SUMMARY REPORT
208 FOXGLOVE STREET (FORMERLY 1027 FOXGLOVE 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 SUMMARY REPORT
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**Naval Facilities Engineering Command Atlantic** 

9324 Virginia Avenue Norfolk, Virginia 23511-3095

Prepared by:



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

**Contract Number: N62470-14-D-9016** 

CTO WE52

**JUNE 2021** 



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### **List of Acronyms**

bgs below ground surface

BTEX benzene, toluene, ethylbenzene, and xylenes

CTO Contract Task Order

COPC constituents of potential concern

ft feet

IDIQ Indefinite Delivery, Indefinite Quantity

IGWA Initial Groundwater Assessment

JV Joint Venture

LBMH Laurel Bay Military Housing MCAS Marine Corps Air Station

NAVFAC Mid-Lant Naval Facilities Engineering Command Mid-Atlantic

NFA No Further Action

PAH polynuclear aromatic hydrocarbon QAPP Quality Assurance Program Plan

RBSL risk-based screening level

SCDHEC South Carolina Department of Health and Environmental Control

Site LBMH area at MCAS Beaufort, South Carolina

UST underground storage tank
VISL vapor intrusion screening level



#### 1.0 INTRODUCTION

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

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

This report summarizes the results the environmental investigation activities associated with the storage of home heating oil and the potential release of petroleum constituents at the referenced property. Based on the results of the investigation, a No Further Action (NFA) determination has been made by the South Carolina Department of Health and Environmental Control (SCDHEC) for 208 Foxglove Street (Formerly 1027 Foxglove 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 208 Foxglove Street (Formerly 1027 Foxglove Street). Details regarding the soil investigation at this site are provided in the *SCDHEC UST Assessment Report – 1027 Foxglove Street* (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 May 19, 2009, a single 280 gallon heating oil UST was removed from the landscaped area adjacent to the concrete porch at 208 Foxglove Street (Formerly 1027 Foxglove Street). The former UST location is indicated on Figures 2 and 3 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 6'1" 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 208 Foxglove Street (Formerly 1027 Foxglove Street) were greater than the SCDHEC RBSLs, which indicated further investigation was required. In a letter dated August 18, 2009, SCDHEC requested an IGWA for 208 Foxglove Street (Formerly 1027 Foxglove Street) 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 23, 2013, a temporary monitoring well was installed at 208 Foxglove Street (Formerly 1027 Foxglove Street), 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 in Figures 2 and 3of 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 208 Foxglove Street (Formerly 1027 Foxglove Street) 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 208 Foxglove Street (Formerly 1027 Foxglove Street). 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 1027 Foxglove Street, Laurel Bay Military Housing Area, August 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 208 Foxglove Street (Formerly 1027 Foxglove Street) Laurel Bay Military Housing Area Marine Corps Air Station Beaufort

iarine (	corps All	r Station	Beautort
Bea	ufort, S	outh Car	olina

Constituent	SCDHEC RBSLs (1)	Results Sample Collected 05/19/09	
Volatile Organic Compounds Analyze	d by EPA Method 8260B (mg/kg)		
Benzene	0.003	ND	
Ethylbenzene	1.15	0.00422	
Naphthalene	0.036	0.0596	
Toluene	0.627	ND	
Xylenes, Total	13.01	ND	
Semivolatile Organic Compounds Ana	lyzed by EPA Method 8270D (mg/kg)		
Benzo(a)anthracene	0.66	0.135	
Benzo(b)fluoranthene	0.66	ND	
Benzo(k)fluoranthene	0.66	ND	
Chrysene	0.66	0.113	
Dibenz(a,h)anthracene	0.66	ND	

### Notes:

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

<sup>&</sup>lt;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).

#### Table 2

# Laboratory Analytical Results - Groundwater 208 Foxglove Street (Formerly 1027 Foxglove Street) Laurel Bay Military Housing Area Marine Corps Air Station Beaufort Beaufort, South Carolina

Constituent	SCDHEC RBSLs (1)	Site-Specific Groundwater VISLs (µg/L) <sup>(2)</sup>	Results Sample Collected 07/23/13			
Volatile Organic Compounds Analyzed by EPA Method 8260B (μg/L)						
Benzene	5	16.24	ND			
Ethylbenzene	700	45.95	ND			
Naphthalene	25	29.33	ND			
Toluene	1000	105,445	ND			
Xylenes, Total	10,000	2,133	ND			
Semivolatile Organic Compounds Analyzed by EPA Method 8270D (µg/L)						
Benzo(a)anthracene	10	NA	ND			
Benzo(b)fluoranthene	10	NA	ND			
Benzo(k)fluoranthene	10	NA	ND			
Chrysene	10	NA	ND			
Dibenz(a,h)anthracene	10	NA	ND			

#### Notes:

(2) Site-specific groundwater VISLs were calculated using the EPA JE Model Spreadsheets (Version 3.1, February 2004) and conservative modeling inputs representative of a small single-story house with an 8 foot ceiling. Site-specific groundwater VISLs were developed based on a target risk level of 1x10<sup>-6</sup>, 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

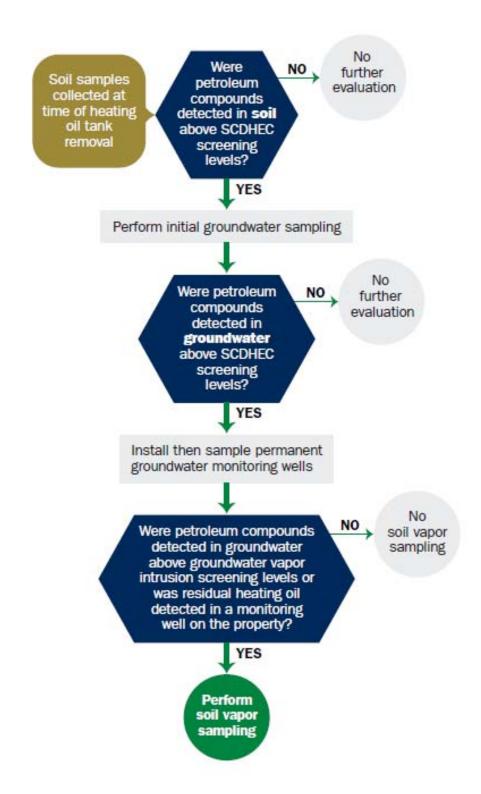
μg/L - micrograms per liter

VISL - Vapor Intrusion Screening Level

<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).

## 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**

Date Received
State Use Only

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

04252

RECEIVED

AUG 1 7 2009

SITE ASSESSMENT, REMEDIATION & REVITALIZATION

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

### II. SITE IDENTIFICATION AND LOCATION

2						
Permit I.D. #	-					
Laurel Bay Militar		Marine C	orps Air	Station,	Beaufort,	SC
Facility Name or Company S	ite Identifier					
1027 Foxglove St., Laurel Bay Military Housing Area						
Street Address or State Road	(as applicable)					
Beaufort,	Beaufort	t .				
~						
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
Notary Public for the state of  Please affix State seal if you are commissioned outside South Carolina

	THE TIOM TEMPORAL METORS	
	VI. UST INFORMATION	1027Foxglove
A.	Product(ex. Gas, Kerosene)	Heating Oil
B.	Capacity(ex. 1k, 2k)	280 gal
C.	Age	Late 1950s
D.	Construction Material(ex. Steel, FRP)	Steel
E.	Month/Year of Last Use	Mid 1980s
F.	Depth (ft.) To Base of Tank	6'1"
G.	Spill Prevention Equipment Y/N	No
H.	Overfill Prevention Equipment Y/N	No
I.	Method of Closure Removed/Filled	Removed
J.	Date Tanks Removed/Filled	5/19/09
K.	Visible Corrosion or Pitting Y/N	Yes
L.	Visible Holes Y/N	Yes
M.	Method of disposal for any USTs removed from the UST 1027Foxglove was removed from	
	Subtitle "D" landfill. See Attachm	nent "A."
N.	Method of disposal for any liquid petroleum, sludge disposal manifests)  The tank was previously filled wi	•
O.	If any corrosion, pitting, or holes were observed, de Corrosion, pitting and holes were tank.	scribe the location and extent for each UST found on the entire surface of the

### VII. PIPING INFORMATION

	1027Foxglove
	Steel &
Construction Material(ex. Steel, FRP)	Copper
Distance from UST to Dispenser	N/A
Number of Dispensers	N/A
Type of System Pressure or Suction	Suction
Was Piping Removed from the Ground? Y/N	Yes
Visible Corrosion or Pitting Y/N	Yes
Visible Holes Y/N	No
Age	Late 1950s
If any corrosion, pitting, or holes were observed,	
pipe. The copper supply and ref	nd on the surface of the steel votern lines were sound.
VIII. BRIEF SITE DESCI	
The HOTE at the weekdenger are a	constructed of single wall steel
The USTs at the residences are cand formerly contained fuel oil	for heating. These USTs were
The USTs at the residences are can and formerly contained fuel oil installed in the late 1950s and	- · · · · · · · · · · · · · · · · · · ·
and formerly contained fuel oil	- · · · · · · · · · · · · · · · · · · ·
and formerly contained fuel oil	- · · · · · · · · · · · · · · · · · · ·
and formerly contained fuel oil	- · · · · · · · · · · · · · · · · · · ·
and formerly contained fuel oil	- · · · · · · · · · · · · · · · · · · ·

### IX. SITE CONDITIONS

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

### 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#
1027 Foxglove	Excav at fill end	Soil	Sandy	6'1"	5/19/09 1320 hrs	P. Shaw	
					1320 1110		
8							
9							
10							
11							
12							
13				-			
14							
15							
16							
17							
18							
19							
20							

<sup>\* =</sup> Depth Below the Surrounding Land Surface

### XI. SAMPLING METHODOLOGY

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

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

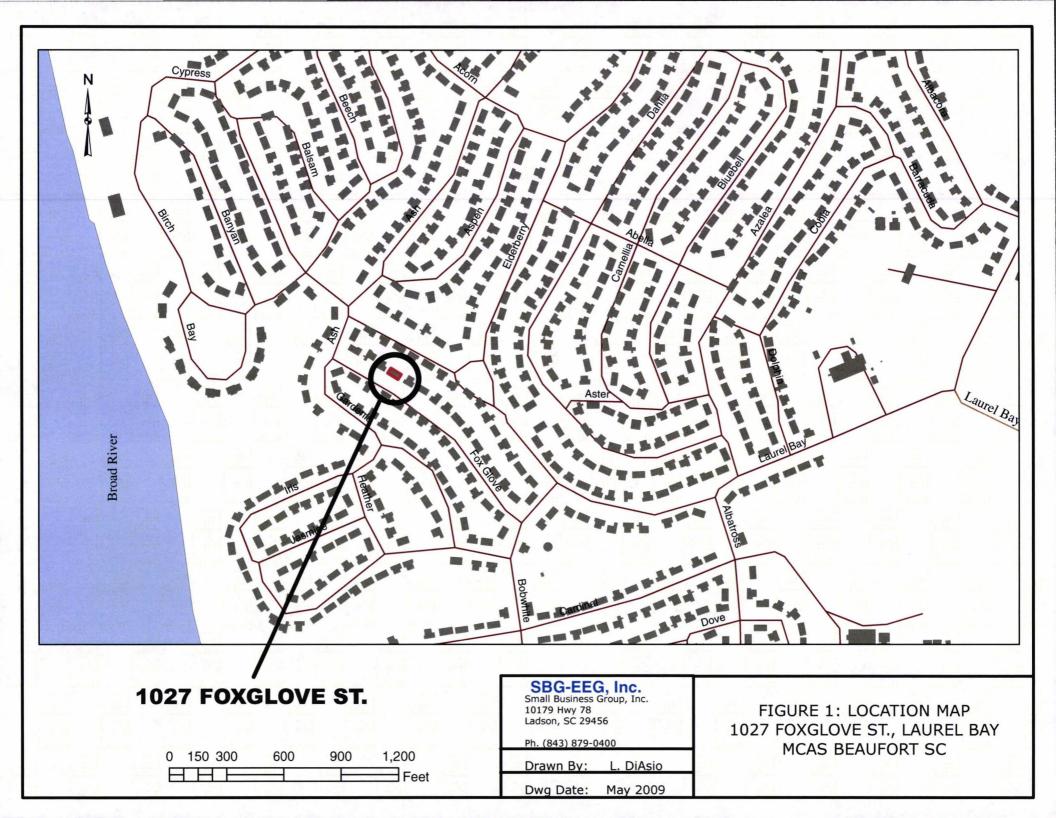
### XII. RECEPTORS

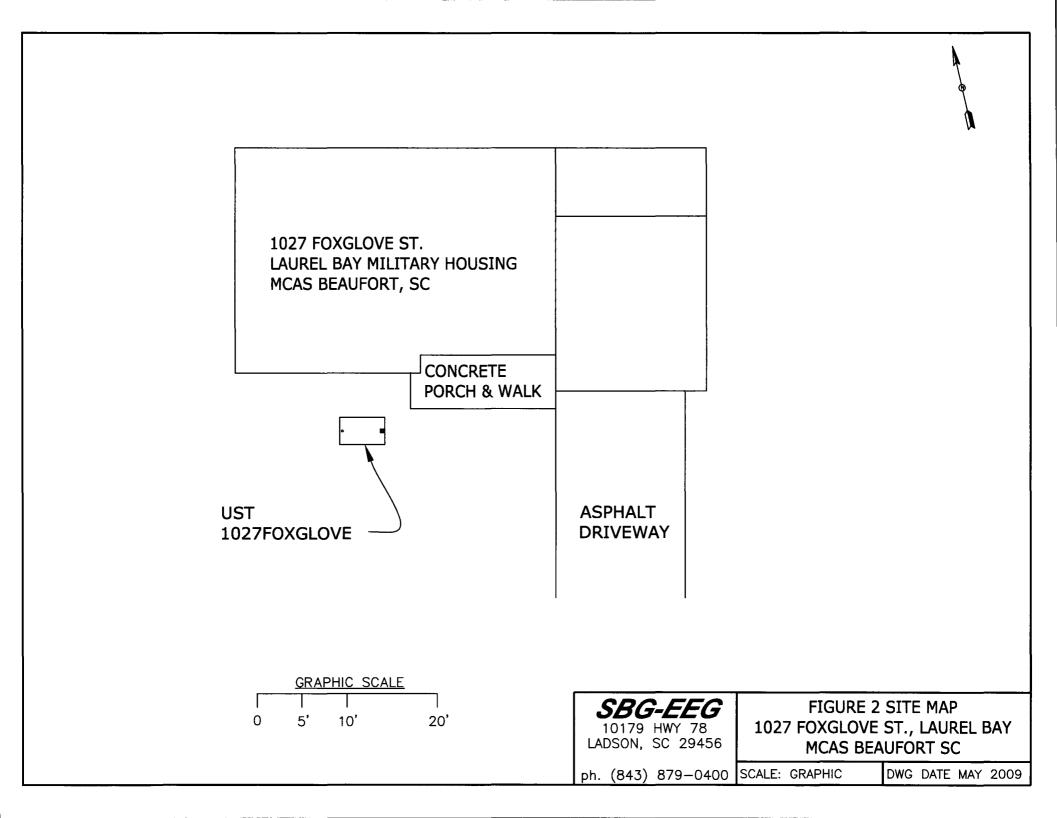
Yes No A. Are there any lakes, ponds, streams, or wetlands located within Х 1000 feet of the UST system? If yes, indicate type of receptor, distance, and direction on site map. B. Are there any public, private, or irrigation water supply wells within Х 1000 feet of the UST system? If yes, indicate type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

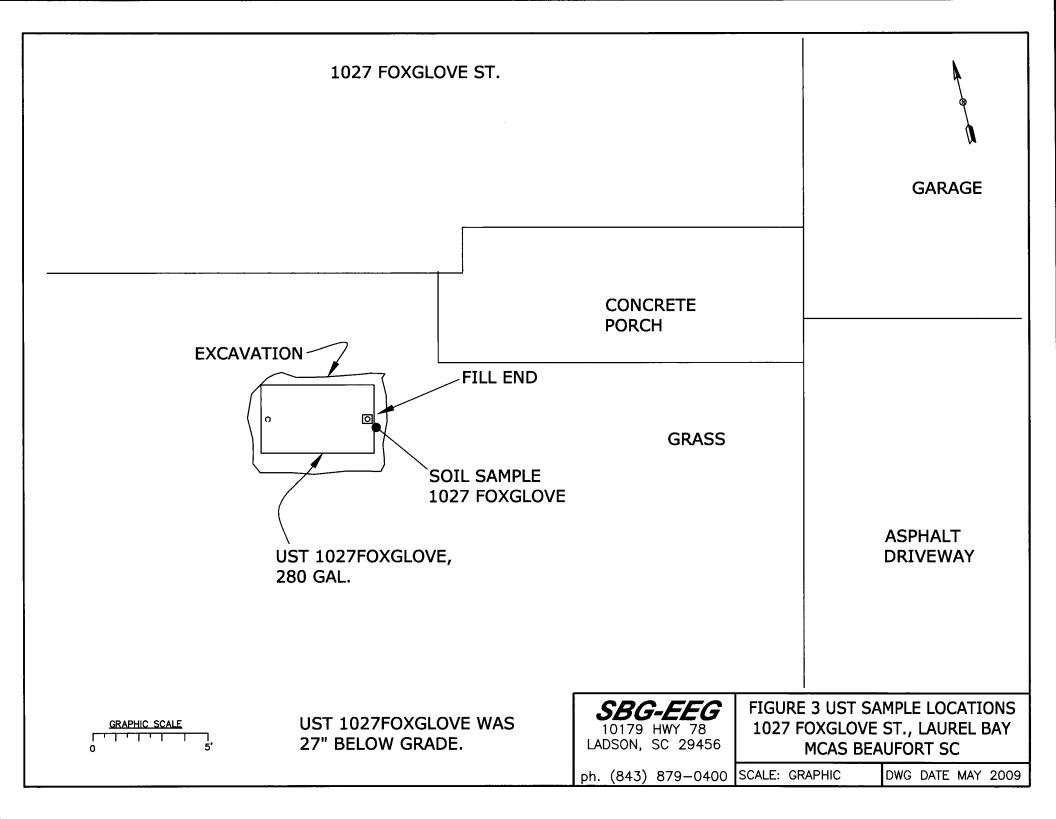
### XIII. SITE MAP

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

(Attach Site Map Here)









Picture 1: Location of UST 1027Foxglove prior to digging.

### 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.

СоС	1027Foxglove			
Benzene	ND ND			
Toluene	ND			
Ethylbenzene	0.00422 mg/kg			
Xylenes	ND ND			
Naphthalene	0.0596 mg/kg			
Benzo (a) anthracene	0.135 mg/kg			
Benzo (b) fluoranthene	ND			
Benzo (k) fluoranthene	ND			
Chrysene	0.113 mg/kg			
Dibenz (a, h) anthracene	ND			
TPH (EPA 3550)				
СоС				
Benzene				
Toluene				
Ethylbenzene				
Xylenes				
Naphthalene				
Benzo (a) anthracene				
Benzo (b) fluoranthene				
Benzo (k) fluoranthene				
Chrysene				
Dibenz (a, h) anthracene				
TPH (EPA 3550)				

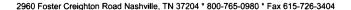
SUMMARY OF ANALYSIS RESULTS (cont'd)
Enter the ground water analytical data for each sample for all CoC in the table below. If free product is present, indicate the measured thickness to the nearest 0.01 feet.

is present, indicate the measured						
СоС	RBSL	W-1	W-2	W -3	W -4	
	(µg/l)					
Free Product						
Thickness	None					
Benzene	5					
Toluene	1,000					
Ethylbenzene	700					
Xylenes	10,000					
Total BTEX	N/A					
МТВЕ	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)





June 04, 2009

12:09:16PM

Client:

EEG - Small Business Group, Inc. (2449)

10179 Highway 78

Ladson, SC 29456

Attn:

Tom McElwee

Work Order:

NSE1961

Project Name:

Laurel Bay Housing Project

Project Nbr: P/O Nbr: [none] 0829

Date Received:

05/22/09

#### SAMPLE IDENTIFICATION

### LAB NUMBER

#### **COLLECTION DATE AND TIME**

1023 Foxglove	NSE1961-01	05/19/09 09:55
1027 Foxglove	NSE1961-02	05/19/09 13:20
1021 Foxglove	NSE1961-03	05/20/09 13:50
1030 Foxglove	NSE1961-04	05/21/09 10:25

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.

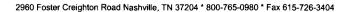
This report has been electronically signed.

Lemos a Hage

Report Approved By:

Ken A. Hayes

Senior Project Manager





EEG - Small Business Group, Inc. (2449) Client

10179 Highway 78

Ladson, SC 29456 Tom McElwee

Attn

Work Order:

NSE1961

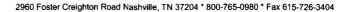
Project Name:

Laurel Bay Housing Project

Project Number: Received:

[none] 05/22/09 08:15

ANALYTICAL REPORT								
Analyte	Result	Flag	Units	MRL	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: NSE1961-01 (1023 Fox	glove - Soil) Sa	ampled: 0	5/19/09 09:55					
General Chemistry Parameters								
% Dry Solids	81.4		%	0.500	1	06/04/09 08:23	SW-846	9060430
Selected Volatile Organic Compounds l	by EPA Method	8260B						
Benzene	ND		mg/kg dry	0.00258	1	05/29/09 03:15	SW846 8260B	9054372
Ethylbenzene	ND		mg/kg dry	0.00258	1	05/29/09 03:15	SW846 8260B	9054372
Naphthalene	ND		mg/kg dry	0.00645	1	05/29/09 03:15	SW846 8260B	9054372
Toluene	ND		mg/kg dry	0.00258	1	05/29/09 03:15	SW846 8260B	9054372
Xylenes, total	ND		mg/kg dry	0.00645	1	05/29/09 03:15	SW846 8260B	9054372
Surr: 1,2-Dichloroethane-d4 (41-150%)	100 %					05/29/09 03:15	SW846 8260B	9054372
Surr: Dibromofluoromethane (55-139%)	96 %					05/29/09 03:15	SW846 8260B	9054372
Surr: Toluene-d8 (57-148%)	87 %					05/29/09 03:15	SW846 8260B	9054372
Surr: 4-Bromofluorobenzene (58-150%)	106 %					05/29/09 03:15	SW846 8260B	9054372
Polyaromatic Hydrocarbons by EPA 82	70D							
Acenaphthene	ND		mg/kg dry	0.0800	1	05/30/09 18:40	SW846 8270D	9053860
Acenaphthylene	ND		mg/kg dry	0.0800	1	05/30/09 18:40	SW846 8270D	9053860
Anthracene	ND		mg/kg dry	0.0800	1	05/30/09 18:40	SW846 8270D	9053860
Benzo (a) anthracene	ND		mg/kg dry	0.0800	1	05/30/09 18:40	SW846 8270D	9053860
Benzo (a) pyrene	ND		mg/kg dry	0.0800	1	05/30/09 18:40	SW846 8270D	9053860
Benzo (b) fluoranthene	ND		mg/kg dry	0.0800	1	05/30/09 18:40	SW846 8270D	9053860
Benzo (g,h,i) perylene	ND		mg/kg dry	0.0800	1	05/30/09 18:40	SW846 8270D	9053860
Benzo (k) fluoranthene	ND		mg/kg dry	0.0800	1	05/30/09 18:40	SW846 8270D	9053860
Chrysene	ND		mg/kg dry	0.0800	1	05/30/09 18:40	SW846 8270D	9053860
Dibenz (a,h) anthracenc	ND		mg/kg dry	0.0800	1	05/30/09 18:40	SW846 8270D	9053860
Fluoranthene	ND		mg/kg dry	0.0800	1	05/30/09 18:40	SW846 8270D	9053860
Fluorene	ND		mg/kg dry	0.0800	1	05/30/09 18:40	SW846 8270D	9053860
Indeno (1,2,3-ed) pyrene	ND		mg/kg dry	0.0800	1	05/30/09 18:40	SW846 8270D	9053860
Naphthalene	ND		mg/kg dry	0.0800	1	05/30/09 18:40	SW846 8270D	9053860
Phenanthrene	ND		mg/kg dry	0.0800	1	05/30/09 18:40	SW846 8270D	9053860
Pyrene	ND		mg/kg dry	0.0800	I	05/30/09 18:40	SW846 8270D	9053860
1-Methylnaphthalene	ND		mg/kg dry	0.0800	1	05/30/09 18:40	SW846 8270D	9053860
2-Methylnaphthalene	ND		mg/kg dry	0.0800	1	05/30/09 18:40	SW846 8270D	9053860
Surr: Terphenyl-d14 (26-128%)	79 %					05/30/09 18:40	SW846 8270D	9053860
Surr: 2-Fluorobiphenyl (19-109%)	59 %					05/30/09 18:40	SW846 8270D	9053860
Surr: Nitrobenzene-d5 (22-104%)	70 %					05/30/09 18:40	SW846 8270D	9053860



NSE1961



Client EEG - Small Business Group, Inc. (2449)

10179 Highway 78 Ladson, SC 29456

Tom McElwee

Attn

ip, Inc. (2449) Work Order:

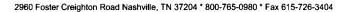
Project Name: Laurel Bay Housing Project

Project Number: [none]

Received: 05/22/09 08:15

#### ANALYTICAL REPORT

	ANALYTICAL REPORT								
Analyte	Result	Flag	Units	MRL	Dilution Factor	Analysis Date/Time	Method	Batch	
Sample ID: NSE1961-02 (1027 Fo	xglove - Soil) Sa	ampled: (	05/19/09 13:20						
General Chemistry Parameters									
% Dry Solids	82.4		%	0.500	1	06/04/09 08:23	SW-846	9060430	
Selected Volatile Organic Compounds	by EPA Method	8260B							
Benzene	ND		mg/kg dry	0.00201	1	05/29/09 03:44	SW846 8260B	9054372	
Ethylbenzene	0.00422		mg/kg dry	0.00201	1	05/29/09 03:44	SW846 8260B	9054372	
Naphthalene	0.0596		mg/kg dry	0.00501	1	05/29/09 03:44	SW846 8260B	9054372	
Toluene	ND		mg/kg dry	0.00201	1	05/29/09 03:44	SW846 8260B	9054372	
Xylenes, total	ND		mg/kg dry	0.00501	i	05/29/09 03:44	SW846 8260B	9054372	
Surr: 1,2-Dichloroethane-d4 (41-150%)	91 %					05/29/09 03:44	SW846 8260B	9054372	
Surr: Dibromofluoromethane (55-139%)	101 %					05/29/09 03:44	SW846 8260B	9054372	
Surr: Toluene-d8 (57-148%)	91 %					05/29/09 03:44	SW846 8260B	9054372	
Surr: 4-Bromofluorobenzene (58-150%)	114 %					05/29/09 03:44	SW846 8260B	9054372	
Polyaromatic Hydrocarbons by EPA 8	270D								
Acenaphthene	ND		mg/kg dry	0.0802	1	05/30/09 19:03	SW846 8270D	9053860	
Acenaphthylene	ND		mg/kg dry	0.0802	1	05/30/09 19:03	SW846 8270D	9053860	
Anthracene	ND		mg/kg dry	0.0802	1	05/30/09 19:03	SW846 8270D	9053860	
Benzo (a) anthracene	0.135		mg/kg dry	0.0802	1	05/30/09 19:03	SW846 8270D	9053860	
Benzo (a) pyrene	ND		mg/kg dry	0.0802	1	05/30/09 19:03	SW846 8270D	9053860	
Benzo (b) fluoranthene	ND		mg/kg dry	0.0802	1	05/30/09 19:03	SW846 8270D	9053860	
Benzo (g,h,i) perylene	ND		mg/kg dry	0.0802	1	05/30/09 19:03	SW846 8270D	9053860	
Benzo (k) fluoranthene	ND		mg/kg dry	0.0802	1	05/30/09 19:03	SW846 8270D	9053860	
Chrysene	0.113		mg/kg dry	0.0802	1	05/30/09 19:03	SW846 8270D	9053860	
Dibenz (a,h) anthracene	ND		mg/kg dry	0.0802	1	05/30/09 19:03	SW846 8270D	9053860	
Fluoranthene	0.413		mg/kg dry	0.0802	1	05/30/09 19:03	SW846 8270D	9053860	
Fluorene	ND		mg/kg dry	0.0802	1	05/30/09 19:03	SW846 8270D	9053860	
Indeno (1,2,3-cd) pyrene	ND		mg/kg dry	0.0802	1	05/30/09 19:03	SW846 8270D	9053860	
Naphthalene	ND		mg/kg dry	0.0802	1	05/30/09 19:03	SW846 8270D	9053860	
Phenanthrene	0.286		mg/kg dry	0.0802	1	05/30/09 19:03	SW846 8270D	9053860	
Pyrene	0.394		mg/kg dry	0.0802	1	05/30/09 19:03	SW846 8270D	9053860	
1-Methylnaphthalene	0.129		mg/kg dry	0.0802	1	05/30/09 19:03	SW846 8270D	9053860	
2-Methylnaphthalene	0.172		mg/kg dry	0.0802	1	05/30/09 19:03	SW846 8270D	9053860	
Surr: Terphenyl-d14 (26-128%)	80 %					05/30/09 19:03	SW846 8270D	9053860	
Surr: 2-Fluorobiphenyl (19-109%)	62 %					05/30/09 19:03	SW846 8270D	9053860	
Surr: Nitrobenzene-d5 (22-104%)	67 %					05/30/09 19:03	SW846 8270D	9053860	





Client EEG - Small Business Group, Inc. (2449)

10179 Highway 78 Ladson, SC 29456

Attn

Ladson, SC 29456 Tom McElwee Work Order:

NSE1961

Project Name:

Laurel Bay Housing Project

Project Number: [none]

Received:

05/22/09 08:15

### ANALYTICAL REPORT

Analyte	Result	Flag	Units	MRL	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: NSE1961-03 (1021 Fo	glava Sail) S	•	5/20/00 12:50					
•	giove - Suil) S	ampieu: 0	3/20/09 13:30					
General Chemistry Parameters	0.5.5		0.4	0.500		04/04/00 00 00	GW 046	0060420
% Dry Solids	95.5		%	0.500	1	06/04/09 08:23	SW-846	9060430
Selected Volatile Organic Compounds	by EPA Method	8260B						
Benzene	ND		mg/kg dry	0.00218	1	05/29/09 04:14	SW846 8260B	9054372
Ethylbenzene	ND		mg/kg dry	0.00218	1	05/29/09 04:14	SW846 8260B	9054372
Naphthalene	ND		mg/kg dry	0.00545	i	05/29/09 04:14	SW846 8260B	9054372
Toluene	ND		mg/kg dry	0.00218	1	05/29/09 04:14	SW846 8260B	9054372
Xylenes, total	ND		mg/kg dry	0.00545	1	05/29/09 04:14	SW846 8260B	9054372
Surr: 1,2-Dichloroethane-d4 (41-150%)	99 %					05/29/09 04:14	SW846 8260B	905437.
Surr: Dibromofluoromethane (55-139%)	99 %					05/29/09 04:14	SW846 8260B	905437.
Surr: Toluene-d8 (57-148%)	86 %					05/29/09 04:14	SW846 8260B	905437.
Surr: 4-Bromofluorobenzene (58-150%)	108 %					05/29/09 04:14	SW846 8260B	905437.
Polyaromatic Hydrocarbons by EPA 82	270D							
Acenaphthene	ND		mg/kg dry	0.0698	1	05/30/09 19:26	SW846 8270D	9053860
Acenaphthylene	ND		mg/kg dry	0.0698	1	05/30/09 19:26	SW846 8270D	9053860
Anthracene	ND		mg/kg dry	0.0698	1	05/30/09 19:26	SW846 8270D	9053860
Benzo (a) anthracene	0.819		mg/kg dry	0.0698	1	05/30/09 19:26	SW846 8270D	9053860
Benzo (a) pyrene	0.403		mg/kg dry	0.0698	1	05/30/09 19:26	SW846 8270D	9053860
Benzo (b) fluoranthene	1.10		mg/kg dry	0.0698	1	05/30/09 19:26	SW846 8270D	9053860
Benzo (g,h,i) perylene	0.183		mg/kg dry	0.0698	1	05/30/09 19:26	SW846 8270D	9053860
Benzo (k) fluoranthene	0.466		mg/kg dry	0.0698	1	05/30/09 19:26	SW846 8270D	9053860
Chrysene	0.650		mg/kg dry	0.0698	1	05/30/09 19:26	SW846 8270D	9053860
Dibenz (a,h) anthracene	0.0914		mg/kg dry	0.0698	1	05/30/09 19:26	SW846 8270D	9053860
Fluoranthene	1.58		mg/kg dry	0.0698	1	05/30/09 19:26	SW846 8270D	9053860
Fluorene	ND		mg/kg dry	0.0698	1	05/30/09 19:26	SW846 8270D	9053860
Indeno (1,2,3-cd) pyrene	0.236		mg/kg dry	0.0698	1	05/30/09 19:26	SW846 8270D	9053860
Naphthalene	ND		mg/kg dry	0.0698	1	05/30/09 19:26	SW846 8270D	9053860
Phenanthrene	ND		mg/kg dry	0.0698	1	05/30/09 19:26	SW846 8270D	9053860
Pyrene	3.23		mg/kg dry	0.0698	1	05/30/09 19:26	SW846 8270D	9053860
1-Methylnaphthalene	ND		mg/kg dry	0.0698	1	05/30/09 19:26	SW846 8270D	9053860
2-Methylnaphthalene	ND		mg/kg dry	0.0698	1	05/30/09 19:26	SW846 8270D	9053860
Surr: Terphenyl-d14 (26-128%)	81 %					05/30/09 19:26	SW846 8270D	905386
Surr: 2-Fluorobiphenyl (19-109%)	79 %					05/30/09 19:26	SW846 8270D	9053866
Surr: Nitrobenzene-d5 (22-104%)	79 %					05/30/09 19:26	SW846 8270D	905386





10179 Highway 78 Ladson, SC 29456

Tom McElwee

Attn

Work Order:

NSE1961

Project Name:

Laurel Bay Housing Project

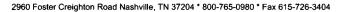
Project Number:

[none]

Received: 05/22/09 08:15

ΔN	ΔT	VT	$IC\Delta$	T. R	FI	ORT

Analyte	Result	Flag	Units	MRL	Dilution Factor	Analysis Date/Time	Method	Batch
	ualous Coil) Co							
Sample ID: NSE1961-04 (1030 For	kgiove - Soii) Si	ampiea: v	5/21/09 10:25					
General Chemistry Parameters						0.5 (0.4 (0.0.00.00.00.00.00.00.00.00.00.00.00.00	<b>011</b> 1 0.45	
% Dry Solids	75.6		%	0.500	1	06/04/09 08:23	SW-846	9060430
Selected Volatile Organic Compounds	by EPA Method	8260B						
Benzene	ND		mg/kg dry	0.00237	1	05/29/09 04:44	SW846 8260B	9054372
Ethylbenzene	0.0269		mg/kg dry	0.00237	1	05/29/09 04:44	SW846 8260B	9054372
Naphthalene	0.162		mg/kg dry	0.00592	1	05/29/09 04:44	SW846 8260B	9054372
Toluene	ND		mg/kg dry	0.00237	1	05/29/09 04:44	SW846 8260B	9054372
Xylenes, total	0.0522		mg/kg dry	0.00592	1	05/29/09 04:44	SW846 8260B	9054372
Surr: 1,2-Dichloroethane-d4 (41-150%)	105 %					05/29/09 04:44	SW846 8260B	9054372
Surr: Dibromofluoromethane (55-139%)	101 %					05/29/09 04:44	SW846 8260B	9054372
Surr: Toluene-d8 (57-148%)	96 %					05/29/09 04:44	SW846 8260B	9054372
Surr: 4-Bromofluorobenzene (58-150%)	200 %	ZX				05/29/09 04:44	SW846 8260B	9054372
Polyaromatic Hydrocarbons by EPA 82	270D							
Acenaphthene	ND		mg/kg dry	0.0872	1	05/30/09 19:49	SW846 8270D	9053860
Acenaphthylene	ND		mg/kg dry	0.0872	1	05/30/09 19:49	SW846 8270D	9053860
Anthracene	1.91		mg/kg dry	0.0872	1	05/30/09 19:49	SW846 8270D	9053860
Benzo (a) anthracene	3.67		mg/kg dry	0.0872	1	05/30/09 19:49	SW846 8270D	9053860
Benzo (a) pyrene	1.40		mg/kg dry	0.0872	1	05/30/09 19:49	SW846 8270D	9053860
Benzo (b) fluoranthene	1.69		mg/kg dry	0.0872	1	05/30/09 19:49	SW846 8270D	9053860
Benzo (g,h,i) perylene	0.425		mg/kg dry	0.0872	1	05/30/09 19:49	SW846 8270D	9053860
Benzo (k) fluoranthene	1.42		mg/kg dry	0.0872	1	05/30/09 19:49	SW846 8270D	9053860
Chrysene	2.99		mg/kg dry	0.0872	1	05/30/09 19:49	SW846 8270D	9053860
Dibenz (a,h) anthracene	0.210		mg/kg dry	0.0872	1	05/30/09 19:49	SW846 8270D	9053860
Fluoranthene	11.4		mg/kg dry	0.436	5	05/31/09 08:37	SW846 8270D	9053860
Fluorene	1.62		mg/kg dry	0.0872	1	05/30/09 19:49	SW846 8270D	9053860
Indeno (1,2,3-cd) pyrene	0.494		mg/kg dry	0.0872	1	05/30/09 19:49	SW846 8270D	9053860
Naphthalene	ND		mg/kg dry	0.0872	1	05/30/09 19:49	SW846 8270D	9053860
Phenanthrene	9.03		mg/kg dry	0.436	5	05/31/09 08:37	SW846 8270D	9053860
Pyrene	8.05		mg/kg dry	0.436	5	05/31/09 08:37	SW846 8270D	9053860
1-Methylnaphthalene	3.36		mg/kg dry	0.0872	1	05/30/09 19:49	SW846 8270D	9053860
2-Methylnaphthalene	5.27		mg/kg dry	0.436	5	05/31/09 08:37	SW846 8270D	9053860
Surr: Terphenyl-d14 (26-128%)	83 %					05/30/09 19:49	SW846 8270D	9053860
Surr: 2-Fluorobiphenyl (19-109%)	72 %					05/30/09 19:49	SW846 8270D	9053860
Surr: Nitrobenzene-d5 (22-104%)	86 %					05/30/09 19:49	SW846 8270D	9053860





10179 Highway 78 Ladson, SC 29456

Tom McElwee

Attn

Work Order:

NSE1961

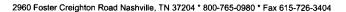
Project Name:

Laurel Bay Housing Project

Project Number: Received: [none] 05/22/09 08:15

### SAMPLE EXTRACTION DATA

Parameter	Batch	Lab Number	Wt/Vol Extracted	Extracted Vol	Date	Analyst	Extraction Method
Polyaromatic Hydrocarbons by EPA	8270D						
SW846 8270D	9053860	NSE1961-01	30.86	1.00	05/29/09 12:40	ACB	EPA 3550B
SW846 8270D	9053860	NSE1961-02	30.42	1.00	05/29/09 12:40	ACB	EPA 3550B
SW846 8270D	9053860	NSE1961-03	30.14	1.00	05/29/09 12:40	ACB	EPA 3550B
SW846 8270D	9053860	NSE1961-04	30.50	1.00	05/29/09 12:40	ACB	EPA 3550B
SW846 8270D	9053860	NSE1961-04RE1	30.50	1.00	05/29/09 12:40	ACB	EPA 3550B
Selected Volatile Organic Compound	ds by EPA Method	8260B					
SW846 8260B	9054372	NSE1961-01	4.76	5.00	05/19/09 09:55	СНН	EPA 5035
SW846 8260B	9054372	NSE1961-02	6.05	5.00	05/19/09 13:20	СНН	EPA 5035
SW846 8260B	9054372	NSE1961-03	4.80	5.00	05/20/09 13:50	СНН	EPA 5035
SW846 8260B	9054372	NSE1961-04	5.59	5.00	05/21/09 10:25	СНН	EPA 5035





10179 Highway 78 Ladson, SC 29456

Tom McElwee

Attn

Work Order:

NSE1961

Project Name:

Laurel Bay Housing Project

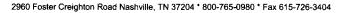
Project Number:

[none]

Received: 05/22/09 08:15

### PROJECT QUALITY CONTROL DATA Blank

Analyte	Blank Value	Q	Units	Q.C. Batch	Lab Number	Analyzed Date/Time
Selected Volatile Organic Compo	ounds by EPA Method	1 8260B				
9054372-BLK1						
Benzene	<0.000670		mg/kg wet	9054372	9054372-BLK1	05/28/09 22:14
Ethylbenzene	< 0.000670		mg/kg wet	9054372	9054372-BLK1	05/28/09 22:14
Naphthalene	< 0.00151		mg/kg wet	9054372	9054372-BLK1	05/28/09 22:14
Toluene	< 0.000670		mg/kg wet	9054372	9054372-BLK1	05/28/09 22:14
Xylenes, total	< 0.00172		mg/kg wet	9054372	9054372-BLK1	05/28/09 22:14
Surrogate: 1,2-Dichloroethane-d4	109%			9054372	9054372-BLK1	05/28/09 22:14
Surrogate: Dibromofluoromethane	101%			9054372	9054372-BLK1	05/28/09 22:14
Surrogate: Toluene-d8	102%			9054372	9054372-BLK1	05/28/09 22:14
Surrogate: 4-Bromofluorobenzene	100%			9054372	9054372-BLK1	05/28/09 22:14
Polyaromatic Hydrocarbons by E	EPA 8270D					
9053860-BLK1						
Acenaphthene	< 0.0310		mg/kg wet	9053860	9053860-BLK1	05/30/09 09:45
Acenaphthylene	< 0.0320		mg/kg wet	9053860	9053860-BLK1	05/30/09 09:45
Anthracene	< 0.0330		mg/kg wet	9053860	9053860-BLK1	05/30/09 09:45
Benzo (a) anthracene	< 0.0380		mg/kg wet	9053860	9053860-BLK1	05/30/09 09:45
Benzo (a) pyrene	< 0.0290		mg/kg wet	9053860	9053860-BLK1	05/30/09 09:45
Benzo (b) fluoranthene	< 0.0320		mg/kg wet	9053860	9053860-BLK1	05/30/09 09:45
Benzo (g,h,i) perylene	< 0.0290		mg/kg wet	9053860	9053860-BLK1	05/30/09 09:45
Benzo (k) fluoranthene	< 0.0290		mg/kg wet	9053860	9053860-BLK1	05/30/09 09:45
Chrysene	< 0.0390		mg/kg wet	9053860	9053860-BLK1	05/30/09 09:45
Dibenz (a,h) anthracene	< 0.0310		mg/kg wet	9053860	9053860-BLK1	05/30/09 09:45
Fluoranthene	< 0.0340		mg/kg wet	9053860	9053860-BLK1	05/30/09 09:45
Fluorene	< 0.0390		mg/kg wet	9053860	9053860-BLK1	05/30/09 09:45
Indeno (1,2,3-cd) pyrene	< 0.0310		mg/kg wet	9053860	9053860-BLK1	05/30/09 09:45
Naphthalene	< 0.0410		mg/kg wet	9053860	9053860-BLK1	05/30/09 09:45
Phenanthrene	< 0.0340		mg/kg wet	9053860	9053860-BLK1	05/30/09 09:45
Pyrene	< 0.0410		mg/kg wet	9053860	9053860-BLK1	05/30/09 09:45
Surrogate: Terphenyl-d14	98%			9053860	9053860-BLK1	05/30/09 09:45
Surrogate: 2-Fluorobiphenyl	81%			9053860	9053860-BLK1	05/30/09 09:45
Surrogate: Nitrobenzene-d5	96%			9053860	9053860-BLK1	05/30/09 09:45





10179 Highway 78 Ladson, SC 29456

Tom McElwee

Attn

Work Order:

NSE1961

Project Name:

Laurel Bay Housing Project

Project Number:

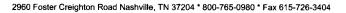
[none]

Received: 05/22/09 08:15

### PROJECT QUALITY CONTROL DATA

### Duplicate

Analyte	Orig. Val.	Duplicate	Q	Units	RPD	Limit	Batch	Sample Duplicated	% Rec.	Analyzed Date/Time
General Chemistry Parameters										
9060430-DUP1										
% Dry Solids	83.3	79.4		%	5	20	9060430	NSE1937-06		06/04/09 08:23





10179 Highway 78 Ladson, SC 29456

Tom McElwee

Attn

Work Order:

NSE1961

Project Name:

Laurel Bay Housing Project

Project Number: [none]

Received: 05/22/09 08:15

## PROJECT QUALITY CONTROL DATA LCS

Analyte	Known Val.	Analyzed Val	Q	Units	% Rec.	Target Range	Batch	Analyzed Date/Time
Selected Volatile Organic Compou	nds by EPA Method 82	60B						
9054372-BS1								
Benzene	50.0	47.5		ug/kg	95%	76 - 130	9054372	05/28/09 20:1
Ethylbenzene	50.0	45.1		ug/kg	90%	80 - 128	9054372	05/28/09 20:1
Naphthalene	50.0	44.3		ug/kg	89%	63 - 144	9054372	05/28/09 20:1
Toluene	50.0	45.2		ug/kg	90%	80 - 125	9054372	05/28/09 20:11
Xylenes, total	150	132		ug/kg	88%	79 - 130	9054372	05/28/09 20:11
Surrogate: 1,2-Dichloroethane-d4	50.0	44.8			90%	41 - 150	9054372	05/28/09 20:11
Surrogate: Dibromofluoromethane	50.0	50.0			100%	55 - 139	9054372	05/28/09 20:11
Surrogate: Toluene-d8	50.0	49.7			99%	57 - 148	9054372	05/28/09 20:11
Surrogate: 4-Bromofluorobenzene	50.0	48.8			98%	58 - 150	9054372	05/28/09 20:11
Polyaromatic Hydrocarbons by EP	'A 8270D							
9053860-BS1								
Acenaphthene	1.67	1.41		mg/kg wet	85%	52 - 106	9053860	05/30/09 12:11
Acenaphthylene	1.67	1.47		mg/kg wet	88%	53 - 109	9053860	05/30/09 12:11
Anthracene	1.67	1.62		mg/kg wet	97%	54 - 124	9053860	05/30/09 12:11
Benzo (a) anthracene	1.67	1.53		mg/kg wet	92%	53 - 111	9053860	05/30/09 12:11
Benzo (a) pyrene	1.67	1.53		mg/kg wet	92%	52 - 122	9053860	05/30/09 12:11
Benzo (b) fluoranthene	1.67	1.59		mg/kg wet	95%	48 - 115	9053860	05/30/09 12:11
Benzo (g,h,i) perylene	1.67	1.54		mg/kg wet	92%	46 - 114	9053860	05/30/09 12:11
Benzo (k) fluoranthene	1.67	1.34		mg/kg wet	80%	41 - 121	9053860	05/30/09 12:11
Chrysene	1.67	1.45		mg/kg wet	87%	49 - 113	9053860	05/30/09 12:11
Dibenz (a,h) anthracene	1.67	1.55		mg/kg wet	93%	47 - 117	9053860	05/30/09 12:11
Fluoranthene	1.67	1.57		mg/kg wet	94%	52 - 113	9053860	05/30/09 12:11
Fluorene	1.67	1.46		mg/kg wet	88%	54 - 107	9053860	05/30/09 12:11
Indeno (1,2,3-cd) pyrene	1.67	1.57		mg/kg wet	94%	47 - 115	9053860	05/30/09 12:11
Naphthalene	1.67	1.25		mg/kg wet	75%	34 - 107	9053860	05/30/09 12:11
Phenanthrene	1.67	1.45		mg/kg wet	87%	53 - 108	9053860	05/30/09 12:11
Pyrene	1.67	1.47		mg/kg wet	88%	54 - 113	9053860	05/30/09 12:11
Surrogate: Terphenyl-d14	1.67	1.33			80%	26 - 128	9053860	05/30/09 12:11
Surrogate: 2-Fluorobiphenyl	1.67	1.23			74%	19 - 109	9053860	05/30/09 12:11
Surrogate: Nitrobenzene-d5	1.67	1.33			80%	22 - 104	9053860	05/30/09 12:11



10179 Highway 78 Ladson, SC 29456 Tom McElwee

Attn

Work Order:

NSE1961

Project Name:

Laurel Bay Housing Project

Project Number:

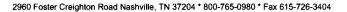
[none]

Received:

05/22/09 08:15

## PROJECT QUALITY CONTROL DATA LCS Dup

Analyte	Orig, Val.	Duplicate	Q	Units	Spike Conc	% Rec.	Target Range	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
Selected Volatile Organic Compoun	ds by EPA	Method 826	0B									
9054372-BSD1												
Benzene		42.4		ug/kg	50.0	85%	76 - 130	11	43	9054372		05/28/09 20:41
Ethylbenzene		42.1		ug/kg	50.0	84%	80 - 128	7	48	9054372		05/28/09 20:41
Naphthalene		39.2		ug/kg	50.0	78%	63 - 144	12	50	9054372		05/28/09 20:41
Toluene		41.6		ug/kg	50.0	83%	80 - 125	8	44	9054372		05/28/09 20:41
Xylenes, total		124		ug/kg	150	83%	79 - 130	6	48	9054372		05/28/09 20:41
Surrogate: 1,2-Dichloroethane-d4		40.6		ug/kg	50.0	81%	41 - 150			9054372		05/28/09 20:41
Surrogate: Dibromofluoromethane		49.8		ug/kg	50.0	100%	55 - 139			9054372		05/28/09 20:41
Surrogate: Toluene-d8		50.2		ug/kg	50.0	100%	57 - 148			9054372		05/28/09 20:41
Surrogate: 4-Bromofluorobenzene		48.6		ug/kg	50.0	97%	58 - 150			9054372		05/28/09 20:41





10179 Highway 78 Ladson, SC 29456

Tom McElwee

Attn

Work Order:

NSE1961

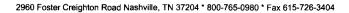
Project Name:

Laurel Bay Housing Project

Project Number: Received: [none] 05/22/09 08:15

PROJECT QUALITY CONTROL DATA

			Matrix Spil	ce					
Analyte	Orig. Val.	MS Val	Q Units	Spike Conc	% Rec.	Target Range	Batch	Sample Spiked	Analyzed Date/Time
Selected Volatile Organic Compou	nds by EPA Me	thod 8260B							
9054372-MS1									
Benzene	ND	2.71	mg/kg wet	2.50	108%	33 - 146	9054372	NSE2194-03RE 1	05/29/09 07:49
Ethylbenzene	0.0696	2.37	mg/kg wet	2.50	92%	16 - 160	9054372	NSE2194-03RE 1	05/29/09 07:49
Naphthalene	0.0785	1.62	mg/kg wet	2.50	62%	10 - 151	9054372	NSE2194-03RE 1	05/29/09 07:49
Toluene	ND	2.14	mg/kg wet	2.50	85%	30 - 145	9054372	NSE2194-03RE 1	05/29/09 07:49
Xylenes, total	0.0874	6.38	mg/kg wet	7.50	84%	16 - 159	9054372	NSE2194-03RE 1	05/29/09 07:49
Surrogate: 1,2-Dichloroethane-d4		47.5	ug/kg	50.0	95%	41 - 150	9054372	NSE2194-03RE 1	05/29/09 07:49
Surrogate: Dibromofluoromethane		50.1	ug/kg	50.0	100%	55 - 139	9054372	NSE2194-03RE 1	05/29/09 07:49
Surrogate: Toluene-d8		47.1	ug/kg	50.0	94%	57 - 148	9054372	NSE2194-03RE 1	05/29/09 07:49
Surrogate: 4-Bromofluorobenzene		58.1	ug/kg	50.0	116%	58 - 150	9054372	NSE2194-03RE	05/29/09 07:49
Polyaromatic Hydrocarbons by El	PA 8270D								
9053860-MS1	A OZ TOD								
Acenaphthene	ND	1.84	mg/kg dry	2.11	87%	28 - 117	9053860	NSE1796-24	05/30/09 12:33
Acenaphthylene	ND	1.90	mg/kg dry	2.11	90%	33 - 113	9053860	NSE1796-24	05/30/09 12:33
Anthracene	ND	2.11	mg/kg dry	2.11	100%	31 - 131	9053860	NSE1796-24	05/30/09 12:33
Benzo (a) anthracene	0.336	2.03	mg/kg dry	2.11	80%	29 - 124	9053860	NSE1796-24	05/30/09 12:33
Benzo (a) pyrene	0.502	2.05	mg/kg dry	2.11	73%	30 - 127	9053860	NSE1796-24	05/30/09 12:33
Benzo (b) fluoranthene	0.519	2.06	mg/kg dry	2.11	73%	26 - 128	9053860	NSE1796-24	05/30/09 12:33
Benzo (g,h,i) perylene	0.398	2.13	mg/kg dry	2.11	82%	21 - 122	9053860	NSE1796-24	05/30/09 12:33
Benzo (k) fluoranthene	0.357	1.91	mg/kg dry	2.11	74%	20 - 130	9053860	NSE1796-24	05/30/09 12:33
Chrysene	0.373	1.96	mg/kg dry	2.11	75%	30 - 119	9053860	NSE1796-24	05/30/09 12:33
Dibenz (a,h) anthracene	0.120	2.11	mg/kg dry	2.11	94%	27 - 122	9053860	NSE1796-24	05/30/09 12:33
Fluoranthene	0.117	2.10	mg/kg dry	2.11	94%	23 - 132	9053860	NSE1796-24	05/30/09 12:33
Fluorene	ND	1.94	mg/kg dry	2.11	92%	38 - 110	9053860	NSE1796-24	05/30/09 12:33
Indeno (1,2,3-cd) pyrene	0.354	2.15	mg/kg dry	2.11	85%	24 - 122	9053860	NSE1796-24	05/30/09 12:33
Naphthalene	ND	1.54	mg/kg dry	2.11	73%	14 - 117	9053860	NSE1796-24	05/30/09 12:33
Phenanthrene	ND	1.91	mg/kg dry	2.11	91%	21 - 130	9053860	NSE1796-24	05/30/09 12:33
Pyrene	0.136	2.01	mg/kg dry	2.11	89%	24 - 133	9053860	NSE1796-24	05/30/09 12:33
Surrogate: Terphenyl-d14		1.79	mg/kg dry	2.11	85%	26 - 128	9053860	NSE1796-24	05/30/09 12:33
Surrogate: 2-Fluorobiphenyl		1.47	mg/kg dry	2.11	70%	19 - 109	9053860	NSE1796-24	05/30/09 12:33
		1.58	mg/kg dry	2.11	75%	22 - 104	9053860	NSE1796-24	05/30/09 12:33





10179 Highway 78 Ladson, SC 29456

Tom McElwee

Attn

Work Order:

NSE1961

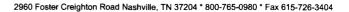
Project Name:

Laurel Bay Housing Project

Project Number: Received: [none] 05/22/09 08:15

## PROJECT QUALITY CONTROL DATA Matrix Spike Dup

Analyte	Orig. Val.	Duplicate	Q	Units	Spike Conc	% Rec.	Target Range	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
Selected Volatile Organic Comp	ounds by EPA	Method 82	60B									
9054372-MSD1	•											
Benzene	ND	2.40		mg/kg wet	2.50	96%	33 - 146	12	43	9054372	NSE2194-03RE	05/29/09 08:26
Ethylbenzene	0.0696	2.48		mg/kg wet	2.50	97%	16 - 160	5	48	9054372	NSE2194-03RE	05/29/09 08:26
Naphthalene	0.0785	2.80	R2	mg/kg wet	2.50	109%	10 - 151	53	50	9054372	NSE2194-03RE	05/29/09 08:26
Toluene	ND	2.01		mg/kg wet	2.50	80%	30 - 145	6	44	9054372	NSE2194-03RE	05/29/09 08:26
Xylenes, total	0.0874	6.95		mg/kg wet	7.50	91%	16 - 159	9	48	9054372	NSE2194-03RE	05/29/09 08:26
Surrogate: 1,2-Dichloroethane-d4		39.6		ug/kg	50.0	79%	41 - 150			9054372	NSE2194-03RE	05/29/09 08:26
Surrogate: Dibromofluoromethane		48.6		ug/kg	50.0	97%	55 - 139			9054372	NSE2194-03RE	05/29/09 08:26
Surrogate: Toluene-d8		46.7		ug/kg	50.0	93%	57 - 148			9054372	NSE2194-03RE	05/29/09 08:26
Surrogate: 4-Bromofluorobenzene		62.2		ug/kg	50.0	124%	58 - 150			9054372	NSE2194-03RE	05/29/09 08:26
Polyaromatic Hydrocarbons by 9053860-MSD1	EPA 8270D											
Acenaphthene	ND	1.77		mg/kg dry	2.15	82%	28 - 117	4	33	9053860	NSE1796-24	05/30/09 12:56
Acenaphthylene	ND	1.86		mg/kg dry	2.15	86%	33 - 113	2	38	9053860	NSE1796-24	05/30/09 12:56
Anthracene	ND	2.11		mg/kg dry	2.15	98%	31 - 131	0.2	32	9053860	NSE1796-24	05/30/09 12:56
Benzo (a) anthracene	0.336	2.29		mg/kg dry	2.15	91%	29 - 124	12	26	9053860	NSE1796-24	05/30/09 12:56
Benzo (a) pyrene	0.502	2.53		mg/kg dry	2.15	94%	30 - 127	21	31	9053860	NSE1796-24	05/30/09 12:56
Benzo (b) fluoranthene	0.519	2.73		mg/kg dry	2.15	103%	26 - 128	28	37	9053860	NSE1796-24	05/30/09 12:56
Benzo (g,h,i) perylene	0.398	2.49		mg/kg dry	2.15	97%	21 - 122	16	28	9053860	NSE1796-24	05/30/09 12:56
Benzo (k) fluoranthene	0.357	1.99		mg/kg dry	2.15	76%	20 - 130	4	35	9053860	NSE1796-24	05/30/09 12:56
Chrysene	0.373	2.24		mg/kg dry	2.15	87%	30 - 119	13	31	9053860	NSE1796-24	05/30/09 12:56
Dibenz (a,h) anthracene	0.120	2.23		mg/kg dry	2.15	98%	27 - 122	6	32	9053860	NSE1796-24	05/30/09 12:56
Fluoranthene	0.117	2.11		mg/kg dry	2.15	92%	23 - 132	0.1	36	9053860	NSE1796-24	05/30/09 12:56
Fluorene	ND	1.90		mg/kg dry	2.15	88%	38 - 110	2	35	9053860	NSE1796-24	05/30/09 12:56
Indeno (1,2,3-cd) pyrene	0.354	2.48		mg/kg dry	2.15	99%	24 - 122	14	28	9053860	NSE1796-24	05/30/09 12:56
Naphthalene	ND	1.48		mg/kg dry	2.15	69%	14 - 117	4	34	9053860	NSE1796-24	05/30/09 12:56
Phenanthrene	ND	1.92		mg/kg dry	2.15	89%	21 - 130	0.2	33	9053860	NSE1796-24	05/30/09 12:56
Ругепе	0.136	2.07		mg/kg dry	2.15	90%	24 - 133	3	36	9053860	NSE1796-24	05/30/09 12:56
Surrogate: Terphenyl-d14		1.79		mg/kg dry	2.15	83%	26 - 128			9053860	NSE1796-24	05/30/09 12:56
Surrogate: 2-Fluorobiphenyl		1.45		mg/kg dry	2.15	67%	19 - 109			9053860	NSE1796-24	05/30/09 12:56
Surrogate: Nitrobenzene-d5		1.56		mg/kg dry	2.15	72%	22 - 104			9053860	NSE1796-24	05/30/09 12:56





10179 Highway 78 Ladson, SC 29456

Ladson, SC 29456 Tom McElwee Work Order: Project Name: NSE1961

Laurel Bay Housing Project

Project Number: [none]

Received:

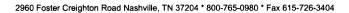
05/22/09 08:15

### **CERTIFICATION SUMMARY**

#### TestAmerica Nashville

Attn

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





10179 Highway 78 Ladson, SC 29456

Attn Tom McElwee

Work Order:

Received:

NSE1961

Project Name:

Laurel Bay Housing Project

Project Number:

[none] 05/22/09 08:15

#### DATA QUALIFIERS AND DEFINITIONS

R2 The RPD exceeded the acceptance limit.

**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

### NSE1961

06/08/09 23 59

TestAmer		Nashville 2960 Fost Nashville	er Cre	ighto	n			Te	oll F	one: 6 ree: 8 Fax: 6	00-7	65-0	980								meth	ods, is		ork be		r analyti nducted				
Client Name/Account #:	EEG # 2449																							Com	pliance	Monito	ring?	Y	/es	No
Address:	10179 Highway	78																						Enf	orceme	ent Actic	on?	Υ	'es	No
City/State/Zip:	Ladson, SC 294	456								,								5	site S	itate:										
Project Manager:	Tom McElwee	email: mcelv	ее@ес	eginc.r	net					-7-		· ==				<del>_</del>				PO#:		0	<u> ۲2</u>	<u>.9</u>						
Telephone Number:	843.412,2097		,			F	ax N	o.:	8	43	-	81	9	- (	2:	10	/	TA	Que	ote #:										
Sampler Name: (Print)	- FRA	45,	29	w														P	Proje	ct ID:	Laure	Bay	Housi	ng Pro	ject					
Sampler Signature:								_											Proje	oct #:										
									rese	ervetive	9	_			Mat	rix		Ι						Analyz	ze For:					
	ق	ي ا	ers Shipped					77 - V	Label)	eflow Label)	low Laber)	Mohn							oth - 8260E	^										-Schedule)
Sample ID / Description	Date Sam	Time Samp	No. of Cont	Grab	Composite	Field Fittere	8		NaOH (Orang	H,SO, Plastic	None (Black	_	Groundwater	Westewater	Driviking Wate			_	BTEX + N	PAH - 8270										RUSH TAT (F
1023 Foxyour	5/19/09	0955	5	7				<u> 4</u>			2				$\perp$		X		3	2		L.		$\perp$						
1027 Foxelour	5/19/09	1320	5	Y				<u> 2</u>			13	1					X	_1 .	3	2							ン			
1021 FOXYOUR	5/20/09	1350	5	Y				2			13	1					x	$\perp$	3	2							3			
1030 Foxylour	5/21/09	1025	3-	X				2	$\pm$		- 3	41					X		3	2							4	$\pm$		
						=		$\frac{1}{2}$	$\pm$	$\blacksquare$	+				4	+	1	1						_		_	$\pm$	$\pm$	$\perp$	$\pm$
								$\pm$	$\pm$		$\perp$	_			1	1	$\pm$	1	$\dashv$					+	$^{+}$		$\pm$	$\pm$	$\pm$	$\pm$
Special Instructions:		. L	1	1			Mot	had a	1		<u> </u>			<u> </u>	!		FED	L	!		Labo	Tem	•	re Upo	: on Rece	-		1_		
Relinquished	5/21/	09	190	me 10	Recei	ved b	y: /		n 911	ilbinett					Dat				Time			VOC	o riet	, UI 116	auspäl	ær				•
Relinquished by:	Dat		Ti	me	Recei	ved b	y Te	stAme	rica:					5	Pal	Jog	<u>i</u>	08	Time											
										_					1															

### ATTACHMENT A



# NON-HAZARDOUS MANIF

Consti

Plea:	ise print or type. (Form designed for use on elite (12-pitch) typewriter.)					
	NON-HAZARDOUS MANIFEST  1. Generator's US EPA ID No.	Manifest Document No.	2. Pag			
	3. Generator's Name and Mailing Address			fest Number	175	
	MCAS. Beauthy Lazer Bay Housing			Generator's ID	· · ·	State of the State of
	4. Generator's Phone S42-226-4408		D. State	Generator S ID		
	5. Transporter 1 Company Name 6. US EPA ID Nu	ımber	C. State	Transporter's ID		
	EEG, the		D. Trans	sporter's Phone	in eta	CM11
	7. Transporter 2 Company Name 8. US EPA ID Nu	ımber		Transporter's ID		
				sporter's Phone		
	Designated Facility Name and Site Address     10. US EPA ID Nu	ımber	G. State	Facility's ID		
	HOKARY MILLIANDALI.		H. Facili	ity's Phone		
	ROLTE 1, BOX 121 PROGELAND SC 29988			-	C 987	<b>A</b> CA?
	11. Description of Waste Materials	12. Cont	ainers	13. Total	14. Unit	Į.
	Physical Col. Tank Blood with Sand	No.	Type	Quantity	Wt./Vol.	Misc. Comments
	TOTAL SERVICE STATE STATE SERVICE SERVICES SERVI		]	320		
G	WM Profile # もりごもいい	0 0 1				
GENERATOR	b.					
R						
Ŏ	WM Profile #					
R	с.					
	WM Profile #					
	WWITTOILE #					
	d.					
	WM Profile #			1 1 1 1		
	J. Additional Descriptions for Materials Listed Above	<u> </u>	K. Dis	posal Location	11	
	Landfill Solidification		Cell		Leve	el .
	Bio Remediation		Grid			
	15. Special Handling Instructions and Additional Information	A 1017 1				
	\$ 1077 Topstove	5 1017		3 ABAR (C		
	Purchase Order # 3) 10 23 Pring folia EMERGENCY CO	NTACT:				
	16. GENERATOR'S CERTIFICATION:					
	I hereby certify that the above-described materials are not hazar					
	applicable state law, have been fully and accurately described, or for transportation according to applicable regulations.	lassified and p	ackaç	ged, and are	in prop	er condition
					-	
	Printed/Typed Name Signature "On be					Month Day Year
_	17. Transporter 1 Acknowledgement of Receipt of Materials	Kes Car se	. A	**************************************		060121619
TRANSPORTER	Printed/Typed Name Signature	. A				Month Day Year
N	l Jamies Baldwin   China	. Polali				01616151516.17
O <sub>B</sub>	18. Transporter 2 Acknowledgement of Receipt of Materials					3 1 X 1 3 1 3 1 1 1 1 1 1 1 1 1 1 1 1 1
Ť	Printed/Typed Name Signature					Month Day Year
R	19. Certificate of Final Treatment/Disposal					
			-		•	
F	I certify, on behalf of the above listed treatment facility, that to the					
F A C - L	was managed in compliance with all applicable laws, regulations	s, permits and I	icense	es on the dat	es iiste	ea above.
1	20. Facitilty Owner or Operator: Certification of receipt of non-hazardous materials covered by the	his manifest.				
Y	Printed/Typed Name Signature	r Elifanis				Month Day Year
	i cara tengan a tangga tang	V 3.				

# Appendix C Laboratory Analytical Report - Groundwater



### Volatile Organic Compounds by GC/MS

Client: AECOM - Resolution Consultants

Description: BEALB1027TW01WG20130723

Laboratory ID: OG25027-015

Matrix: Aqueous

Date Sampled: 07/23/2013 1625 Date Received: 07/25/2013

Run Prep Method Analytical Method Dilution Analysis Date Analyst Prep Date Batch 1 5030B 8260B 08/02/2013 1745

ALL 26393

Parameter	CAS Number	Analytical Method	Result Q	LOQ	LOD	DL Units Run
Benzene	71-43-2	8260B	ND	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	ND	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
	Run 1 Accepta	ance				

Surrogate	Q	% Recovery	Limits
1,2-Dichloroethane-d4		104	70-120
Toluene-d8		101	85-120
Bromofluorobenzene		112	75-120
Dibromofluoromethane		99	85-115

PQL = Practical quantitation limit ND = Not detected at or above the MDL B = Detected in the method blank  $J = Estimated result < PQL and >\_MDL$ 

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

E = Quantitation of compound exceeded the calibration range P = The RPD between two GC columns exceeds 40%

H = Out of holding time N = Recovery is out of criteria

Q = Surrogate failure L = LCS/LCSD failure S = MS/MSD failure

### Semivolatile Organic Compounds by GC/MS

Analysis Date

Client: AECOM - Resolution Consultants

Description: BEALB1027TW01WG20130723

Analytical Method

Dilution

Laboratory ID: OG25027-015

Matrix: Aqueous

Date Sampled: 07/23/2013 1625 Date Received: 07/25/2013

Run Prep Method

Analyst Prep Date Batch

1 3520C	8270D	1 07	7/26/2013 1	725 RBH	07/25/20	013 1509 2	25843				
Parameter		Nu	CAS mber	Analytical Method	Result	Q	LOQ	LOD	DL	Units	Run
Benzo(a)anthracene		56	6-55-3	8270D	ND		0.21	0.10	0.087	ug/L	1
Benzo(b)fluoranthene		205	5-99-2	8270D	ND		0.21	0.10	0.093	ug/L	1
Benzo(k)fluoranthene		207	<b>'-</b> 08-9	8270D	ND		0.21	0.10	0.098	ug/L	1
Chrysene		218	3-01-9	8270D	ND		0.21	0.10	0.057	ug/L	1
Dibenzo(a,h)anthracene		53	3-70-3	8270D	ND		0.21	0.10	0.062	ug/L	1
Surrogate	Q	Run 1 % Recovery	Acceptan Limits								
2-Fluorobiphenyl		53	50-11	0							
Nitrobenzene-d5		54	40-11	0							
Terphenyl-d14		75	50-13	5							

PQL = Practical quantitation limit ND = Not detected at or above the MDL B = Detected in the method blank  $J = Estimated result < PQL and >\_MDL$ 

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

E = Quantitation of compound exceeded the calibration range P = The RPD between two GC columns exceeds 40%

H = Out of holding time N = Recovery is out of criteria

Q = Surrogate failure L = LCS/LCSD failure S = MS/MSD failure

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W" Shealy Environmental Services, Inc.

# Appendix D Regulatory Correspondence





#### C. Earl Hunter, Commissioner

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

August 18, 2009

Commanding Officer

ATTN: S-4 NREAO (Craig Ehde)

MCAS

PO Box 55001

Beaufort, SC 29904-5001

Re:

MCAS - Laurel Bay Housing - 1027 Foxglove St.

Site ID # 04250

UST Closure Reports received August 17, 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 (office phone), 803-896-6245 (fax) or cookejt@dhec.sc.gov.

Sincerely.

/Jan T. Cooke, Hydrogeologist
AST Petroleum Restoration

1 Oak

& Site Environmental Investigations Section

Land Revitalization Division

Bureau of Land and Waste Management SC Dept. of Health & Environmental Control

cc: Region 8 District EQC

Tri-Command Communities; Attn: Mr. Robert Bible; 600 Laurel Bay Road Beaufort, SC

29906

Technical File



### 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 or 803-898-0294.

Sincerely,

Laurel Petrus

FURX

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

Specifice Property Recommendations Dated August 6, 2015

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

Permanent Monitor	ring Well Investigation recommendation (10 addresses/11 tanks)			
119 Banyan	156 Laurel Bay			
128 Banyan	1033 Foxglove			
132 Banyan	1055 Gardenia			
135 Birch	1059 Gardenia			
148 Laurel Bay	1168 Jasmine			
	her Action recommendation (25 addresses/27 tanks):			
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			
203 Deceli				
269 Birch	1169 Jasmine			