

**SUMMARY REPORT  
125 BANYAN 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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**Prepared by:**

**CDM - AECOM**  
Multimedia Joint Venture

**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 125 Banyan 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

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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, May 2015). The screening levels used for evaluation at each site were those levels that were in effect at the time of reporting and review by SCDHEC.

The results of the soil sampling at each former UST location were used to determine if a potential for groundwater contamination exists (i.e., soil results greater than RBSLs) and subsequently to select properties for follow-up initial groundwater assessment (IGWA) sampling. The 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 125 Banyan Drive. Details regarding the soil investigation at this site are provided in the *SCDHEC UST Assessment Report – 125 Banyan Drive* (MCAS Beaufort, 2009). 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 – July 2013* (Resolution Consultants, 2015). 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 February 18, 2009, a single 280 gallon heating oil UST was removed from the landscaped area adjacent to the concrete sidewalk at 125 Banyan 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 5'7" 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 125 Banyan Drive were greater than the SCDHEC RBSLs, which indicated further investigation was required. In a letter dated May 14, 2009, SCDHEC requested an IGWA for 125 Banyan 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 July 18, 2013, a temporary monitoring well was installed at 125 Banyan 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 – July 2013* (Resolution Consultants, 2015).



The sampling strategy for this phase of the investigation required a one-time sampling event of the temporarily installed monitoring well. Following well installation and development, groundwater samples were collected using low-flow methods and shipped to an offsite laboratory for analysis of the petroleum COPCs. Upon completion of groundwater sampling, the temporary well was abandoned in accordance with the South Carolina Well Standards and Regulations R.61-71 (SCDHEC, 2016). Field forms are provided in the *Initial Groundwater Investigation Report – July 2013* (Resolution Consultants, 2015).

## **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 125 Banyan 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 125 Banyan Drive. This NFA determination was obtained in a letter dated August 6, 2015. SCDHEC's NFA letter is provided in Appendix D.

## **4.0 REFERENCES**

Marine Corps Air Station Beaufort, 2009. *South Carolina Department of Health and Environmental Control (SCDHEC) Underground Storage Tank Assessment Report – 125 Banyan Drive, Laurel Bay Military Housing Area*, April 2009.

Resolution Consultants, 2015. *Initial Groundwater Investigation Report – July 2013 for Laurel Bay Military Housing Area, Multiple Properties, Laurel Bay Military Housing Area, Marine Corps Air Station Beaufort, Beaufort, South Carolina*, June 2015.

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**  
**125 Banyan Drive**  
**Laurel Bay Military Housing Area**  
**Marine Corps Air Station Beaufort**  
**Beaufort, South Carolina**

Constituent	SCDHEC RBSLs <sup>(1)</sup>	Results Sample Collected 02/18/09
<b>Volatile Organic Compounds Analyzed by EPA Method 8260B (mg/kg)</b>		
Benzene	0.003	ND
Ethylbenzene	1.15	<b>0.00352</b>
Naphthalene	0.036	<b>0.0489</b>
Toluene	0.627	ND
Xylenes, Total	13.01	<b>0.00940</b>
<b>Semivolatile Organic Compounds Analyzed by EPA Method 8270D (mg/kg)</b>		
Benzo(a)anthracene	0.66	<b>10.0</b>
Benzo(b)fluoranthene	0.66	<b>6.02</b>
Benzo(k)fluoranthene	0.66	<b>5.27</b>
Chrysene	0.66	<b>10.6</b>
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 1.0 and 1.1 (SCDHEC, May 2001 and SCDHEC, February 2011) 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**  
**125 Banyan 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 07/19/2013
<b>Volatile Organic Compounds Analyzed by EPA Method 8260B (µg/L)</b>			
Benzene	5	16.24	<b>0.10</b>
Ethylbenzene	700	45.95	ND
Naphthalene	25	29.33	<b>1.1</b>
Toluene	1000	105,445	ND
Xylenes, Total	10,000	2,133	ND
<b>Semivolatile Organic Compounds Analyzed by EPA Method 8270D (µg/L)</b>			
Benzo(a)anthracene	10	NA	<b>0.094</b>
Benzo(b)fluoranthene	10	NA	ND
Benzo(k)fluoranthene	10	NA	ND
Chrysene	10	NA	<b>0.081</b>
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.

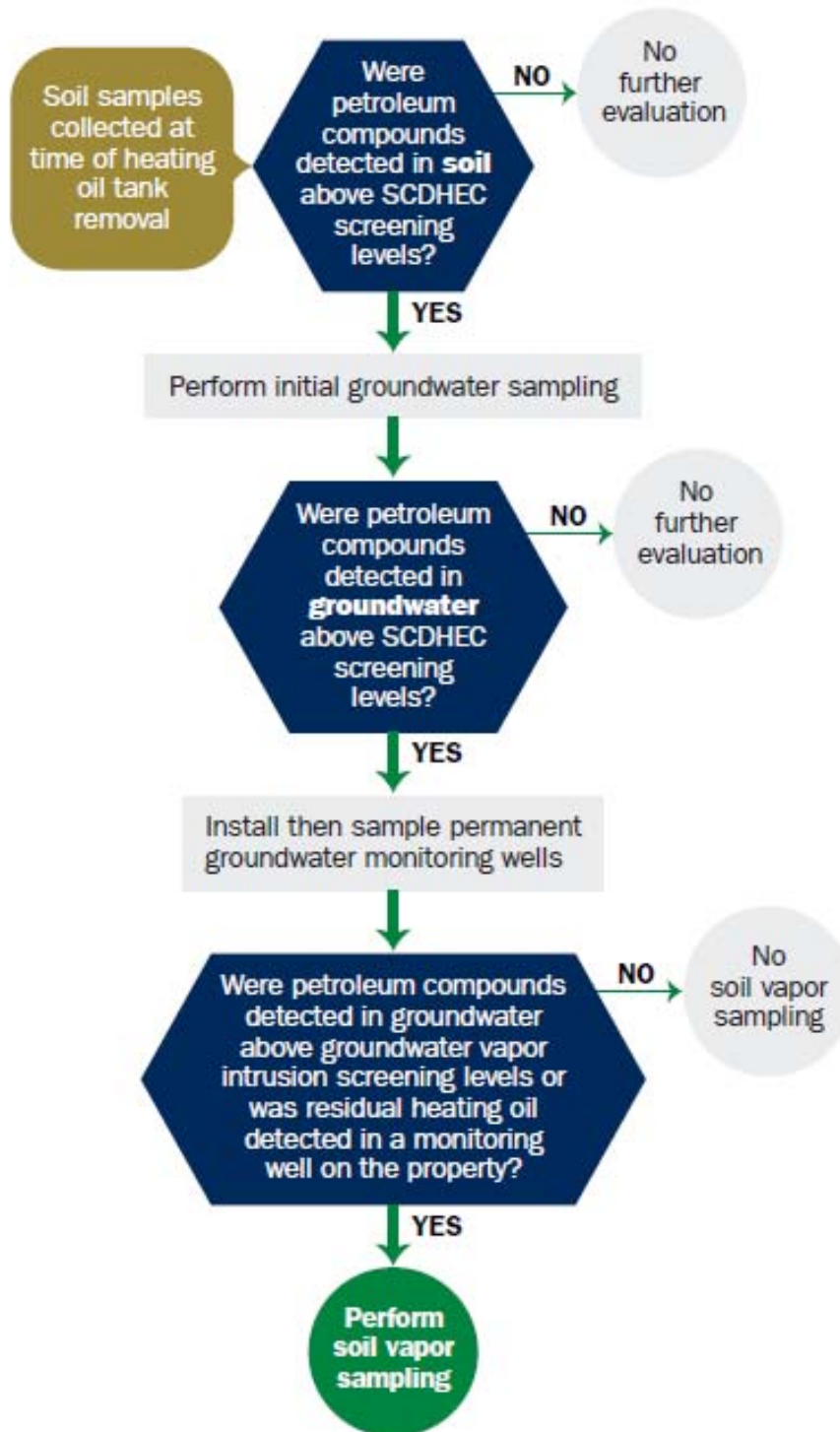
RBSL - Risk-Based Screening Level

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

**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	
Laurel Bay Military Housing Area, 125 Banyan Street	
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.....

Tank 1	Tank 2	Tank 3	Tank 4	Tank 5	Tank 6
125BANYAN					
heating oil					
280 gal					
Late 1950s					
steel					
mid 1980s					
5'7"					
No					
No					
Removed					
2/18/09					
Yes					
Yes					

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

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N. Method of disposal for any liquid petroleum, sludges, or wastewaters removed from the USTs (attach disposal manifests)  
 The tank was filled with sand. See Attachment A for waste manifest.

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O. If any corrosion, pitting, or holes were observed, describe the location and extent for each UST  
 Holes due to corrosion were found on seams at ends of the tank.

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## VII. PIPING INFORMATION

	Tank 1 125BANYAN	Tank 2	Tank 3	Tank 4	Tank 5	Tank 6
A. Construction Material..(ex. Steel, FRP).....	Steel /copper					
B. Distance from UST to Dispenser.....	N/A					
C. Number of Dispensers.....	N/A					
D. Type of System Pressure or Suction.....	Suction					
E. Was Piping Removed from the Ground? Y/N	Yes					
F. Visible Corrosion or Pitting Y/N.....	Yes					
G. Visible Holes Y/N.....	No					
H. Age.....	Early 1950s					

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

Corrosion noted on exterior of steel pipe. Inner copper piping was 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 96012001

B.

Sample #	Location	Sample Type (Soil/Water)	Soil Type (Sand/Clay)	Depth*	Date/Time of Collection	Collected by	OVA #
125 Banyan 1	Excav at fill end	Soil	Clay	5' 7"	2/18/09 1450 hrs	S. Pratt	
2							
3							
4							
5							
6							
7							
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, 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>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?      *Sewer, water, electricity, cable, fiber optic</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

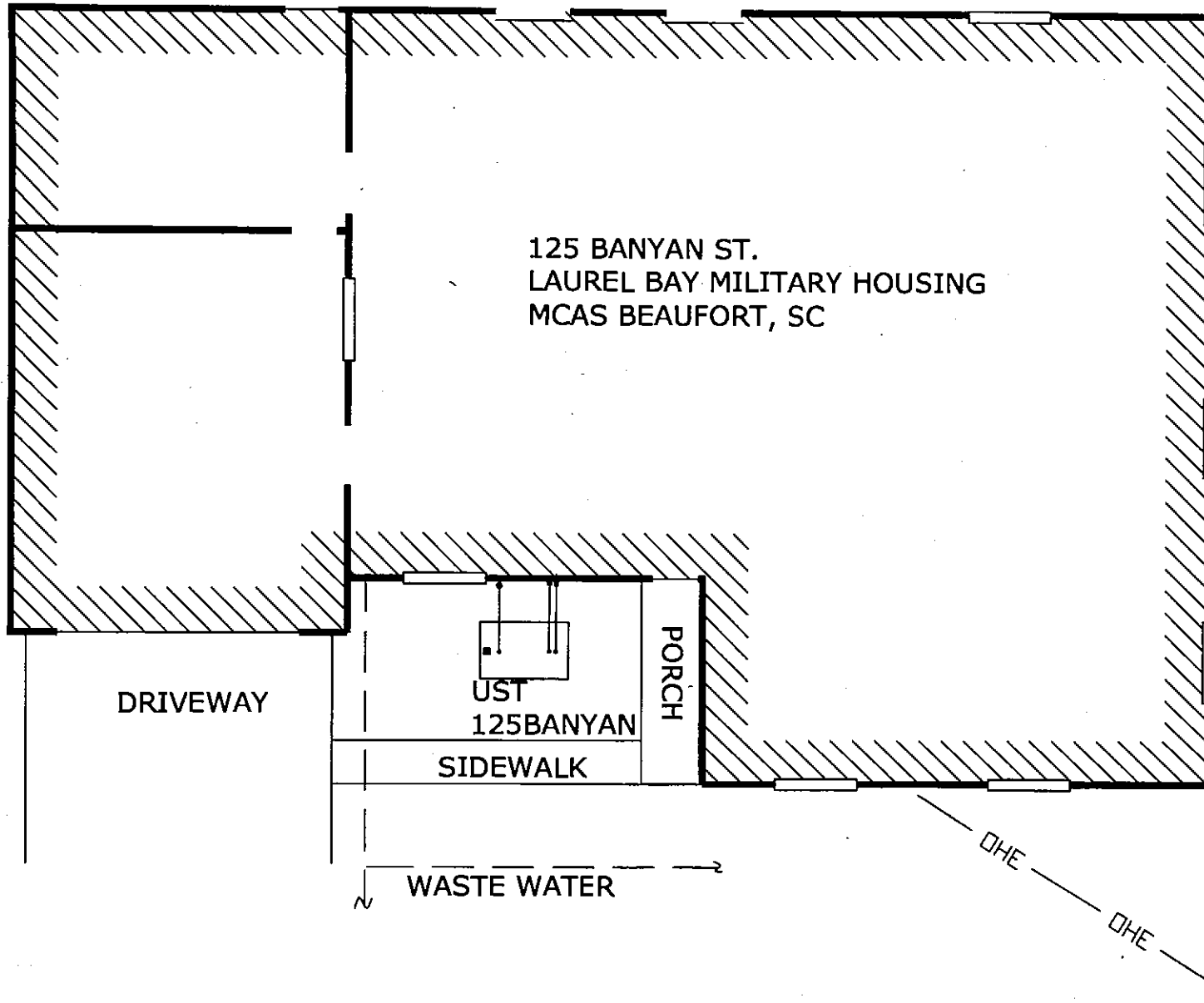
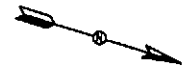


### **XIII. SITE MAP**

**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)

↑ 610' BROAD RIVER



DRIVEWAY

125 BANYAN ST.  
LAUREL BAY MILITARY HOUSING  
MCAS BEAUFORT, SC

UST  
125BANYAN

PORCH

SIDEWALK

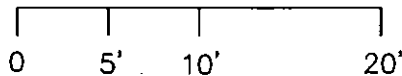
WASTE WATER

DHE

DHE

POWER  
POLE

GRAPHIC SCALE



THE TANK WAS 31"  
BELOW GRADE

**SBG**

10179 HWY 78  
LADSON, SC 29456

ph. (843) 879-0400

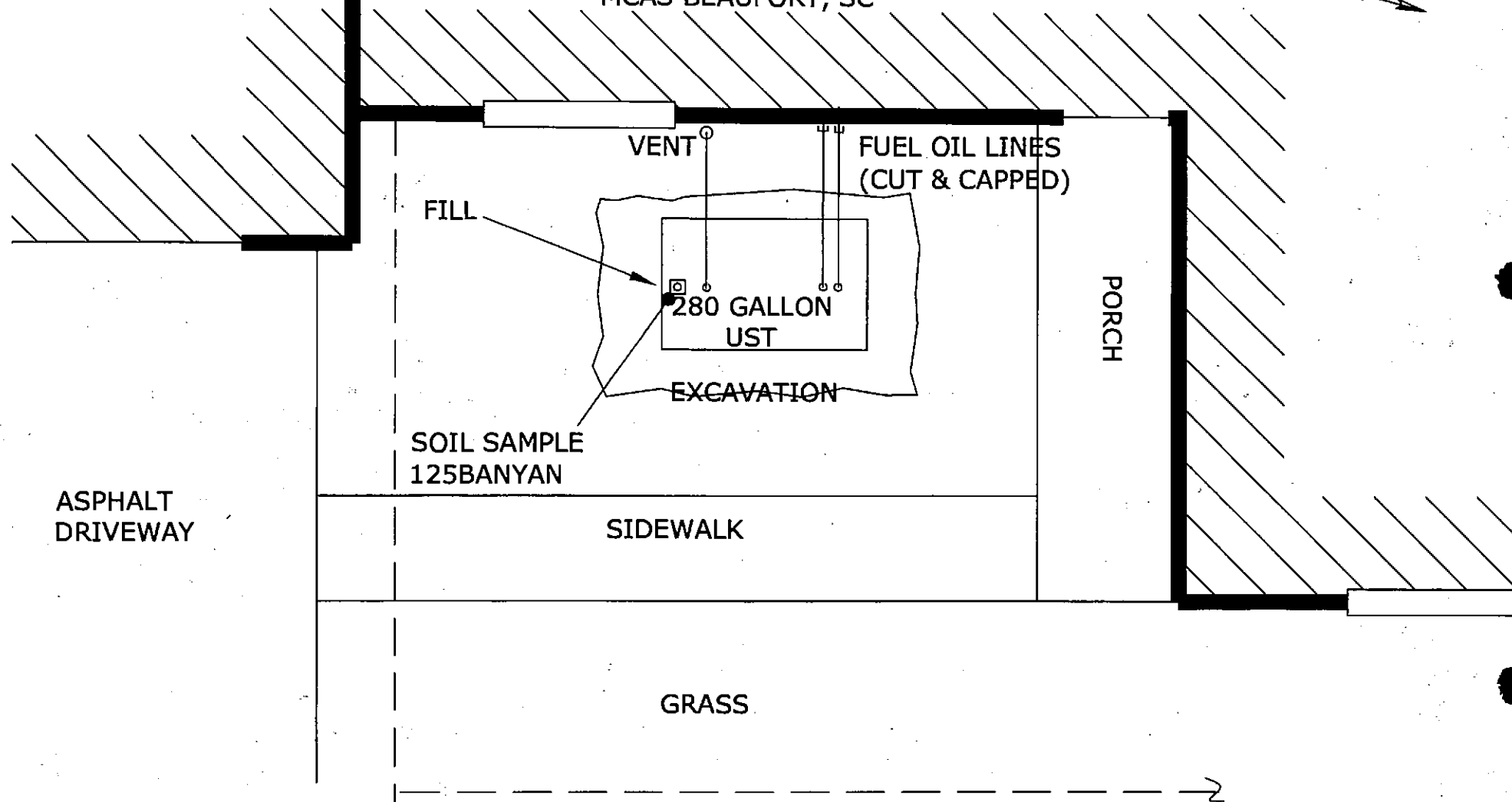
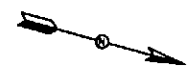
FIGURE 1 SITE MAP  
125 BANYAN ST., LAUREL BAY  
MCAS BEAUFORT SC

SCALE: GRAPHIC

DWG DATE MAR 2009

↑ 610' BROAD RIVER

125 BANYAN ST.  
LAUREL BAY MILITARY HOUSING  
MCAS BEAUFORT, SC



ASPHALT DRIVEWAY

SOIL SAMPLE  
125BANYAN

SIDEWALK

GRASS

PORCH

VENT

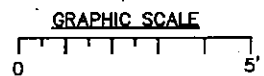
FUEL OIL LINES  
(CUT & CAPPED)

280 GALLON  
UST

EXCAVATION

FILL

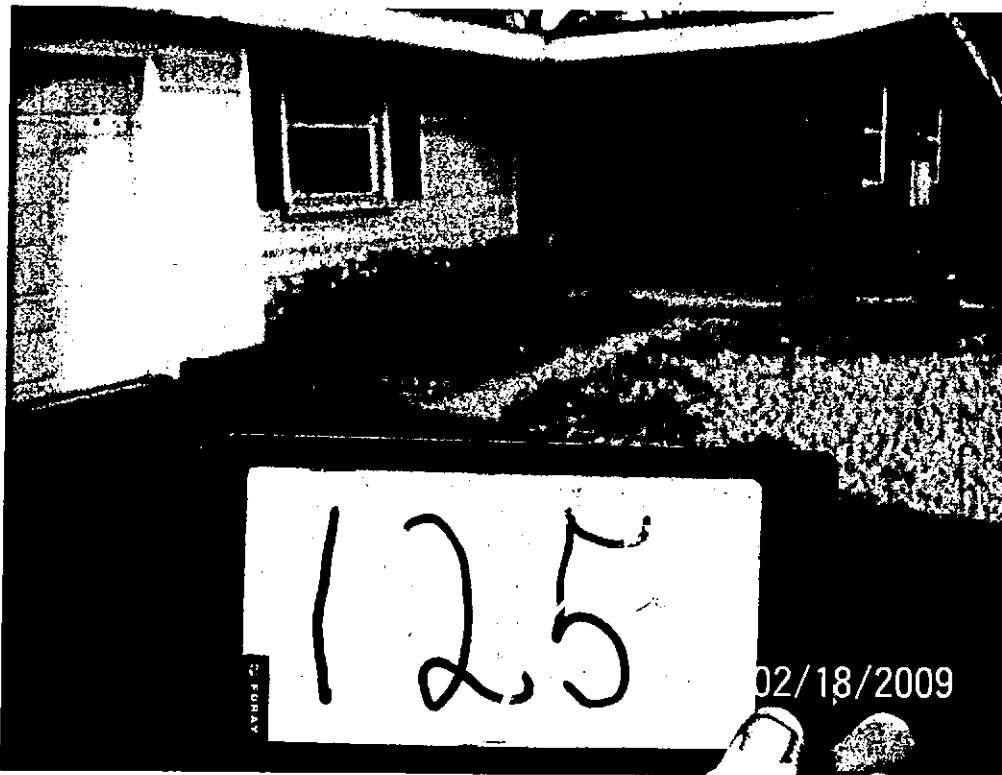
UST 125BANYAN WAS 31" BELOW GRADE



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

FIGURE 2 UST SAMPLE LOCATIONS  
125 BANYAN ST., LAUREL BAY  
MCAS BEAUFORT SC

SCALE: GRAPHIC      DWG DATE MAR 2009



Picture 1: 125 Banyan St. site prior to tank removal.



Picture 2: UST 125 Banyan during removal.

#### 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	SB-1	SB-2	SB-3	SB-4	SB-5	SB-6	SB-7	SB-8
Benzene	ND							
Toluene	ND							
Ethylbenzene	0.00352 mg/kg							
Xylenes	0.00940 mg/kg							
Naphthalene	0.0489 mg/kg							
Benzo (a) anthracene	10.0 mg/kg							
Benzo (b) fluoranthene	6.02 mg/kg							
Benzo (k) fluoranthene	5.27 mg/kg							
Chrysene	10.6 mg/kg							
Dibenz (a, h) anthracene	ND							
TPH (EPA 3550)								

CoC	SB-9	SB-10	SB-11	SB-12	SB-13	SB-14	SB-15	SB-16
Benzene								
Toluene								
Ethylbenzene								
Xylenes								
Naphthalene								
Benzo (a) anthracene								
Benzo (b) fluoranthene								
Benzo (k) fluoranthene								
Chrysene								
Dibenz (a, h) anthracene								
TPH (EPA 3550)								

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

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

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

## **XV. ANALYTICAL RESULTS**

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

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

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

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

March 04, 2009 2:28:28PM

Client: EEG - Env. Enterprise Group (2449)  
10179 Highway 78  
Ladson, SC 29456  
Attn: Tom McElwee

Work Order: NSB1765  
Project Name: Laurel Bay Housing Project  
Project Nbr: [none]  
P/O Nbr: 08087  
Date Received: 02/20/09

SAMPLE IDENTIFICATION	LAB NUMBER	COLLECTION DATE AND TIME
115 Banyan-2	NSB1765-01	02/17/09 09:50
119 Banyan	NSB1765-02	02/17/09 14:25
125 Banyan	NSB1765-03	02/18/09 14:50
129 Banyan-1	NSB1765-04	02/19/09 13:40

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

This material is intended only for the use of the individual(s) or entity to whom it is addressed, and may contain information that is privileged and confidential. If you are not the intended recipient, or the employee or agent responsible for delivering this material to the intended recipient, you are hereby notified that any dissemination, distribution, or copying of this material is strictly prohibited. If you have received this material in error, please notify us immediately at 615-726-0177.

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

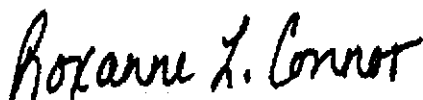
These results relate only to the items tested. This report shall not be reproduced except in full and with permission of the laboratory.

All solids results are reported in wet weight unless specifically stated.

Estimated uncertainty is available upon request.

This report has been electronically signed.

Report Approved By:



Roxanne Connor

Program Manager - Conventional Accounts



Client EEG - Env. Enterprise Group (2449)  
 10179 Highway 78  
 Ladson, SC 29456  
 Attn Tom McElwee

Work Order: NSB1765  
 Project Name: Laurel Bay Housing Project  
 Project Number: [none]  
 Received: 02/20/09 08:00

## ANALYTICAL REPORT

Analyte	Result	Flag	Units	MRL	Dilution Factor	Analysis Date/Time	Method	Batch
<b>Sample ID: NSB1765-01 (115 Banyan-2 - Soil) Sampled: 02/17/09 09:50</b>								
General Chemistry Parameters								
% Dry Solids	79.5		%	0.500	1	03/03/09 07:45	SW-846	9030084
Selected Volatile Organic Compounds by EPA Method 8260B								
Benzene	ND		mg/kg dry	0.00232	1	02/23/09 16:29	SW846 8260B	9023273
Ethylbenzene	ND		mg/kg dry	0.00232	1	02/23/09 16:29	SW846 8260B	9023273
Naphthalene	0.0232		mg/kg dry	0.00580	1	02/23/09 16:29	SW846 8260B	9023273
Toluene	ND		mg/kg dry	0.00232	1	02/23/09 16:29	SW846 8260B	9023273
Xylenes, total	ND		mg/kg dry	0.00580	1	02/23/09 16:29	SW846 8260B	9023273
Surr: 1,2-Dichloroethane-d4 (41-150%)	100 %					02/23/09 16:29	SW846 8260B	9023273
Surr: Dibromofluoromethane (55-139%)	101 %					02/23/09 16:29	SW846 8260B	9023273
Surr: Toluene-d8 (57-148%)	100 %					02/23/09 16:29	SW846 8260B	9023273
Surr: 4-Bromofluorobenzene (58-150%)	111 %					02/23/09 16:29	SW846 8260B	9023273
Polyaromatic Hydrocarbons by EPA 8270C								
Acenaphthene	ND		mg/kg dry	0.418	5	03/02/09 13:24	SW846 8270C	9022864
Acenaphthylene	ND		mg/kg dry	0.418	5	03/02/09 13:24	SW846 8270C	9022864
Anthracene	ND		mg/kg dry	0.418	5	03/02/09 13:24	SW846 8270C	9022864
Benzo (a) anthracene	ND		mg/kg dry	0.418	5	03/02/09 13:24	SW846 8270C	9022864
Benzo (a) pyrene	ND		mg/kg dry	0.418	5	03/02/09 13:24	SW846 8270C	9022864
Benzo (b) fluoranthene	ND		mg/kg dry	0.418	5	03/02/09 13:24	SW846 8270C	9022864
Benzo (g,h,i) perylene	ND		mg/kg dry	0.418	5	03/02/09 13:24	SW846 8270C	9022864
Benzo (k) fluoranthene	ND		mg/kg dry	0.418	5	03/02/09 13:24	SW846 8270C	9022864
Chrysene	ND		mg/kg dry	0.418	5	03/02/09 13:24	SW846 8270C	9022864
Dibenz (a,h) anthracene	ND		mg/kg dry	0.418	5	03/02/09 13:24	SW846 8270C	9022864
Fluoranthene	ND		mg/kg dry	0.418	5	03/02/09 13:24	SW846 8270C	9022864
Fluorene	0.678		mg/kg dry	0.418	5	03/02/09 13:24	SW846 8270C	9022864
Indeno (1,2,3-cd) pyrene	ND		mg/kg dry	0.418	5	03/02/09 13:24	SW846 8270C	9022864
Naphthalene	ND		mg/kg dry	0.418	5	03/02/09 13:24	SW846 8270C	9022864
Phenanthrene	1.52		mg/kg dry	0.418	5	03/02/09 13:24	SW846 8270C	9022864
Pyrene	ND		mg/kg dry	0.418	5	03/02/09 13:24	SW846 8270C	9022864
Surr: Terphenyl-d14 (26-128%)	73 %					03/02/09 13:24	SW846 8270C	9022864
Surr: 2-Fluorobiphenyl (19-109%)	73 %					03/02/09 13:24	SW846 8270C	9022864
Surr: Nitrobenzene-d5 (22-104%)	72 %					03/02/09 13:24	SW846 8270C	9022864

Client EEG - Env. Enterprise Group (2449)  
 10179 Highway 78  
 Ladson, SC 29456  
 Attn Tom McElwee

Work Order: NSB1765  
 Project Name: Laurel Bay Housing Project  
 Project Number: [none]  
 Received: 02/20/09 08:00

## ANALYTICAL REPORT

Analyte	Result	Flag	Units	MRL	Dilution Factor	Analysis Date/Time	Method	Batch
<b>Sample ID: NSB1765-02 (119 Banyan - Soil) Sampled: 02/17/09 14:25</b>								
General Chemistry Parameters								
% Dry Solids	79.3		%	0.500	1	03/03/09 07:45	SW-846	9030084
Selected Volatile Organic Compounds by EPA Method 8260B								
Benzene	ND	PX	mg/kg dry	0.00205	1	02/21/09 01:30	SW846 8260B	9022696
Ethylbenzene	0.168		mg/kg dry	0.109	50	02/23/09 18:28	SW846 8260B	9023273
Naphthalene	4.99		mg/kg dry	0.273	50	02/23/09 18:28	SW846 8260B	9023273
Toluene	0.00355	PX	mg/kg dry	0.00205	1	02/21/09 01:30	SW846 8260B	9022696
Xylenes, total	0.198	PX	mg/kg dry	0.00513	1	02/21/09 01:30	SW846 8260B	9022696
Surr: 1,2-Dichloroethane-d4 (41-150%)	106 %					02/21/09 01:30	SW846 8260B	9022696
Surr: 1,2-Dichloroethane-d4 (41-150%)	100 %					02/23/09 18:28	SW846 8260B	9023273
Surr: Dibromofluoromethane (55-139%)	102 %					02/21/09 01:30	SW846 8260B	9022696
Surr: Dibromofluoromethane (55-139%)	101 %					02/23/09 18:28	SW846 8260B	9023273
Surr: Toluene-d8 (57-148%)	393 %					02/21/09 01:30	SW846 8260B	9022696
Surr: Toluene-d8 (57-148%)	98 %					02/23/09 18:28	SW846 8260B	9023273
Surr: 4-Bromofluorobenzene (58-150%)	256 %					02/21/09 01:30	SW846 8260B	9022696
Surr: 4-Bromofluorobenzene (58-150%)	110 %					02/23/09 18:28	SW846 8260B	9023273
Polyaromatic Hydrocarbons by EPA 8270C								
Acenaphthene	2.65		mg/kg dry	0.841	10	03/01/09 16:25	SW846 8270C	9022864
Acenaphthylene	ND		mg/kg dry	0.841	10	03/01/09 16:25	SW846 8270C	9022864
Anthracene	ND		mg/kg dry	0.841	10	03/01/09 16:25	SW846 8270C	9022864
Benzo (a) anthracene	ND		mg/kg dry	0.841	10	03/01/09 16:25	SW846 8270C	9022864
Benzo (a) pyrene	ND		mg/kg dry	0.841	10	03/01/09 16:25	SW846 8270C	9022864
Benzo (b) fluoranthene	ND		mg/kg dry	0.841	10	03/01/09 16:25	SW846 8270C	9022864
Benzo (g,h,i) perylene	ND		mg/kg dry	0.841	10	03/01/09 16:25	SW846 8270C	9022864
Benzo (k) fluoranthene	ND		mg/kg dry	0.841	10	03/01/09 16:25	SW846 8270C	9022864
Chrysene	ND		mg/kg dry	0.841	10	03/01/09 16:25	SW846 8270C	9022864
Dibenz (a,h) anthracene	ND		mg/kg dry	0.841	10	03/01/09 16:25	SW846 8270C	9022864
Fluoranthene	1.19		mg/kg dry	0.841	10	03/01/09 16:25	SW846 8270C	9022864
Fluorene	5.92		mg/kg dry	0.841	10	03/01/09 16:25	SW846 8270C	9022864
Indeno (1,2,3-cd) pyrene	ND		mg/kg dry	0.841	10	03/01/09 16:25	SW846 8270C	9022864
Naphthalene	5.58		mg/kg dry	0.841	10	03/01/09 16:25	SW846 8270C	9022864
Phenanthrene	14.1		mg/kg dry	0.841	10	03/01/09 16:25	SW846 8270C	9022864
Pyrene	1.79		mg/kg dry	0.841	10	03/01/09 16:25	SW846 8270C	9022864
Surr: Terphenyl-d14 (26-128%)	64 %					03/01/09 16:25	SW846 8270C	9022864
Surr: 2-Fluorobiphenyl (19-109%)	71 %					03/01/09 16:25	SW846 8270C	9022864
Surr: Nitrobenzene-d5 (22-104%)	66 %					03/01/09 16:25	SW846 8270C	9022864

Client EEG - Env. Enterprise Group (2449)  
 10179 Highway 78  
 Ladson, SC 29456  
 Attn Tom McElwee

Work Order: NSB1765  
 Project Name: Laurel Bay Housing Project  
 Project Number: [none]  
 Received: 02/20/09 08:00

## ANALYTICAL REPORT

Analyte	Result	Flag	Units	MRL	Dilution Factor	Analysis Date/Time	Method	Batch
<b>Sample ID: NSB1765-03 (125 Banyan - Soil) Sampled: 02/18/09 14:50</b>								
<b>General Chemistry Parameters</b>								
% Dry Solids	79.2		%	0.500	1	03/03/09 07:45	SW-846	9030084
<b>Selected Volatile Organic Compounds by EPA Method 8260B</b>								
Benzene	ND		mg/kg dry	0.00184	1	02/23/09 16:59	SW846 8260B	9023273
Ethylbenzene	0.00352		mg/kg dry	0.00184	1	02/23/09 16:59	SW846 8260B	9023273
Naphthalene	0.0489		mg/kg dry	0.00459	1	02/23/09 16:59	SW846 8260B	9023273
Toluene	ND		mg/kg dry	0.00184	1	02/23/09 16:59	SW846 8260B	9023273
Xylenes, total	0.00940		mg/kg dry	0.00459	1	02/23/09 16:59	SW846 8260B	9023273
Surr: 1,2-Dichloroethane-d4 (41-150%)	105 %					02/23/09 16:59	SW846 8260B	9023273
Surr: Dibromofluoromethane (55-139%)	108 %					02/23/09 16:59	SW846 8260B	9023273
Surr: Toluene-d8 (57-148%)	123 %					02/23/09 16:59	SW846 8260B	9023273
Surr: 4-Bromofluorobenzene (58-150%)	341 %	ZX				02/23/09 16:59	SW846 8260B	9023273
<b>Polyaromatic Hydrocarbons by EPA 8270C</b>								
Acenaphthene	1.65		mg/kg dry	0.829	10	03/01/09 16:47	SW846 8270C	9022864
Acenaphthylene	ND		mg/kg dry	0.829	10	03/01/09 16:47	SW846 8270C	9022864
Anthracene	2.17		mg/kg dry	0.829	10	03/01/09 16:47	SW846 8270C	9022864
Benzo (a) anthracene	10.0		mg/kg dry	0.829	10	03/01/09 16:47	SW846 8270C	9022864
Benzo (a) pyrene	5.23		mg/kg dry	0.829	10	03/01/09 16:47	SW846 8270C	9022864
Benzo (b) fluoranthene	6.02		mg/kg dry	0.829	10	03/01/09 16:47	SW846 8270C	9022864
Benzo (g,h,i) perylene	1.59		mg/kg dry	0.829	10	03/01/09 16:47	SW846 8270C	9022864
Benzo (k) fluoranthene	5.27		mg/kg dry	0.829	10	03/01/09 16:47	SW846 8270C	9022864
Chrysene	10.6		mg/kg dry	0.829	10	03/01/09 16:47	SW846 8270C	9022864
Dibenz (a,h) anthracene	ND		mg/kg dry	0.829	10	03/01/09 16:47	SW846 8270C	9022864
Fluoranthene	17.0		mg/kg dry	0.829	10	03/01/09 16:47	SW846 8270C	9022864
Fluorene	2.47		mg/kg dry	0.829	10	03/01/09 16:47	SW846 8270C	9022864
Indeno (1,2,3-cd) pyrene	1.88		mg/kg dry	0.829	10	03/01/09 16:47	SW846 8270C	9022864
Naphthalene	ND		mg/kg dry	0.829	10	03/01/09 16:47	SW846 8270C	9022864
Phenanthrene	7.97		mg/kg dry	0.829	10	03/01/09 16:47	SW846 8270C	9022864
Pyrene	17.4		mg/kg dry	0.829	10	03/01/09 16:47	SW846 8270C	9022864
Surr: Terphenyl-d14 (26-128%)	65 %					03/01/09 16:47	SW846 8270C	9022864
Surr: 2-Fluorobiphenyl (19-109%)	70 %					03/01/09 16:47	SW846 8270C	9022864
Surr: Nitrobenzene-d5 (22-104%)	64 %					03/01/09 16:47	SW846 8270C	9022864

Client EEG - Env. Enterprise Group (2449)  
 10179 Highway 78  
 Ladson, SC 29456  
 Attn Tom McElwee

Work Order: NSB1765  
 Project Name: Laurel Bay Housing Project  
 Project Number: [none]  
 Received: 02/20/09 08:00

## ANALYTICAL REPORT

Analyte	Result	Flag	Units	MRL	Dilution Factor	Analysis Date/Time	Method	Batch
<b>Sample ID: NSB1765-04 (129 Banyan-1 - Soil) Sampled: 02/19/09 13:40</b>								
General Chemistry Parameters								
% Dry Solids	73.1		%	0.500	1	03/03/09 07:45	SW-846	9030084
Selected Volatile Organic Compounds by EPA Method 8260B								
Benzene	ND		mg/kg dry	0.00199	1	02/21/09 02:31	SW846 8260B	9022696
Ethylbenzene	ND		mg/kg dry	0.00199	1	02/21/09 02:31	SW846 8260B	9022696
Naphthalene	ND		mg/kg dry	0.00498	1	02/21/09 02:31	SW846 8260B	9022696
Toluene	ND		mg/kg dry	0.00199	1	02/21/09 02:31	SW846 8260B	9022696
Xylenes, total	ND		mg/kg dry	0.00498	1	02/21/09 02:31	SW846 8260B	9022696
Surr: 1,2-Dichloroethane-d4 (41-150%)	93 %					02/21/09 02:31	SW846 8260B	9022696
Surr: Dibromofluoromethane (55-139%)	94 %					02/21/09 02:31	SW846 8260B	9022696
Surr: Toluene-d8 (57-148%)	107 %					02/21/09 02:31	SW846 8260B	9022696
Surr: 4-Bromofluorobenzene (58-150%)	116 %					02/21/09 02:31	SW846 8260B	9022696
Polyaromatic Hydrocarbons by EPA 8270C								
Acenaphthene	ND		mg/kg dry	0.0895	1	03/01/09 15:18	SW846 8270C	9022864
Acenaphthylene	ND		mg/kg dry	0.0895	1	03/01/09 15:18	SW846 8270C	9022864
Anthracene	ND		mg/kg dry	0.0895	1	03/01/09 15:18	SW846 8270C	9022864
Benzo (a) anthracene	ND		mg/kg dry	0.0895	1	03/01/09 15:18	SW846 8270C	9022864
Benzo (a) pyrene	ND		mg/kg dry	0.0895	1	03/01/09 15:18	SW846 8270C	9022864
Benzo (b) fluoranthene	ND		mg/kg dry	0.0895	1	03/01/09 15:18	SW846 8270C	9022864
Benzo (g,h,i) perylene	ND		mg/kg dry	0.0895	1	03/01/09 15:18	SW846 8270C	9022864
Benzo (k) fluoranthene	ND		mg/kg dry	0.0895	1	03/01/09 15:18	SW846 8270C	9022864
Chrysene	ND		mg/kg dry	0.0895	1	03/01/09 15:18	SW846 8270C	9022864
Dibenz (a,h) anthracene	ND		mg/kg dry	0.0895	1	03/01/09 15:18	SW846 8270C	9022864
Fluoranthene	ND		mg/kg dry	0.0895	1	03/01/09 15:18	SW846 8270C	9022864
Fluorene	ND		mg/kg dry	0.0895	1	03/01/09 15:18	SW846 8270C	9022864
Indeno (1,2,3-cd) pyrene	ND		mg/kg dry	0.0895	1	03/01/09 15:18	SW846 8270C	9022864
Naphthalene	ND		mg/kg dry	0.0895	1	03/01/09 15:18	SW846 8270C	9022864
Phenanthrene	ND		mg/kg dry	0.0895	1	03/01/09 15:18	SW846 8270C	9022864
Pyrene	ND		mg/kg dry	0.0895	1	03/01/09 15:18	SW846 8270C	9022864
Surr: Terphenyl-d14 (26-128%)	37 %					03/01/09 15:18	SW846 8270C	9022864
Surr: 2-Fluorobiphenyl (19-109%)	46 %					03/01/09 15:18	SW846 8270C	9022864
Surr: Nitrobenzene-d5 (22-104%)	52 %					03/01/09 15:18	SW846 8270C	9022864

Client EEG - Env. Enterprise Group (2449)  
 10179 Highway 78  
 Ladson, SC 29456  
 Attn Tom McElwee

Work Order: NSB1765  
 Project Name: Laurel Bay Housing Project  
 Project Number: [none]  
 Received: 02/20/09 08:00

### SAMPLE EXTRACTION DATA

Parameter	Batch	Lab Number	Wt/Vol Extracted	Extracted Vol	Date	Analyst	Extraction Method
<b>Polyaromatic Hydrocarbons by EPA 8270C</b>							
SW846 8270C	9022864	NSB1765-01	30.24	1.00	02/24/09 12:01	TEM	EPA 3550B
SW846 8270C	9022864	NSB1765-01RE1	30.24	1.00	02/24/09 12:01	TEM	EPA 3550B
SW846 8270C	9022864	NSB1765-02	30.14	1.00	02/24/09 12:01	TEM	EPA 3550B
SW846 8270C	9022864	NSB1765-02RE1	30.14	1.00	02/24/09 12:01	TEM	EPA 3550B
SW846 8270C	9022864	NSB1765-03	30.60	1.00	02/24/09 12:01	TEM	EPA 3550B
SW846 8270C	9022864	NSB1765-03RE1	30.60	1.00	02/24/09 12:01	TEM	EPA 3550B
SW846 8270C	9022864	NSB1765-04	30.72	1.00	02/24/09 12:01	TEM	EPA 3550B
<b>Selected Volatile Organic Compounds by EPA Method 8260B</b>							
SW846 8260B	9022696	NSB1765-01	5.59	5.00	02/20/09 15:59	JRL	EPA 5035
SW846 8260B	9023273	NSB1765-01RE1	5.42	5.00	02/17/09 09:50	JRL	EPA 5035
SW846 8260B	9022696	NSB1765-02	6.15	5.00	02/20/09 16:04	JRL	EPA 5035
SW846 8260B	9023273	NSB1765-02RE1	5.78	5.00	02/17/09 14:25	JRL	EPA 5035
SW846 8260B	9022696	NSB1765-03	5.82	5.00	05/20/09 16:06	JRL	EPA 5035
SW846 8260B	9023273	NSB1765-03RE1	6.88	5.00	02/18/09 14:50	JRL	EPA 5035
SW846 8260B	9022696	NSB1765-04	6.87	5.00	02/20/09 16:07	JRL	EPA 5035

Client EEG - Env. Enterprise Group (2449)  
 10179 Highway 78  
 Ladson, SC 29456  
 Attn Tom McElwee

Work Order: NSB1765  
 Project Name: Laurel Bay Housing Project  
 Project Number: [none]  
 Received: 02/20/09 08:00

PROJECT QUALITY CONTROL DATA  
 Blank

Analyte	Blank Value	Q	Units	Q.C. Batch	Lab Number	Analyzed Date/Time
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Selected Volatile Organic Compounds by EPA Method 8260B

9022696-BLK1

Benzene	<0.000670		mg/kg wet	9022696	9022696-BLK1	02/20/09 18:53
Ethylbenzene	<0.000670		mg/kg wet	9022696	9022696-BLK1	02/20/09 18:53
Naphthalene	<0.00151		mg/kg wet	9022696	9022696-BLK1	02/20/09 18:53
Toluene	<0.000670		mg/kg wet	9022696	9022696-BLK1	02/20/09 18:53
Xylenes, total	<0.00172		mg/kg wet	9022696	9022696-BLK1	02/20/09 18:53
Surrogate: 1,2-Dichloroethane-d4	99%			9022696	9022696-BLK1	02/20/09 18:53
Surrogate: Dibromofluoromethane	102%			9022696	9022696-BLK1	02/20/09 18:53
Surrogate: Toluene-d8	99%			9022696	9022696-BLK1	02/20/09 18:53
Surrogate: 4-Bromofluorobenzene	106%			9022696	9022696-BLK1	02/20/09 18:53

9023273-BLK1

Benzene	<0.000670		mg/kg wet	9023273	9023273-BLK1	02/23/09 14:39
Ethylbenzene	<0.000670		mg/kg wet	9023273	9023273-BLK1	02/23/09 14:39
Naphthalene	<0.00151		mg/kg wet	9023273	9023273-BLK1	02/23/09 14:39
Toluene	<0.000670		mg/kg wet	9023273	9023273-BLK1	02/23/09 14:39
Xylenes, total	<0.00172		mg/kg wet	9023273	9023273-BLK1	02/23/09 14:39
Surrogate: 1,2-Dichloroethane-d4	101%			9023273	9023273-BLK1	02/23/09 14:39
Surrogate: Dibromofluoromethane	104%			9023273	9023273-BLK1	02/23/09 14:39
Surrogate: Toluene-d8	97%			9023273	9023273-BLK1	02/23/09 14:39
Surrogate: 4-Bromofluorobenzene	99%			9023273	9023273-BLK1	02/23/09 14:39

Polyaromatic Hydrocarbons by EPA 8270C

9022864-BLK1

Acenaphthene	<0.0310		mg/kg wet	9022864	9022864-BLK1	02/27/09 16:57
Acenaphthylene	<0.0320		mg/kg wet	9022864	9022864-BLK1	02/27/09 16:57
Anthracene	<0.0330		mg/kg wet	9022864	9022864-BLK1	02/27/09 16:57
Benzo (a) anthracene	<0.0380		mg/kg wet	9022864	9022864-BLK1	02/27/09 16:57
Benzo (a) pyrene	<0.0290		mg/kg wet	9022864	9022864-BLK1	02/27/09 16:57
Benzo (b) fluoranthene	<0.0320		mg/kg wet	9022864	9022864-BLK1	02/27/09 16:57
Benzo (g,h,i) perylene	<0.0290		mg/kg wet	9022864	9022864-BLK1	02/27/09 16:57
Benzo (k) fluoranthene	<0.0290		mg/kg wet	9022864	9022864-BLK1	02/27/09 16:57
Chrysene	<0.0390		mg/kg wet	9022864	9022864-BLK1	02/27/09 16:57
Dibenz (a,h) anthracene	<0.0310		mg/kg wet	9022864	9022864-BLK1	02/27/09 16:57
Fluoranthene	<0.0340		mg/kg wet	9022864	9022864-BLK1	02/27/09 16:57
Fluorene	<0.0390		mg/kg wet	9022864	9022864-BLK1	02/27/09 16:57
Indeno (1,2,3-cd) pyrene	<0.0310		mg/kg wet	9022864	9022864-BLK1	02/27/09 16:57
Naphthalene	<0.0410		mg/kg wet	9022864	9022864-BLK1	02/27/09 16:57
Phenanthrene	<0.0340		mg/kg wet	9022864	9022864-BLK1	02/27/09 16:57
Pyrene	<0.0410		mg/kg wet	9022864	9022864-BLK1	02/27/09 16:57
1-Methylnaphthalene	<0.0320		mg/kg wet	9022864	9022864-BLK1	02/27/09 16:57
2-Methylnaphthalene	<0.0330		mg/kg wet	9022864	9022864-BLK1	02/27/09 16:57

Client EEG - Env. Enterprise Group (2449)  
10179 Highway 78  
Ladson, SC 29456  
Attn Tom McElwee

Work Order: NSB1765  
Project Name: Laurel Bay Housing Project  
Project Number: [none]  
Received: 02/20/09 08:00

**PROJECT QUALITY CONTROL DATA**  
**Blank - Cont.**

Analyte	Blank Value	Q	Units	Q.C. Batch	Lab Number	Analyzed Date/Time
<b>Polyaromatic Hydrocarbons by EPA 8270C</b>						
<b>9022864-BLK1</b>						
<i>Surrogate: Terphenyl-d14</i>	52%			9022864	9022864-BLK1	02/27/09 16:57
<i>Surrogate: 2-Fluorobiphenyl</i>	55%			9022864	9022864-BLK1	02/27/09 16:57
<i>Surrogate: Nitrobenzene-d5</i>	56%			9022864	9022864-BLK1	02/27/09 16:57

Client EEG - Env. Enterprise Group (2449)  
10179 Highway 78  
Ladson, SC 29456  
Attn Tom McElwee

Work Order: NSB1765  
Project Name: Laurel Bay Housing Project  
Project Number: [none]  
Received: 02/20/09 08:00

**PROJECT QUALITY CONTROL DATA**  
Duplicate

Analyte	Orig. Val.	Duplicate	Q	Units	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
<b>General Chemistry Parameters</b>									
<b>9030084-DUP1</b>									
% Dry Solids	89.6	87.9		%	2	20	9030084	NSB1594-03	03/03/09 07:45



Client EEG - Env. Enterprise Group (2449)  
 10179 Highway 78  
 Ladson, SC 29456  
 Attn Tom McElwee

Work Order: NSB1765  
 Project Name: Laurel Bay Housing Project  
 Project Number: [none]  
 Received: 02/20/09 08:00

PROJECT QUALITY CONTROL DATA  
 LCS

Analyte	Known Val.	Analyzed Val	Q	Units	% Rec.	Target Range	Batch	Analyzed Date/Time
<b>Selected Volatile Organic Compounds by EPA Method 8260B</b>								
<b>9022696-BS1</b>								
Benzene	50.0	46.7		ug/kg	93%	76 - 130	9022696	02/20/09 16:51
Ethylbenzene	50.0	45.5		ug/kg	91%	80 - 128	9022696	02/20/09 16:51
Naphthalene	50.0	37.2		ug/kg	74%	63 - 144	9022696	02/20/09 16:51
Toluene	50.0	42.9		ug/kg	86%	80 - 125	9022696	02/20/09 16:51
Xylenes, total	150	132		ug/kg	88%	79 - 130	9022696	02/20/09 16:51
Surrogate: 1,2-Dichloroethane-d4	50.0	49.7			99%	41 - 150	9022696	02/20/09 16:51
Surrogate: Dibromofluoromethane	50.0	52.4			105%	55 - 139	9022696	02/20/09 16:51
Surrogate: Toluene-d8	50.0	50.8			102%	57 - 148	9022696	02/20/09 16:51
Surrogate: 4-Bromofluorobenzene	50.0	48.0			96%	58 - 150	9022696	02/20/09 16:51
<b>9023273-BS1</b>								
Benzene	50.0	58.9		ug/kg	118%	76 - 130	9023273	02/23/09 12:39
Ethylbenzene	50.0	54.4		ug/kg	109%	80 - 128	9023273	02/23/09 12:39
Naphthalene	50.0	60.3		ug/kg	121%	63 - 144	9023273	02/23/09 12:39
Toluene	50.0	53.8		ug/kg	108%	80 - 125	9023273	02/23/09 12:39
Xylenes, total	150	163		ug/kg	109%	79 - 130	9023273	02/23/09 12:39
Surrogate: 1,2-Dichloroethane-d4	50.0	49.8			100%	41 - 150	9023273	02/23/09 12:39
Surrogate: Dibromofluoromethane	50.0	52.2			104%	55 - 139	9023273	02/23/09 12:39
Surrogate: Toluene-d8	50.0	49.5			99%	57 - 148	9023273	02/23/09 12:39
Surrogate: 4-Bromofluorobenzene	50.0	49.7			99%	58 - 150	9023273	02/23/09 12:39
<b>Polyaromatic Hydrocarbons by EPA 8270C</b>								
<b>9022864-BS1</b>								
Acenaphthene	1.67	1.03		mg/kg wet	62%	52 - 106	9022864	02/27/09 17:26
Acenaphthylene	1.67	1.03		mg/kg wet	62%	53 - 109	9022864	02/27/09 17:26
Anthracene	1.67	1.20		mg/kg wet	72%	54 - 124	9022864	02/27/09 17:26
Benzo (a) anthracene	1.67	1.13		mg/kg wet	68%	53 - 111	9022864	02/27/09 17:26
Benzo (a) pyrene	1.67	1.18		mg/kg wet	71%	52 - 122	9022864	02/27/09 17:26
Benzo (b) fluoranthene	1.67	1.16		mg/kg wet	70%	48 - 115	9022864	02/27/09 17:26
Benzo (g,h,i) perylene	1.67	1.07		mg/kg wet	64%	46 - 114	9022864	02/27/09 17:26
Benzo (k) fluoranthene	1.67	1.13		mg/kg wet	68%	41 - 121	9022864	02/27/09 17:26
Chrysene	1.67	1.12		mg/kg wet	67%	49 - 113	9022864	02/27/09 17:26
Dibenz (a,h) anthracene	1.67	1.13		mg/kg wet	68%	47 - 117	9022864	02/27/09 17:26
Fluoranthene	1.67	1.16		mg/kg wet	70%	52 - 113	9022864	02/27/09 17:26
Fluorene	1.67	1.08		mg/kg wet	65%	54 - 107	9022864	02/27/09 17:26
Indeno (1,2,3-cd) pyrene	1.67	1.12		mg/kg wet	67%	47 - 115	9022864	02/27/09 17:26
Naphthalene	1.67	1.04		mg/kg wet	63%	34 - 107	9022864	02/27/09 17:26
Phenanthrene	1.67	1.09		mg/kg wet	65%	53 - 108	9022864	02/27/09 17:26
Pyrene	1.67	1.11		mg/kg wet	67%	54 - 113	9022864	02/27/09 17:26
1-Methylnaphthalene	1.67	1.02		mg/kg wet	61%	36 - 100	9022864	02/27/09 17:26
2-Methylnaphthalene	1.67	1.05		mg/kg wet	63%	42 - 112	9022864	02/27/09 17:26

Client EEG - Env. Enterprise Group (2449)  
10179 Highway 78  
Ladson, SC 29456  
Attn Tom McElwee

Work Order: NSB1765  
Project Name: Laurel Bay Housing Project  
Project Number: [none]  
Received: 02/20/09 08:00

PROJECT QUALITY CONTROL DATA  
LCS - Cont.

Analyte	Known Val.	Analyzed Val	Q	Units	% Rec.	Target Range	Batch	Analyzed Date/Time
<b>Polyaromatic Hydrocarbons by EPA 8270C</b>								
<b>9022864-BS1</b>								
Surrogate: Terphenyl-d14	1.67	0.883			53%	26 - 128	9022864	02/27/09 17:26
Surrogate: 2-Fluorobiphenyl	1.67	0.818			49%	19 - 109	9022864	02/27/09 17:26
Surrogate: Nitrobenzene-d5	1.67	0.796			48%	22 - 104	9022864	02/27/09 17:26

Client EEG - Env. Enterprise Group (2449)  
 10179 Highway 78  
 Ladson, SC 29456  
 Attn Tom McElwee

Work Order: NSB1765  
 Project Name: Laurel Bay Housing Project  
 Project Number: [none]  
 Received: 02/20/09 08:00

## PROJECT QUALITY CONTROL DATA

### LCS Dup

Analyte	Orig. Val.	Duplicate	Q	Units	Spike Conc	% Rec.	Target Range	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
<b>Selected Volatile Organic Compounds by EPA Method 8260B</b>												
<b>9022696-BSD1</b>												
Benzene		50.9		ug/kg	50.0	102%	76 - 130	9	43	9022696		02/20/09 17:21
Ethylbenzene		49.4		ug/kg	50.0	99%	80 - 128	8	48	9022696		02/20/09 17:21
Naphthalene		40.8		ug/kg	50.0	82%	63 - 144	9	50	9022696		02/20/09 17:21
Toluene		46.5		ug/kg	50.0	93%	80 - 125	8	44	9022696		02/20/09 17:21
Xylenes, total		144		ug/kg	150	96%	79 - 130	9	48	9022696		02/20/09 17:21
Surrogate: 1,2-Dichloroethane-d4		49.7		ug/kg	50.0	99%	41 - 150			9022696		02/20/09 17:21
Surrogate: Dibromofluoromethane		51.8		ug/kg	50.0	104%	55 - 139			9022696		02/20/09 17:21
Surrogate: Toluene-d8		50.9		ug/kg	50.0	102%	57 - 148			9022696		02/20/09 17:21
Surrogate: 4-Bromofluorobenzene		47.5		ug/kg	50.0	95%	58 - 150			9022696		02/20/09 17:21
<b>9023273-BSD1</b>												
Benzene		59.7		ug/kg	50.0	119%	76 - 130	1	43	9023273		02/23/09 13:09
Ethylbenzene		55.1		ug/kg	50.0	110%	80 - 128	1	48	9023273		02/23/09 13:09
Naphthalene		59.8		ug/kg	50.0	120%	63 - 144	0.9	50	9023273		02/23/09 13:09
Toluene		54.4		ug/kg	50.0	109%	80 - 125	1	44	9023273		02/23/09 13:09
Xylenes, total		165		ug/kg	150	110%	79 - 130	0.9	48	9023273		02/23/09 13:09
Surrogate: 1,2-Dichloroethane-d4		51.8		ug/kg	50.0	104%	41 - 150			9023273		02/23/09 13:09
Surrogate: Dibromofluoromethane		53.4		ug/kg	50.0	107%	55 - 139			9023273		02/23/09 13:09
Surrogate: Toluene-d8		50.2		ug/kg	50.0	100%	57 - 148			9023273		02/23/09 13:09
Surrogate: 4-Bromofluorobenzene		49.6		ug/kg	50.0	99%	58 - 150			9023273		02/23/09 13:09

Client EEG - Env. Enterprise Group (2449)  
 10179 Highway 78  
 Ladson, SC 29456  
 Attn Tom McElwee

Work Order: NSB1765  
 Project Name: Laurel Bay Housing Project  
 Project Number: [none]  
 Received: 02/20/09 08:00

**PROJECT QUALITY CONTROL DATA**  
**Matrix Spike**

Analyte	Orig. Val.	MS Val	Q	Units	Spike Conc	% Rec.	Target Range	Batch	Sample Spiked	Analyzed Date/Time
<b>Selected Volatile Organic Compounds by EPA Method 8260B</b>										
<b>9022696-MS1</b>										
Benzene	44.8	63.6		ug/kg	50.0	38%	33 - 146	9022696	NSB1670-06	02/21/09 03:01
Ethylbenzene	5.21	34.4		ug/kg	50.0	58%	16 - 160	9022696	NSB1670-06	02/21/09 03:01
Naphthalene	10.2	19.0		ug/kg	50.0	17%	10 - 151	9022696	NSB1670-06	02/21/09 03:01
Toluene	5.72	30.2		ug/kg	50.0	49%	30 - 145	9022696	NSB1670-06	02/21/09 03:01
Xylenes, total	7.99	86.6		ug/kg	150	52%	16 - 159	9022696	NSB1670-06	02/21/09 03:01
Surrogate: 1,2-Dichloroethane-d4		50.2		ug/kg	50.0	100%	41 - 150	9022696	NSB1670-06	02/21/09 03:01
Surrogate: Dibromofluoromethane		50.0		ug/kg	50.0	100%	55 - 139	9022696	NSB1670-06	02/21/09 03:01
Surrogate: Toluene-d8		51.8		ug/kg	50.0	104%	57 - 148	9022696	NSB1670-06	02/21/09 03:01
Surrogate: 4-Bromofluorobenzene		56.2		ug/kg	50.0	112%	58 - 150	9022696	NSB1670-06	02/21/09 03:01
<b>9023273-MS1</b>										
Benzene	ND	1.84		mg/kg wet	1.66	111%	33 - 146	9023273	NSB1787-02RE	02/23/09 22:27
Ethylbenzene	ND	1.71		mg/kg wet	1.66	104%	16 - 160	9023273	NSB1787-02RE	02/23/09 22:27
Naphthalene	ND	1.69		mg/kg wet	1.66	102%	10 - 151	9023273	NSB1787-02RE	02/23/09 22:27
Toluene	ND	1.68		mg/kg wet	1.66	101%	30 - 145	9023273	NSB1787-02RE	02/23/09 22:27
Xylenes, total	ND	5.14		mg/kg wet	4.97	104%	16 - 159	9023273	NSB1787-02RE	02/23/09 22:27
Surrogate: 1,2-Dichloroethane-d4		47.8		ug/kg	50.0	96%	41 - 150	9023273	NSB1787-02RE	02/23/09 22:27
Surrogate: Dibromofluoromethane		50.7		ug/kg	50.0	101%	55 - 139	9023273	NSB1787-02RE	02/23/09 22:27
Surrogate: Toluene-d8		48.9		ug/kg	50.0	98%	57 - 148	9023273	NSB1787-02RE	02/23/09 22:27
Surrogate: 4-Bromofluorobenzene		50.1		ug/kg	50.0	100%	58 - 150	9023273	NSB1787-02RE	02/23/09 22:27

Client EEG - Env. Enterprise Group (2449)  
 10179 Highway 78  
 Ladson, SC 29456  
 Attn Tom McElwee

Work Order: NSB1765  
 Project Name: Laurel Bay Housing Project  
 Project Number: [none]  
 Received: 02/20/09 08:00

### PROJECT QUALITY CONTROL DATA

#### Matrix Spike Dup

Analyte	Orig. Val.	Duplicate	Q	Units	Spike Conc	% Rec.	Target Range	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
<b>Selected Volatile Organic Compounds by EPA Method 8260B</b>												
<b>9022696-MSD1</b>												
Benzene	44.8	76.1		ug/kg	50.0	63%	33 - 146	18	43	9022696	NSB1670-06	02/21/09 03:32
Ethylbenzene	5.21	40.0		ug/kg	50.0	70%	16 - 160	15	48	9022696	NSB1670-06	02/21/09 03:32
Naphthalene	10.2	23.6		ug/kg	50.0	27%	10 - 151	22	50	9022696	NSB1670-06	02/21/09 03:32
Toluene	5.72	35.8		ug/kg	50.0	60%	30 - 145	17	44	9022696	NSB1670-06	02/21/09 03:32
Xylenes, total	7.99	104		ug/kg	150	64%	16 - 159	18	48	9022696	NSB1670-06	02/21/09 03:32
Surrogate: 1,2-Dichloroethane-d4		50.9		ug/kg	50.0	102%	41 - 150			9022696	NSB1670-06	02/21/09 03:32
Surrogate: Dibromofluoromethane		50.6		ug/kg	50.0	101%	55 - 139			9022696	NSB1670-06	02/21/09 03:32
Surrogate: Toluene-d8		51.6		ug/kg	50.0	103%	57 - 148			9022696	NSB1670-06	02/21/09 03:32
Surrogate: 4-Bromofluorobenzene		53.9		ug/kg	50.0	108%	58 - 150			9022696	NSB1670-06	02/21/09 03:32
<b>9023273-MSD1</b>												
Benzene	ND	1.95		mg/kg wet	1.66	118%	33 - 146	6	43	9023273	NSB1787-02RE	02/23/09 22:57
Ethylbenzene	ND	1.84		mg/kg wet	1.66	111%	16 - 160	7	48	9023273	NSB1787-02RE	02/23/09 22:57
Naphthalene	ND	1.90		mg/kg wet	1.66	115%	10 - 151	11	50	9023273	NSB1787-02RE	02/23/09 22:57
Toluene	ND	1.77		mg/kg wet	1.66	107%	30 - 145	5	44	9023273	NSB1787-02RE	02/23/09 22:57
Xylenes, total	ND	5.53		mg/kg wet	4.97	111%	16 - 159	7	48	9023273	NSB1787-02RE	02/23/09 22:57
Surrogate: 1,2-Dichloroethane-d4		49.0		ug/kg	50.0	98%	41 - 150			9023273	NSB1787-02RE	02/23/09 22:57
Surrogate: Dibromofluoromethane		50.1		ug/kg	50.0	100%	55 - 139			9023273	NSB1787-02RE	02/23/09 22:57
Surrogate: Toluene-d8		49.1		ug/kg	50.0	98%	57 - 148			9023273	NSB1787-02RE	02/23/09 22:57
Surrogate: 4-Bromofluorobenzene		49.8		ug/kg	50.0	100%	58 - 150			9023273	NSB1787-02RE	02/23/09 22:57

Client EEG - Env. Enterprise Group (2449)  
10179 Highway 78  
Ladson, SC 29456  
Attn Tom McElwee

Work Order: NSB1765  
Project Name: Laurel Bay Housing Project  
Project Number: [none]  
Received: 02/20/09 08:00

### CERTIFICATION SUMMARY

#### TestAmerica Nashville

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

Client EEG - Env. Enterprise Group (2449)  
10179 Highway 78  
Ladson, SC 29456

Attn Tom McElwee

Work Order: NSB1765  
Project Name: Laurel Bay Housing Project  
Project Number: [none]  
Received: 02/20/09 08:00

## DATA QUALIFIERS AND DEFINITIONS

**PX** Sample for VOA analysis not received in preserved VOA vials or Encore or similar sampling device.  
**ZX** Due to sample matrix effects, the surrogate recovery was outside the acceptance limits.  
**ND** Not detected at the reporting limit (or method detection limit if shown)

## METHOD MODIFICATION NOTES

NSB1765  
03/06/09 23:59

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING  
Nashville Division  
2060 Foster Creighton  
Nashville, TN 37204

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

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

Compliance Monitoring?  Yes  No  
Enforcement Action?  Yes  No

Client Name/Account #: EEG # 2449  
Address: 10178 Highway 76  
City/State/Zip: Ladson, SC 29456  
Project Manager: Tom McElwee email: mcilwee@ea-inc.net  
Telephone Number: 843.412.2097  
Sampler Name: (Print) Pratt Shaw  
Sampler Signature: [Signature]

Site State: SC  
PO#: 08087  
TA Quote #:  
Project ID: Laurel Bay Housing Project  
Project #:

Sample ID / Description	Date Sampled	Time Sampled	No of Containers Shipped	Grab	Composite	Field Filtered	IC HNO <sub>3</sub> (Red Label)	R2 (Blue Label) H <sub>2</sub> SO <sub>4</sub>	NaOH (Orange 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)	Matrix					Other (Specify)	BTEX + Naph - B208	PAH - B270C	Analyze For:	RUSH TAT (Pre-Schedule)								
														Groundwater	Wastewater	Drinking Water	Sudge	Sol													
115 BANYAN - 2	2/17/09	0750	5	X								21	MEOH			X											NSB1765-01				
119 BANYAN	2/17/09	1425	5	X								21				X												NSB1765-02			
125 BANYAN	2/18/09	1458	5	X								21				X												NSB1765-03			
129 BANYAN - 1	2/19/09	1340	5	X								21				X												NSB1765-04			

Special Instructions: \_\_\_\_\_  
Laboratory Comments:  
Temperature Upon Receipt: 0.5 Y  
VOCs Free of Headspace? \_\_\_\_\_

Requisitioned by:	Date	Time	Method of Shipment:	FEDEX	
				Date	Time
<u>[Signature]</u>	2/19/09	1900	1900		
Requisitioned by:	Date	Time	Received by:	Date	Time
<u>[Signature]</u>	2/19/09	1900	<u>FEDEX</u>	2/20/09	0800
			Received by TestAmerica:		
			<u>[Signature]</u>		



ATTACHMENT A



# NON-HAZARDOUS MANIFEST

CWM

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

<b>NON-HAZARDOUS MANIFEST</b>		1. Generator's US EPA ID No. SC175021616AARC621	Manifest Document No.	2. Page 1 of 1
3. Generator's Name and Mailing Address MCAS, Beaufort Laurel Bay Housing Beaufort SC 29904		Commanding Officer ATTN: CURETO PO BOX 53001 Beaufort SC 29904		A. Manifest Number <b>WMNA 10895482</b>
4. Generator's Phone <b>843 228-8480</b>				B. State Generator's ID
5. Transporter 1 Company Name <b>EEG, Inc.</b>		6. US EPA ID Number		C. State Transporter's ID
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone <b>843 878-0411</b>
9. Designated Facility Name and Site Address <b>HICKORY HILL LANDFILL ROUTE 1, BOX 121 RIDGELAND SC 29936</b>		10. US EPA ID Number		E. State Transporter's ID
				F. Transporter's Phone
				G. State Facility's ID
				H. Facility's Phone <b>843 987-4643</b>
11. Description of Waste Materials		12. Containers No.	13. Total Quantity	14. Unit Wt/Vol
a. Heating Oil Tank Filled with Sand				
WM Profile # <b>102655SC</b>		<b>0 0 1</b>		
b.				
WM Profile #				
c.				
WM Profile #				
d.				
WM Profile #				
J. Additional Descriptions for Materials Listed Above		K. Disposal Location		
Landfill _____ Solidification _____		Cell _____ Level _____		
Bio Remediation _____		Grid _____		
15. Special Handling Instructions and Additional Information				
4 EA UST's } 115 BANYAN - 2 } 3) 125 BANYAN } 119 BANYAN } 4) 129 BANYAN - 2				
Purchase Order #		EMERGENCY CONTACT:		
16. GENERATOR'S CERTIFICATION:				
I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.				
Printed/Typed Name <i>W.S. Dokes, Jr.</i>		Signature "On behalf of" <i>[Signature]</i>		Month Day Year 09/03/99
17. Transporter 1 Acknowledgement of Receipt of Materials				
Printed/Typed Name <i>James Baldwin</i>		Signature <i>James Baldwin</i>		Month Day Year 10/3/03/99
18. Transporter 2 Acknowledgement of Receipt of Materials				
Printed/Typed Name		Signature		Month Day Year
19. Certificate of Final Treatment/Disposal				
I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.				
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.				
Printed/Typed Name <i>[Signature]</i>		Signature <i>[Signature]</i>		Month Day Year 03/07/01

GENERATOR

TRANSPORTER

FACILITY

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

# Volatile Organic Compounds by GC/MS

Client: AECOM - Resolution Consultants	Laboratory ID: OG18009-015
Description: BEALB125TW01WG20130719	Matrix: Aqueous
Date Sampled: 07/19/2013 1030	
Date Received: 07/19/2013	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	07/27/2013 0136	RGB		25963

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	LOD	DL	Units	Run
Benzene	71-43-2	8260B	0.10	BJ	0.50	0.25	0.027	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		0.50	0.25	0.17	ug/L	1
Naphthalene	91-20-3	8260B	1.1		0.50	0.25	0.12	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	0.25	0.17	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		0.50	0.25	0.17	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		101	70-120
Toluene-d8		107	85-120
Bromofluorobenzene		102	75-120
Dibromofluoromethane		106	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

# Semivolatile Organic Compounds by GC/MS

Client: AECOM - Resolution Consultants	Laboratory ID: OG18009-015
Description: BEALB125TW01WG20130719	Matrix: Aqueous
Date Sampled: 07/19/2013 1030	
Date Received: 07/19/2013	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	07/23/2013 1429	JRG	07/22/2013 1356	25554

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	LOD	DL	Units	Run
Benzo(a)anthracene	56-55-3	8270D	0.094	J	0.20	0.10	0.084	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.20	0.10	0.089	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.20	0.10	0.094	ug/L	1
Chrysene	218-01-9	8270D	0.081	J	0.20	0.10	0.055	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.20	0.10	0.059	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		65	50-110
Nitrobenzene-d5		61	40-110
Terphenyl-d14		57	50-135

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

**Appendix D**  
**Regulatory Correspondence**



C. Earl Hunter, Commissioner

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

May 14, 2009

Commanding Officer  
ATTN: S-4 NREAO (Craig Ehde)  
MCAS  
PO Box 55001  
Beaufort, SC 29904-5001

Re: MCAS – Laurel Bay Housing –125 Banyan St.  
**Site ID # 04179**  
UST Closure Report received 24 April 2009  
Beaufort County

Dear Mr. Ehde:

The purpose of this letter is to verify a release of fuel oil at the referenced residence. According to information received by the Department, the source of the release is from past onsite use of fuel oil USTs. To date, initial activities by the facility have included tank removal and soil sampling. Based on the information contained in the closure report, a potential violation of the South Carolina Pollution Control Act has occurred in that there has been an unauthorized release of petroleum to the environment.

Additional assessment activities are required for this site. Specifically the Department requests that a groundwater sample be collected from this site. Please note, the Department approved a groundwater sampling proposal for Laurel Bay submitted by MCAS under separate cover dated 16 June 2008.

Should you have any questions, please contact me at 803-896-4179 or [cookejt@dhec.sc.gov](mailto:cookejt@dhec.sc.gov).

Sincerely,

Jan T. Cooke, Hydrogeologist  
AST Petroleum Restoration & Site Environmental Investigations Section  
Division of Site Assessment, Remediation & Revitalization  
Bureau of Land and Waste Management

cc: Region 8 District EQC







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

August 6, 2015

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

RE: Approval Response to Comments and Concurrence with Final Initial Groundwater Investigation Report-July 2013  
Laurel Bay Military Housing Area Multiple Properties  
Dated June 2015

Dear Mr. Drawdy,

The South Carolina Department of Health and Environmental Control (the Department) received groundwater data in the above referenced Groundwater Investigation Report for the addresses attached. The regulatory authority for the investigation and cleanup of releases from these tank systems is the South Carolina Pollution Control Act (S.C. Code Ann. §48-1-10 et seq., as amended).

Per the Department's request, groundwater samples were collected from the attached referenced addresses. The Department reviewed the groundwater data and previous investigations and it agrees with the conclusions and recommendations included in the document. To further assess the impact to groundwater, permanent wells should be installed at the 10 stated addresses. For the remaining 25 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-July 2013  
 Specific Property Recommendations  
 Dated August 6, 2015

**Draft Final Initial Groundwater Investigation Report for (35 addresses/38 tanks)**

<b>Permanent Monitoring Well Investigation recommendation (10 addresses/11 tanks)</b>	
119 Banyan	156 Laurel Bay
128 Banyan	1033 Foxglove
132 Banyan	1055 Gardenia
135 Birch	1059 Gardenia
148 Laurel Bay	1168 Jasmine
<b>No Further Action recommendation (25 addresses/27 tanks):</b>	
115 Banyan	386 Acorn
116 Banyan	395 Acorn
120 Banyan	399 Acorn
124 Banyan	1021 Foxglove
125 Banyan	1027 Foxglove
136 Birch	1030 Foxglove
140 Laurel Bay	1032 Foxglove
144 Laurel Bay	1053 Gardenia
152 Laurel Bay	1058 Gardenia
160 Cypress	1061 Gardenia
263 Beech	1166 Jasmine
269 Birch	1169 Jasmine
295 Birch	