*X</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**

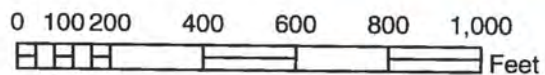
**You must supply a scaled site map. It should include all buildings, road names, utilities, tank and dispenser island locations, labeled sample locations, extent of excavation, and any other pertinent information.**

(Attach Site Map Here)





**929 ALBACORE**



**SBG-EEG, Inc.**

7301 Rivers Ave., Suite 245  
N. Charleston SC 29406-9643

Ph. (843) 573-7140

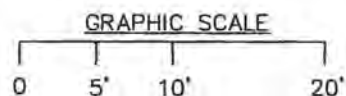
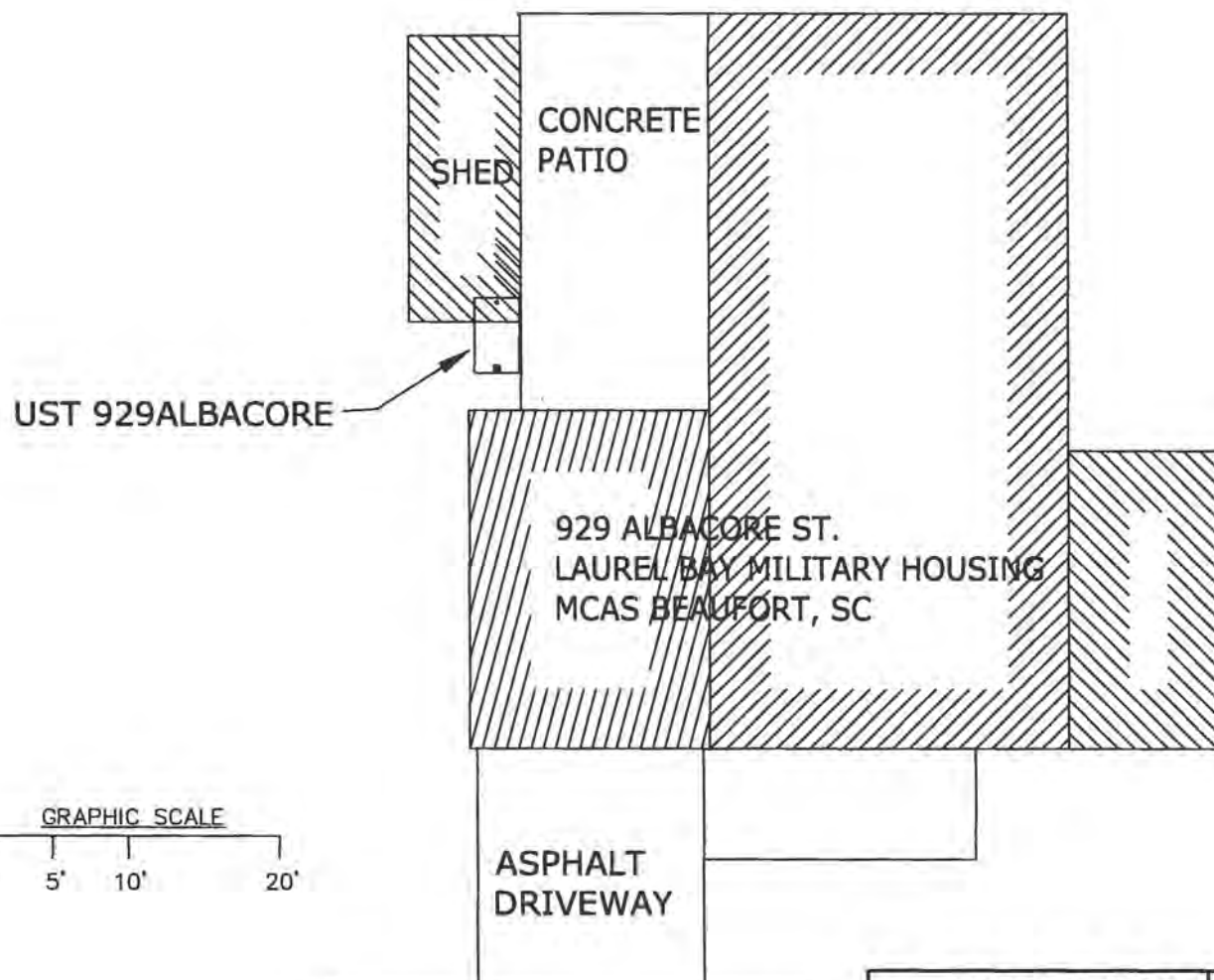
Drawn By: L. DiAsio

Dwg Date: Jan 2014

**FIGURE 1: LOCATION MAP**  
**929 ALBACORE STREET**  
**LAUREL BAY, BEAUFORT SC**



STORMWATER CANAL  $\approx$  635'



TANK DEPTH BELOW GRADE  
929ALBACORE = 39"

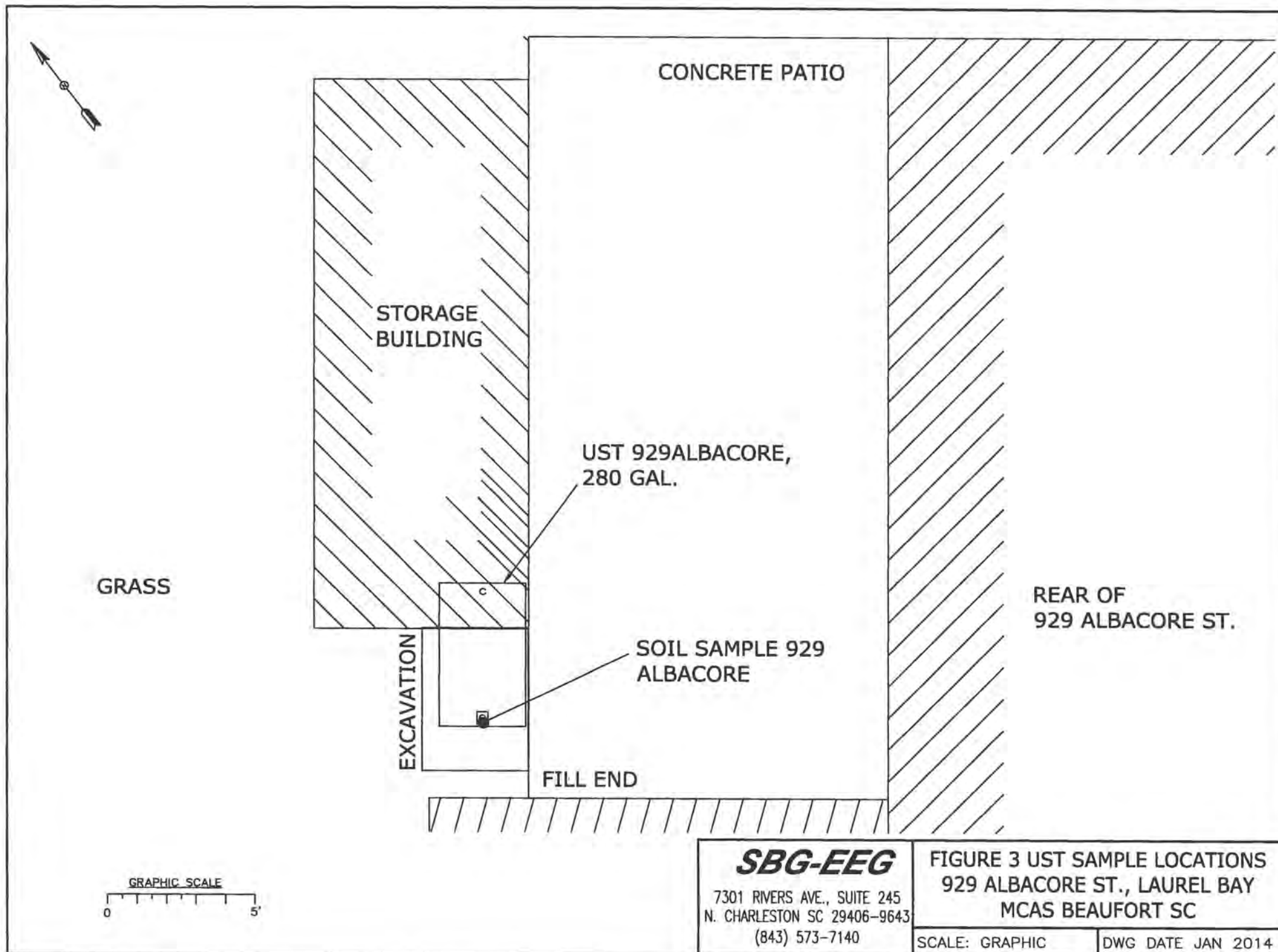
**SBG-EEG**

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

FIGURE 2 SITE MAP  
929 ALBACORE ST., LAUREL BAY  
MCAS BEAUFORT SC

SCALE: GRAPHIC

DWG DATE JAN 2014





Picture 1: Location of UST 929Albacore.



Picture 2: UST 929Albacore 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	929Albacore						
Benzene		ND						
Toluene		ND						
Ethylbenzene		ND						
Xylenes		ND						
Naphthalene		ND						
Benzo (a) anthracene		ND						
Benzo (b) fluoranthene		ND						
Benzo (k) fluoranthene		ND						
Chrysene		ND						
Dibenz (a, h) anthracene		ND						
TPH (EPA 3550)								

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



### SUMMARY OF ANALYSIS RESULTS (cont'd)

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

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

## **XV. ANALYTICAL RESULTS**

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

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

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.  
TestAmerica Nashville  
2960 Foster Creighton Drive  
Nashville, TN 37204  
Tel: (615)726-0177

TestAmerica Job ID: 490-44955-1  
Client Project/Site: Laurel Bay Housing Project

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

Attn: Tom McElwee

*Heather Baker*

Authorized for release by:  
1/27/2014 12:59:54 PM  
Heather Baker, Project Manager I  
(615)301-5043  
[heather.baker@testamericainc.com](mailto:heather.baker@testamericainc.com)

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

### LINKS

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results through

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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.*

1

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## Sample Summary

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

TestAmerica Job ID: 490-44955-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
490-44955-1	929 Albacore	Soil	01/14/14 14:00	01/22/14 08:30
490-44955-2	340 Ash-1	Soil	01/15/14 15:15	01/22/14 08:30

## Case Narrative

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

TestAmerica Job ID: 490-44955-1

**Job ID: 490-44955-1**

**Laboratory: TestAmerica Nashville**

### Narrative

**Job Narrative**  
**490-44955-1**

### Comments

No additional comments.

### Receipt

The samples were received on 1/22/2014 8:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.0° C.

### GC/MS VOA

Method(s) 8260B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with batch 136729. See LCS/LCSD.

No other analytical or quality issues were noted.

### GC/MS Semi VOA

Method(s) 8270D: The method blank for batch 136933 contained Phenanthrene above the method detection limit. The target analyte concentrations were less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method(s) 8270D: The method blank for preparation batch 136933 contained Acenaphthylene above the reporting limit (RL). None of the following samples associated with this method blank contained the target compound; therefore, re-extraction and/or re-analysis of samples were not performed: 340 Ash-1 (490-44955-2), 929 Albacore (490-44955-1).

No other analytical or quality issues were noted.

### Organic Prep

No analytical or quality issues were noted.

### VOA Prep

No analytical or quality issues were noted.

## Definitions/Glossary

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

TestAmerica Job ID: 490-44955-1

### Qualifiers

#### GC/MS VOA

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

#### GC/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.
B	Compound was found in the blank and sample.

### 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
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: 490-44955-1

**Client Sample ID: 929 Albacore**

Date Collected: 01/14/14 14:00

Date Received: 01/22/14 08:30

**Lab Sample ID: 490-44955-1**

Matrix: Soil

Percent Solids: 87.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00260	0.000869	mg/Kg	☐	01/22/14 12:16	01/22/14 16:39	1
Ethylbenzene	ND		0.00260	0.000869	mg/Kg	☐	01/22/14 12:16	01/22/14 16:39	1
Naphthalene	ND		0.00649	0.00221	mg/Kg	☐	01/22/14 12:16	01/22/14 16:39	1
Toluene	ND		0.00260	0.000960	mg/Kg	☐	01/22/14 12:16	01/22/14 16:39	1
Xylenes, Total	ND		0.00649	0.000869	mg/Kg	☐	01/22/14 12:16	01/22/14 16:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	70		70 - 130	01/22/14 12:16	01/22/14 16:39	1
4-Bromofluorobenzene (Surr)	81		70 - 130	01/22/14 12:16	01/22/14 16:39	1
Dibromofluoromethane (Surr)	104		70 - 130	01/22/14 12:16	01/22/14 16:39	1
Toluene-d8 (Surr)	97		70 - 130	01/22/14 12:16	01/22/14 16:39	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0766	0.0114	mg/Kg	☐	01/22/14 16:07	01/23/14 18:38	1
Acenaphthylene	ND		0.0766	0.0103	mg/Kg	☐	01/22/14 16:07	01/23/14 18:38	1
Anthracene	ND		0.0766	0.0103	mg/Kg	☐	01/22/14 16:07	01/23/14 18:38	1
Benzo[a]anthracene	ND		0.0766	0.0171	mg/Kg	☐	01/22/14 16:07	01/23/14 18:38	1
Benzo[a]pyrene	ND		0.0766	0.0137	mg/Kg	☐	01/22/14 16:07	01/23/14 18:38	1
Benzo[b]fluoranthene	ND		0.0766	0.0137	mg/Kg	☐	01/22/14 16:07	01/23/14 18:38	1
Benzo[g,h,i]perylene	ND		0.0766	0.0103	mg/Kg	☐	01/22/14 16:07	01/23/14 18:38	1
Benzo[k]fluoranthene	ND		0.0766	0.0160	mg/Kg	☐	01/22/14 16:07	01/23/14 18:38	1
1-Methylnaphthalene	ND		0.0766	0.0160	mg/Kg	☐	01/22/14 16:07	01/23/14 18:38	1
Pyrene	ND		0.0766	0.0137	mg/Kg	☐	01/22/14 16:07	01/23/14 18:38	1
Phenanthrene	ND		0.0766	0.0103	mg/Kg	☐	01/22/14 16:07	01/23/14 18:38	1
Chrysene	ND		0.0766	0.0103	mg/Kg	☐	01/22/14 16:07	01/23/14 18:38	1
Dibenz(a,h)anthracene	ND		0.0766	0.00800	mg/Kg	☐	01/22/14 16:07	01/23/14 18:38	1
Fluoranthene	ND		0.0766	0.0103	mg/Kg	☐	01/22/14 16:07	01/23/14 18:38	1
Fluorene	ND		0.0766	0.0137	mg/Kg	☐	01/22/14 16:07	01/23/14 18:38	1
Indeno[1,2,3-cd]pyrene	ND		0.0766	0.0114	mg/Kg	☐	01/22/14 16:07	01/23/14 18:38	1
Naphthalene	ND		0.0766	0.0103	mg/Kg	☐	01/22/14 16:07	01/23/14 18:38	1
2-Methylnaphthalene	ND		0.0766	0.0183	mg/Kg	☐	01/22/14 16:07	01/23/14 18:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	61		29 - 120	01/22/14 16:07	01/23/14 18:38	1
Terphenyl-d14 (Surr)	71		13 - 120	01/22/14 16:07	01/23/14 18:38	1
Nitrobenzene-d5 (Surr)	60		27 - 120	01/22/14 16:07	01/23/14 18:38	1

### General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	87		0.10	0.10	%			01/22/14 13:46	1

TestAmerica Nashville



# Client Sample Results

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

TestAmerica Job ID: 490-44955-1

Client Sample ID: 340 Ash-1

Date Collected: 01/15/14 15:15

Date Received: 01/22/14 08:30

Lab Sample ID: 490-44955-2

Matrix: Soil

Percent Solids: 87.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00202	0.000678	mg/Kg	☐	01/22/14 12:16	01/22/14 17:09	1
Ethylbenzene	0.00306		0.00202	0.000678	mg/Kg	☐	01/22/14 12:16	01/22/14 17:09	1
Naphthalene	0.0217		0.00506	0.00172	mg/Kg	☐	01/22/14 12:16	01/22/14 17:09	1
Toluene	0.00162	J	0.00202	0.000749	mg/Kg	☐	01/22/14 12:16	01/22/14 17:09	1
Xylenes, Total	0.0161		0.00506	0.000678	mg/Kg	☐	01/22/14 12:16	01/22/14 17:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	82		70 - 130	01/22/14 12:16	01/22/14 17:09	1
4-Bromofluorobenzene (Surr)	114		70 - 130	01/22/14 12:16	01/22/14 17:09	1
Dibromofluoromethane (Surr)	106		70 - 130	01/22/14 12:16	01/22/14 17:09	1
Toluene-d8 (Surr)	103		70 - 130	01/22/14 12:16	01/22/14 17:09	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0770	0.0115	mg/Kg	☐	01/22/14 16:07	01/23/14 19:00	1
Acenaphthylene	ND		0.0770	0.0103	mg/Kg	☐	01/22/14 16:07	01/23/14 19:00	1
Anthracene	0.0191	J	0.0770	0.0103	mg/Kg	☐	01/22/14 16:07	01/23/14 19:00	1
Benzo[a]anthracene	0.0734	J	0.0770	0.0172	mg/Kg	☐	01/22/14 16:07	01/23/14 19:00	1
Benzo[a]pyrene	ND		0.0770	0.0138	mg/Kg	☐	01/22/14 16:07	01/23/14 19:00	1
Benzo[b]fluoranthene	0.0693	J	0.0770	0.0138	mg/Kg	☐	01/22/14 16:07	01/23/14 19:00	1
Benzo[g,h,i]perylene	ND		0.0770	0.0103	mg/Kg	☐	01/22/14 16:07	01/23/14 19:00	1
Benzo[k]fluoranthene	ND		0.0770	0.0161	mg/Kg	☐	01/22/14 16:07	01/23/14 19:00	1
1-Methylnaphthalene	0.0882		0.0770	0.0161	mg/Kg	☐	01/22/14 16:07	01/23/14 19:00	1
Pyrene	0.128		0.0770	0.0138	mg/Kg	☐	01/22/14 16:07	01/23/14 19:00	1
Phenanthrene	0.0749	J B	0.0770	0.0103	mg/Kg	☐	01/22/14 16:07	01/23/14 19:00	1
Chrysene	0.0719	J	0.0770	0.0103	mg/Kg	☐	01/22/14 16:07	01/23/14 19:00	1
Dibenz(a,h)anthracene	ND		0.0770	0.00805	mg/Kg	☐	01/22/14 16:07	01/23/14 19:00	1
Fluoranthene	0.119		0.0770	0.0103	mg/Kg	☐	01/22/14 16:07	01/23/14 19:00	1
Fluorene	ND		0.0770	0.0138	mg/Kg	☐	01/22/14 16:07	01/23/14 19:00	1
Indeno[1,2,3-cd]pyrene	ND		0.0770	0.0115	mg/Kg	☐	01/22/14 16:07	01/23/14 19:00	1
Naphthalene	ND		0.0770	0.0103	mg/Kg	☐	01/22/14 16:07	01/23/14 19:00	1
2-Methylnaphthalene	ND		0.0770	0.0184	mg/Kg	☐	01/22/14 16:07	01/23/14 19:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	62		29 - 120	01/22/14 16:07	01/23/14 19:00	1
Terphenyl-d14 (Surr)	69		13 - 120	01/22/14 16:07	01/23/14 19:00	1
Nitrobenzene-d5 (Surr)	61		27 - 120	01/22/14 16:07	01/23/14 19:00	1

## General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	87		0.10	0.10	%			01/22/14 13:46	1

TestAmerica Nashville

## QC Sample Results

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

TestAmerica Job ID: 490-44955-1

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

Lab Sample ID: MB 490-136729/7

Matrix: Solid

Analysis Batch: 136729

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	Result	MB MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00200	0.000670	mg/Kg			01/22/14 13:12	1
Ethylbenzene	ND		0.00200	0.000670	mg/Kg			01/22/14 13:12	1
Naphthalene	ND		0.00500	0.00170	mg/Kg			01/22/14 13:12	1
Toluene	ND		0.00200	0.000740	mg/Kg			01/22/14 13:12	1
Xylenes, Total	ND		0.00500	0.000670	mg/Kg			01/22/14 13:12	1

Surrogate	%Recovery	MB MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	85		70 - 130		01/22/14 13:12	1
4-Bromofluorobenzene (Surr)	103		70 - 130		01/22/14 13:12	1
Dibromofluoromethane (Surr)	107		70 - 130		01/22/14 13:12	1
Toluene-d8 (Surr)	98		70 - 130		01/22/14 13:12	1

Lab Sample ID: LCS 490-136729/3

Matrix: Solid

Analysis Batch: 136729

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS LCS Result Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0500	0.04788	mg/Kg		96	75 - 127
Ethylbenzene	0.0500	0.04627	mg/Kg		93	80 - 134
Naphthalene	0.0500	0.04356	mg/Kg		87	69 - 150
Toluene	0.0500	0.04751	mg/Kg		95	80 - 132
Xylenes, Total	0.100	0.08575	mg/Kg		86	80 - 137

Surrogate	%Recovery	LCS LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	87		70 - 130
4-Bromofluorobenzene (Surr)	94		70 - 130
Dibromofluoromethane (Surr)	102		70 - 130
Toluene-d8 (Surr)	93		70 - 130

Lab Sample ID: LCSD 490-136729/4

Matrix: Solid

Analysis Batch: 136729

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD LCSD Result Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.0500	0.04761	mg/Kg		95	75 - 127	1	50
Ethylbenzene	0.0500	0.04406	mg/Kg		88	80 - 134	5	50
Naphthalene	0.0500	0.04747	mg/Kg		95	69 - 150	9	50
Toluene	0.0500	0.04192	mg/Kg		84	80 - 132	13	50
Xylenes, Total	0.100	0.08335	mg/Kg		83	80 - 137	3	50

Surrogate	%Recovery	LCSD LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	93		70 - 130
4-Bromofluorobenzene (Surr)	88		70 - 130
Dibromofluoromethane (Surr)	114		70 - 130
Toluene-d8 (Surr)	87		70 - 130

TestAmerica Nashville



## QC Sample Results

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

TestAmerica Job ID: 490-44955-1

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

Lab Sample ID: MB 490-136933/1-A

Matrix: Solid

Analysis Batch: 137131

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 136933

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0670	0.0100	mg/Kg		01/22/14 16:07	01/23/14 16:48	1
Acenaphthylene	0.09873		0.0670	0.00900	mg/Kg		01/22/14 16:07	01/23/14 16:48	1
Anthracene	ND		0.0670	0.00900	mg/Kg		01/22/14 16:07	01/23/14 16:48	1
Benzo[a]anthracene	ND		0.0670	0.0150	mg/Kg		01/22/14 16:07	01/23/14 16:48	1
Benzo[a]pyrene	ND		0.0670	0.0120	mg/Kg		01/22/14 16:07	01/23/14 16:48	1
Benzo[b]fluoranthene	ND		0.0670	0.0120	mg/Kg		01/22/14 16:07	01/23/14 16:48	1
Benzo[g,h,i]perylene	ND		0.0670	0.00900	mg/Kg		01/22/14 16:07	01/23/14 16:48	1
Benzo[k]fluoranthene	ND		0.0670	0.0140	mg/Kg		01/22/14 16:07	01/23/14 16:48	1
1-Methylnaphthalene	ND		0.0670	0.0140	mg/Kg		01/22/14 16:07	01/23/14 16:48	1
Pyrene	ND		0.0670	0.0120	mg/Kg		01/22/14 16:07	01/23/14 16:48	1
Phenanthrene	0.03632	J	0.0670	0.00900	mg/Kg		01/22/14 16:07	01/23/14 16:48	1
Chrysene	ND		0.0670	0.00900	mg/Kg		01/22/14 16:07	01/23/14 16:48	1
Dibenz(a,h)anthracene	ND		0.0670	0.00700	mg/Kg		01/22/14 16:07	01/23/14 16:48	1
Fluoranthene	ND		0.0670	0.00900	mg/Kg		01/22/14 16:07	01/23/14 16:48	1
Fluorene	ND		0.0670	0.0120	mg/Kg		01/22/14 16:07	01/23/14 16:48	1
Indeno[1,2,3-cd]pyrene	ND		0.0670	0.0100	mg/Kg		01/22/14 16:07	01/23/14 16:48	1
Naphthalene	ND		0.0670	0.00900	mg/Kg		01/22/14 16:07	01/23/14 16:48	1
2-Methylnaphthalene	ND		0.0670	0.0160	mg/Kg		01/22/14 16:07	01/23/14 16:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	83		29 - 120	01/22/14 16:07	01/23/14 16:48	1
Terphenyl-d14 (Surr)	89		13 - 120	01/22/14 16:07	01/23/14 16:48	1
Nitrobenzene-d5 (Surr)	81		27 - 120	01/22/14 16:07	01/23/14 16:48	1

Lab Sample ID: LCS 490-136933/2-A

Matrix: Solid

Analysis Batch: 137131

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 136933

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthylene	1.67	1.502		mg/Kg		90	38 - 120
Anthracene	1.67	1.450		mg/Kg		87	46 - 124
Benzo[a]anthracene	1.67	1.362		mg/Kg		82	45 - 120
Benzo[a]pyrene	1.67	1.437		mg/Kg		86	45 - 120
Benzo[b]fluoranthene	1.67	1.579		mg/Kg		95	42 - 120
Benzo[g,h,i]perylene	1.67	1.458		mg/Kg		87	38 - 120
Benzo[k]fluoranthene	1.67	1.241		mg/Kg		74	42 - 120
1-Methylnaphthalene	1.67	1.307		mg/Kg		78	32 - 120
Pyrene	1.67	1.397		mg/Kg		84	43 - 120
Phenanthrene	1.67	1.349		mg/Kg		81	45 - 120
Chrysene	1.67	1.417		mg/Kg		85	43 - 120
Dibenz(a,h)anthracene	1.67	1.552		mg/Kg		93	32 - 128
Fluoranthene	1.67	1.377		mg/Kg		83	46 - 120
Fluorene	1.67	1.376		mg/Kg		83	42 - 120
Indeno[1,2,3-cd]pyrene	1.67	1.419		mg/Kg		85	41 - 121
Naphthalene	1.67	1.360		mg/Kg		82	32 - 120
2-Methylnaphthalene	1.67	1.302		mg/Kg		78	28 - 120

TestAmerica Nashville

## QC Sample Results

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

TestAmerica Job ID: 490-44955-1

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

Lab Sample ID: LCS 490-136933/2-A  
Matrix: Solid  
Analysis Batch: 137131

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 136933

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
2-Fluorobiphenyl (Surr)	80		29 - 120
Terphenyl-d14 (Surr)	84		13 - 120
Nitrobenzene-d5 (Surr)	79		27 - 120

Lab Sample ID: 490-44955-2 MS  
Matrix: Soil  
Analysis Batch: 137131

Client Sample ID: 340 Ash-1  
Prep Type: Total/NA  
Prep Batch: 136933

	Sample	Sample	Spike	MS	MS				
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Acenaphthylene	ND		1.88	1.340		mg/Kg	☐	71	25 - 120
Anthracene	0.0191	J	1.88	1.337		mg/Kg	☐	70	28 - 125
Benzo[a]anthracene	0.0734	J	1.88	1.264		mg/Kg	☐	63	23 - 120
Benzo[a]pyrene	ND		1.88	1.309		mg/Kg	☐	70	15 - 128
Benzo[b]fluoranthene	0.0693	J	1.88	1.307		mg/Kg	☐	66	12 - 133
Benzo[g,h,i]perylene	ND		1.88	1.284		mg/Kg	☐	68	22 - 120
Benzo[k]fluoranthene	ND		1.88	1.290		mg/Kg	☐	69	28 - 120
1-Methylnaphthalene	0.0882		1.88	1.555		mg/Kg	☐	78	10 - 120
Pyrene	0.128		1.88	1.344		mg/Kg	☐	65	20 - 123
Phenanthrene	0.0749	J B	1.88	1.454		mg/Kg	☐	73	21 - 122
Chrysene	0.0719	J	1.88	1.295		mg/Kg	☐	65	20 - 120
Dibenz[a,h]anthracene	ND		1.88	1.344		mg/Kg	☐	71	12 - 128
Fluoranthene	0.119		1.88	1.342		mg/Kg	☐	65	10 - 143
Fluorene	ND		1.88	1.278		mg/Kg	☐	68	20 - 120
Indeno[1,2,3-cd]pyrene	ND		1.88	1.284		mg/Kg	☐	68	22 - 121
Naphthalene	ND		1.88	1.200		mg/Kg	☐	64	10 - 120
2-Methylnaphthalene	ND		1.88	1.322		mg/Kg	☐	70	13 - 120

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
2-Fluorobiphenyl (Surr)	62		29 - 120
Terphenyl-d14 (Surr)	66		13 - 120
Nitrobenzene-d5 (Surr)	65		27 - 120

Lab Sample ID: 490-44955-2 MSD  
Matrix: Soil  
Analysis Batch: 137131

Client Sample ID: 340 Ash-1  
Prep Type: Total/NA  
Prep Batch: 136933

	Sample	Sample	Spike	MSD	MSD						
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Acenaphthylene	ND		1.86	1.282		mg/Kg	☐	69	25 - 120	4	50
Anthracene	0.0191	J	1.86	1.555		mg/Kg	☐	83	28 - 125	15	49
Benzo[a]anthracene	0.0734	J	1.86	1.592		mg/Kg	☐	82	23 - 120	23	50
Benzo[a]pyrene	ND		1.86	1.606		mg/Kg	☐	86	15 - 128	20	50
Benzo[b]fluoranthene	0.0693	J	1.86	1.853		mg/Kg	☐	96	12 - 133	35	50
Benzo[g,h,i]perylene	ND		1.86	1.572		mg/Kg	☐	85	22 - 120	20	50
Benzo[k]fluoranthene	ND		1.86	1.439		mg/Kg	☐	77	28 - 120	11	45
1-Methylnaphthalene	0.0882		1.86	1.268		mg/Kg	☐	63	10 - 120	20	50
Pyrene	0.128		1.86	1.682		mg/Kg	☐	84	20 - 123	22	50
Phenanthrene	0.0749	J B	1.86	1.701		mg/Kg	☐	87	21 - 122	16	50
Chrysene	0.0719	J	1.86	1.660		mg/Kg	☐	85	20 - 120	25	49

TestAmerica Nashville



## QC Sample Results

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

TestAmerica Job ID: 490-44955-1

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

Lab Sample ID: 490-44955-2 MSD

Matrix: Soil

Analysis Batch: 137131

Client Sample ID: 340 Ash-1

Prep Type: Total/NA

Prep Batch: 136933

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.		RPD	
	Result	Qualifier	Added	Result	Qualifier				Limits		RPD	Limit
Dibenz(a,h)anthracene	ND		1.86	1.664		mg/Kg	☐	89	12 - 128		21	50
Fluoranthene	0.119		1.86	1.720		mg/Kg	☐	86	10 - 143		25	50
Fluorene	ND		1.86	1.426		mg/Kg	☐	77	20 - 120		11	50
Indeno[1,2,3-cd]pyrene	ND		1.86	1.585		mg/Kg	☐	85	22 - 121		21	50
Naphthalene	ND		1.86	0.9482		mg/Kg	☐	51	10 - 120		23	50
2-Methylnaphthalene	ND		1.86	1.118		mg/Kg	☐	60	13 - 120		17	50
<b>MSD MSD</b>												
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>									
2-Fluorobiphenyl (Surr)	53		29 - 120									
Terphenyl-d14 (Surr)	76		13 - 120									
Nitrobenzene-d5 (Surr)	54		27 - 120									

### Method: Moisture - Percent Moisture

Lab Sample ID: 490-44955-1 DU

Matrix: Soil

Analysis Batch: 136859

Client Sample ID: 929 Albacore

Prep Type: Total/NA

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Percent Solids	87		87		%		0.9	20

TestAmerica Nashville

## QC Association Summary

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

TestAmerica Job ID: 490-44955-1

### GC/MS VOA

#### Analysis Batch: 136729

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-44955-1	929 Albacore	Total/NA	Soil	8260B	136824
490-44955-2	340 Ash-1	Total/NA	Soil	8260B	136824
LCS 490-136729/3	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 490-136729/4	Lab Control Sample Dup	Total/NA	Solid	8260B	
MB 490-136729/7	Method Blank	Total/NA	Solid	8260B	

#### Prep Batch: 136824

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-44955-1	929 Albacore	Total/NA	Soil	5035	
490-44955-2	340 Ash-1	Total/NA	Soil	5035	

### GC/MS Semi VOA

#### Prep Batch: 136933

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-44955-1	929 Albacore	Total/NA	Soil	3550C	
490-44955-2	340 Ash-1	Total/NA	Soil	3550C	
490-44955-2 MS	340 Ash-1	Total/NA	Soil	3550C	
490-44955-2 MSD	340 Ash-1	Total/NA	Soil	3550C	
LCS 490-136933/2-A	Lab Control Sample	Total/NA	Solid	3550C	
MB 490-136933/1-A	Method Blank	Total/NA	Solid	3550C	

#### Analysis Batch: 137131

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-44955-1	929 Albacore	Total/NA	Soil	8270D	136933
490-44955-2	340 Ash-1	Total/NA	Soil	8270D	136933
490-44955-2 MS	340 Ash-1	Total/NA	Soil	8270D	136933
490-44955-2 MSD	340 Ash-1	Total/NA	Soil	8270D	136933
LCS 490-136933/2-A	Lab Control Sample	Total/NA	Solid	8270D	136933
MB 490-136933/1-A	Method Blank	Total/NA	Solid	8270D	136933

### General Chemistry

#### Analysis Batch: 136859

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-44955-1	929 Albacore	Total/NA	Soil	Moisture	
490-44955-1 DU	929 Albacore	Total/NA	Soil	Moisture	
490-44955-2	340 Ash-1	Total/NA	Soil	Moisture	

TestAmerica Nashville

## Lab Chronicle

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

TestAmerica Job ID: 490-44955-1

### Client Sample ID: 929 Albacore

Date Collected: 01/14/14 14:00

Date Received: 01/22/14 08:30

### Lab Sample ID: 490-44955-1

Matrix: Soil

Percent Solids: 87.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.407 g	5.0 mL	136824	01/22/14 12:16	JLP	TAL NSH
Total/NA	Analysis	8260B		1	4.407 g	5.0 mL	136729	01/22/14 16:39	SNR	TAL NSH
Total/NA	Prep	3550C			30.01 g	1.00 mL	136933	01/22/14 16:07	BJB	TAL NSH
Total/NA	Analysis	8270D		1	30.01 g	1.00 mL	137131	01/23/14 18:38	KKH	TAL NSH
Total/NA	Analysis	Moisture		1			136859	01/22/14 13:46	RRS	TAL NSH

### Client Sample ID: 340 Ash-1

Date Collected: 01/15/14 15:15

Date Received: 01/22/14 08:30

### Lab Sample ID: 490-44955-2

Matrix: Soil

Percent Solids: 87.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.682 g	5.0 mL	136824	01/22/14 12:16	JLP	TAL NSH
Total/NA	Analysis	8260B		1	5.682 g	5.0 mL	136729	01/22/14 17:09	SNR	TAL NSH
Total/NA	Prep	3550C			30.00 g	1.00 mL	136933	01/22/14 16:07	BJB	TAL NSH
Total/NA	Analysis	8270D		1	30.00 g	1.00 mL	137131	01/23/14 19:00	KKH	TAL NSH
Total/NA	Analysis	Moisture		1			136859	01/22/14 13:46	RRS	TAL NSH

#### Laboratory References:

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

## Method Summary

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

TestAmerica Job ID: 490-44955-1

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: 490-44955-1

### Laboratory: TestAmerica Nashville

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
A2LA	ISO/IEC 17025		0453.07	12-31-15
Alaska (UST)	State Program	10	UST-087	07-24-14
Arizona	State Program	9	AZ0473	05-05-14
Arizona	State Program	9	AZ0473	05-05-14 *
Arkansas DEQ	State Program	6	88-0737	04-25-14
California	NELAP	9	1168CA	10-31-14
Canadian Assoc Lab Accred (CALA)	Canada		3744	03-08-14
Connecticut	State Program	1	PH-0220	12-31-15
Florida	NELAP	4	E87358	06-30-14
Illinois	NELAP	5	200010	12-09-14
Iowa	State Program	7	131	05-01-14
Kansas	NELAP	7	E-10229	10-31-14
Kentucky (UST)	State Program	4	19	06-30-14
Louisiana	NELAP	6	30613	06-30-14
Maryland	State Program	3	316	03-31-14
Massachusetts	State Program	1	M-TN032	06-30-14
Minnesota	NELAP	5	047-999-345	12-31-14
Mississippi	State Program	4	N/A	06-30-14
Montana (UST)	State Program	8	NA	01-01-20
Nevada	State Program	9	TN00032	07-31-14
New Hampshire	NELAP	1	2963	10-10-14
New Jersey	NELAP	2	TN965	06-30-14
New York	NELAP	2	11342	04-01-14
North Carolina DENR	State Program	4	387	12-31-14
North Dakota	State Program	8	R-146	06-30-14
Ohio VAP	State Program	5	CL0033	10-16-15
Oklahoma	State Program	6	9412	08-31-14
Oregon	NELAP	10	TN200001	04-29-14
Pennsylvania	NELAP	3	68-00585	06-30-14
Rhode Island	State Program	1	LA000268	12-30-14
South Carolina	State Program	4	84009 (001)	02-28-14
Tennessee	State Program	4	2008	02-23-14
Texas	NELAP	6	T104704077-09-TX	08-31-14
USDA	Federal		S-48469	10-30-16
Utah	NELAP	8	TN00032	07-31-14
Virginia	NELAP	3	460152	06-14-14
Washington	State Program	10	C789	07-19-14
West Virginia DEP	State Program	3	219	02-28-14
Wisconsin	State Program	5	998020430	08-31-14
Wyoming (UST)	A2LA	8	453.07	12-31-15

\* Expired certification is currently pending renewal and is considered valid.

TestAmerica Nashville

### COOLER RECEIPT FORM



490-44955 Chain of Custody

Cooler Received/Opened On 1/22/2014 @ 0830

1. Tracking # 6647 (last 4 digits, FedEx)

Courier: FedEx IR Gun ID 12080142

2. Temperature of rep. sample or temp blank when opened: 2.0 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?

If yes, how many and where:

1 (front) 1 (back)

5. Were the seals intact, signed, and dated correctly?

6. Were custody papers inside cooler?

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

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)?

11. Were all container labels complete (#, date, signed, pres., etc)?

12. Did all container labels and tags agree with custody papers?

13a. Were VOA vials received?

b. Was there any observable headspace present in any VOA vial?

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

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

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

16. Was residual chlorine present?

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

17. Were custody papers properly filled out (Ink, signed, etc)?

18. Did you sign the custody papers in the appropriate place?

19. Were correct containers used for the analysis requested?

20. Was sufficient amount of sample sent in each container?

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

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

21. Were there Non-Conformance Issues at login? YES...NO Was a NCM generated? YES...NO..# \_\_\_\_\_



## 1/27/2014

## Login Sample Receipt Checklist

Client: Small Business Group Inc.

Job Number: 490-44955-1

Login Number: 44955

List Source: TestAmerica Nashville

List Number: 1

Creator: McBride, Mike

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	2.0
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	

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ATTACHMENT A



# NON-HAZARDOUS MANIFEST

<b>NON-HAZARDOUS MANIFEST</b>		1. Generator's US EPA ID No.		Manifest Doc No.		2. Page 1 of 1			
3. Generator's Mailing Address: MCAS BEAUFORT LAUREL BAY HOUSING BEAUFORT, SC 29904				Generator's Site Address (if different than mailing):		A. Manifest Number <b>WMNA 01519136</b>			
4. Generator's Phone 843-879-0411				B. State Generator's ID					
5. Transporter 1 Company Name <i>Carolina Containers</i> <i>PO Box 1925 Bfk SC 29901</i>				6. US EPA ID Number		C. State Transporter's ID			
7. Transporter 2 Company Name				8. US EPA ID Number		D. Transporter's Phone <i>843-532-1500</i>			
9. Designated Facility Name and Site Address HICKORY HILL LANDFILL 2621 LOW COUNTRY DRIVE RIDGELAND, SC 29936				10. US EPA ID Number		E. State Transporter's ID			
						F. Transporter's Phone			
						G. State Facility ID			
						H. State Facility Phone 843-987-4643			
GENERATOR	11. Description of Waste Materials			12. Containers		13. Total Quantity	14. Unit Wt./Vol.	I. Misc. Comments	
	a. HEATING OIL TANK FILLED WITH SAND WM Profile # 102655SC			No.	Type				
	b. WM Profile #								
TRANSPORTER	c. WM Profile #								
	d. WM Profile #								
	J. Additional Descriptions for Materials Listed Above			K. Disposal Location					
FACILITY				Cell	Level				
				Grid					
	15. Special Handling Instructions and Additional Information <i>1) 929 ALBACORE 2) 340 Ash-2 3) 1352 CARDINAL 4) 509 LAUREL BAY 5) 1163 CARDINAL</i>								
	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 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations.								
Printed Name <i>W.G. Adams, Jr.</i>			Signature "On behalf of"			Month <i>2</i>	Day <i>10</i>	Year <i>14</i>	
FACILITY	17. Transporter 1 Acknowledgement of Receipt of Materials								
	Printed Name <i>Bratt Shaw</i>			Signature <i>[Signature]</i>			Month <i>2</i>	Day <i>10</i>	Year <i>14</i>
	18. Transporter 2 Acknowledgement of Receipt of Materials								
	Printed Name <i>Troy Inabnett</i>			Signature <i>[Signature]</i>			Month <i>2</i>	Day <i>10</i>	Year <i>14</i>
	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 <i>Tom Coffield</i>			Signature <i>[Signature]</i>			Month <i>2</i>	Day <i>10</i>	Year <i>14</i>	

White- TREATMENT, STORAGE, DISPOSAL FACILITY COPY

Blue- GENERATOR #2 COPY

Yellow- GENERATOR #1 COPY

Pink- FACILITY USE ONLY

Gold- TRANSPORTER #1 COPY

## **Appendix C**

### **Regulatory Correspondence**



Catherine B. Templeton, Director

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

October 1, 2014

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

RE: No Further Action  
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 Tanks (USTs) 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 and agrees there is no indication of soil or groundwater contamination on these properties, 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 [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)



Catherine B. Templeton, Director

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

**Attachment to:** Krieg to Drawdy  
**Subject:** NFA  
**Dated** 10/1/2014

**Laurel Bay Underground Storage Tank Assessment Reports for: (3 addresses/4 tanks)**

340 Ash Tank 1	509 Laurel Bay
340 Ash Tank 2	929 Albacore