SUMMARY REPORT
32 BALSAM STREET (FORMERLY 212 BALSAM 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
32 BALSAM STREET (FORMERLY 212 BALSAM 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

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

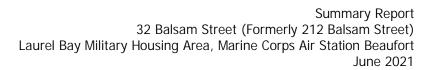




Table of Contents

1.0	INTRODUC	TION	1
1.1 1.2		ND INFORMATION	
2.0	SAMPLING	ACTIVITIES AND RESULTS	3
2.1 2.2		VAL AND SOIL SAMPLING	
3.0	PROPERTY	STATUS	4
4.0	REFERENC	ES	4
Table	1	Table Laboratory Analytical Results - Soil Appendices	
Appen Appen Appen	dix B	Multi-Media Selection Process for LBMH UST Assesment Report Regulatory Correspondence	





List of Acronyms

bgs below ground surface

BTEX benzene, toluene, ethylbenzene, and xylenes

CTO Contract Task Order

COPC constituents of potential concern

IDIQ Indefinite Delivery, Indefinite Quantity

IGWA Initial Groundwater Assessment

JV Joint Venture

LBMH Laurel Bay Military Housing MCAS Marine Corps Air Station

NAVFAC Mid-Lant Naval Facilities Engineering Command Mid-Atlantic

NFA No Further Action

PAH polynuclear aromatic hydrocarbon

QAPP Quality Assurance Program Plan

RBSL risk-based screening level

SCDHEC South Carolina Department of Health and Environmental Control

Site LBMH area at MCAS Beaufort, South Carolina

UST underground storage tank

VISL vapor intrusion screening level



1.0 INTRODUCTION

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

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

This report summarizes the results the environmental investigation activities associated with the storage of home heating oil and the potential release of petroleum constituents at the referenced property. Based on the results of the investigation, a No Further Action (NFA) determination has been made by the South Carolina Department of Health and Environmental Control (SCDHEC) for 32 Balsam Street (Formerly 212 Balsam 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 32 Balsam Street (Formerly 212 Balsam Street). Details regarding the soil investigation at this site are provided in the *SCDHEC UST Assessment Report – 212 Balsam Street* (MCAS Beaufort, 2012). The UST Assessment Report is provided in Appendix B.

2.1 UST Removal and Soil Sampling

On October 5, 2011, a single 280 gallon heating oil UST was removed from the front landscaped area adjacent to the driveway at 32 Balsam Street (Formerly 212 Balsam Street). The former UST location is indicated on Figures 2 and 3 of the UST Assessment Report (Appendix B). The UST was removed and properly disposed of (i.e., shipped offsite for recycling or transported to a landfill). There was no visual evidence (i.e., staining or sheen) of petroleum impact at the time of the UST removal. According to the UST Assessment Report (Appendix B), the depth to the base of the UST was 5'6" 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 32 Balsam Street (Formerly 212 Balsam Street) were less than the SCDHEC RBSLs, which indicated the subsurface was not impacted by COPCs associated with the former UST at concentrations that presented a potential risk to human health and the environment.

3.0 PROPERTY STATUS

Based on the analytical results for soil, SCDHEC made the determination that NFA was required for 32 Balsam Street (212 Balsam Street). This NFA determination was obtained in a letter dated May 15, 2014. SCDHEC's NFA letter is provided in Appendix C.

4.0 REFERENCES

Marine Corps Air Station Beaufort, 2012. South Carolina Department of Health and Environmental Control (SCDHEC) Underground Storage Tank Assessment Report – 212 Balsam Street, Laurel Bay Military Housing Area, February 2012.

South Carolina Department of Health and Environmental Control Bureau of Land and Waste Management, 2013. *Quality Assurance Program Plan for the Underground Storage Tank Management* Division, *Revision 2.0*, April 2013.





- South Carolina Department of Health and Environmental Control Bureau of Land and Waste Management, 2015. *Quality Assurance Program Plan for the Underground Storage Tank Management* Division, *Revision 3.0*, May 2015.
- South Carolina Department of Health and Environmental Control Bureau of Land and Waste Management, 2016. *Quality Assurance Program Plan for the Underground Storage Tank Management* Division, *Revision 3.1*, February 2016.
- South Carolina Department of Health and Environmental Control Bureau of Land and Waste Management, 2017. *R.61-92, Part 280, Underground Storage Tank Control Regulations*, March 2017.
- South Carolina Department of Health and Environmental Control Bureau of Land and Waste Management, 2018. *Underground Storage Tank Assessment Instructions for Permanent Closure and Change-In-Service*, March 2018.

Table



Table 1

Laboratory Analytical Results - Soil 32 Balsam Street (Formerly 212 Balsam Street) Laurel Bay Military Housing Area Marine Corps Air Station Beaufort Beaufort, South Carolina

Constituent	SCDHEC RBSLs (1)	Results Sample Collected 10/05/11					
Volatile Organic Compounds Analyzed by EPA Method 8260B (mg/kg)							
Benzene	0.003	ND					
Ethylbenzene	1.15	ND					
Naphthalene	0.036	ND					
Toluene	0.627	ND					
Xylenes, Total	13.01	ND					
Semivolatile Organic Compounds Anal	yzed by EPA Method 8270D (mg/kg)						
Benzo(a)anthracene	0.66	ND					
Benzo(b)fluoranthene	0.66	ND					
Benzo(k)fluoranthene	0.66	ND					
Chrysene	0.66	ND					
Dibenz(a,h)anthracene	0.66	ND					

Notes:

(1) South Carolina Risk-Based Screening Levels from the Quality Assurance Program Plan for the Underground Storage Tank Management Division, Revision 2.0 (SCDHEC, April 2013).

Bold font indicates the analyte was detected.

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

EPA - United States Environmental Protection Agency

mg/kg - milligram per kilogram

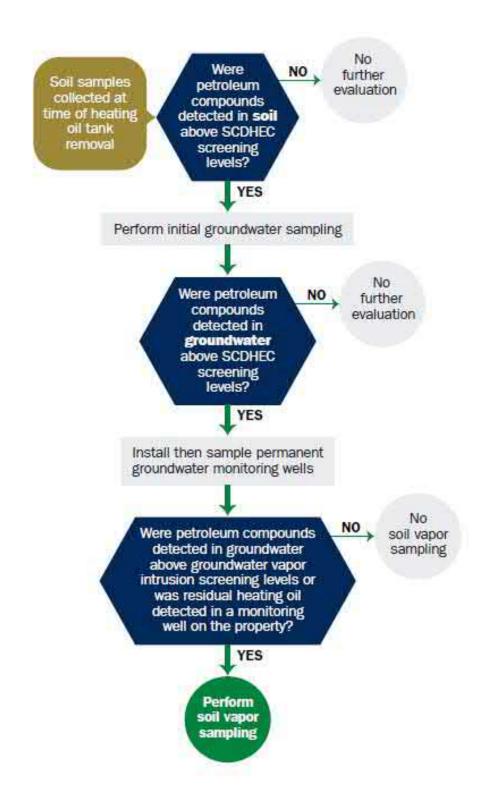
ND - not detected at the reporting limit (or method detection limit if shown on the laboratory report). The laboratory report is provided in Appendix B.

RBSL - Risk-Based Screening Level

SCDHEC - South Carolina Department Of Health and Environmental Control

Appendix A Multi-Media Selection Process for LBMH





Appendix A - Multi-Media Selection Process for LBMH

Appendix B UST Assessment Report



Attachment 1

South Carolina Department of Health and Environmental Control (SCDHEC)

Underground Storage Tank (UST) Assessment Report

Date Received

State Use Only

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

I. OWNERSHIP OF UST (S)

	ommanding Officer Attn: NI n, Individual, Public Agency, Other)	READ (Craig Ende)
	ii, ilidividuai, Fublic Agelicy, 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

	ne Corps Ai	r Station, 1	Beaufort, SC
	Housing Are	ea	
Beaufort			
County			
	Site Identifier Laurel Bay Military I (as applicable) Beaufort	Site Identifier Laurel Bay Military Housing Are d (as applicable) Beaufort	Laurel Bay Military Housing Area d (as applicable) Beaufort

Attachment 2

III. INSURANCE INFORMATION

Insurance S	tatement
The petroleum release reported to DHEC onqualify to receive state monies to pay for appropriate site reallowed in the State Clean-up fund, written confirmation of insurance policy is required. This section must be completed.	ehabilitation activities. Before participation is f the existence or non-existence of an environmental
Is there now, or has there ever been an insurance pout UST release? YES NO (check one)	olicy or other financial mechanism that covers this
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 1 DO / DO NOT wish to participate in the SUPE	R SUPERB FUNDING RB Program. (Circle one.)
V. CERTIFICATION (To	o be signed by the UST owner)
I certify that I have personally examined and am fami attached documents; and that based on my inquiry of information, I believe that the submitted information is Name (Type or print.)	liar with the information submitted in this and all of those individuals responsible for obtaining this true, accurate, and complete.
Signature	
To be completed by Notary Public:	
Sworn before me this day of	_, 20
(Name) Notary Public for the state of	

VI. UST INFORMATION	212Balsam
Product(ex. Gas, Kerosene)	Heating oil
Capacity(ex. 1k, 2k)	280 gal
Age	Late 1950s
Construction Material(ex. Steel, FRP)	Steel
Month/Year of Last Use	Mid 80s
Depth (ft.) To Base of Tank	5'6"
Spill Prevention Equipment Y/N	No
Overfill Prevention Equipment Y/N	No
Method of Closure Removed/Filled	Removed
Date Tanks Removed/Filled	10/5/2011
Visible Corrosion or Pitting Y/N	Yes
Visible Holes Y/N	Yes
Method of disposal for any USTs removed from UST 212Balsam was removed from	n the ground (attach disposal manifests) n the ground, and disposed at a
Subtitle "D" landfill. See Att	achment "A".
disposal manifests)	udges, or wastewaters removed from the USTs (a

VII. PIPING INFORMATION

	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	No		
Visible Corrosion or Pitting Y/N	Yes		
Visible Holes Y/N	No		
Age	Late 1950s		
f any corrosion, pitting, or holes were observed,	describe the location and exte	nt for each pipi	
i any contosion, pitting, or noics were observed.	describe the location and exte		
Steel vent piping was corroded a			
	and pitted. All copy		
Steel vent piping was corroded a	and pitted. All copy		
Steel vent piping was corroded a	and pitted. All copy		
Steel vent piping was corroded a supply and return piping were s	and pitted. All coppound.	per	
Steel vent piping was corroded a	ound. RIPTION AND HISTOR	per	
Steel vent piping was corroded a supply and return piping were s	ound. RIPTION AND HISTOR constructed of single	per Y wall stee	
Steel vent piping was corroded a supply and return piping were some viii. BRIEF SITE DESCRITTHE USTs at the residences are contained fuel oil	ound. RIPTION AND HISTOR constructed of single for heating. These U	Y wall stee	
Steel vent piping was corroded a supply and return piping were so that the vertical value of the USTs at the residences are of the USTs at the residences are of the USTs.	ound. RIPTION AND HISTOR constructed of single for heating. These U	Y wall stee	
Steel vent piping was corroded a supply and return piping were some viii. BRIEF SITE DESCRITTHE USTs at the residences are contained fuel oil	ound. RIPTION AND HISTOR constructed of single for heating. These U	Y wall stee	
Steel vent piping was corroded a supply and return piping were some viii. BRIEF SITE DESCRITTHE USTs at the residences are contained fuel oil	ound. RIPTION AND HISTOR constructed of single for heating. These U	Y wall stee	
Steel vent piping was corroded a supply and return piping were some viii. BRIEF SITE DESCRITTHE USTs at the residences are contained fuel oil	ound. RIPTION AND HISTOR constructed of single for heating. These U	Y wall stee	

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?		х	
If yes, indicate depth and location on the site map.			
B. Were any petroleum odors detected in the excavation, soil borings, trenches, or monitoring wells?		Х	
If yes, indicate location on site map and describe the odor (strong, mild, etc.)			
C. Was water present in the UST excavation, soil borings, or trenches?		Х	Ī
If yes, how far below land surface (indicate location and depth)?			
D. Did contaminated soils remain stockpiled on site after closure?		Х	
If yes, indicate the stockpile location on the site map.			
Name of DHEC representative authorizing soil removal:			L
Was a petroleum sheen or free product detected on any excavation or boring waters?		Х	
If yes, indicate location and thickness.			

X. SAMPLE INFORMATION

A. SCDHEC Lab Certification Number 84009

B.

Sample #	Location	Sample Type (Soil/Water)	Soil Type (Sand/Clay)	Depth*	Date/Time of Collection	Collected by	OVA#
212 Balsam	Excav at fill end	Soil	Sandy	5'6"	10/5/11 1145 hrs	P. Shaw	
0							
8							
9						1	
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 <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.

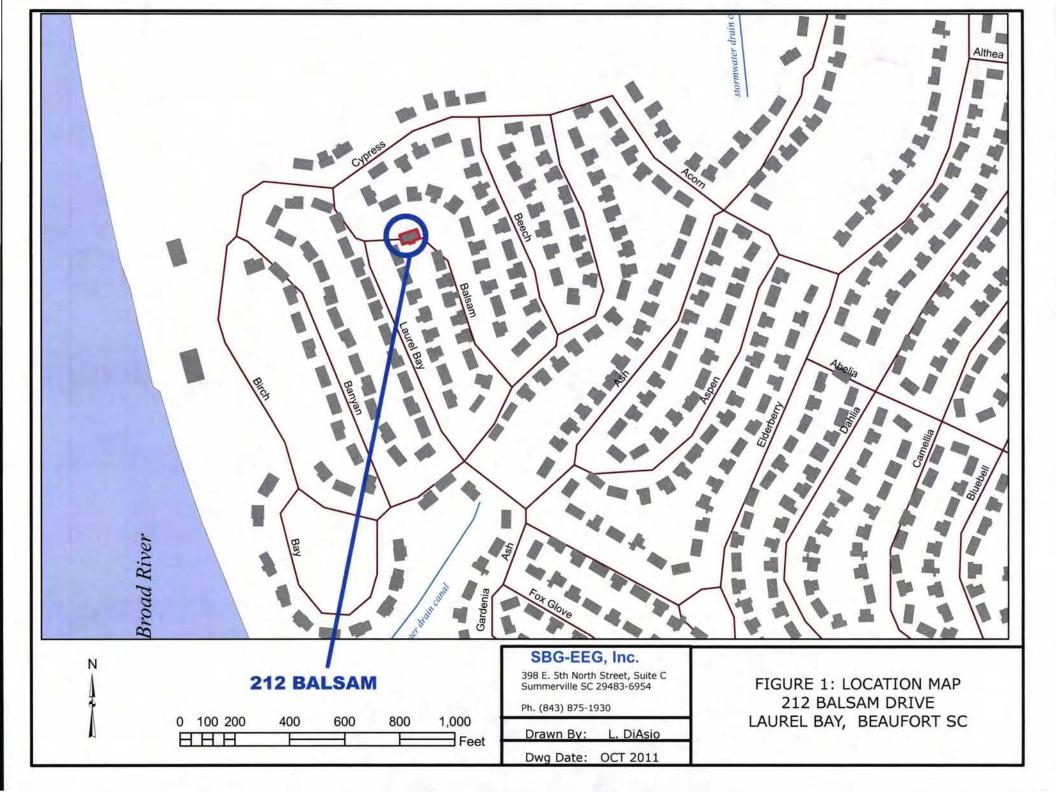
XII. RECEPTORS

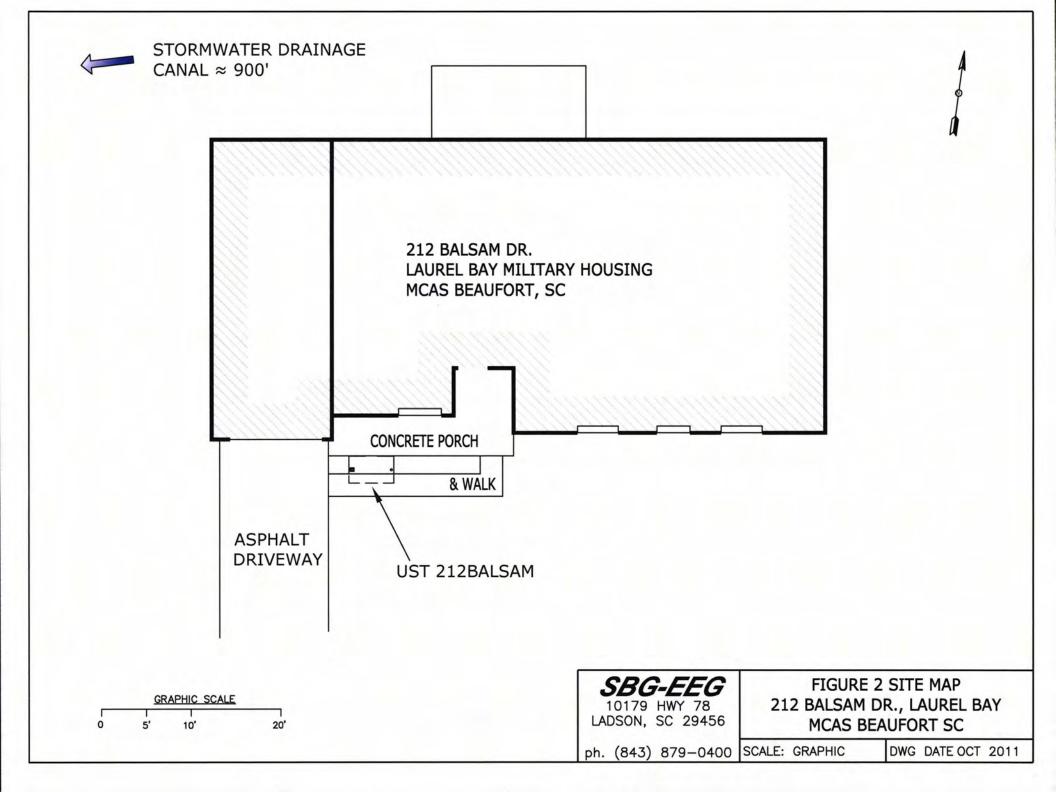
	Yes	No
Are there any lakes, ponds, streams, or wetlands located within 1000 feet of the UST system? *~900' to stormwater drain If yes, indicate type of receptor, distance, and direction on site map.	*X .age	danal
Are there any public, private, or irrigation water supply wells within 1000 feet of the UST system? If yes, indicate type of well, distance, and direction on site map.		х
Are there any underground structures (e.g., basements) Located within 100 feet of the UST system? If yes, indicate type of structure, distance, and direction on site map.		х
		city,
Has contaminated soil been identified at a depth less than 3 feet below land surface in an area that is not capped by asphalt or concrete? If yes, indicate the area of contaminated soil on the site map.		Х
	*~900! to stormwater drain If yes, indicate type of receptor, distance, and direction on site map. Are there any public, private, or irrigation water supply wells within 1000 feet of the UST system? If yes, indicate type of well, distance, and direction on site map. Are there any underground structures (e.g., basements) Located within 100 feet of the UST system? If yes, indicate type of structure, distance, and direction on site map. 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, distance, and direction on the site map. 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?	Are there any lakes, ponds, streams, or wetlands located within *X 1000 feet of the UST system? *~900' to stormwater drain age If yes, indicate type of receptor, distance, and direction on site map. Are there any public, private, or irrigation water supply wells within 1000 feet of the UST system? If yes, indicate type of well, distance, and direction on site map. Are there any underground structures (e.g., basements) Located within 100 feet of the UST system? If yes, indicate type of structure, distance, and direction on site map. 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, electricable & fiber optic If yes, indicate the type of utility, distance, and direction on the site map. 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?

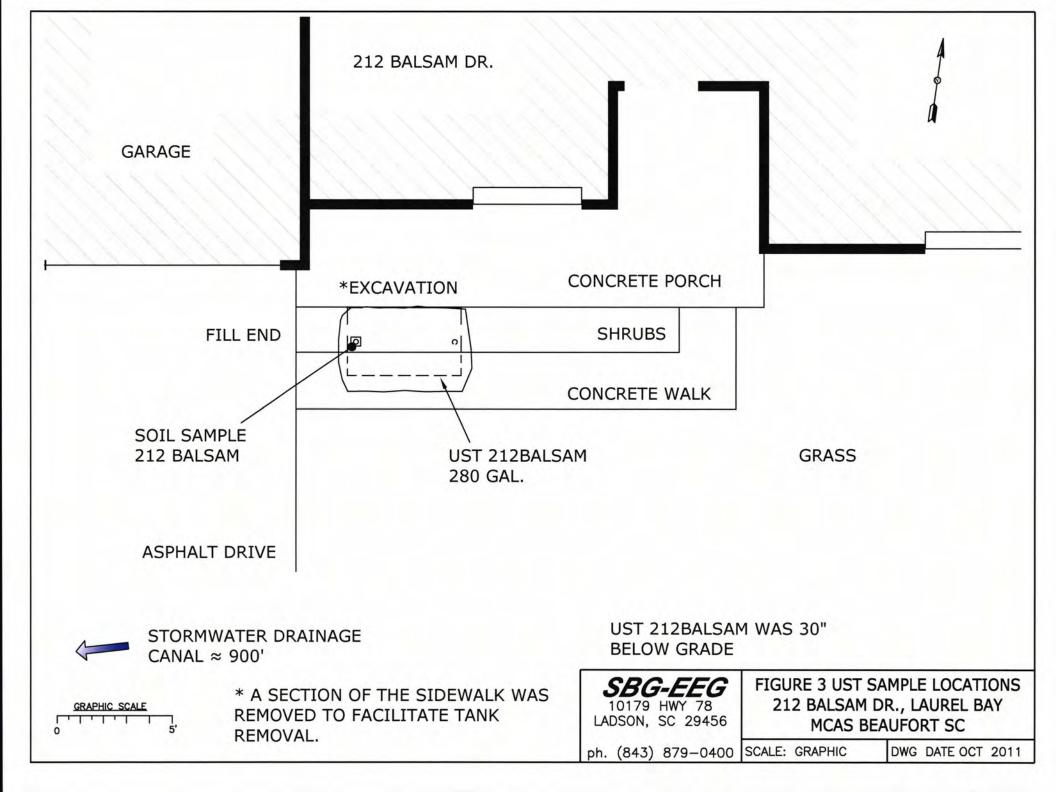
XIII. SITE MAP

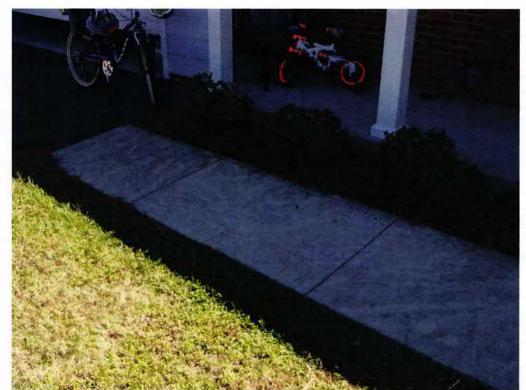
You must supply a <u>scaled</u> site map. It should include all buildings, road names, utilities, tank and dispenser island locations, labeled sample locations, extent of excavation, and any other pertinent information.

(Attach Site Map Here)









Picture 1: Location of UST 212Balsam.



Picture 2: UST 212Balsam excavation.

XIV. SUMMARY OF ANALYSIS RESULTS

Enter the soil analytical data for each soil boring for all COC in the table below and on the following page.

CoC UST	212Balsam			
Benzene	ND			
Toluene	ND			
Ethylbenzene	ND			
Xylenes	ND			
Naphthalene	ND			
Benzo (a) anthracene	ND			
Benzo (b) fluoranthene	ND			
Benzo (k) fluoranthene	ND	[]		
Chrysene	ND			
Dibenz (a, h) anthracene	ND			
TPH (EPA 3550)			-	
CoC		. = (/4	- 1	
Benzene				
Toluene				
Ethylbenzene				
Xylenes				
Naphthalene				
Benzo (a) anthracene				
Benzo (b) fluoranthene				
Benzo (k) fluoranthene				
Chrysene				
Dibenz (a, h) anthracene				
TPH (EPA 3550)				

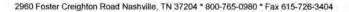
SUMMARY OF ANALYSIS RESULTS (cont'd)
Enter the ground water analytical data for each sample for all CoC in the table below. If free product is present, indicate the measured thickness to the nearest 0.01 feet.

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)





October 20, 2011

2:39:50PM

Client:

EEG - Small Business Group, Inc. (2449)

10179 Highway 78

Ladson, SC 29456

Attn:

Tom McElwee

Work Order:

NUJ1063

Project Name:

Laurel Bay Housing Project

Project Nbr: P/O Nbr: [none] 1027

Date Received:

10/08/11

SAMPLE IDENTIFICATION

LAB NUMBER

COLLECTION DATE AND TIME

210 Balsam 211 Balsam 212 Balsam 219 Balsam NUJ1063-01 NUJ1063-02 NUJ1063-03 NUJ1063-04

10/03/11 12:15 10/04/11 12:00 10/05/11 11:45 10/06/11 11:45

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.

South Carolina Certification Number: 84009

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.

Roxarre L. Connor

This report has been electronically signed.

Report Approved By:

Roxanne Connor

Program Manager - Conventional Accounts



10179 Highway 78 Ladson, SC 29456

Tom McElwee

Attn

Work Order: NUJ1063

Project Name: Laurel Bay Housing Project

Project Number: [none]

Received: 10/08/11 08:30

Analyte	Result	Flag	Units	MDL	MRL	Dilution Factor	Analysis Date/Time	Method	Analyst	Batch
			10/02/11 1	2.15						
Sample ID: NUJ1063-01 (210 Bals General Chemistry Parameters	am - 5011) 58	impiea:	10/03/11 1	2:15						
% Dry Solids	79.9		%	0.500	0.500	1	10/18/11 13:54	SW-846	RRS	11J3898
Volatile Organic Compounds by EPA	Method 8260E	3								
Benzene	ND		mg/kg dry	0.00135	0.00246	1	10/12/11 17:24	SW846 8260B	KRK	11J2700
Ethylbenzene	ND		mg/kg dry	0.00135	0.00246	1	10/12/11 17:24	SW846 8260B	KKK	11J2700
Naphthalene	ND		mg/kg dry	0.00307	0.00615	1	10/12/11 17:24	SW846 8260B	KKK	11J2700
Toluene	ND		mg/kg dry	0.00135	0.00246	1	10/12/11 17:24	SW846 8260B	KKK	11J2700
Xylenes, total	ND		mg/kg dry	0.00307	0.00615	1	10/12/11 17:24	SW846 8260B	KKK	11,12700
Surr: 1,2-Dichloroethane-d4 (70-130%)	103 %					1	10 12 11 17:24	SW846 8260B	KKK	11.12700
Surr: Dibromofluoromethane (70-130%)	102 %					1	10 12 11 17:24	SW846 8260B	KKK	11.12700
Surr: Toluene-d8 (70-130%)	98 %					I	10 12 11 17:24	SW846 8260B	KKK	11./2700
Surr: 4-Bromofluorobenzene (70-130%)	103 %					J	10 12 11 17:24	SW846.8260H	KKK	11J2700
Polyaromatic Hydrocarbons by EPA 8	270D									
Acenaphthene	ND		mg/kg dry	0.0424	0.0836	1	10/11/11 14:49	SW846 8270D	BES	1111919
Acenaphthylene	ND		mg/kg dry	0.0424	0.0836	1	10/11/11 14:49	SW846 8270D	BES	11J1919
Anthracene	ND		mg/kg dry	0.0424	0.0836	1	10/11/11 14:49	SW846 8270D	BES	11J1919
Benzo (a) anthracene	ND		mg/kg dry	0.0424	0.0836	1	10/11/11 14:49	SW846 8270D	BES	11J1919
Benzo (a) pyrene	ND		mg/kg dry	0.0424	0.0836	1	10/11/11 14:49	SW846 8270D	BES	11J1919
Benzo (b) fluoranthene	ND		mg/kg dry	0.0424	0.0836	1	10/11/11 14:49	SW846 8270D	BES	11,11919
Benzo (g,h,i) perylene	ND		mg/kg dry	0.0424	0.0836	1	10/11/11 14:49	SW846 8270D	BES	11J1919
Benzo (k) fluoranthene	ND		mg/kg dry	0.0424	0.0836	1.	10/11/11 14:49	SW846 8270D	BES	11J1919
Chrysene	ND		mg/kg dry	0.0424	0.0836	1	10/11/11 14:49	SW846 8270D	BES	11J1919
Dibenz (a,h) anthracene	ND		mg/kg dry	0.0424	0.0836	1	10/11/11 14:49	SW846 8270D	BES	1111919
Fluoranthene	ND		mg/kg dry	0.0424	0.0836	T	10/11/11 14:49	SW846 8270D	BES	11J1919
Fluorene	ND		mg/kg dry	0.0424	0.0836	1.	10/11/11 14:49	SW846 8270D	BES	11,11919
Indeno (1,2,3-cd) pyrene	ND		mg/kg dry	0.0424	0.0836	1	10/11/11 14:49	SW846 8270D	BES	11J1919
Naphthalene	ND		mg/kg dry	0.0424	0.0836	T.	10/11/11 14:49	SW846 8270D	BES	11J1919
Phenanthrene	ND		mg/kg dry	0.0424	0.0836	1	10/11/11 14:49	SW846 8270D	BES	11J1919
Pyrene	ND		mg/kg dry	0.0424	0.0836	1	10/11/11 14:49	SW846 8270D	BES	11J1919
I-Methylnaphthalene	ND		mg/kg dry	0.0424	0.0836	1	10/11/11 14:49	SW846 8270D	BES	11/1919
2-Methylnaphthalene	ND		mg/kg dry	0.0424	0.0836	1	10/11/11 14:49	SW846 8270D	BES	1111919
Surr: Terphenyl-d14 (18-120%)	72 %					1	10 11 11 14:49	SW846 8270D	BES	11,11919
Surr: 2-Fluorohiphenyl (14-120%)	55 %					1	10 11 11 14:49	SW846 82701)	BES	11,11919
Surr: Nitrobenzene-d5 (17-120%)	58 %					1	10 11 11 14:49	SW846 8270D	BES	11.11919





10179 Highway 78 Ladson, SC 29456

Tom McElwee

Attn

Work Order:

NUJ1063

Project Name;

Laurel Bay Housing Project

Project Number: [none]

Received: 10/08/11 08:30

						Dilution	Analysis			
Analyte	Result	Flag	Units	MDL	MRL	Factor	Date/Time	Method	Analyst	Batel
Sample ID: NUJ1063-02 (211 Ba	ılsam - Soil) Sa	impled:	10/04/11 1	2:00						
General Chemistry Parameters		9								
% Dry Solids	82.9		%	0.500	0.500	L	10/18/11 13:54	SW-846	RRS	11J3898
Volatile Organic Compounds by EPA	A Method 8260E	3								
Benzene	ND		mg/kg dry	0.00107	0.00195	T	10/13/11 13:47	SW846 8260B	KKK	11J3141
Ethylbenzene	0.00561		mg/kg dry	0.00107	0.00195	1	10/13/11 13:47	SW846 8260B	KKK	11J3141
Naphthalene	0.0220		mg/kg dry	0.00243	0.00486	1	10/13/11 13:47	SW846 8260B	KKK	1133141
Toluene	ND		mg/kg dry	0.00107	0.00195	D	10/13/11 13:47	SW846 8260B	KKK	11J3141
Xylenes, total	ND		mg/kg dry	0.00243	0.00486	1	10/13/11 13:47	SW846 8260B	KKK	11J3141
Surr: 1,2-Dichloroethane-d4 (70-130%)	102 %					1	10 13 11 13:47	SW846 8260B	KKK	11.3314
Surr: Dibromofluoromethane (70-130%)	101 %					1	10 13 11 13:47	SW846 8260B	KKK	11.3314
Surr: Toluene-d8 (70-130%)	103 %					I	10 13 11 13:47	SW846 8260B	KKK	11.1314
Surr: 4-Bromofluorohenzene (70-130%)	130 %					1	10 13 11 13:47	SW846 8260B	KKK	11.1314
Polyaromatic Hydrocarbons by EPA	8270D									
Acenaphthene	ND		mg/kg dry	0.0405	0.0798	Î.	10/11/11 15:15	SW846 8270D	BES	1111919
Acenaphthylene	0.0409	J	mg/kg dry	0.0405	0.0798	ì	10/11/11 15:15	SW846 8270D	BES	1131919
Anthracene	ND		mg/kg dry	0.0405	0.0798	1	10/11/11 15:15	SW846 8270D	BES	1111919
Benzo (a) anthracene	ND		mg/kg dry	0.0405	0.0798	(10/11/11 15:15	SW846 8270D	BES	11J1919
Benzo (a) pyrene	0.124		mg/kg dry	0.0405	0.0798	1.	10/11/11 15:15	SW846 8270D	BES	11J1919
Benzo (b) fluoranthene	0.0536	j	mg/kg dry	0.0405	0.0798	1	10/11/11 15:15	SW846 8270D	BES	1131919
Benzo (g.h.i) perylene	0.0604	J.	mg/kg dry	0.0405	0.0798	i.	10/11/11 15:15	SW846 8270D	BES	11,11919
Benzo (k) fluoranthene	0.0409	J	mg/kg dry	0.0405	0.0798	1.0	10/11/11 15:15	SW846 8270D	BES	11,11919
Chrysene	0.0767	1	mg/kg dry	0.0405	0.0798	3	10/11/11 15:15	SW846 8270D	BES	1111919
Dibenz (a,h) anthracene	ND		mg/kg dry	0.0405	0.0798	1	10/11/11 15:15	SW846 8270D	BES	1111919
Fluoranthene	ND		mg/kg dry	0.0405	0.0798	1	10/11/11 15:15	SW846 8270D	BES	1111919
Fluorene	ND		mg/kg dry	0.0405	0.0798	1	10/11/11 15:15	SW846 8270D	BES	1111919
Indeno (1,2,3-cd) pyrene	0.0504	J	mg/kg dry	0.0405	0.0798	1	10/11/11 15:15	SW846 8270D	BES	11J1919
Naphthalene	ND		mg/kg dry	0.0405	0.0798	1	10/11/11 15:15	SW846 8270D	BES	1111919
Phenanthrene	0.0592	j.	mg/kg dry	0.0405	0.0798	ì	10/11/11 15:15	SW846 8270D	BES	1111919
Pyrene	0.0707	Ĵ	mg/kg dry	0.0405	0.0798	a a	10/11/11 15:15	SW846 8270D	BES	11J1919
1-Methylnaphthalene	0.0719	3	mg/kg dry	0.0405	0.0798	1	10/11/11 15:15	SW846 8270D	BES	1111919
2-Methylnaphthalene	0.0691	Ţ	mg/kg dry	0,0405	0.0798	1	10/11/11 15:15	SW846 8270D	BES	11J1919
Surr: Terphenyl-d14 (18-120%)	74 %					,	10 11 11 15:15	SW846.8270D	BES	11,11919
Surr: 2-Fluorobiphenyl (14-120%)	53 %					,	10:11 11 15:15	SW846 8270D	BES	11,11919
Surr: Nitrobenzene-d5 (17-120%)	61%					1	10 11 11 15:15	SW846-8270D	BES	11.11919



10179 Highway 78 Ladson, SC 29456

Tom McElwee

Attn

Work Order: NUJ1063

Project Name: Laurel Bay Housing Project

Project Number: [none]

Received: 10/08/11 08:30

			Alvali	TICAL KEI	OKI					
Analyte	Result	Flag	Units	MDL	MRL	Dilution Factor	Analysis Date/Time	Method	Analyst	Batch
Sample ID: NUJ1063-03 (212 Ba		-	10/05/11 1	1.45					2000	27.17
General Chemistry Parameters	isain - Soii) Sa	impieu;	10/05/11 1	1.43						
% Dry Solids	87.0		%	0.500	0.500	1	10/18/11 13:54	SW-846	RRS	11J3898
Volatile Organic Compounds by EPA	Method 8260B	1								
Benzene	ND		mg/kg dry	0.00126	0.00229	1	10/12/11 18:25	SW846.8260B	KKK	11J2700
Ethylbenzene	ND		mg/kg dry	0.00126	0.00229	1	10/12/11 18:25	SW846 8260B	KKK	11J2700
Naphthalene	ND		mg/kg dry	0.00286	0.00572	Ĩ	10/12/11 18:25	SW846 8260B	KKK	11J2700
Toluene	ND		mg/kg dry	0.00126	0.00229	t	10/12/11 18:25	SW846 8260B	KKK	11J2700
Xylenes, total	ND		mg/kg dry	0.00286	0.00572	Í	10/12/11 18:25	SW846 8260B	KKK	11J2700
Surr: 1,2-Dichloroethane-d4 (70-130%)	104 %					1	10 12 11 18:25	SW846 8260B	KKK	11.1270
Surr; Dibromofluoromethane (70-130%)	101 %					7	10 12 11 18:25	SW846.8260B	KKK	11.1270
Surr: Toluene-d8 (70-130%)	100 %					Î	10 12 11 18:25	SW846 8260B	KKK	11.1270
Surr: 4-Bromofluorobenzene (70-130%)	113 %					1	10 12 11 18:25	SW846 8260B	KKK	11.1270
Polyaromatic Hydrocarbons by EPA	8270D									
Acenaphthene	ND		mg/kg dry	0.0379	0.0748	1	10/11/11 15:41	SW846 8270D	BES	1111919
Acenaphthylene	ND		mg/kg dry	0.0379	0.0748	1	10/11/11 15:41	SW846 8270D	BES	1111919
Anthracene	ND		mg/kg dry	0.0379	0.0748	1	10/11/11 15:41	SW846 8270D	BES	1111919
Benzo (a) anthracene	ND		mg/kg dry	0.0379	0.0748	Y	10/11/11 15:41	SW846 8270D	BES	11J1919
Benzo (a) pyrene	ND		mg/kg dry	0.0379	0.0748	1	10/11/11 15:41	SW846 8270D	BES	1111919
Benzo (b) fluoranthene	ND		mg/kg dry	0.0379	0.0748	1	10/11/11 15:41	SW846 8270D	BES	1111919
Benzo (g,h,i) perylene	ND		mg/kg dry	0.0379	0.0748	T	10/11/11 15:41	SW846 8270D	BES	1111919
Benzo (k) fluoranthene	ND		mg/kg dry	0.0379	0.0748	T	10/11/11 15:41	SW846 8270D	BES	11J1919
Chrysene	ND		mg/kg dry	0.0379	0,0748	1	10/11/11 15:41	SW846 8270D	BES	11Л919
Dibenz (a,h) anthracene	ND		mg/kg dry	0.0379	0.0748	10	10/11/11 15:41	SW846 8270D	BES	1111919
Fluoranthene	ND		mg/kg dry	0.0379	0.0748	Í	10/11/11 15:41	SW846 8270D	BES	1111919
Fluorene	ND		mg/kg dry	0.0379	0.0748	1	10/11/11 15:41	SW846 8270D	BES	11J1919
Indeno (1,2,3-cd) pyrene	ND		mg/kg dry	0.0379	0.0748	t	10/11/11 15:41	SW846 8270D	BES	1111919
Naphthalene	ND		mg/kg dry	0.0379	0.0748	1	10/11/11 15:41	SW846 8270D	BES	1111919
Phenanthrene	ND		mg/kg dry	0.0379	0.0748	1	10/11/11 15:41	SW846 8270D	BES	1111919
Pyrene	ND		mg/kg dry	0.0379	0.0748	Ĩ	10/11/11 15:41	SW846 8270D	BES	1111919
I-Methylnaphthalene	ND		mg/kg dry	0.0379	0.0748	1	10/11/11 15:41	SW846 8270D	BES	1111919
2-Methylnaphthalene	ND		mg/kg dry	0.0379	0.0748	i	10/11/11 15:41	SW846 8270D	BES	11,11919
Surr: Terphenyl-d14 (18-120%)	46.%					1	10 11 11 15:41	SW846 82701)	BES	11,1191
Surr: 2-Fluorobiphenyl (14-120%)	39 %					1	10/11/11/15:41	SW846 8270D	BES	11,)191
Surr: Nitrohenzene-d5 (17-120%)	43 %					i	10/11/11/15:41	SW846 827013	BES	11.1191



10179 Highway 78 Ladson, SC 29456

Tom McElwee

Attn

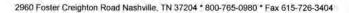
Work Order: NUJ1063

Project Name: Laurel Bay Housing Project

Project Number: [none]

Received: 10/08/11 08:30

						Dilution	Analysis			
Analyte	Result	Flag	Units	MDL	MRL	Factor	Date/Time	Method	Analyst	Batc
Sample ID: NUJ1063-04 (219 Bal	lsam - Soil) Sa	mpled:	10/06/11 1	1:45						
General Chemistry Parameters										
% Dry Solids	91.2		%	0.500	0.500	1	10/18/11 13:54	SW-846	RRS	11,1389
Volatile Organic Compounds by EPA	Method 8260E									
Benzene	ND		mg/kg dry	0.00129	0.00235	1	10/12/11 18:56	SW846 8260B	KKK	11J270
Ethylbenzene	ND		mg/kg dry	0.00129	0.00235	1	10/12/11 18:56	SW846 8260B	KKK	11J270
Naphthalene	ND		mg/kg dry	0.00294	0.00588	1	10/12/11 18:56	SW846 8260B	KKK	11J270
Toluene	ND		mg/kg dry	0.00129	0.00235	1	10/12/11 18:56	SW846 8260B	KKK	11J270
Xylenes, total	ND		mg/kg dry	0.00294	0.00588	1	10/12/11 18:56	SW846 8260B	KKK	11J270
Surr: 1,2-Dichloroethane-d4 (70-130%)	104 %					1	10 12 11 18:56	SW846 8260B	KKK	11.127
Surr: Dibromofluoromethane (70-130%)	102 %					T	10 12 11 18:56	SW846 8260B	KKK	11.127
Surr: Toluene-d8 (70-130%)	100 %					1	10/12/11 18:56	SW846 8260B	KKK	11.127
Surr: 4-Bromofluorobenzene (70-130%)	101 %					1	10-12-11-18:56	SW846 8260B	KKK	11,127
Polyaromatic Hydrocarbons by EPA	8270D									
Acenaphthene	ND		mg/kg dry	0.0365	0.0718	1	10/11/11 16:07	SW846 8270D	BES	11,1191
Acenaphthylene	ND		mg/kg dry	0.0365	0.0718	1	10/11/11 16:07	SW846 8270D	BES	111191
Anthracene	ND		mg/kg dry	0.0365	0.0718	T	10/11/11 16:07	SW846 8270D	BES	111191
Benzo (a) anthracene	ND		mg/kg dry	0.0365	0.0718	1	10/11/11 16:07	SW846 8270D	BES	111191
Benzo (a) pyrene	ND		mg/kg dry	0.0365	0.0718	1	10/11/11 16:07	SW846 8270D	BES	11,1191
Benzo (b) fluoranthene	ND		mg/kg dry	0.0365	0.0718	1	10/11/11 16:07	SW846 8270D	BES	111191
Benzo (g,h,i) perylene	ND		mg/kg dry	0.0365	0.0718	I	10/11/11 16:07	SW846 8270D	BES	111191
Benzo (k) fluoranthene	ND		mg/kg dry	0.0365	0.0718	.t.	10/11/11 16:07	SW846 8270D	BES	111191
Chrysene	ND		mg/kg dry	0.0365	0.0718	1	10/11/11 16:07	SW846 8270D	BES	11,1191
Dibenz (a,h) anthracene	ND		mg/kg dry	0.0365	0,0718	1	10/11/11 16:07	SW846 8270D	BES	111191
Fluoranthene	ND		mg/kg dry	0.0365	0.0718	1	10/11/11 16:07	SW846 8270D	BES	111191
Fluorene	ND		mg/kg dry	0.0365	0.0718	1	10/11/11 16:07	SW846 8270D	BES	111191
Indeno (1,2,3-cd) pyrene	ND		mg/kg dry	0.0365	0.0718	1	10/11/11 16:07	SW846 8270D	BES	113191
Naphthalene	ND		mg/kg dry	0.0365	0.0718	T.	10/11/11 16:07	SW846 8270D	BES	111191
Phenanthrene	ND		mg/kg dry	0.0365	0.0718	T	10/11/11 16:07	SW846 8270D	BES	113191
Pyrene	ND		mg/kg dry	0.0365	0.0718	1	10/11/11 16:07	SW846 8270D	BES	111191
1-Methylnaphthalene	ND		mg/kg dry	0.0365	0.0718	1	10/11/11 16:07	SW846 8270D	BES	11,1191
2-Methylnaphthalene	ND		mg/kg dry	0.0365	0.0718	1	10/11/11 16:07	SW846 8270D	BES	111191
Surr: Terphenyl-d14 (18-120%)	60 %					1	10 11 11 16:07	SW846-8270D	BES	11,119
Surr: 2-Fluorobiphenyl (14-120%)	16%					7	10/11/11/16:07	SW846 8270D	BES	11,119
Surr: Nitrobenzene-d5 (17-120%)	58 %					1	10 11 11 16:07	SW846-8270D	BES	11.119





10179 Highway 78

Ladson, SC 29456

Tom McElwee

Attn

Work Order: NUJ1063

Project Name: Laurel Bay Housing Project

Project Number: [none]

Received: 10/08/11 08:30

SAMPLE EXTRACTION DATA

Parameter	Batch	Lab Number	Wt/Vol Extracted	Extract Vol	Date	Analyst	Extraction Method
Polyaromatic Hydrocarbons b	by EPA 8270D						
SW846 8270D	1111919	NUJ1063-01	30.08	1.00	10/11/11 07:42	KDJ	EPA 3550C
SW846 8270D	11J1919	NUJ1063-02	30,36	1,00	10/11/11 07:42	KDJ	EPA 3550C
SW846 8270D	11J1919	NUJ1063-03	30.90	1.00	10/11/11 07:42	KDJ	EPA 3550C
SW846 8270D	11J1919	NUJ1063-04	30.67	1.00	10/11/11 07:42	KDJ	EPA 3550C
Volatile Organic Compounds	by EPA Method 8260B						
SW846 8260B	11J2700	NUJ1063-01	5.09	5,00	10/03/11 12:15	AAN	EPA 5035
SW846 8260B	11J2700	NUJ1063-02	6.23	5.00	10/04/11 12:00	AAN	EPA 5035
SW846 8260B	11J3141	NUJ1063-02RE1	6.20	5.00	10/04/11 12:00	AAN	EPA 5035
SW846 8260B	11J3141	NUJ1063-02RE2	5.82	5.00	10/04/11 12:00	AAN	EPA 5035
SW846 8260B	11J2700	NUJ1063-03	5.02	5,00	10/05/11 11:45	AAN	EPA 5035
SW846 8260B	11J2700	NUJ1063-04	4.66	5.00	10/06/11 11:45	AAN	EPA 5035



10179 Highway 78 Ladson, SC 29456

Tom McElwee

Attn

Work Order: NUJ1063

Project Name: Laurel Bay Housing Project

Project Number: [none]

Received: 10/08/11 08:30

PROJECT QUALITY CONTROL DATA Blank

Analyte	Blank Value	Q	Units	Q.C. Batch	Lab Number	Analyzed Date/Time	
Volatile Organic Compounds by	EPA Method 8260B						
11J2700-BLK1							
Benzene	< 0.00110		mg/kg wet	11J2700	11,12700-BLK1	10/12/11 11:58	
Ethylbenzene	< 0.00110		mg/kg wet	11J2700	11J2700-BLK1	10/12/11 11;58	
Naphthalene	< 0.00250		mg/kg wet	11J2700	11J2700-BLK1	10/12/11 11:58	
Toluene	< 0.00110		mg/kg wet	11J2700	11J2700-BLK1	10/12/11 11:58	
Xylenes, total	< 0.00250		mg/kg wet	11J2700	11J2700-BLK1	10/12/11 11:58	
Surrogate: 1,2-Dichloroethane-d4	101%			11J2700	11J2700-BLK1	10/12/11 11;58	
Surrogate: Dibromofluoromethane	103%			11J2700	11J2700-BLK1	10/12/11 11:58	
Surrogate: Toluene-d8	99%			11J2700	11J2700-BLK1	10/12/11 11:58	
Surrogate: 4-Bromofluorobenzene	100%			11J2700	11J2700-BLK1	10/12/11 11:58	
11J2700-BLK2							
Benzene	< 0.0550		mg/kg wet	11J2700	11J2700-BLK2	10/12/11 12:29	
Ethylbenzene	< 0.0550		mg/kg wet	11J2700	11J2700-BLK2	10/12/11 12:29	
Naphthalene	< 0.125		mg/kg wet	11J2700	11J2700-BLK2	10/12/11 12:29	
Toluene	< 0.0550		mg/kg wet	11J2700	11J2700-BLK2	10/12/11 12:29	
Xylenes, total	< 0.125		mg/kg wet	11J2700	11J2700-BLK2	10/12/11 12:29	
Surrogate: 1,2-Dichloroethane-d4	99%			11J2700	11J2700-BLK2	10/12/11 12:29	
Surrogate: Dibromofluoromethane	103%			11J2700	11J2700-BLK2	10/12/11 12:29	
Surrogate: Toluene-d8	105%			11J2700	11J2700-BLK2	10/12/11 12:29	
Surrogate: 4-Bromofluorohenzene	102%			11J2700	11J2700-BLK2	10/12/11 12:29	
11J3141-BLK1							
Benzene	< 0.00110		mg/kg wet	11J3141	11J3141-BLK1	10/13/11 11:46	
Ethylbenzene	< 0.00110		mg/kg wet	11J3141	11J3141-BLK1	10/13/11 11:46	
Naphthalene	< 0.00250		mg/kg wet	11J3141	11J3141-BLK1	10/13/11 11:46	
Toluene	< 0.00110		mg/kg wet	11J3141	11J3141-BLK1	10/13/11 11:46	
Xylenes, total	< 0.00250		mg/kg wet	11J3141	11J3141-BLK1	10/13/11 11:46	
Surrogate: 1,2-Dichloroethane-d4	105%			11J3141	11J3141-BLK1	10/13/11 11:46	
Surrogate: Dibromofluoromethane	103%			11J3141	11J3141-BLK1	10/13/11 11:46	
Surrogate: Toluene-d8	107%			1113141	11J3141-BLK1	10/13/11 11:46	
Surrogate: 4-Bromofluorobenzene	99%			11J3141	11J3141-BLK1	10/13/11 11:46	
11J3141-BLK2					San San		
Benzene	< 0.0550		mg/kg wet	11J3141	11J3141-BLK2	10/13/11 12:16	
Ethylbenzene	< 0.0550		mg/kg wet	1133141	11J3141-BLK2	10/13/11 12:16	
Naphthalene	< 0,125		mg/kg wet	11J3141	11J3141-BLK2	10/13/11 12:16	
Toluene	< 0.0550		mg/kg wet	11J3141	11J3141-BLK2	10/13/11 12:16	
Xylenes, total	< 0.125		mg/kg wet	11J3141	11J3141-BLK2	10/13/11 12:16	
Surrogate: 1,2-Dichloroethane-d4	105%			11J3141	11J314I-BLK2	10/13/11 12:16	
Surrogate: Dibromofluoromethane	104%			1133141	11J3141-BLK2	10/13/11 12:16	
Surrogate: Toluene-d8	97%			1133141	11J3141-BLK2	10/13/11 12:16	
Surrogate: 4-Bromofluorobenzene	100%			11J3141	11J3141-BLK2	10/13/11 12:16	



10179 Highway 78 Ladson, SC 29456

Tom McElwee

Surrogate: Nitrohenzene-d5

57%

Attn

Work Order: NUJ1063

Project Name: Laurel Bay Housing Project

Project Number: [none]

Received: 10/08/11 08:30

PROJECT QUALITY CONTROL DATA

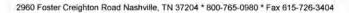
Blank - Cont.

Analyte	Blank Value	Q	Units	Q.C. Batch	Lab Number	Analyzed Date/Time	
Volatile Organic Compounds b	y EPA Method 8260B						
Polyaromatic Hydrocarbons by	EPA 8270D						
11J1919-BLK1							
Acenaphthene	< 0.0340		mg/kg wet	1111919	11J1919-BLK1	10/11/11 13:06	
Acenaphthylene	< 0.0340		mg/kg wet	1131919	11J1919-BLK1	10/11/11 13:06	
Anthracene	< 0.0340		mg/kg wet	11J1919	11J1919-BLK1	10/11/11 13:06	
Benzo (a) anthracene	< 0.0340		mg/kg wet	1151919	11J1919-BLK1	10/11/11 13:06	
Benzo (a) pyrene	< 0.0340		mg/kg wet	1111919	11J1919-BLK1	10/11/11 13:06	
Benzo (b) fluoranthene	< 0.0340		mg/kg wet	1131919	11J1919-BLK1	10/11/11 13:06	
Benzo (g,h,i) perylene	< 0.0340		mg/kg wet	1131919	11J1919-BLK1	10/11/11 13:06	
Benzo (k) fluoranthene	< 0.0340		mg/kg wet	1131919	11J1919-BLK1	10/11/11 13:06	
Chrysene	< 0.0340		mg/kg wet	1111919	11J1919-BLK1	10/11/11 13:06	
Dibenz (a,h) anthracene	< 0.0340		mg/kg wet	11J1919	11J1919-BLK1	10/11/11 13:06	
Fluoranthene	< 0.0340		mg/kg wet	11J1919	11J1919-BLK1	10/11/11 13:06	
Fluorene	< 0.0340		mg/kg wet	11J1919	11J1919-BLK1	10/11/11 13:06	
Indeno (1,2,3-cd) pyrene	< 0.0340		mg/kg wet	11J1919	11J1919-BLK1	10/11/11 13:06	
Naphthalene	< 0.0340		mg/kg wet	1111919	11J1919-BLK1	10/11/11 13:06	
Phenanthrene	< 0.0340		mg/kg wet	1111919	11J1919-BLK1	10/11/11 13:06	
Pyrene	< 0.0340		mg/kg wet	1111919	11J1919-BLK1	10/11/11 13:06	
1-Methylnaphthalene	< 0.0340		mg/kg wet	1111919	11J1919-BLK1	10/11/11 13:06	
2-Methylnaphthalene	< 0.0340		mg/kg wet	11J1919	11J1919-BLK1	10/11/11 13:06	
Surrogate: Terphenyl-d14	73%		4.54	1111919	11J1919-BLK1	10/11/11 13:06	
Surrogate: 2-Fluorohiphenyl	55%			11,11919	11J1919-BLK1	10/11/11 13:06	
	2074						

11J1919

11J1919-BLK1

10/11/11 13:06





10179 Highway 78 Ladson, SC 29456

Tom McElwee

Attn

Work Order: NUJ1063

Project Name: Laurel Bay Housing Project

Project Number: [none]

Received: 10/08/11 08:30

PROJECT QUALITY CONTROL DATA

Duplicate

Analyte	Orig. Val.	Duplicate	Q	Units	RPD	Limit	Batch	Sample Duplicated	% Rec.	Analyzed Date/Time
General Chemistry Parameters										
11J3898-DUP1										
% Dry Solids	79.0	78.9		%	0.07	20	11J3898	NUJ0917-05		10/18/11 13:54





10179 Highway 78 Ladson, SC 29456

Tom McElwee

Attn

Work Order: NUJ1063

Project Name: Laurel Bay Housing Project

Project Number: [none]

Received: 10/08/11 08:30

PROJECT QUALITY CONTROL DATA

LCS

Analyte	Known Val	Analyzed Val	Q	Units	% Rec	Target Range	Batch	Analyzed Date/Time
	9 (33)	Amelion in	~	Aim	70 1500	-0.00	Daten	Charles Young
Volatile Organic Compounds by El	PA Method 8260B							
11J2700-BS1	50.0	44.0			DOM:	25 127	1112200	10/12/11 10/25
Benzene	50.0	44.9		ug/kg	90%	75 - 127	11J2700	10/12/11 10:27
Ethylbenzene	50.0	46.9		ug/kg	94%	80 - 134	11J2700	10/12/11 10:27
Naphthalene	50.0	39.8		ug/kg	80%	69 - 150	11J2700	10/12/11 10:27
Toluene Volume total	50.0	47.1		ug/kg	94%	80 - 132	11J2700	10/12/11 10:27
Xylenes, total	150	142		ug/kg	95%	80 - 137	11J2700	10/12/11 10:27
Surrogate: 1,2-Dichloroethane-d4	50.0	52.8			106%	70 - 130	11J2700	10/12/11 10:27
Surrogate: Dibromofluoromethane	50.0	52.5			105%	70 - 130	11J2700	10/12/11 10:27
Surrogate: Toluene-d8	50.0	49.3			99%	70 - 130	11J2700	10/12/11 10:27
Surrogate: 4-Bromofluorobenzene	50.0	47.7			95%	70 - 130	11J2700	10/12/11 10:27
11J3141-BS1								
Benzene	50.0	49.8		ug/kg	100%	75 - 127	11J3141	10/13/11 10:16
Ethylbenzene	50.0	52,3		ug/kg	105%	80 - 134	11J3141	10/13/11 10:16
Naphthalene	.50.0	42.6		ug/kg	85%	69 - 150	11,13141	10/13/11 10:16
Toluene	50.0	53.1		ug/kg	106%	80 - 132	11,13141	10/13/11 10:16
Xylenes, total	150	160		ug/kg	107%	80 - 137	11J3141	10/13/11 10:16
Surrogate: 1,2-Dichloroethane-d4	50.0	52.0			104%	70 - 130	11J3141	10/13/11 10:16
Surrogate: Dibromofluoromethane	50.0	53.1			106%	70 - 130	11J3J41	10/13/11 10:16
Surrogate: Toluene-d8	50.0	49.8			100%	70 - 130	11J3141	10/13/11 10:16
Surrogate: 4-Bromofluorobenzene	50.0	46.8			94%	70 - 130	11J3141	10/13/11 10:16
Polyaromatic Hydrocarbons by EP	A 8270D							
11J1919-BS1								
Acenaphthene	1.67	1.10		mg/kg wet	66%	36 - 120	11J1919	10/11/11 13:32
Acenaphthylene	1.67	0.999		mg/kg wet	60%	38 - 120	11J1919	10/11/11 13:32
Anthracene	1.67	1.34		mg/kg wet	80%	46 - 124	1131919	10/11/11 13:32
Benzo (a) anthracene	1.67	1.16		mg/kg wet	70%	45 - 120	11,11919	10/11/11 13:32
Benzo (a) pyrene	1.67	1.31		mg/kg wet	79%	45 - 120	1111919	10/11/11 13:32
Benzo (b) fluoranthene	1.67	1.24		mg/kg wet	75%	42 - 120	1131919	10/11/11 13:32
Benzo (g,h,i) perylene	1.67	1.19		mg/kg wet	71%	38 - 120	11J1919	10/11/11 13:32
Benzo (k) fluoranthene	1.67	1.22		mg/kg wet	73%	42 - 120	11,11919	10/11/11 13:32
Chrysene	1.67	1.16		mg/kg wet	69%	43 - 120	1111919	10/11/11 13:32
Dibenz (a,h) anthracene	1.67	L15		mg/kg wet	69%	32 - 128	11J1919	10/11/11 13:32
Fluoranthene	1.67	1.32		mg/kg wet	79%	46 - 120	1131919	10/11/11 13:32
Fluorene	1.67	1.12		mg/kg wet	67%	42 - 120	1131919	10/11/11 13:32
Indeno (1,2,3-cd) pyrene	1.67	1.17		mg/kg wet	70%	41 - 121	11,11919	10/11/11 13:32
Naphthalene	1.67	0.956		mg/kg wet	57%	32 - 120	1131919	10/11/11 13:32
Phenanthrene	1.67	1,29		mg/kg wet	77%	45 - 120	1111919	10/11/11 13:32
Pyrene	1.67	1.22		mg/kg wet	73%	43 - 120	11J1919	10/11/11 13:32
1-Methylnaphthalene	1.67	0.769		mg/kg wet	46%	32 - 120	11/1919	10/11/11 13:32
2-Methylnaphthalene	1.67	0.950		mg/kg wet	57%	28 - 120	11J1919	10/11/11 13:32





10179 Highway 78 Ladson, SC 29456

Ladson, SC 29456 Tom McElwee

Attn

Work Order: NUJ1063

Project Name: Laurel Bay Housing Project

Project Number: [none]

Received: 10/08/11 08:30

PROJECT QUALITY CONTROL DATA LCS - Cont.

						Target		Analyzed
Analyte	Known Val.	Analyzed Val	Q	Units	% Rec.	Range	Batch	Date/Time
Polyaromatic Hydrocarbons by E	PA 8270D							
11J1919-BS1								
Surrogate: Terphenyl-dl4	1.67	1.25			75%	18 - 120	11,11919	10/11/11 13:32
Surrogate: 2-Fluorobiphenyl	1.67	0.884			53%	14 - 120	11,11919	10/11/11 13:32
Surrogate: Nitrobenzene-d5	1.67	0.832			50%	17 - 120	11J1919	10/11/11 13:32
Surrogate: Terphenyl-dl4 Surrogate: 2-Fluorobiphenyl	1.67	0.884			53%	14 - 120	Batch Date/Time	



10179 Highway 78 Ladson, SC 29456

Tom McElwee

Attn

Work Order:

NUJ1063

Project Name:

Laurel Bay Housing Project

Project Number: [none]

Received: 10/08/11 08:30

PROJECT QUALITY CONTROL DATA LCS Dup

E- you		6.00		200	Spike	6) 16	Target				Sample	Analyz	
Analyte	Orig. Val.	Duplicate	Q	Units	Conc	% Rec.	Range	KPD	Limit	Batch	Duplicated	Date/T	ime
Volatile Organic Compounds by	EPA Method	8260B											
11J2700-BSD1													
Benzene		46.6		ug/kg	50.0	93%	75 - 127	4	50	1132700		10/12/11	10:57
Ethylbenzene		48.5		ug/kg	50,0	97%	80 - 134	3	50	11J2700		10/12/11	10:57
Naphthalene		40.8		ug/kg	50.0	82%	69 - 150	3	50	11J2700		10/12/11	10:57
Toluene		49,8		ug/kg	50.0	100%	80 - 132	6	50	11J2700		10/12/11	10:57
Xylenes, total		148		ug/kg	150	99%	80 - 137	4	50	11J2700		10/12/11	10:57
Surrogate: 1,2-Dichloroethane-d4		51.2		ug/kg	50.0	102%	70 - 130			11J2700		10/12/11	10:57
Surrogate: Dibromofluoromethane		52.4		ug/kg	50.0	105%	70 - 130			11J2700		10/12/11	10:57
Surrogate: Toluene-d8		50.4		ug/kg	50.0	101%	70 - 130			11J2700		10/12/11	10:57
Surrogate: 4-Bromofluorobenzene		46.7		ug/kg	50.0	93%	70 - 130			11J2700		10/12/11	10:57
11J3141-BSD1													
Benzene		45,5		ug/kg	50.0	91%	75 - 127	9	50	11J3141		10/13/11	10:46
Ethylbenzene		47.7		ug/kg	50.0	95%	80 - 134	9	50	11J3141		10/13/11	10:46
Naphthalene		38.7		ug/kg	50.0	77%	69 - 150	10	50	11J3141		10/13/11	10:46
Toluene		47.6		ug/kg	50.0	95%	80 - 132	11	50	11J3141		10/13/11	10:46
Xylenes, total		143		ug/kg	150	96%	80 - 137	1.1	50	11J3141		10/13/11	10:46
Surrogate: 1,2-Dichloroethane-d4		51.9		ug/kg	50.0	104%	70 - 130			11J3141		10/13/11	10:46
Surrogate: Dibromofluoromethane		52.7		ug/kg	50.0	105%	70 - 130			11J3141		10/13/11	10:46
Surrogate: Toluene-d8		50.2		ug/kg	50.0	100%	70 - 130			1113141		10/13/11	10:46
Surrogate: 4-Bromofluorobenzene		48,2		ug/kg	50.0	96%	70 - 130			11J3141		10/13/11	10:46



10179 Highway 78 Ladson, SC 29456

Tom McElwee

Attn

Work Order: NUJ1063

Project Name: Laurel Bay Housing Project

Project Number: [none]

Received: 10/08/11 08:30

PROJECT QUALITY CONTROL DATA Matrix Spike

Analyte	Orig. Val.	MS Val	Q	Units	Spike Conc	% Rec.	Target Range	Batch	Sample Spiked	Analyzed Date/Time
Volatile Organic Compounds by I	EPA Method 826	0В								
11J2700-MS1										
Benzene	ND	25.8		mg/kg wet	24.6	105%	31 - 143	11J2700	NUJ0705-08RE	10/12/11 20:26
Ethylbenzene	4.74	.31.8		mg/kg wet	24.6	110%	23 - 161	11J2700	NUJ0705-08RE	10/12/11 20:26
Naphthalene	ND	19.7		mg/kg wet	24.6	80%	10 - 176	11J2700	NUJ0705-08RE	10/12/11 20:26
Toluene	9.44	33.8		mg/kg wet	24.6	99%	30 - 155	11J2700	NUJ0705-08RE	10/12/11 20:26
Xylenes, total	24.0	100		mg/kg wet	73.7	104%	25 - 162	11J2700	NUJ0705-08RE	10/12/11 20:26
Surrogate: 1,2-Dichloroethane-d4		45.4		ug/kg	50.0	91%	70 - 130	11J2700	NUJ0705-08RE	10/12/11 20:26
Surrogate: Dibromofluoromethane		49.9		ug/kg	50,0	100%	70 - 130	11J2700	NUJ0705-08RE	10/12/11 20:26
Surrogate: Toluene-d8		50.6		ug/kg	50.0	101%	70 - 130	11J2700	NUJ0705-08RE	10/12/11 20:26
Surrogate: 4-Bromofluorobenzene		49.4		ug/kg	50.0	99%	70 - 130	11J2700	NUJ0705-08RE I	10/12/11 20:26
11J3141-MS1										
Benzene	ND	0.0479		mg/kg wer	0.0439	109%	31 - 143	11J3141	NUJ0916-03	10/13/11 20:19
Ethylbenzene	ND	0.0530		mg/kg wet	0.0439	121%	23 - 161	11J3141	NUJ0916-03	10/13/11 20:19
Naphthalene	ND	0.0460		mg/kg wet	0.0439	105%	10 - 176	11J3141	NUJ0916-03	10/13/11 20:19
Toluene	ND	0.0526		mg/kg wet	0.0439	120%	30 - 155	11J3141	NUJ0916-03	10/13/11 20:19
Xylenes, total	ND	0.162		mg/kg wet	0.132	123%	25 - 162	11J3141	NUJ0916-03	10/13/11 20:19
Surrogate: 1,2-Dichloroethane-d4		50.0		ug/kg	50,0	100%	70 - 130	11J3141	NUJ0916-03	10/13/11 20:19
Surrogate: Dibromofluoromethane		51.3		ug/kg	50.0	103%	70 - 130	11J3141	NUJ0916-03	10/13/11 20:19
Surrogate: Toluene-d8		50.8		ug/kg	50.0	102%	70 - 130	11J3141	NUJ0916-03	10/13/11 20:19
Surrogate: 4-Bromofluorobenzene		49.0		ug/kg	50.0	98%	70 - 130	11,13141	NUJ0916-03	10/13/11 20 19
Polyaromatic Hydrocarbons by E	PA 8270D									
11J1919-MS1										
Acenaphthene	ND	1.31		mg/kg dry	2.07	63%	19 - 120	1171919	NUJ1063-01	10/11/11 13:57
Acenaphthylene	ND	1.19		mg/kg dry	2.07	58%	25 - 120	1111919	NUJ1063-01	10/11/11 13;57
Anthracene	ND	1.30		mg/kg dry	2.07	63%	28 - 125	11J1919	NUJ1063-01	10/11/11 13:57
Benzo (a) anthracene	ND	1.28		mg/kg dry	2.07	62%	23 - 120	1111919	NUJ1063-01	10/11/11 13:57
Benzo (a) pyrene	ND	1.41		mg/kg dry	2.07	68%	15 - 128	11.11919	NUJ1063-01	10/11/11 13:57
Benzo (b) fluoranthene	ND	1.46		mg/kg dry	2.07	71%	12 - 133	1111919	NUJ1063-01	10/11/11 13:57
Benzo (g,h,i) perylene	ND	1.22		mg/kg dry	2.07	59%	22 - 120	1111919	NUJ1063-01	10/11/11 13:57
Benzo (k) fluoranthene	ND	1.33		mg/kg dry	2.07	64%	28 - 120	1111919	NUJ1063-01	10/11/11 13:57
Chrysene	ND	1.25		mg/kg dry	2.07	60%	20 - 120	1111919	NUJ1063-01	10/11/11 13:57
Dibenz (a,h) anthracene	ND	1.21		mg/kg dry	2.07	58%	12 - 128	11,11919	NUJ1063-01	10/11/11 13:57





10179 Highway 78 Ladson, SC 29456

Tom McElwee

Attn

Work Order: NUJ1063

Project Name: Laurel Bay Housing Project

Project Number: [none]

Received: 10/08/11 08:30

PROJECT QUALITY CONTROL DATA Matrix Spike - Cont.

Analyte	Orig. Val.	MS Val	Q	Units	Spike Conc	% Rec.	Target Range	Batch	Sample Spiked	Analyzed Date/Time
Polyaromatic Hydrocarbons by	EPA 8270D					10000				
11J1919-MS1	ND	1.20		0.00	3.02	200/	10 115	1111010	14711675.01	1001011 12:48
Fluoranthene	ND	1.28		mg/kg dry	2.07	62%	10 - 143	1111919	NUJ1063-01	10/11/11 13:57
Fluorene	ND	1.27		mg/kg dry	2.07	61%	20 - 120	11J1919	NUJ1063-01	10/11/11 13:57
Indeno (1,2,3-cd) pyrene	ND	1.22		mg/kg dry	2.07	59%	22 - 121	1111919	NUJ1063-01	10/11/11 13:57
Naphthalene	ND	1.26		mg/kg dry	2.07	61%	10 - 120	11J1919	NUJ1063-01	10/11/11 13:57
Phenanthrene	ND	1.33		mg/kg dry	2.07	64%	21 - 122	11J1919	NUJ1063-01	10/11/11 13:57
Pyrene	ND	1.32		mg/kg dry	2.07	64%	20 - 123	11J1919	NUJ1063-01	10/11/11 13:57
1-Methylnaphthalene	ND	0.970		mg/kg dry	2.07	47%	10 - 120	11J1919	NUJ1063-01	10/11/11 13:57
2-Methylnaphthalene	ND	1.11		mg/kg dry	2.07	54%	13 - 120	1131919	NUJ1063-01	10/11/11 13:57
Surrogate: Terphenyl-d14		1.28		mg/kg dry	2.07	62%	18 - 120	11J1919	NUJ1063-01	10/11/11 13:57
Surrogate: 2-Fluorohiphenyl		1.02		mg/kg dry	2.07	49%	14 - 120	11J1919	NUJ1063-01	10/11/11 13:57
Surrogate: Nitrobenzene-d5		1.02		mg/kg dry	2.07	49%	17 - 120	11J1919	NUJ1063-01	10/11/11 13:57



10179 Highway 78 Ladson, SC 29456

Tom McElwee

Attn

Work Order: NUJ1063

Project Name: Laurel Bay Housing Project

Project Number: [none]

Received: 10/08/11 08:30

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
Volatile Organic Compounds by	EPA Method 8	3260B										
11J2700-MSD1												
Benzene	ND	27.2		mg/kg wet	24.6	111%	31 - 143	5	50	11J2700	NUJ0705-08RE	10/12/11 20:57
Ethylbenzene	4.74	32.8		mg/kg wet	24.6	114%	23 - 161	3	50	11J2700	NUJ0705-08RE	10/12/11 20/57
Naphthalene	ND	18.0		mg/kg wet	24.6	73%	10 - 176	9	50	11J2700	NUJ0705-08RE	10/12/11 20:57
Toluene	9.44	34.3		mg/kg wet	24.6	101%	30 - 155	- 1	50	11J2700	NUJ0705-08RE	10/12/11 20:57
Xylenes, total	24.0	103		mg/kg wer	73.7	108%	25 - 162	3	50	11J2700	NUJ0705-08RE	10/12/11 20:57
iurrogate: 1,2-Dichloroethane-d4		43.6		ug/kg	50.0	87%	70 - 130			11J2700	NUJ0705-08RE	10/12/11 20:50
čurrogate: Dibromofluoromethane		50.0		ug/kg	50.0	100%	70 - 130			11J2700	NUJ0705-08RE	10/12/11 20:57
Surrogate: Toluene-d8		49.1		ug/kg	50.0	98%	70 - 130			11J2700	NUJ0705-08RE	10/12/11 20:57
Surrogate: 4-Bromofluorobenzene		49.3		ug/kg	50.0	99%	70 - 130			11J2700	NUJ0705-08RE	10/12/11 20:57
1J3141-MSD1												
Benzene	ND	0.0463		mg/kg wet	0.0424	109%	31 - 143	3	50	11,3141	NUJ0916-03	10/13/11 20:49
Ethylbenzene	ND	0.0513		mg/kg wet	0.0424	121%	23 - 161	3	50	11J3141	NUJ0916-03	10/13/11 20:49
Naphthalene	ND	0.0361		mg/kg wet	0.0424	85%	10 - 176	24	50	11J3141	NUJ0916-03	10/13/11 20:49
Toluene	ND	0.0498		mg/kg wet	0.0424	118%	30 - 155	5	50	11J3141	NUJ0916-03	10/13/11 20:49
Xylenes, total	ND	0.153		mg/kg wet	0.127	121%	25 - 162	6	50	11,3141	NUJ0916-03	10/13/11 20:49
Surrogate: 1,2-Dichloroethane-d4		50.2		ug/kg	50.0	100%	70 - 130			11J3141	NUJ0916-03	10/13/11 20:49
urrogate: Dibromofluoromethane		51.9		ug/kg	50.0	104%	70 - 130			11J3141	NUJ0916-03	10/13/11 20:49
Surrogate: Toluene-d8		50.3		ug/kg	50.0	101%	70 - 130			11J3141	NUJ0916-03	10/13/11 20:49
urrogate: 4-Bromofluorobenzene		48.2		ug/kg	50.0	96%	70 - 130			11J3141	NUJ0916-03	10/13/11 20:49
Polyaromatic Hydrocarbons by I	EPA 8270D											
11J1919-MSD1												
Acenaphthene	ND	0.931		mg/kg dry	2.07	45%	19 - 120	34	50	1111919	NUJ1063-01	10/11/11 14:23
Acenaphthylene	ND	0.848		mg/kg dry	2.07	41%	25 - 120	34	50	1111919	NUJ1063-01	10/11/11 14:23
Anthracene	ND	0.941		mg/kg dry	2.07	45%	28 - 125	32	49	11J1919	NUJ1063-01	10/11/11 14:23
Benzo (a) anthracene	ND	0.887		mg/kg dry	2.07	43%	23 - 120	36	50	11J1919	NUJ1063-01	10/11/11 14:2:
Benzo (a) pyrene	ND	1.00		mg/kg dry	2.07	48%	15 - 128	34	50	1111919	NUJ1063-01	10/11/11 14:2:
Benzo (b) fluoranthene	ND	0.974		mg/kg dry	2.07	47%	12 - 133	40	50	1111919	NUJ1063-01	10/11/11 14;23
Benzo (g,h,i) perylene	ND	0.885		mg/kg dry	2.07	43%	22 - 120	32	50	1111919	NUJ1063-01	10/11/11 14:23
Benzo (k) fluoranthene	ND	1.10		mg/kg dry	2.07	53%	28 - 120	18	45	1111919	NUJ1063-01	10/11/11 14:2:
Chrysene	ND	0.903		mg/kg dry	2.07	44%	20 - 120	32	49	1111919	NUJ1063-01	10/11/11 14:2
Dibenz (a,h) anthracene	ND	0.916		mg/kg dry	2.07	44%	12 - 128	28	50	11J1919	NUJ1063-01	10/11/11 14:2
Fluoranthene	ND	0.962		mg/kg dry	2.07	46%	10 - 143	28	50	11J1919	NUJ1063-01	10/11/11 14:2
Fluorene	ND	0.946		mg/kg dry	2.07	46%	20 - 120	29	50	11,11919	NUJ1063-01	10/11/11 14:2
Indeno (1,2,3-cd) pyrene	ND	0.926		mg/kg dry	2.07	45%	22 - 121	28	50	11,71919	NUJ1063-01	10/11/11 14:2:





10179 Highway 78 Ladson, SC 29456

Tom McElwee

Attn

Work Order: NUJ1063

Project Name: Laurel Bay Housing Project

Project Number. [none]

Received: 10/08/11 08:30

PROJECT QUALITY CONTROL DATA Matrix Spike Dup - Cont.

Analyte	Orig. Val.	Duplicate	Q	Units	Spike Conc	% Rec.	Target Range	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time	
Polyaromatic Hydrocarbons by	y EPA 8270D												
11J1919-MSD1													
Naphthalene	ND -	0.902		mg/kg dry	2.07	44%	10 - 120	33	50	11J1919	NUJ1063-01	10/11/11 14:23	
Phenanthrene	ND	0.928		mg/kg dry	2.07	45%	21 - 122	35	50	11J1919	NUJ1063-01	10/11/11 14:23	
Pyrene	ND	0.909		mg/kg dry	2.07	44%	20 - 123	37	50	11J1919	NUJ1063-01	10/11/11 14:23	
1-Methylnaphthalene	ND	0.684		mg/kg dry	2.07	33%	10 - 120	35	50	11J1919	NUJ1063-01	10/11/11 14:23	
2-Methylnaphthalene	ND	0.855		mg/kg dry	2.07	41%	13 - 120	26	50	11J1919	NUJ1063-01	10/11/11 14:23	
Surrogate: Terphenyl-d14		0.864		mg/kg dry	2.07	42%	18 - 120			1111919	NUJ1063-01	10/11/11 14:23	
Surrogate: 2-Fluorobiphenyl		0.706		mg/kg dry	2.07	34%	14 - 120			11J1919	NUJ1063-01	10/11/11 14:23	
Surrogate: Nitrobenzene-d5		0.685		mg/kg dry	2,07	33%	17 - 120			1111919	NUJ1063-01	10/11/11 14:23	





10179 Highway 78 Ladson, SC 29456

Tom McElwee

Work Order: NUJ1063

Project Name: Laurel Bay Housing Project

Project Number: [none]

Received: 10/08/11 08:30

CERTIFICATION SUMMARY

TestAmerica Nashville

Attn

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





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

> 10179 Highway 78 Ladson, SC 29456

Tom McElwee

Attn

ND

Work Order:

NUJ1063 Laurel Bay Housing Project Project Name:

Project Number: [none]

10/08/11 08:30 Received:

DATA QUALIFIERS AND DEFINITIONS

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

Not detected at the reporting limit (or method detection limit if shown)

METHOD MODIFICATION NOTES

NUJ1063 10/24/11 23 59

Nashville Division 2960 Foster Creighton Nashville, TN 37204

Phone: 615-726-0177 Toli Free: 800-765-0980

Fax: 615-726-3404

To as list us in using the proper enalytical methods is this work being conducted for legulatory pu poses?

Client Name/Account #:	EEG SBC #24	49								-						Came	llance M	critoring	?	Yes	film
Address:	10179 Highway	78														Enti	irt amen	Achten?		Ves	No
City/State/Zip:	Ladson, SC 294	36											Site	State	SC			en Larder war			
Project Manager:	Tom McElwee e	mail moelw	ee@eegin	r net										FO#	10	35	_				
Telephone Number.			440-0-6		Fa	x No.:	84	3 -	87	1-0	240	1	TAQ	lote #:							
Sampler Name: (Print)	Pie	4#	5%	plu	1								Proje	ect ID:	Laurel Bay Ho	using Proj	act				
Sampler Signature:		A	1								-			ject#							
		-,-	9	/	Г		Preserv	ative	श	-	Matrix		T			Analyz	e For:				7
			B				44		4				90			7	1	1	T		11
			ddy.	1		1 -	7	abel)	14	1.1	11		8260		1		1	1		1	17
1			27 28		1	1 6	Poet 1	OW L	Je 3	1		-	1 5			1					1 17
1	2	ratifed	ā		8	121	13		1	الله	g!	1	Magith	8		1		1			1 4
T.	5	1 5	12	1 de 10	200	1.8	15	a la	100	The diameter	#	11		G		1		. 1		1	15
	4-	2	3 3	Comp	100	11.	1 gu	1 3	Note of	Nastro	into	- 1	BIE	HVa		1					100
Section 2 July approx	1 9	-			ů.	44	1 2	I		013	ठ । त	5 1	(2)	0.	de la co			4	4		ū
210 BAISAM	10/3/11	1215	5			11	2	-	21	_		X	X	1		1	28° 7		- \$		1
211 BAISAM	18/4/11	1200	5	×		11	3	**	21		and the last	X.	X	X				1	-		
212 BALSAM	10/5/11	1145	5)	()	1	11	2		21			X	X	X				1			
212 BALSAM 219 BALSAM	10/6/11	1145	5	X			2		21			X	X	X				i			
A color despetation of principles were served																					
	100																	T			
		1				TI				0.7											
																		+		-	1
	-	-		-		++	1	1					10000				-	-			
Special Instructions:	16,		l		+								-	-	Laboratory Co	omments	***	ansen a	-		
970 1800 1971 2971 2971								. 5.4				+62				rature Upo					13.5
111	7		Time	TRen	eive: 5	-	of Ships	ment.			Date	FED	Time		NOG5 P	rea of He	апырасе	?			Y
all!!	10/-	1.				/				1					1						
11/1	191	//	093		-12	de	Z_	_	-		Fale	-+-	Ties		1						
4	1 .00		Time	Fec	5	1			1	- 110	7-9-	11/	3.3	20	1						
	1			7	W	n	->	/		_ [,	- 0		ال	,					-		
				- 3									():	\supset							

ATTACHMENT A



NON-HAZARDOUS MANIFEST

	PAID No. M	ID No. Manifest Doc No.		2. Page 1 of				No.		
NON-HAZARDOUS MANIFEST			1							
3. Generator's Mailing Address:	Ge	enerator's Site Address (If	lifferent than ma	iline):	A. Manife	est Number				
MCAS, BEAUFORT				WMNA		00016010				
LAUREL BAY HOUSING					Toples and the land		00316818 Generator's ID			
BEAUFORT, SC 29907							Sellerator S	ID		
4. Generator's Phone 843-	228-6461									
5. Transporter 1 Company Name		6. US EPA I	D Number							
					C. State T	ransporter's II		Till Do Say	n zene	
			Control of the Contro			D. Transporter's Phone 843-879-0411				
		8. US EPA I	US EPA ID Number							
						E. State Transporter's ID F. Transporter's Phone				
9 Designated Facility Name and Sit	e Address	10. US EPA	ID Number		F. Transp	orter's Phone			E CONTRACT	
	HICKORY HILL LANDFILL			ib ivalliber		G. State Facility ID				
2621 LOW COUNTRY ROAD					H. State Facility Phone		843-987-4643			
RIDGELAND, SC 29936				35 5 5 5	n. state racility Phone		043-367-4043		3	
11. Description of Waste Materials			12. Con	The second second	13. Total	14. Unit	i. N	lisc. Comme	ents	
a. HEATING OIL TANKS FILLED	WITH SAND		No.	Туре	Quantity	Wt./Vol.			10000	
I di menina di mana	O WITH SAIND				THE SALE					
WM Pro	ofile # 102655SC		1000000	F7.573			10/1 × 100		100	
b.		San College								
			Lane Contract							
WM Profile #								- Frank		
c. WM Profile #			- Harris Sapres Co.							
WM Profile #			184-195 R		NI SILE					
d.					311		50x-10-10		15-3/3	
			1/9/11		22.					
WM Profile #	Part Dependent to the		200000		Cold Tr		THE SECOND	A. Car		
J. Additional Descriptions for Mate	erials Listed Above		K. Disposa	Location	100		100			
Table 1 Contraction										
	*		Cell				Level			
15. Special Handling Instructions and	d Additional Information	20	Grid	CO 1						
USTS FROM	A CONTRACTOR OF STREET STREET,	BAISAM	3)3	721	Acor	1				
	3/2/0	BASAMI	4) =	283	Ripo	h				
Purchase Order #	7)~	EMERGENCY CO	NTACT / PHO	NE NO :	1007	1-0/01-0	11		8 8 8	
16. GENERATOR'S CERTIFICATE:										
I hereby certify that the above-descr	ibed materials are not	hazardous wastes as defin	ed by CFR Pa	rt 261 or a	ny applicabl	e state law, ha	ve been fu	llv and		
accurately described, classified and		oper condition for transpo	rtation accor						3312	
Printed Name	1.11 11-	Signature "On beha	If of"	1,1	La On		Month	Day	Year	
17. Transporter 1 Acknowledgemen	t of Possint of Materia	le Vils	norny	, w	nece		10	18	1//	
Printed Name	t of Receipt of Wateria	Signature	-1		1		Month	Day	Year	
Jam FS	Boldwal	Chames.	Bald		0		10	18	11	
18. Transporter 2 Acknowledgemen	t of Receipt of Materia	is	1.000		1			10		
Printed Name		Signature					Month	Day	Year	
19. Certificate of Final Treatment/D	isnosal		195.5319							
I certify, on behalf of the above listed		at to the best of my knowl	edge, the abo	ve-describ	ed waste w	as managed in	compliance	e with al		
applicable laws, regulations, permits			age, the abo	Le deserif	co maste w	as managed ii	Compilation	C With al	Service .	
20. Facility Owner or Operator: Cert			overed by thi	s manifest						
Printed Name	6.	Signature		1	. 10		Month	Day	Year	
1000 (0	tierd	107	i (0		lel		10	18	11	
White-TREATMENT, STORAGE, DISP	OSAL FACILITY COPY	Blue- GENERATOR	#2 COPY	1	Ye	llow- GENERA	TOR #1 CO	γ) III-i	
Pink- FACILITY USE C	ONLY	Gold- TRANSPORTE	R #1 COPY	State 2						

Gold-TRANSPORTER #1 COPY

Appendix C Regulatory Correspondence





Catherine B. Templeton, Director

Prograting and presering the health of the public and the environment

May 15, 2014

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

RE: No Further Action

Laurel Bay Underground Storage Tank Assessment Reports for:

See attached sheet

Dear Mr. Drawdy,

The South Carolina Department of Health and Environmental Control (the Department) received the above referenced Underground Storage Tanks (USTs) Assessment Reports for the addresses listed above. The regulatory authority for the investigation and cleanup of releases from these tank systems is the South Carolina Pollution Control Act (S.C. Code Ann. §48-1-10 et seq., as amended).

The Department has reviewed the referenced assessment reports and agrees there is no indication of soil or groundwater contamination on these properties, and therefore no further investigation is required at this time.

Please note that the Department's decision is based on information provided by the Marine Corps Air Station (MCAS) to date. Any information found to be contradictory to this decision may require additional action. Furthermore, the Department retains the right to request further investigation if deemed necessary.

If you have any questions, please contact me at kriegkm@dhec.sc.gov or 803-898-0255.

Sincerely,

Kent Krieg

Department of Defense Corrective Action Section

Bureau of Land and Waste Management

South Carolina Department of Health and Environmental Control

Cc: Russell Berry (via email)

Craig Ehde (via email)



Catherine B. Templeton, Director

Promosting and protecting the health of the public and the environment

Attachment to:

Krieg to Drawdy Subject: NFA Dated 5/15/2014

Laurel Bay Underground Storage Tank Assessment Reports for: (143 addresses/146 tanks)

212 Balsam	503 Laurel Bay
219 Balsam	508 Laurel Bay
260 Beech Tank 1	510 Laurel Bay
260 Beech Tank 2	523 Laurel Bay
267 Birch	525 Laurel Bay
287 Birch	529 Laurel Bay
302 Ash	533 Laurel Bay
305 Ash	537 Laurel Bay
334 Ash	556 Dahlia
338 Ash Tank 1	557 Dahlia
338 Ash Tank 2	559 Dahlia
361 Aspen	562 Dahlia
371 Aspen	568 Dahlia
372 Aspen Tank 1	581 Aster
372 Aspen Tank 2	582 Aster
375 Aspen	584 Aster
385 Aspen	602 Dahlia
403 Elderberry	607 Dahlia
407 Elderberry	614 Dahlia
411 Elderberry	616 Dahlia
414 Elderberry	619 Dahlia
415 Elderberry	625 Dahlia
421 Elderberry	629 Dahlia
427 Elderberry	631 Dahlia
428 Elderberry	634 Dahlia
431 Elderberry	660 Camellia
455 Elderberry	661 Camellia
484 Laurel Bay	666 Camellia
490 Laurel Bay	669 Camellia
502 Laurel Bay	672 Camellia

Laurel Bay Underground Storage Tank Assessment Reports for: (143 addresses/146 tanks) cont.

674 Camellia	880 Cobia		
677 Camellia	890 Cobia		
679 Camellia	892 Cobia		
686 Camellia	900 Barracuda		
690 Camellia	906 Barracuda		
698 Abelia	911 Barracuda		
700 Bluebell	912 Barracuda		
704 Bluebell	917 Barracuda		
705 Bluebell	919 Barracuda		
708 Bluebell	928 Albacore		
710 Bluebell	1024 Foxglove		
711 Bluebell	1028 Foxglove		
714 Bluebell	1029 Foxglove		
715 Bluebell	1038 Iris		
726 Bluebell	1049 Gardenia		
728 Bluebell	1079 Heather		
731 Bluebell	1103 Iris		
734 Bluebell	1122 Iris		
759 Althea	1136 Iris		
761 Althea	1173 Bobwhite		
773 Althea	1200 Cardinal		
778 Laurel Bay	1221 Cardinal		
807 Azalea	1238 Dove		
814 Azalea	1241 Dove		
815 Azalea	1242 Dove		
818 Azalea	1248 Dove		
820 Azalea	1262 Dove		
821 Azalea	1265 Dove		
831 Azalea	1267 Dove		
832 Azalea	1289 Eagle		
834 Azalea	1298 Eagle		
835 Azalea	1300 Eagle		
841 Azalea	1303 Eagle		
853 Dolphin	1304 Eagle		
858 Dolphin	1315 Albatross		
869 Cobia	1316 Albatross		
874 Cobia	1320 Albatross		
875 Cobia	1338 Albatross		

Laurel Bay Underground Storage Tank Assessment Reports for: (143 addresses/146 tanks) cont.

1340 Albatross			
1342 Albatross			
1344 Cardinal			
1345 Cardinal		*	
1349 Cardinal			
1355 Cardinal			
1366 Cardinal			
1374 Dove	}		
1375 Dove			
1415 Albatross			