SUMMARY REPORT
119 WEST ALTHEA STREET (FORMERLY 762 WEST ALTHEA 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
119 WEST ALTHEA STREET (FORMERLY 762 WEST ALTHEA 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	CTION	1
1.1 1.2		ND INFORMATION DVAL AND ASSESSMENT PROCESS	
2.0	SAMPLING	ACTIVITIES AND RESULTS	3
2.1 2.2 2.3 2.4	SOIL ANAL	OVAL AND SOIL SAMPLING	4
3.0	PROPERTY	STATUS	5
4.0	REFERENC	ES	5
Table Table		Tables Laboratory Analytical Results - Soil Laboratory Analytical Results - Groundwater	
		Appendices	
Appen	ıdix A	Multi-Media Selection Process for LBMH	
Appen	ıdix B	UST Assessment Report	
Appen	ıdix C	Laboratory Analytical Report - Groundwater	
Appen	ıdix D	Regulatory Correspondence	



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 119 West Althea Street (Formerly 762 West Althea 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 119 West Althea Street (Formerly 762 West Althea Street). Details regarding the soil investigation at this site are provided in the *SCDHEC UST Assessment Report – 762 West Althea Street* (MCAS Beaufort, 2013). The UST Assessment Report is provided in Appendix B. Details regarding the IGWA sampling activities at this site are provided in the *Initial Groundwater Investigation Report – November and December 2015* (Resolution Consultants, 2016). The laboratory report that includes the pertinent IGWA analytical results for this site is presented in Appendix C.

2.1 UST Removal and Soil Sampling

On February 21, 2013, a single 280 gallon heating oil UST was removed from the rear grassed area adjacent to the rear concrete patio and partially covered by the rear storage shed at 119 West Althea Street (Formerly 762 West Althea 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' 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 119 West Althea Street (Formerly 762 West Althea Street) were greater than the SCDHEC RBSLs, which indicated further investigation was required. In a letter dated July 1, 2015, SCDHEC requested an IGWA for 119 West Althea Street (Formerly 762 West Althea 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 November 18, 2015, a temporary monitoring well was installed at 119 West Althea Street (Formerly 762 West Althea 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 on Figures 2 and 3 of the UST Assessment Report (Appendix B). Further



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

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

2.4 Groundwater Analytical Results

A summary of the laboratory analytical results and SCDHEC RBSLs is presented in Table 2. A copy of the laboratory analytical data report is included in Appendix C.

The groundwater results collected from 119 West Althea Street (Formerly 762 West Althea 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 119 West Althea Street (Formerly 762 West Althea Street). This NFA determination was obtained in a letter dated June 8, 2016. SCDHEC's NFA letter is provided in Appendix D.

4.0 REFERENCES

Marine Corps Air Station Beaufort, 2013. South Carolina Department of Health and Environmental Control (SCDHEC) Underground Storage Tank Assessment Report – 762 West Althea Street, Laurel Bay Military Housing Area, October 2013.

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



- South Carolina Department of Health and Environmental Control Bureau of Land and Waste Management, 2013. *Quality Assurance Program Plan for the Underground Storage Tank Management* Division, *Revision 2.0*, April 2013.
- South Carolina Department of Health and Environmental Control Bureau of Land and Waste Management, 2015. *Quality Assurance Program Plan for the Underground Storage Tank Management* Division, *Revision 3.0*, May 2015.
- South Carolina Department of Health and Environmental Control Bureau of Land and Waste Management, 2016. *Quality Assurance Program Plan for the Underground Storage Tank Management* Division, *Revision 3.1*, February 2016.
- South Carolina Department of Health and Environmental Control Bureau of Land and Waste Management, 2017. *R.61-92, Part 280, Underground Storage Tank Control Regulations*, March 2017.
- South Carolina Department of Health and Environmental Control Bureau of Land and Waste Management, 2018. *Underground Storage Tank Assessment Instructions for Permanent Closure and Change-In-Service*, March 2018.
- South Carolina Department of Health and Environmental Control Bureau of Water, 2016. *R.61-71, Well Standards*, June 2016.

Tables



Table 1

Laboratory Analytical Results - Soil 119 West Althea Street (Formerly 762 West Althea Street)

Laurel Bay Military Housing Area Marine Corps Air Station Beaufort Beaufort, South Carolina

Constituent	SCDHEC RBSLs (1)	Results Sample Collected 02/21/13
Volatile Organic Compounds Analyz	ed by EPA Method 8260B (mg/kg)	
Benzene	0.003	0.00250
Ethylbenzene	1.15	0.00861
Naphthalene	0.036	0.0559
Toluene	0.627	0.00240
Xylenes, Total	13.01	0.0127
Semivolatile Organic Compounds A	nalyzed 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 3.0 and 3.1 (SCDHEC, May 2015 and SCDHEC, February 2016) and the Underground Storage Tank Assessment Guidelines (SCDHEC, February 2006).

Bold font indicates the analyte was detected.

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

EPA - United States Environmental Protection Agency

mg/kg - milligrams per kilogram

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

RBSL - Risk-Based Screening Level

SCDHEC - South Carolina Department Of Health and Environmental Control

Table 2

Laboratory Analytical Results - Groundwater 119 West Althea Street (Formerly 762 West Althea Street) Laurel Bay Military Housing Area Marine Corps Air Station Beaufort

Beaufort, South Carolina

Constituent	SCDHEC RBSLs (1)	Site-Specific Groundwater VISLs (µg/L) ⁽²⁾	Results Sample Collected 11/19/15
Volatile Organic Compounds Analyzed	l by EPA Method 8260B (μg	/L)	
Benzene	5	16.24	ND
Ethylbenzene	700	45.95	ND
Naphthalene	25	29.33	0.97
Toluene	1000	105,445	ND
Xylenes, Total	10,000	2,133	ND
Semivolatile Organic Compounds Ana	lyzed by EPA Method 82700) (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:

(1) 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).

(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 1x10⁻⁶, a target hazard quotient of 1 (per target organ), and a default residential exposure scenario, assuming exposure for 24 hours/day, 350 days/year, for 26 years. Modeling was performed for a range of depths to groundwater for application as appropriate in different areas of the Laurel Bay Military Housing Area. The most conservative levels are presented for comparison. Refer to Appendix H of the Uniform Federal Policy Sampling Analysis and Sampling Plan for Vapor Media, Revision 4 (Resolution Consultants, April 2017) for additional information.

Bold font indicates the analyte was detected.

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

EPA - United States Environmental Protection Agency

JE - Johnson & Ettinger

NA - Not Applicable

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

RBSL - Risk-Based Screening Level

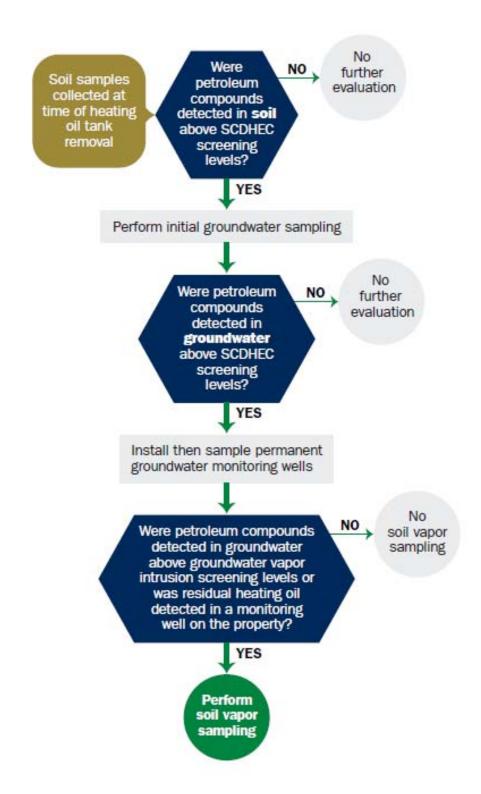
SCDHEC - South Carolina Department Of Health and Environmental Control

μg/L - micrograms per liter

VISL - Vapor Intrusion Screening Level

Appendix A Multi-Media Selection Process for LBMH





Appendix A - Multi-Media Selection Process for LBMH

Appendix B UST Assessment Report



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



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



OCT 2 3 201X3

SC DHEC - Bureau of Land & Waste Management

I. OWNERSHIP OF UST (S)

Owner Name (Corporatio	n, Individual, Public Agency, Other)	REAO (Craig Ehde)
P.O. Box 55001		
Mailing Address		
Beaufort,	South Carolina	29904-5001
City	State	Zip Code
843	228-7317	Craig Ehde
Area Code	Telephone Number	Contact Person

II. SITE IDENTIFICATION AND LOCATION

Permit I.D. #	
Laurel Bay Milita	ry Housing Area, Marine Corps Air Station, Beaufort, SC Site Identifier
Facility Name or Company	Site Identifier
	Laurel Bay Military Housing Area
Street Address or State Roa	d (as applicable)
Beaufort,	Beaufort
City	County

Attachment 2

III. INSURANCE INFORMATION

Insurance Statement						
The petroleum release reported to DHEC on at Permit ID Number may qualify to receive state monies to pay for appropriate site rehabilitation activities. Before participation is allowed in the State Clean-up fund, written confirmation of the existence or non-existence of an environmental insurance policy is required. This section must be completed.						
Is there now, or has there ever been an insurance policy or other financial mechanism that covers this UST release? YES NO (check one)						
If you answered YES to the above question, please complete the following information:						
My policy provider is: The policy deductible is: The policy limit is:						
If you have this type of insurance, please include a copy of the policy with this report.						
IV. REQUEST FOR SUPERB FUNDING						
I DO / DO NOT wish to participate in the SUPERB Program. (Circle one.)						
V. CERTIFICATION (To be signed by the UST owner)						
I certify that I have personally examined and am familiar with the information submitted in this and all attached documents; and that based on my inquiry of those individuals responsible for obtaining this information, I believe that the submitted information is true, accurate, and complete.						
Name (Type or print.)						
Signature						
To be completed by Notary Public:						
Sworn before me this day of, 20						
(Name)						
Notary Public for the state of Please affix State seal if you are commissioned outside South Carolina						

	VI. UST INFORMATION	
	VI. USI IIVI OILIVII IIIVI	762Althea
		Heating oil
	Product(ex. Gas, Kerosene)	
	Capacity(ex. 1k, 2k)	280 gal
	Age	Late 1950s
	Construction Material(ex. Steel, FRP)	Steel
	Month/Year of Last Use	Mid 1980s
	Depth (ft.) To Base of Tank	6'
	Spill Prevention Equipment Y/N	No
	Overfill Prevention Equipment Y/N	No
	Method of Closure Removed/Filled	Removed
	Date Tanks Removed/Filled	2/21/2013
	Visible Corrosion or Pitting Y/N	Yes
	Visible Holes Y/N	Yes
-	Method of disposal for any USTs removed from the UST 762Althea was removed from the	ground and disposed at a
	"Subtitle D" landfill. See Attachmo	ent "A".
	disposal manifests) UST 762Althea was previously fille	•

VII. PIPING INFORMATION

	762Althea
	Steel
Construction Material(ex. Steel, FRP)	& Copper
Division of TIOTAL Di	N/A
Distance from UST to Dispenser	
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
If any corrosion, pitting, or holes were observed,	describe the location and extent for each piping
	describe the location and extent for each piping
Corrosion and pitting were found	d on the surface of the steel ver
	d on the surface of the steel ver
Corrosion and pitting were found	d on the surface of the steel ver
Corrosion and pitting were found	d on the surface of the steel ver
Corrosion and pitting were found pipe. Copper supply and return	d on the surface of the steel ver
Corrosion and pitting were found pipe. Copper supply and return T	d on the surface of the steel verlines were sound.
Corrosion and pitting were found pipe. Copper supply and return I	d on the surface of the steel vertines were sound. SIPTION AND HISTORY CONSTRUCTED OF SINGLE WALL Steel
Corrosion and pitting were found pipe. Copper supply and return T	d on the surface of the steel vertines were sound. EIPTION AND HISTORY Onstructed of single wall steel for heating. These USTs were
Corrosion and pitting were found pipe. Copper supply and return Tolerand VIII. BRIEF SITE DESCRETATE The USTs at the residences are contained fuel oil	d on the surface of the steel vertines were sound. EIPTION AND HISTORY Onstructed of single wall steel for heating. These USTs were
Corrosion and pitting were found pipe. Copper supply and return Tolerand VIII. BRIEF SITE DESCRETATE The USTs at the residences are contained fuel oil	d on the surface of the steel vertines were sound. EIPTION AND HISTORY Onstructed of single wall steel for heating. These USTs were
Corrosion and pitting were found pipe. Copper supply and return Tolerand VIII. BRIEF SITE DESCRETATE The USTs at the residences are contained fuel oil	d on the surface of the steel vertines were sound. EIPTION AND HISTORY Onstructed of single wall steel for heating. These USTs were
Corrosion and pitting were found pipe. Copper supply and return Tolerand VIII. BRIEF SITE DESCRETATE The USTs at the residences are contained fuel oil	d on the surface of the steel vertines were sound. EIPTION AND HISTORY Onstructed of single wall steel for heating. These USTs were
Corrosion and pitting were found pipe. Copper supply and return Tolerand VIII. BRIEF SITE DESCRETATE The USTs at the residences are contained fuel oil	d on the surface of the steel vertines were sound. EIPTION AND HISTORY Onstructed of single wall steel for heating. These USTs were

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.		X	
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,		Х	
mild, etc.) C. Was water present in the UST excavation, soil borings, or trenches?		X	
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:			
E. Was a petroleum sheen or free product detected on any excavation or boring waters? If yes, indicate location and thickness.		X	

X. SAMPLE INFORMATION

A. SCDHEC Lab Certification Number 84009

B.

Sample #	Location	Sample Type (Soil/Water)	Soil Type (Sand/Clay)	Depth*	Date/Time of Collection	Collected by	OVA#
762 Althea	Excav at fill end	Soil	Sandy	6'	2/21/13 1450 hrs	P. Shaw	
			4				

8							
9							
10							
11							
12							
13							
14							
15							
16							
17							`
18							
19							
20							

^{* =} Depth Below the Surrounding Land Surface

XI. SAMPLING METHODOLOGY

Provide a detailed description of the methods used to collect <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.

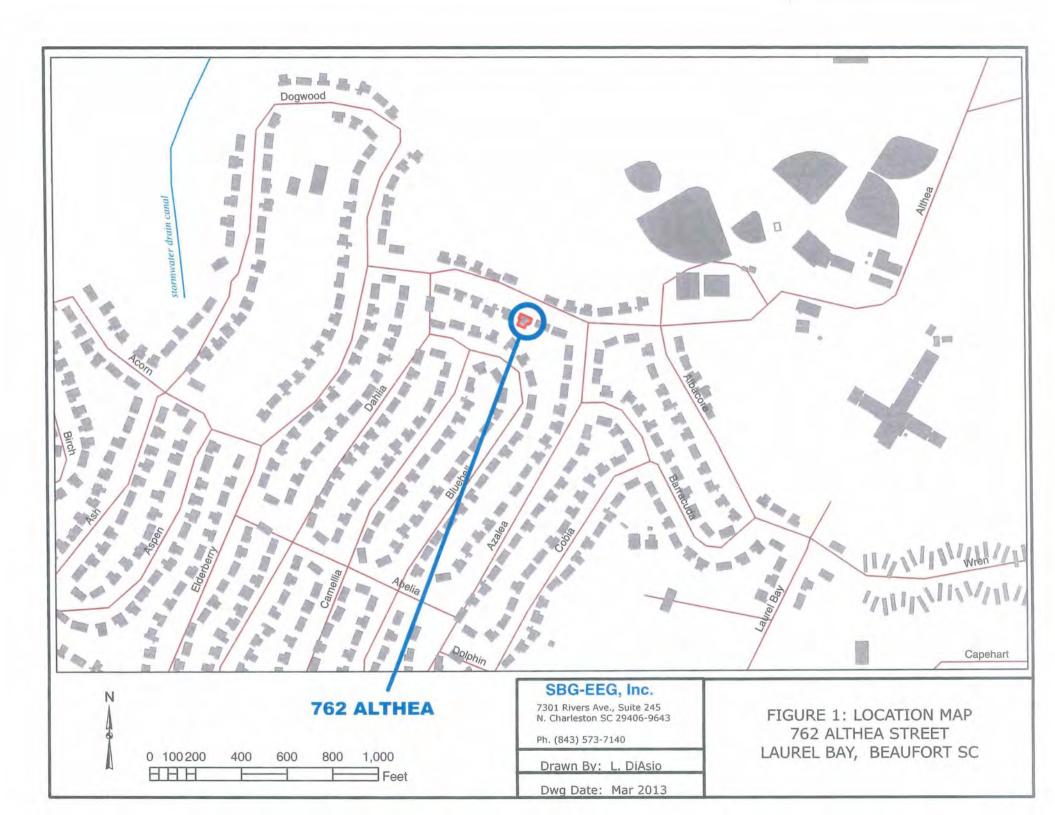
XII. RECEPTORS

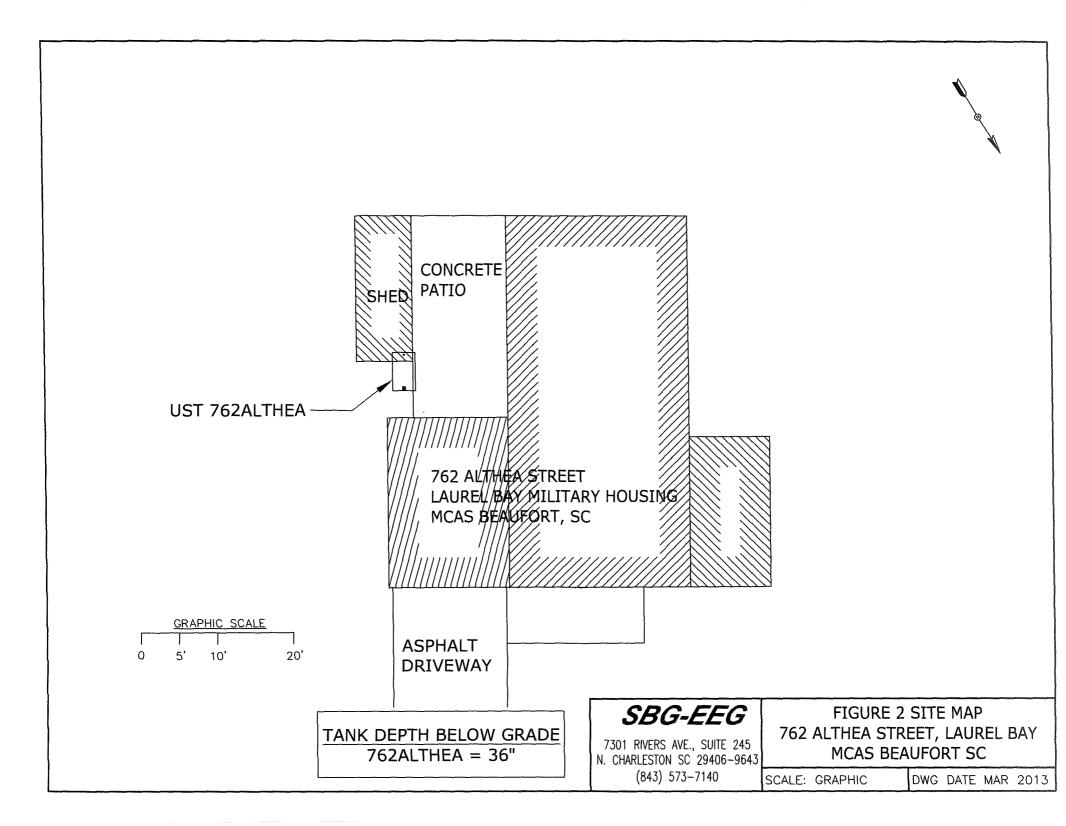
		Yes	No
A.	Are there any lakes, ponds, streams, or wetlands located within 1000 feet of the UST system?		X
	If yes, indicate type of receptor, distance, and direction on site map.		
В.	Are there any public, private, or irrigation water supply wells within 1000 feet of the UST system?		Х
	If yes, indicate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

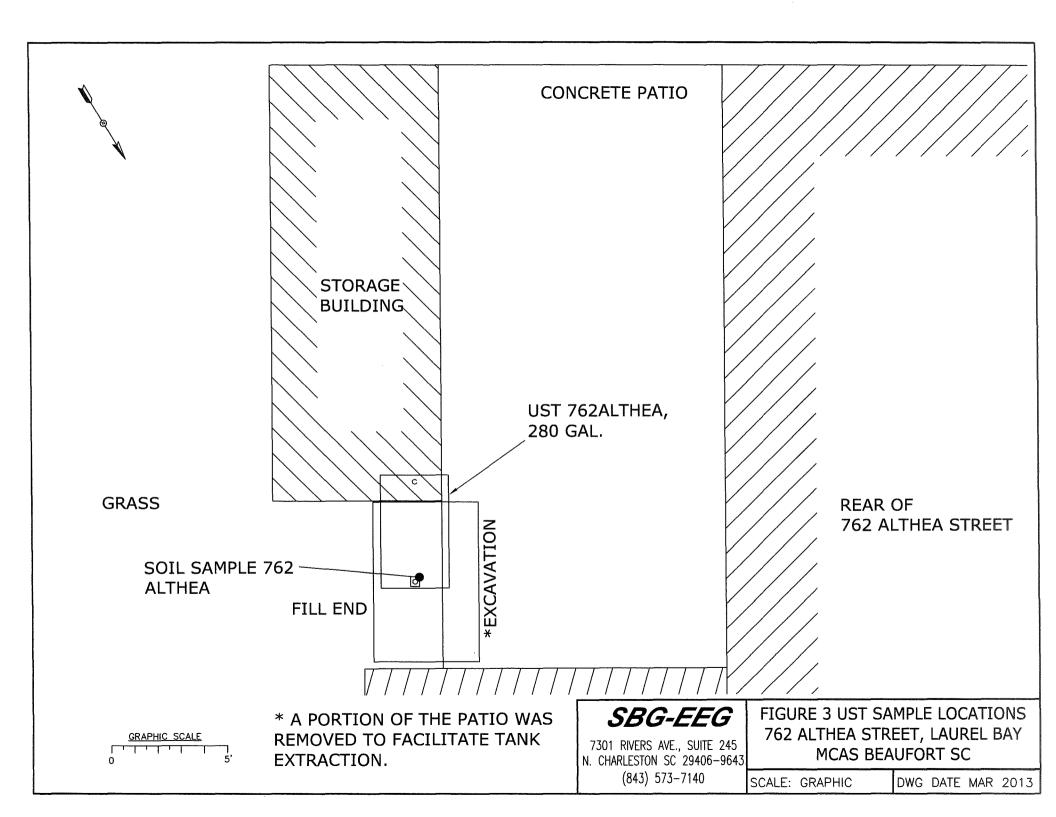
XIII. SITE MAP

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 762Althea.



Picture 2: UST 762Althea 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.

Enter the soft analytical data for each soft boring for all COC in the table below and on the following page.							
CoC UST	762Althea						
Benzene	0.00250 mg/k	Э					
Toluene	0.00240 mg/k	8					
Ethylbenzene	0.00861 mg/k	a					
Xylenes	0.0127 mg/kg						
Naphthalene	0.0559 mg/kg						
Benzo (a) anthracene	ND			3			
Benzo (b) fluoranthene	ND						
Benzo (k) fluoranthene	ND						
Chrysene	ND						
Dibenz (a, h) anthracene	ND						
TPH (EPA 3550)							
				<u> </u>	1	1	
СоС							
Benzene							
Toluene						l	
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				
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)





THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

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

TestAmerica Job ID: 490-20425-1

Client Project/Site: Laurel Bay Housing Project

Revision: 1

For:

Environmental Enterprise Group 10179 Highway 78 Ladson, South Carolina 29456

Attn: Mr. Tom McElwee

Kuth Hay

Authorized for release by: 3/22/2013 2:22:46 PM

Ken Hayes Project Manager I

ken.hayes@testamericainc.com

.....LINKS

Review your project results through

Total Access

Have a Question?



Visit us at:

www.testamericainc.com

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

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page	1
Table of Contents	
Sample Summary	3
Case Narrative	4
Definitions	5
Client Sample Results	6
QC Sample Results	12
QC Association	16
Chronicle	18
Method Summary	20
Certification Summary	21
Chain of Custody	22
Receipt Checklists	25

Sample Summary

Client: Environmental Enterprise Group Project/Site: Laurel Bay Housing Project TestAmerica Job ID: 490-20425-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
490-20425-1	818 Azalea	Solid	02/19/13 11:45	02/27/13 08:56
490-20425-2	820 Azalea	Solid	02/20/13 10:45	02/27/13 08:56
490-20425-3	762 Althea	Solid	02/21/13 14:50	02/27/13 08:56
490-20425-4	821 Azalea	Solid	02/19/13 14:15	02/27/13 08:56
490-20425-5	1340 Albatross	Solid	02/20/13 14:15	02/27/13 08:56
490-20425-6	773 Althea	Solid	02/21/13 14:15	02/27/13 08:56

Client: Environmental Enterprise Group Project/Site: Laurel Bay Housing Project

dob ID: 490-20425-1

Laboratory: TestAmerica Nashville

Narrative

Job Narrative 490-20425-1

REVISED REPORT: Reviesed to change the name on sample 490-20425-3 from 762 Azalea to 762 Althea at the client's request. This report replaces the one generated on 03/04/13 @ 1633.

Comments

No additional comments.

Receipt

The samples were received on 2/26/2013 8:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.2° C.

GC/MS VOA

Method(s) 8260B: The method blank for batch 61447 contained Xylenes above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method(s) 8260B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with batch 61447.

No other analytical or quality issues were noted.

GC/MS Semi VOA

No analytical or quality issues were noted.

Organic Prep

No analytical or quality issues were noted.

VOA Prep

No analytical or quality issues were noted.



Definitions/Glossary

Client: Environmental Enterprise Group Project/Site: Laurel Bay Housing Project TestAmerica Job ID: 490-20425-1

5

Qualifiers

GC/MS VOA

Qualifier Qualifier Description

B Compound was found in the blank and sample.

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

GC/MS Semi VOA

Qualifier Qualifier Description

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

Glossary

Abbreviation These commonly used abbreviations may or may not be present in this report.

Listed under the "D" column to designate that the result is reported on a dry weight basis

%R Percent Recovery
CNF Contains no Free Liquid

DER Duplicate error ratio (normalized absolute difference)

DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

DLC Decision level concentration
MDA Minimum detectable activity
EDL Estimated Detection Limit
MDC Minimum detectable concentration

MDL Method Detection Limit
ML Minimum Level (Dioxin)

ND Not detected at the reporting limit (or MDL or EDL if shown)

PQL Practical Quantitation Limit

QC Quality Control
RER Relative error ratio

RL Reporting Limit or Requested Limit (Radiochemistry)

RPD Relative Percent Difference, a measure of the relative difference between two points

TEF Toxicity Equivalent Factor (Dioxin)
TEQ Toxicity Equivalent Quotient (Dioxin)

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

Client Sample ID: 818 Azalea

Date Collected: 02/19/13 11:45 Date Received: 02/27/13 08:56

Percent Solids

Lab Sample ID: 490-20425-1

Matrix: Solid

Percent Solids: 91.4

Analyzed	Dil Fac	
02/27/13 18:05	1	-

Wethou, 62000 - Volatile Dige	mic Compounds	(GC/INS)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00259	0.000867	mg/Kg	3	02/27/13 15:44	02/27/13 18:05	1
Ethylbenzene	ND		0.00259	0.000867	mg/Kg	U	02/27/13 15:44	02/27/13 18:05	1
Naphthalene	ND		0.00647	0.00220	mg/Kg	日	02/27/13 15:44	02/27/13 18:05	1
Toluene	ND		0.00259	0.000958	mg/Kg	п	02/27/13 15:44	02/27/13 18:05	7
Xylenes, Total	0.00130	JB	0.00647	0.000867	mg/Kg	E	02/27/13 15:44	02/27/13 18:05	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		70 - 130				02/27/13 15:44	02/27/13 18:05	1
4-Bromofluorobenzene (Surr)	106		70 - 130				02/27/13 15:44	02/27/13 18:05	1
Dibromofluoromethane (Surr)	92		70 - 130				02/27/13 15:44	02/27/13 18:05	1
Toluene-d8 (Surr)	101		70 - 130				02/27/13 15:44	02/27/13 18:05	7
Method: 8270D - Semivolatile	Organic Compou	inds (GC/M	S)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0726	0.0108	mg/Kg	32	02/28/13 05:36	02/28/13 17:37	1
Acenaphthylene	ND		0.0726	0.00975	mg/Kg	13	02/28/13 05:36	02/28/13 17:37	1
Anthracene	ND		0.0726	0.00975	mg/Kg	32	02/28/13 05:36	02/28/13 17:37	7
Benzo[a]anthracene	ND		0.0726	0.0163	mg/Kg		02/28/13 05:36	02/28/13 17:37	1
Benzo[a]pyrene	ND		0.0726	0.0130	mg/Kg	0	02/28/13 05:36	02/28/13 17:37	1
Benzo[b]fluoranthene	ND		0.0726	0.0130	mg/Kg	(2	02/28/13 05:36	02/28/13 17:37	1
Benzo[g,h,i]perylene	ND		0.0726	0.00975	mg/Kg	63	02/28/13 05:36	02/28/13 17:37	1
Benzo[k]fluoranthene	ND		0.0726	0.0152	mg/Kg		02/28/13 05:36	02/28/13 17:37	7
1-Methylnaphthalene	ND		0.0726	0.0152	mg/Kg	13	02/28/13 05:36	02/28/13 17:37	1
Pyrene	ND		0.0726	0.0130	mg/Kg	12	02/28/13 05:36	02/28/13 17:37	1
Phenanthrene	ND		0.0726	0.00975	mg/Kg	E	02/28/13 05:36	02/28/13 17:37	1
Chrysene	ND		0.0726	0.00975	mg/Kg	12	02/28/13 05:36	02/28/13 17:37	1
Dibenz(a,h)anthracene	ND		0.0726	0.00758	mg/Kg	13	02/28/13 05:36	02/28/13 17:37	1
Fluoranthene	ND		0.0726	0.00975	mg/Kg		02/28/13 05:36	02/28/13 17:37	1
Fluorene	ND		0.0726	0.0130	mg/Kg	D.	02/28/13 05:36	02/28/13 17:37	7
Indeno[1,2,3-cd]pyrene	ND		0.0726	0.0108	mg/Kg	0	02/28/13 05:36	02/28/13 17:37	1
Naphthalene	ND		0.0726	0.00975	mg/Kg	13	02/28/13 05:36	02/28/13 17:37	7
2-Methylnaphthalene	ND		0.0726	0.0173	mg/Kg	ä	02/28/13 05:36	02/28/13 17:37	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	55		29 - 120				02/28/13 05:36	02/28/13 17:37	1
Terphenyl-d14 (Surr)	70		13 - 120				02/28/13 05:36	02/28/13 17:37	1
Nitrobenzene-d5 (Surr)	52		27 - 120				02/28/13 05:36	02/28/13 17:37	7
General Chemistry									
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac

02/27/13 14:57

0.10

0.10 %

91



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

Client Sample ID: 820 Azalea

Date Collected: 02/20/13 10:45 Date Received: 02/27/13 08:56

Percent Solids

Lab Sample ID: 490-20425-2

Matrix: Solid Percent Solids: 90.3

ed	Analyzed	Dil Fac	
5:44	02/27/13 18:36	1	I W
E-44	02/27/42 48-26	- 2	6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00244	0.000818	mg/Kg	12	02/27/13 15:44	02/27/13 18:36	1
Ethylbenzene	ND		0.00244	0.000818	mg/Kg	E	02/27/13 15:44	02/27/13 18:36	1
Naphthalene	ND		0.00610	0.00208	mg/Kg	-03	02/27/13 15:44	02/27/13 18:36	1
Toluene	ND		0.00244	0.000903	mg/Kg	p	02/27/13 15:44	02/27/13 18:36	1
Xylenes, Total	0.000881	JB	0.00610	0.000818	mg/Kg	Œ	02/27/13 15:44	02/27/13 18:36	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		70 - 130				02/27/13 15:44	02/27/13 18:36	1
4-Bromofluorobenzene (Surr)	102		70 - 130				02/27/13 15:44	02/27/13 18:36	1
Dibromofluoromethane (Surr)	94		70 - 130				02/27/13 15:44	02/27/13 18:36	1
Toluene-d8 (Surr)	100		70 - 130				02/27/13 15:44	02/27/13 18:36	7
Method: 8270D - Semivolatile	e Organic Compou	nds (GC/M	S)						
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0738	0.0110	mg/Kg	12.	02/28/13 05:36	02/28/13 18:04	1
Acenaphthylene	ND		0.0738	0.00991	mg/Kg	0	02/28/13 05:36	02/28/13 18:04	1
Anthracene	ND		0.0738	0.00991	mg/Kg	2)	02/28/13 05:36	02/28/13 18:04	1
Benzo[a]anthracene	0.0388	J.	0.0738	0.0165	mg/Kg	15	02/28/13 05:36	02/28/13 18:04	1
Benzo[a]pyrene	ND		0.0738	0.0132	mg/Kg	E.	02/28/13 05:36	02/28/13 18:04	1
Benzo[b]fluoranthene	ND		0.0738	0.0132	mg/Kg	19	02/28/13 05:36	02/28/13 18:04	1
Benzo[g,h,i]perylene	ND		0.0738	0.00991	mg/Kg	D	02/28/13 05:36	02/28/13 18:04	1
Benzo[k]fluoranthene	ND		0.0738	0.0154	mg/Kg	P	02/28/13 05:36	02/28/13 18:04	1
1-Methylnaphthalene	ND		0.0738	0.0154	mg/Kg	D	02/28/13 05:36	02/28/13 18:04	1
Pyrene	0.0469	J	0.0738	0.0132	mg/Kg	D	02/28/13 05:36	02/28/13 18:04	1
Phenanthrene	ND		0.0738	0.00991	mg/Kg	0	02/28/13 05:36	02/28/13 18:04	1
Chrysene	0.0425	J	0.0738	0.00991	mg/Kg	33	02/28/13 05:36	02/28/13 18:04	1
Dibenz(a,h)anthracene	ND		0.0738	0.00771	mg/Kg	11	02/28/13 05:36	02/28/13 18:04	1
Fluoranthene	0.0473	J	0.0738	0.00991	mg/Kg	37	02/28/13 05:36	02/28/13 18:04	1
Fluorene	ND		0.0738	0.0132	mg/Kg		02/28/13 05:36	02/28/13 18:04	7
Indeno[1,2,3-cd]pyrene	ND		0.0738	0.0110	mg/Kg	-	02/28/13 05:36	02/28/13 18:04	1
Naphthalene	ND		0.0738	0.00991	mg/Kg		02/28/13 05:36	02/28/13 18:04	1
2-Methylnaphthalene	ND		0.0738	0.0176	mg/Kg	D	02/28/13 05:36	02/28/13 18:04	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	58		29 - 120				02/28/13 05:36	02/28/13 18:04	7
Terphenyl-d14 (Surr)	76		13 - 120				02/28/13 05:36	02/28/13 18:04	1
Nitrobenzene-d5 (Surr)	60		27 - 120				02/28/13 05:36	02/28/13 18:04	1
General Chemistry									
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
			00	4	AC 2 (1)			the second secon	

02/27/13 14:57

0.10

90

0.10 %

Date Received: 02/27/13 08:56

Method: \$260B - Volatile Orga	nic Compounds	(GC/MS)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0,00250		0.00241	0.000807	mg/Kg	E	02/27/13 15:44	02/27/13 19:06	1
Ethylbenzene	0.00861		0.00241	0.000807	mg/Kg	E	02/27/13 15:44	02/27/13 19:06	4
Naphthalene	0.0559		0.00602	0.00205	mg/Kg	E	02/27/13 15:44	02/27/13 19:06	4
Toluene	0.00240	3	0.00241	0.000891	mg/Kg	E.	02/27/13 15:44	02/27/13 19:06	1
Xylenes, Total	0.0127	В	0.00602	0.000807	mg/Kg	ED	02/27/13 15:44	02/27/13 19:06	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	DII Fac
1,2-Dichloroethane-d4 (Surr)	94		70 - 130				02/27/13 15:44	02/27/13 19:06	1
4-Bromofluorobenzene (Surr)	99		70 - 130				02/27/13 15:44	02/27/13 19:06	7
Dibromofluoromethane (Surr)	95		70 - 130				02/27/13 15:44	02/27/13 19:06	1
Toluene-d8 (Surr)	98		70 - 130				02/27/13 15:44	02/27/13 19:06	1
Method: 8270D - Semivolatile	Organic Compou	nds (GC/M	S)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0878	0.0131	mg/Kg	4	02/28/13 05:36	02/28/13 18:29	4
Acenaphthylene	ND		0.0878	0.0118	mg/Kg		02/28/13 05:36	02/28/13 18:29	-7
Anthracene	ND		0.0878	0.0118	mg/Kg	13	02/28/13 05:36	02/28/13 18:29	1
Benzo[a]anthracene	ND		0,0878	0.0197	mg/Kg	8	02/28/13 05:36	02/28/13 18:29	1
Benzo[a]pyrene	ND		0.0878	0.0157	mg/Kg	3	02/28/13 05:36	02/28/13 18:29	1
Benzo[b]fluoranthene	ND		0.0878	0.0157	mg/Kg		02/28/13 05:36	02/28/13 18:29	4
Benzo[g,h,i]perylene	ND		0.0878	0.0118	mg/Kg	22	02/28/13 05:36	02/28/13 18:29	1
Benzo[k]fluoranthene	ND		0.0878	0.0183	mg/Kg	12	02/28/13 05:36	02/28/13 18:29	1
1-Methylnaphthalene	ND		0.0878	0.0183	mg/Kg	14	02/28/13 05:36	02/28/13 18:29	1
Pyrene	ND		0.0878	0.0157	mg/Kg	E	02/28/13 05:36	02/28/13 18:29	٦
Phenanthrene	ND		0.0878	0.0118	mg/Kg	15	02/28/13 05:36	02/28/13 18:29	7
Chrysene	ND		0.0878	0.0118	mg/Kg	D	02/28/13 05:36	02/28/13 18:29	7
Dibenz(a,h)anthracene	ND		0.0878	0.00917	mg/Kg	E	02/28/13 05:36	02/28/13 18:29	1
Fluoranthene	ND		0.0878	0.0118	mg/Kg	=	02/28/13 05:36	02/28/13 18:29	3
Fluorene	ND		0.0878	0.0157	mg/Kg	12	02/28/13 05:36	02/28/13 18:29	1
Indeno[1,2,3-cd]pyrene	ND		0.0878	0.0131	mg/Kg	17	02/28/13 05:36	02/28/13 18:29	7
Naphthalene	ND		0.0878	0.0118	mg/Kg	11	02/28/13 05:36	02/28/13 18:29	1
2-Methylnaphthalene	ND		0.0878	0.0210	mg/Kg	0	02/28/13 05:36	02/28/13 18:29	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	48		29 - 120				02/28/13 05:36	02/28/13 18:29	7
Terphenyl-d14 (Surr)	60		13 - 120				02/28/13 05:36	02/28/13 18:29	7
Nitrobenzene-d5 (Surr)	48		27 - 120				02/28/13 05:36	02/28/13 18:29	1
General Chemistry									
Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	75		0.10	0.10	%			02/27/13 14:57	1

Client Sample ID: 821 Azalea

Date Collected: 02/19/13 14:15 Date Received: 02/27/13 08:56

Percent Solids

Method: 8260B - Volatile Orga	anic Compounds	(GC/MS)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00224	0.000750	mg/Kg	D	02/27/13 15:44	02/27/13 19:37	1
Ethylbenzene	ND		0.00224	0.000750	mg/Kg	10	02/27/13 15:44	02/27/13 19:37	1
Naphthalene	ND		0.00560	0.00190	mg/Kg	12	02/27/13 15:44	02/27/13 19:37	3
Toluene	ND		0.00224	0.000828	mg/Kg	III.	02/27/13 15:44	02/27/13 19:37	1
Xylenes, Total	ND		0.00560	0.000750	mg/Kg	п	02/27/13 15:44	02/27/13 19:37	7
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		70 - 130				02/27/13 15:44	02/27/13 19:37	1
4-Bromofluorobenzene (Surr)	101		70 - 130				02/27/13 15:44	02/27/13 19:37	7
Dibromofluoromethane (Surr)	96		70 - 130				02/27/13 15:44	02/27/13 19:37	1
Toluene-d8 (Surr)	97		70 - 130				02/27/13 15:44	02/27/13 19:37	7
Method: 8270D - Semivolatile	Organic Compou	mds (GC/Ms	S)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0706	0.0105	mg/Kg	11	02/28/13 05:36	02/28/13 18:55	1
Acenaphthylene	ND		0.0706	0.00948	mg/Kg	9	02/28/13 05:36	02/28/13 18:55	1
Anthracene	ND		0.0706	0.00948	mg/Kg	2	02/28/13 05:36	02/28/13 18:55	1
Benzo[a]anthracene	ND		0.0706	0.0158	mg/Kg	12	02/28/13 05:36	02/28/13 18:55	4
Benzo[a]pyrene	ND		0.0706	0.0126	mg/Kg	3	02/28/13 05:36	02/28/13 18:55	1
Benzo[b]fluoranthene	ND		0.0706	0.0126	mg/Kg	13	02/28/13 05:36	02/28/13 18:55	1
Benzo[g,h,i]perylene	ND		0.0706	0.00948	mg/Kg	3.3	02/28/13 05:36	02/28/13 18:55	1
Benzo[k]fluoranthene	ND		0.0706	0.0147	mg/Kg	12	02/28/13 05:36	02/28/13 18:55	- 1
1-Methylnaphthalene	ND		0,0706	0.0147	mg/Kg	12	02/28/13 05:36	02/28/13 18:55	1
Pyrene	ND		0.0706	0.0126	mg/Kg	12	02/28/13 05:36	02/28/13 18:55	1
Phenanthrene	ND		0.0706	0.00948	mg/Kg	=	02/28/13 05:36	02/28/13 18:55	1
Chrysene	ND		0.0706	0.00948	mg/Kg	27	02/28/13 05:36	02/28/13 18:55	7
Dibenz(a,h)anthracene	ND		0.0706	0.00737	mg/Kg	13	02/28/13 05:36	02/28/13 18:55	7
Fluoranthene	ND		0.0706	0.00948	mg/Kg	- 0	02/28/13 05:36	02/28/13 18:55	1
Fluorene	ND		0.0706	0.0126	mg/Kg	13	02/28/13 05:36	02/28/13 18:55	1
Indeno[1,2,3-cd]pyrene	ND		0.0706	0.0105	mg/Kg	I	02/28/13 05:36	02/28/13 18:55	-17
Naphthalene	ND		0.0706	0.00948	mg/Kg	ET.	02/28/13 05:36	02/28/13 18:55	1
2-Methylnaphthalene	ND		0.0706	0.0168		Ħ	02/28/13 05:36	02/28/13 18:55	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	53		29 - 120				02/28/13 05:36	02/28/13 18:55	1
Terphenyl-d14 (Surr)	74		13 - 120				02/28/13 05:36	02/28/13 18:55	7
Nitrobenzene-d5 (Surr)	54		27 - 120				02/28/13 05:36	02/28/13 18:55	1
General Chemistry									
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac

02/27/13 14:57

0.10

0.10 %

Client Sample Results

Client: Environmental Enterprise Group Project/Site: Laurel Bay Housing Project TeslAmerica Job ID: 490-20425-1

Client Sample ID: 1340 Albatross

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

Date Collected: 02/20/13 14:15 Date Received: 02/27/13 08:56

Naphthalene

Surrogate

2-Methylnaphthalene

Lab Sample ID: 490-20425-5

Matrix: Solid Percent Solids: 87.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00221	0.000739	mg/Kg	E	02/27/13 15:44	02/27/13 20:07	1
Ethylbenzene	ND		0.00221	0.000739	mg/Kg	D	02/27/13 15:44	02/27/13 20:07	1
Naphthalene	ND		0.00551	0.00187	mg/Kg	E	02/27/13 15:44	02/27/13 20:07	1
Toluene	ND		0.00221	0.000816	mg/Kg	- 12	02/27/13 15:44	02/27/13 20:07	1
Xylenes, Total	ND		0.00551	0.000739	mg/Kg	2	02/27/13 15:44	02/27/13 20:07	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		70 - 130				02/27/13 15:44	02/27/13 20:07	1
4-Bromofluorobenzene (Surr)	100		70 - 130				02/27/13 15:44	02/27/13 20:07	7
Dibromofluoromethane (Surr)	95		70 - 130				02/27/13 15:44	02/27/13 20:07	1
Toluene-d8 (Surr)	100		70 - 130				02/27/13 15:44	02/27/13 20:07	7
Method: 8270D - Semivolatile	Organic Compou	nds (GC/MS	3)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0751	0.0112	mg/Kg	27	02/28/13 05:36	02/28/13 16:20	1
Acenaphthylene	ND		0.0751	0.0101	mg/Kg	57	02/28/13 05:36	02/28/13 16:20	1
Anthracene	ND		0.0751	0.0101	mg/Kg	日	02/28/13 05:36	02/28/13 16:20	7
Benzo[a]anthracene	0,0442	J	0.0751	0.0168	mg/Kg	П	02/28/13 05:36	02/28/13 16:20	1
Benzo[a]pyrene	ND		0.0751	0.0135	mg/Kg	12	02/28/13 05:36	02/28/13 16:20	1
Benzo(b)fluoranthene	0.0408	4	0.0751	0.0135	mg/Kg	n	02/28/13 05:36	02/28/13 16:20	1
Benzo[g,h,i]perylene	ND		0.0751	0.0101	mg/Kg	H	02/28/13 05:36	02/28/13 16:20	7
Benzo[k]fluoranthene	0.0216	J	0.0751	0.0157	mg/Kg	п	02/28/13 05:36	02/28/13 16:20	1
1-Methylnaphthalene	ND		0.0751	0.0157	mg/Kg	12	02/28/13 05:36	02/28/13 16:20	1
Pyrene	0.0705	J	0.0751	0.0135	mg/Kg	-0	02/28/13 05:36	02/28/13 16:20	1
Phenanthrene	ND		0.0751	0.0101	mg/Kg	17	02/28/13 05:36	02/28/13 16:20	1
Chrysene	0.0471	1	0.0751	0.0101	mg/Kg	12	02/28/13 05:36	02/28/13 16:20	4
Dibenz(a,h)anthracene	ND		0.0751	0.00785	mg/Kg	=	02/28/13 05:36	02/28/13 16:20	1
Fluoranthene	0.0891		0.0751	0.0101	mg/Kg	h	02/28/13 05:36	02/28/13 16:20	1
Fluorene	ND		0.0751	0.0135	mg/Kg	la la	02/28/13 05:36	02/28/13 16:20	1
Indeno[1,2,3-cd]pyrene	ND		0.0751	0.0112	mg/Kg	Ħ	02/28/13 05:36	02/28/13 16:20	1

2-Fluorobiphenyl (Surr).	49		29 - 120				02/28/13 05:36	02/28/13 16:20	1	
Terphenyl-d14 (Surr)	67		13 - 120				02/28/13 05:36	02/28/13 16:20	1	
Nitrobenzene-d5 (Surr)	49		27 - 120				02/28/13 05:36	02/28/13 16:20	1	
General Chemistry										
Analyte		Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Percent Solids	87		0.10	0.10	%			02/27/13 14:57	1	

0.0751

0.0751

Limits

0.0101 mg/Kg

0.0179 mg/Kg

02/28/13 05:36

02/28/13 05:36

Prepared

02/28/13 16:20

02/28/13 16:20

Analyzed

DII Fac

ND

ND

%Recovery Qualifier

Client Sample ID: 773 Althea Date Collected: 02/21/13 14:15

Date Received: 02/27/13 08:56

Analyte

Benzene

Surrogate

2-Fluorobiphenyl (Surr)

Ethylbenzene

Naphthalene

Lab Sample ID: 490-20425-6

Matrix: Solid Percent Solids: 89.8

D	Prepared	Analyzed	Dil Fac
ū	02/27/13 15:44	02/27/13 20:38	1
22	02/27/13 15:44	02/27/13 20:38	1
П	02/27/13 15:44	02/27/13 20:38	1

Toluene	ND		0.00221	0.000818	mg/Kg	121	02/27/13 15:44	02/27/13 20:38	1
Xylenes, Total	0.000838	JB	0.00553	0.000740	mg/Kg	D	02/27/13 15:44	02/27/13 20:38	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		70 - 130				02/27/13 15:44	02/27/13 20:38	1
4-Bromofluorobenzene (Surr)	109		70 - 130				02/27/13 15:44	02/27/13 20:38	1
Dibromofluoromethane (Surr)	97		70 - 130				02/27/13 15:44	02/27/13 20:38	1
Toluene-d8 (Surr)	96		70 - 130				02/27/13 15:44	02/27/13 20:38	1

RL

0.00221

0.00221

0.00553

MDL Unit

0.000740 mg/Kg

0.000740 mg/Kg

0.00188 mg/Kg

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

Result Qualifier

ND

ND

ND

%Recovery Qualifier

50

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0730	0.0109	mg/Kg	II	02/28/13 05:36	02/28/13 19:20	1
Acenaphthylene	ND		0.0730	0.00981	mg/Kg	E	02/28/13 05:36	02/28/13 19:20	1
Anthracene	0.0152	J	0.0730	0.00981	mg/Kg	EX	02/28/13 05:36	02/28/13 19:20	1
Benzo[a]anthracene	0.0201	1	0.0730	0.0163	mg/Kg	ā	02/28/13 05:36	02/28/13 19:20	- 1
Benzo[a]pyrene	0.0235	J	0.0730	0.0131	mg/Kg	D	02/28/13 05:36	02/28/13 19:20	1
Benzo[b]fluoranthene	0.0634	J	0.0730	0.0131	mg/Kg	D	02/28/13 05:36	02/28/13 19:20	1
Benzo[g,h,i]perylene	ND		0.0730	0.00981	mg/Kg	- 11	02/28/13 05:36	02/28/13 19:20	1
Benzo[k]fluoranthene	0.0242	J	0.0730	0.0153	mg/Kg	D.	02/28/13 05:36	02/28/13 19:20	1
1-Methylnaphthalene	0.0971		0.0730	0.0153	mg/Kg	12	02/28/13 05:36	02/28/13 19:20	1
Pyrene	0.0842		0.0730	0.0131	mg/Kg	D	02/28/13 05:36	02/28/13 19:20	7
Phenanthrene	0.160		0.0730	0.00981	mg/Kg	-5	02/28/13 05:36	02/28/13 19:20	1
Chrysene	0.0718	J	0.0730	0.00981	mg/Kg	13	02/28/13 05:36	02/28/13 19:20	1
Dibenz(a,h)anthracene	ND		0.0730	0.00763	mg/Kg	12	02/28/13 05:36	02/28/13 19:20	1
Fluoranthene	ND		0.0730	0.00981	mg/Kg	12	02/28/13 05:36	02/28/13 19:20	1
Fluorene	0.0596	2	0.0730	0.0131	mg/Kg	13	02/28/13 05:36	02/28/13 19:20	7
Indeno[1,2,3-cd]pyrene	ND		0.0730	0.0109	mg/Kg	123	02/28/13 05:36	02/28/13 19:20	7
Naphthalene	ND		0.0730	0.00981	mg/Kg	11	02/28/13 05:36	02/28/13 19:20	1
2-Methylnaphthalene	0.103		0.0730	0.0174	mg/Kg	12	02/28/13 05:36	02/28/13 19:20	1

Terphenyl-d14 (Surr)	61	13 - 120			02/28/13 05:36	02/28/13 19:20	1
Nitrobenzene-d5 (Surr)	50	27 - 120			02/28/13 05:36	02/28/13 19:20	1
General Chemistry							
Analyte	Result Qualifier	RL	RL Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	90	0.10	0.10 %			02/27/13 14:57	1

Limits

29 - 120

Analyzed

02/28/13 19:20

Dil Fac

Prepared

02/28/13 05:36

QC Sample Results

Client: Environmental Enterprise Group Project/Site: Laurel Bay Housing Project TestAmerica Job ID: 490-20425-1

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

Lab Sample ID: MB 490-61447/6

Matrix: Solid

Analysis Batch: 61447

Client Sample ID: Method Blank Prep Type: Total/NA

and year bottom with the	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00200	0.000670	mg/Kg			02/27/13 11:57	1
Ethylbenzene	ND		0.00200	0.000670	mg/Kg			02/27/13 11:57	1
Naphthalene	ND		0.00500	0.00170	mg/Kg			02/27/13 11:57	1
Toluene	ND		0.00200	0.000740	mg/Kg			02/27/13 11:57	1
Xylenes, Total	0.0009393	J	0.00500	0.000670	mg/Kg			02/27/13 11:57	1

MB MB

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95	70 - 130		02/27/13 11:57	1
4-Bromofluorobenzene (Surr)	104	70 - 130		02/27/13 11:57	1
Dibromofluoromethane (Surr)	92	70 - 130		02/27/13 11:57	1
Toluene-d8 (Surr)	101	70 - 130		02/27/13 11:57	1

Lab Sample ID: LCS 490-61447/3

Matrix: Solid

Analysis Batch: 61447

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

	Spike	LCS	LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Benzene	0.0500	0.05151		mg/Kg		103	75 - 127
Ethylbenzene	0.0500	0.05599		mg/Kg		112	80 - 134
Naphthalene	0.0500	0,06025		mg/Kg		120	69 - 150
Toluene	0.0500	0.05414		mg/Kg		108	80 - 132
Xylenes, Total	0.150	0.1685		mg/Kg		112	80 - 137

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
1.2-Dichloroethane-d4 (Surr)	94		70 - 130
4-Bromofluorobenzene (Surr)	104		70 - 130
Dibromofluoromethane (Surr)	96		70 - 130
Toluene-d8 (Surr)	103		70 - 130

Lab Sample ID: LCSD 490-61447/4

Matrix: Solid

Analysis Batch: 61447

Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA

	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added		Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.0500	0.05055		mg/Kg		101	75 - 127	2	50
Ethylbenzene	0.0500	0.05479		mg/Kg		110	80 - 134	2	50
Naphthalene	0.0500	0.05977		mg/Kg		120	69 - 150	1	50
Toluene	0.0500	0.05360		mg/Kg		107	80 - 132	1	50
Xylenes, Total	0.150	0.1640		mg/Kg		109	80 - 137	3	50

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits	
1,2-Dichloroethane-d4 (Surr)	97		70 - 130	
4-Bromofluorobenzene (Surr)	103		70 - 130	
Dibromofluoromethane (Surr)	96		70 - 130	
Toluene-d8 (Surr)	100		70 - 130	

Method: 82700 - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 490-61673/1-A

Matrix: Solid

Analysis Batch: 61763

Client Sample ID: Method Blank Prep Type: Total/NA

Prep Batch: 61673

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0670	0.0100	mg/Kg		02/28/13 05:36	02/28/13 15:27	1
Acenaphthylene	ND		0.0670	0.00900	mg/Kg		02/28/13 05:36	02/28/13 15:27	4
Anthracene	ND		0.0670	0.00900	mg/Kg		02/28/13 05:36	02/28/13 15:27	7
Benzo[a]anthracene	ND		0.0670	0.0150	mg/Kg		02/28/13 05:36	02/28/13 15:27	1
Benzo[a]pyrene	ND		0.0670	0.0120	mg/Kg		02/28/13 05:36	02/28/13 15:27	1
Benzo[b]fluoranthene	ND		0.0670	0.0120	mg/Kg		02/28/13 05:36	02/28/13 15:27	1
Benzo[g,h,i]perylene	ND		0.0670	0,00900	mg/Kg		02/28/13 05:36	02/28/13 15:27	7
Benzo[k]fluoranthene	ND		0.0670	0.0140	mg/Kg		02/28/13 05:36	02/28/13 15:27	- 1
1-Methylnaphthalene	ND		0.0670	0.0140	mg/Kg		02/28/13 05:36	02/28/13 15:27	1
Pyrene	ND		0.0670	0.0120	mg/Kg		02/28/13 05:36	02/28/13 15:27	1
Phenanthrene	ND		0.0670	0.00900	mg/Kg		02/28/13 05:36	02/28/13 15:27	-9
Chrysene	ND		0.0670	0.00900	mg/Kg		02/28/13 05:36	02/28/13 15:27	1
Dibenz(a,h)anthracene	ND		0.0670	0.00700	mg/Kg		02/28/13 05:36	02/28/13 15:27	1
Fluoranthene	ND		0.0670	0.00900	mg/Kg		02/28/13 05:36	02/28/13 15:27	1
Fluorene	ND		0.0670	0.0120	mg/Kg		02/28/13 05:36	02/28/13 15:27	7
Indeno[1,2,3-cd]pyrene	ND		0.0670	0.0100	mg/Kg		02/28/13 05:36	02/28/13 15:27	1
Naphthalene	ND		0.0670	0.00900	mg/Kg		02/28/13 05:36	02/28/13 15:27	1
2-Methylnaphthalene	ND		0.0670	0.0160	mg/Kg		02/28/13 05:36	02/28/13 15:27	4
	MB	MB							
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	61		29 - 120				02/28/13 05:36	02/28/13 15:27	1
Terphenyl-d14 (Surr)	79		13-120				02/28/13 05:36	02/28/13 15:27	1
Nitrobenzene-d5 (Surr)	-55		27 - 120				02/28/13 05:36	02/28/13 15:27	1

Lab Sample ID: LCS 490-61673/2-A

Matrix: Solid

Analysis Batch: 61763

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

Prep Batch: 61673

	Spike	LCS	LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Acenaphthylene	1.67	1.394		mg/Kg		84	38 - 120
Anthracene	1.67	1,304		mg/Kg		78	46 - 124
Benzo[a]anthracene	1.67	1.227		mg/Kg		74	45 - 120
Benzo[a]pyrene	1.67	1.218		mg/Kg		73	45 - 120
Benzo[b]fluoranthene	1.67	1.208		mg/Kg		72	42 - 120
Benzo[g,h,i]perylene	1.67	1.173		mg/Kg		70	38 - 120
Benzo[k]fluoranthene	1.67	1,345		mg/Kg		81	42 - 120
1-Methylnaphthalene	1.67	1.011		mg/Kg		61	32 - 120
Pyrene	1.67	1.235		mg/Kg		74	43 - 120
Phenanthrene	1.67	1.387		mg/Kg		83	45 - 120
Chrysene	1.67	1.183		mg/Kg		71	43 - 120
Dibenz(a,h)anthracene	1.67	1.182		mg/Kg		71	32 - 128
Fluoranthene	1,67	1.265		mg/Kg		76	46 - 120
Fluorene	1,67	1.323		mg/Kg		79	42 - 120
Indeno[1,2,3-cd]pyrene	1.67	1.224		mg/Kg		73	41 - 121
Naphthalene	1.67	1.096		mg/Kg		66	32 - 120
2-Methylnaphthalene	1.67	1.084		mg/Kg		65	28 - 120
				100			

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

Lab Sample ID: LCS 490-61673/2-A

Matrix: Solid

Analysis Batch: 61763

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

Prep Batch: 61673

Prep Batch: 61673

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
2-Fluorobiphenyl (Surr)	65		29 - 120
Terphenyl-d14 (Surr)	75		13 - 120
Nitrobenzene-d5 (Surr)	52		27 - 120

Lab Sample ID: 490-20425-5 MS Client Sample ID: 1340 Albatross Prep Type: Total/NA

Matrix: Solid

Analysis Batch: 61763

Sample Sample Spike MS MS Added Analyte Result Qualifier Result Qualifier Unit D %Rec Limits B ND 1.88 71 25 - 120 Acenaphthylene 1.330 mg/Kg E. ND Anthracene 1.88 1.304 mg/Kg 28 - 125 n Benzo[a]anthracene 0.0442 J 1.88 1.354 mg/Kg 70 23 - 120 ND 1.88 E Benzo(a)pyrene 1.357 mg/Kg 15 - 128 Benzo[b]fluoranthene 0.0408 1.88 1.348 mg/Kg 70 12 - 133 0 22 - 120 Benzo[g,h,i]perylene ND 1.88 1.259 mg/Kg 67 Benzo[k]fluoranthene 0.0216 1.88 1.373 mg/Kg 72 28 - 120 1-Methylnaphthalene ND 1.88 1.185 mg/Kg 27 10 - 120 0.0705 Pyrene 1.88 1.436 mg/Kg 73 20 - 123 2 79 Phenanthrene ND 1.88 1.477 21 - 122 mg/Kg 11 Chrysene 0.0471 1.88 1.338 mg/Kg 69 20 - 120 Dibenz(a,h)anthracene ND 1.88 1.298 mg/Kg D. 12 - 128 H Fluoranthene 0.0891 1.88 1.350 mg/Kg 67 10 - 143 12 Fluorene ND 1.88 1.276 mg/Kg 68 20 - 120 -Indeno[1,2,3-cd]pyrene ND 1.88 1.287 mg/Kg 69 22 - 121 Naphthalene ND 1.88 1.187 mg/Kg П 63 10 - 120 2-Methylnaphthalene ND 1.88 1.155 mg/Kg 13 - 120

MS MS

Surrogate	%Recovery Q	ualifier	Limits
2-Fluorobiphenyl (Surr)	54		29 - 120
Terphenyl-d14 (Surr)	74		13 - 120
Nitrobenzene-d5 (Surr)	48		27 - 120

Lab Sample ID: 490-20425-5 MSD

Matrix: Solid

Analysis Batch: 61763

Client Sample ID: 1340 Albatross Prep Type: Total/NA Prep Batch: 61673

	Sample	Sample	Spike	MISD	IVISD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Acenaphthylene	ND		1.85	1.180		mg/Kg	13	64	25 - 120	12	50
Anthracene	ND		1.85	1.209		mg/Kg	9	65	28 - 125	8	49
Benzo[a]anthracene	0.0442	J	1.85	1.117		mg/Kg	=	58	23 - 120	19	50
Benzo[a]pyrene	ND		1.85	1.123		mg/Kg	n	61	15 - 128	19	50
Benzo[b]fluoranthene	0.0408	J	1.85	0.9865		mg/Kg	2	51	12 - 133	31	50
Benzo[g,h,i]perylene	ND		1.85	1.088		mg/Kg	D	59	22 - 120	15	50
Benzo[k]fluoranthene	0.0216	J	1.85	1.088		mg/Kg	122	58	28 - 120	23	45
1-Methylnaphthalene	ND		1.85	0.9783		mg/Kg	42	53	10 - 120	19	50
Pyrene	0.0705	J	1.85	1.192		mg/Kg	'n	61	20 - 123	19	50
Phenanthrene	ND		1.85	1.209		mg/Kg	13	65	21 - 122	20	50
Chrysene	0.0471	J	1.85	1.127		mg/Kg	- 11	58	20 - 120	17	49

USD WED

QC Sample Results

Client: Environmental Enterprise Group Project/Site: Laurel Bay Housing Project

TestAmerica Job ID: 490-20425-1

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

Lab Sample ID: 490-20425-5 MSD

Matrix: Solid

Analysis Batch: 61763

Client Sample ID: 1340 Albatross

Client Sample ID: 818 Azalea

Prep Type: Total/NA

Prep Type: Total/NA

Prep Batch: 61673

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Dibenz(a,h)anthracene	ND		1.85	1.123		mg/Kg	Ħ	61	12 - 128	14	50
Fluoranthene	0.0891		1.85	1.178		mg/Kg	U	59	10 - 143	14	50
Fluorene	ND		1.85	1.111		mg/Kg	п	60	20 - 120	14	50
Indeno[1,2,3-cd]pyrene	ND		1.85	1.109		mg/Kg	П	60	22 - 121	15	50
Naphthalene	ND		1.85	1.032		mg/Kg	I	56	10 - 120	14	50
2-Methylnaphthalene	ND		1.85	1.067		mg/Kg	0	58	13 - 120	8	50

MSD MSD

Surrogate	%Recovery G	Qualifier	Limits	
2-Fluorobiphenyl (Surr)	48		29 - 120	
Terphenyl-d14 (Surr)	59		13 - 120	
Nitrobenzene-d5 (Surr)	43		27 - 120	

Method: Moisture - Percent Moisture

Lab Sample ID: 490-20425-1 DU

Matrix: Solid

Analysis Batch: 61610

	Sample	Sample	DU	DU				RPD
Analyte	Result	Qualifier	Result	Qualifier	Unit	D	RPD	Limit
Percent Solids	91		90		%		1	20

Prep Batch

Prep Batch

GC/MS VOA

Analysis Batch: 61447

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-20425-1	818 Azalea	Total/NA	Solid	8260B	61634
490-20425-2	820 Azalea	Total/NA	Solid	8260B	61634
490-20425-3	762 Althea	Total/NA	Solid	8260B	61634
490-20425-4	821 Azalea	Total/NA	Solid	8260B	61634
490-20425-5	1340 Albatross	Total/NA	Solid	8260B	61634
490-20425-6	773 Althea	Total/NA	Solid	8260B	61634
LCS 490-61447/3	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 490-61447/4	Lab Control Sample Dup	Total/NA	Solid	8260B	
MB 490-61447/6	Method Blank	Total/NA	Solid	8260B	

Prep Batch: 61634

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	
490-20425-1	818 Azalea	Total/NA	Solid	5035	
490-20425-2	820 Azalea	Total/NA	Solid	5035	
490-20425-3	762 Althea	Total/NA	Solid	5035	
490-20425-4	821 Azalea	Total/NA	Solid	5035	
490-20425-5	1340 Albatross	Total/NA	Solid	5035	
490-20425-6	773 Althea	Total/NA	Solid	5035	

GC/MS Semi VOA

Prep Batch: 61673

CACA TOTAL				
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method
490-20425-1	818 Azalea	Total/NA	Solid	3550C
490-20425-2	820 Azalea	Total/NA	Solid	3550C
490-20425-3	762 Allhea	Total/NA	Solid	3550C
490-20425-4	821 Azalea	Total/NA	Solid	3550C
490-20425-5	1340 Albatross	Total/NA	Solid	3550C
490-20425-5 MS	1340 Albatross	Total/NA	Solid	3550C
490-20425-5 MSD	1340 Albatross	Total/NA	Solid	3550C
490-20425-6	773 Althea	Total/NA	Solid	3550C
LCS 490-61673/2-A	Lab Control Sample	Total/NA	Solid	3550C
MB 490-61673/1-A	Method Blank	Total/NA	Solid	3550C

Analysis Batch: 61763

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-20425-1	818 Azalea	Total/NA	Solid	8270D	61673
490-20425-2	820 Azalea	Total/NA	Solid	8270D	61673
490-20425-3	762 Althea	Total/NA	Solid	8270D	61673
490-20425-4	821 Azalea	Total/NA	Solid	8270D	61673
490-20425-5	1340 Albatross	Total/NA	Solid	8270D	61673
490-20425-5 MS	1340 Albatross	Total/NA	Solid	8270D	61673
490-20425-5 MSD	1340 Albatross	Total/NA	Solid	8270D	61673
490-20425-6	773 Althea	Total/NA	Solid	8270D	61673
LCS 490-61673/2-A	Lab Control Sample	Total/NA	Solid	8270D	61673
MB 490-61673/1-A	Method Blank	Total/NA	Solid	8270D	61673

General Chemistry

Analysis Batch: 61610

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-20425-1	818 Azalea	Total/NA	Solid	Moisture	
490-20425-1 DU	818 Azalea	Total/NA	Solid	Moisture	
490-20425-2	820 Azalea	Total/NA	Solid	Moisture	
490-20425-3	762 Althea	Total/NA	Solid	Moisture	
490-20425-4	821 Azalea	Total/NA	Solid	Moisture	
490-20425-5	1340 Albatross	Total/NA	Solid	Moisture	
490-20425-6	773 Althea	Total/NA	Solid	Moisture	

8

Client Sample ID: 818 Azalea

Date Collected: 02/19/13 11:45 Date Received: 02/27/13 08:56

Lab Sample ID: 490-20425-1

Matrix: Solid Percent Solids: 91.4

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			61634	02/27/13 15:44	KK	TAL NSH
Total/NA	Analysis	8260B		1	61447	02/27/13 18:05	KK	TAL NSH
Total/NA	Prep	3550C			61673	02/28/13 05:36	AK	TAL NSH
Total/NA	Analysis	8270D		1	61763	02/28/13 17:37	BS	TAL NSH
Total/NA	Analysis	Moisture		1	61610	02/27/13 14:57	RS	TAL NSH

Lab Sample ID: 490-20425-2

Matrix: Solid

Percent Solids: 90.3

Client Sample ID: 820 Azalea Date Collected: 02/20/13 10:45 Date Received: 02/27/13 08:56

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			61634	02/27/13 15:44	KK	TAL NSH
Total/NA	Analysis	8260B		1	61447	02/27/13 18:36	KK	TAL NSH
Total/NA	Prep	3550C			61673	02/28/13 05:36	AK	TAL NSH
Total/NA	Analysis	8270D		1	61763	02/28/13 18:04	BS	TAL NSH
Total/NA	Analysis	Moisture		1	61610	02/27/13 14:57	RS	TAL NSH

Client Sample ID: 762 Althea Lab Sample ID: 490-20425-3 Date Collected: 02/21/13 14:50

61610 02/27/13 14:57 RS

Matrix Solld

Percent Solids: 75.0

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			61634	02/27/13 15:44	KK	TAL NSH
Total/NA	Analysis	8260B		1	61447	02/27/13 19:06	KK	TAL NSH
Total/NA	Prep	3550C			61673	02/28/13 05:36	AK	TAL NSH
Total/NA	Analysis	8270D		1	61763	02/28/13 18:29	BS	TAL NSH

Client Sample ID: 821 Azalea

Analysis

Moisture

Date Collected: 02/19/13 14:15

Total/NA

Date Received: 02/27/13 08:56

Date Received: 02/27/13 08:56

Lab Sample ID: 490-20425-4	Lab	Sample	e ID:	490-204	25-4
----------------------------	-----	--------	-------	---------	------

TAL NSH

Matrix: Solid Percent Solids: 94.2

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			61634	02/27/13 15:44	KK	TAL NSH
Total/NA	Analysis	8260B		1	61447	02/27/13 19:37	KK	TAL NSH
Total/NA	Prep	3550C			61673	02/28/13 05:36	AK	TAL NSH
Total/NA	Analysis	8270D		1	61763	02/28/13 18:55	BS	TAL NSH
Total/NA	Analysis	Moisture		1	61610	02/27/13 14:57	RS	TAL NSH

Client Sample ID: 1340 Albatross

Date Collected: 02/20/13 14:15 Date Received: 02/27/13 08:56 Lab Sample ID: 490-20425-5

Matrix: Solid

Percent Solids: 87.5

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			61634	02/27/13 15:44	KK	TAL NSH
Total/NA	Analysis	8260B		1	61447	02/27/13 20:07	KK	TAL NSH
Total/NA	Prep	3550C			61673	02/28/13 05:36	AK	TAL NSH
Total/NA	Analysis	8270D		1	61763	02/28/13 16:20	BS	TAL NSH
Total/NA	Analysis	Moisture		1	61610	02/27/13 14:57	RS	TAL NSH

Client Sample ID: 773 Althea

Date Collected: 02/21/13 14:15 Date Received: 02/27/13 08:56 Lab Sample ID: 490-20425-6

Matrix: Solid Percent Solids: 89.8

	Batch	Batch		Dilution	Batch	Prepared		
Ргер Туре	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			61634	02/27/13 15:44	KK	TAL NSH
Total/NA	Analysis	8260B		1	61447	02/27/13 20:38	KK	TAL NSH
Total/NA	Prep	3550C			61673	02/28/13 05:36	AK	TAL NSH
Total/NA	Analysis	8270D		1	61763	02/28/13 19:20	BS	TAL NSH
Total/NA	Analysis	Moisture		1	61610	02/27/13 14:57	RS	TAL NSH

Laboratory References:

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

Method Summary

Client: Environmental Enterprise Group Project/Site: Laurel Bay Housing Project

TestAmerica Job ID: 490-20425-1

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

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

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

10

Laboratory: TestAmerica Nashville

All carrifoctions hald by this laboratory are listent. Not all carrifoctions are applicable of this report

Authority	Program	EPA Region	Certification ID	Expiration Date
-	ACIL		393	10-30-13
A2LA	ISO/IEC 17025		0453.07	12-31-13
Alabama	State Program	A	41150	05-31-13
Alaska (UST)	State Program	10	UST-087	07-24-13
Arizona	State Program	9	AZ0473	05-05-13
Arkansas DEQ	State Program	6	88-0737	04-25-13
California	NELAP	9	1168CA	10-31-13
Connecticut	State Program	4	PH-0220	12-31-13
Florida	NELAP	4	E87358	06-30-13
Illinois	NELAP	5	200010	12-09-13
Iowa	State Program	7	131	05-01-14
Kansas	NELAP	7	E-10229	10-31-13
Kentucky (UST)	State Program	4	19	09-15-13
Louisiana	NELAP	6	30613	06-30-13
Maryland	State Program	3	316	03-31-13
Massachusetts	State Program	1	M-TN032	06-30-13
Minnesota	NELAP	5	047-999-345	12-31-13
Mississippi	State Program	4	N/A	06-30-13
Montana (UST)	State Program	8	NA	01-01-15
Nevada	State Program	9	TN00032	07-31-13
New Hampshire	NELAP	1	2963	10-09-13
New Jersey	NELAP	2	TN965	06-30-13
New York	NELAP	2	11342	04-01-13
North Carolina DENR	State Program	4	387	12-31-13
North Dakota	State Program	8	R-146	06-30-13
Ohio VAP	State Program	5	CL0033	01-19-14
Oklahoma	State Program	6	9412	08-31-13
Oregon	NELAP	10	TN200001	04-30-13
Pennsylvania	NELAP	3	68-00585	06-30-13
Rhode Island	State Program	1	LAO00268	12-30-13
South Carolina	State Program	4	84009 (001)	03-28-14
South Carolina	State Program	4	84009 (002)	02-23-14
Tennessee	State Program	4	2008	02-23-14
Texas	NELAP	6	T104704077-09-TX	08-31-13
USDA	Federal		S-48469	11-02-13
Utah	NELAP	8	TAN	06-30-13
Virginia	NELAP	3	460152	06-14-13
Washington	State Program	10	C789	07-19-13
West Virginia DEP	State Program	3	219	02-28-14
Wisconsin	State Program	5	998020430	08-31-13
Wyoming (UST)	A2LA	8	453.07	12-31-13



THE LEADER IN ENVIRONMENTAL TESTING Nashville, TN

COOLER RECEIPT FORM

Charleston

ion-20425 Chain of Custody

Cooler Received/Opened On	: 02/26/13 @ 0800
Tracking #_5647	(last 4 digits, FedEx

Tracking # 309 / (last 4 digits, FedEx)	490-20425 Cital
Courier: Fed-ex IR Gun ID: 95610068	
1. Temperature of rep. sample or temp blank when opened:Degrees Celsius	
3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen	YES NO. NA
4. Were custody seals on outside of cooler?	(YES,).NONA
If yes, how many and where: 1Front// Back	
5. Were the seals intact, signed, and dated correctly?	YES. NONA
6. Were custody papers inside cooler?	(YESNONA
I certify that I opened the cooler and answered questions 1-6 (intial)	
7. Were custody seals on containers: YES NO and Intact	YES NO N
Were these signed and dated correctly?	YESNONA
8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Pape	r Other None
9. Cooling process: (Ice) Ice-pack Ice (direct contact) Dry Ice	e Other None
10. Did all containers arrive in good condition (unbroken)?	YESNONA
11. Were all container labels complete (#, date, signed, pres., etc)?	YES NO NA
12. Did all container labels and tags agree with custody papers?	(YES)NONA
13a. Were VOA vials received?	(YESNONA
b. Was there any observable headspace present in any VOA vial?	YESNO(NA
14. Was there a Trip Blank in this cooler? YES NA If multiple coolers, sequen	ice #
I certify that I unloaded the cooler and answered questions 7-14 (intial)	
15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level?	YESNONA
b. Did the bottle labels indicate that the correct preservatives were used	YES NONA
16. Was residual chlorine present?	YESNONA
I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial)	
17. Were custody papers properly filled out (ink, signed, etc)?	(YES)NONA
18. Did you sign the custody papers in the appropriate place?	(ES)NONA
19. Were correct containers used for the analysis requested?	(ES.).NONA
20. Was sufficient amount of sample sent in each container?	(PES)NONA
I certify that I entered this project into LIMS and answered questions 17-20 (intial)	
I certify that I attached a label with the unique LIMS number to each container (intial)	
21. Were there Non-Conformance issues at login? YES. NO Was a NCM generated? YES.	NO.)#

* Broken in login - 1340 Allentross- W 402.

estAmeri		Nashville I 2960 Foste Nashville,	er Creig	ahton	ŀ				Pho II Fr	88: E	800-	765		0						me	assist ethods, julatory	is this	work	being						
Client Name/Account #:	EEG-SBG#24	49									,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,					_							Co	mplia	псе Ма	onitorir	ıg?	Yes		No_
Address:	10179 Highway 7	78																					E	Enforc	ement	Action	?	Yes		No_
City/State/Zip:	Ladson, SC 294	56														_		Site	State	e: <u>S</u> (2									
Project Manager;	Tom McElwee er	mail: moelw	e@eeg	jinc.ne	et														PO	#:	18	96	3							
Telephone Number:	843.412.2097					Fa	x No.	.:	84	<u>′3</u>	-	8	79	-6	40	2)		TA Q	iote i	#:										
Sampler Name: (Print)	Chas	Tons	911															Proj	ect II	D: La	urel Ba	у Нои	ısing f	roject	<u> </u>					
Sampler Signature:	17.5	557										\						Pro	ject :	#:										
	Jan V	/				ſ		F	rese)	rvativ	/e		श		Ma	atrix							Ána	alyze i	ог:					
Mille ID / Description 3/8 AZA/RA 820 AZA/RA 762 AZA/RA Althe A	2/2/3 2/2/3 2/2/3	1)45 1045 1450	(C) (C) No. of Conteiners Shipped	X X Grab	Composite	Fleid Pillered	60l Bod (bod) Own	5	1	H ₂ SO ₄ Plastic (Yellow Lebel)			Other (Specify) Methon	Groundwater	Drinking Water		XXX	Other (specify):		-									-1 Z 3	RUSH TAT (Pre-Schedule)
	 	 		-			-	-	+-	╁┤	\vdash	\dashv		+	╀	╂╼╁	+		╂	+		-			 				∔_	
		 	-		$\vdash\dashv$		-	+	+-	+	\vdash	Н	-	+	╀	╀	4		+-	+				<u> </u>	┼	+-	\vdash		\downarrow	-
secial Instructions:	<u> </u>	1														لــــــــــــــــــــــــــــــــــــــ			1_		aborate				1					<u> </u>
unquished to	2/2		Tim		Recei	-	:	7	of Sh	ipme	ent:	<u>-</u> -		T		Date	FEI	DEX_	ne	-	T	mpe	enuter	Upon	Receip Ispace		7.2 _E			Y
linguished by:	·		09				<u>Z (</u>		X.								\dashv			_										
anyquotium by.	* Date	е	Tim	πe	Recei	ived b	y Tes		7							Date	1	Tin												
			<u> </u>		LAM	J.	N'	- 15	۷ -	70	J			1.	2.3	673	١.	080	n	- 1										

This data for 762 Althen was incorrectly listed here (on coc)
As 762 Azalea. This data and subsequent hab data is the correct

data for 762 Althea. Pholographia

(PRATSTIAN)

pg 2.f3

20425 #1 A

Townson,	e	S			t			0		C	0
20			3000				70		BEST	经 交换 经基础	Sec. 1
т	-1 E 1	FAE	.==	INT	= 613	1100	٠.,	64C-N	7.1	~	T1210

Nashville Division
2960 Foster Creighton

Phone: 615-726-0177 Toll Free: 800-765-0980 Fax: 615-726-3404 To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes?

THE LEADER IN ENVIRONMENTA		Nashville,			15			1011	Fax	: 61											tory pu			CONGG	GIEG IO	J 4						
Client Name/Account#:	EEG#2449															_						C	emplia	nce Mo	nitorin	ıg?	Yes		No			
Address:	10179 Highway	78			~																		Enforc	ement	Action	1?	Yes		No			
City/State/Zip:	Ladson, SC 294	58																Site S	State:	<u>sc</u>					· · · · · · · · · · · · · · · · · · ·							
Project Manager:	Tom McElwee e	mzil: mcelw	ee@ee	eginc.n	iet											_ s			PO#:		つし								<u></u>			
Telephone Number:						Fa	к No.	8	43	-	8	22	· ~	-0	40	21		TA Qua	ote#:													
Sampler Name: (Print)	PRA		5 h	46	2													Proje	ct ID:	Laure	Bay H	ousing	Projec	t								
Sampler Signature:	_XU,							**********			-							Proj	ect#:	~												
					····			1 Ri	eserva	ative		3		i	Vlatri	X						Aı	nalyze	For:					<u></u>			
Sample ID, Description 2	2/19/13 2/19/13 2 1/19/13	1415 1415	No. of Containers Shipped	X & Grab	Composite	Field Filtered	Ice HNO, (Red Label)	اع اح	NaOH (Orange Label)	H ₂ SO ₄ Glass(Yellow Label)	2	2	Groundwater	Wastewater	Drinking Water	Soil Soil		<u>X</u>	(4 × PAH - 8270D									75	RUSH TAT (Pre-Schedule)	Standard TAT	Fax Results	Page 32 of Swith report
773 AltheA	2/2/13	1413	15	K			_	13	$\vdash \vdash$	_	2	1		_	+	1,5	1_	X	X	ļ	 	-		-	-		┿	6			<u> </u>	\Box
		-	<u> </u>	┼	-			-			┼-	-		-	\perp	\bot	+				↓	-	-	 	—		-	-	-	 		
e de la companya de l	 	-		-		_	_	\bot		_	-	\vdash			-	+	1	-		—	+	-	-	-	ֈ		-	-	4	 	-	-
	 	 	├	-			+	-		7	-	-			\perp		+	-		 	-	┼			-		-	-	-	├		-
	 	 	├	-				+	\vdash	+	 				丁	1	-	-	-	-	-	 	┼		┼		-	+	-	_	-	
	 	 	├	┼			-	+	\vdash	╬	+				+		╄	ļ				-			-		-	+	╂	├	┼	-
	}	 -	}	+			+	┼	-	-	+	-				+	-	-		┼		┼	-	1	1	\Rightarrow	-	4=	<u> </u>	╀—	┼	
Special Instructions:	1	<u> </u>	1		1												1_	-	<u> </u>	i obs	ratory	Comp	l anta:							<u></u>		
101	a						Metho	od of	Shîsa	nent:						F	EDE	ΞX		Lauc	Tem	eratur	e Upor	Recei	pt. 2	. A c			Υ Υ		N	
Relinquished by	2/25	1/3	1	me PDC) _ f	ved by	d	/ E s	_						Dat		Ī	Tim	e										•		**	
Relinquished by	Date		T	ime	Recei	ved b	y Test	Améri	ca:	. 1					Dat		T	Tim														
I manufacture and the second s			<u>i</u>		سلا	W	Λ	<u>K_</u>	TA	<u>~</u> _				12	-26	· i3) 8 <i>00</i>														

List Source: TestAmerica Nashville

1:

Login Sample Receipt Checklist

Client: Environmental Enterprise Group

Login Number: 20425

List Number: 1

Creator: Myers, Madonna

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

ATTACHMENT A



NON-HAZARDOUS MANIFEST

	1. Generator's US EP		PA ID No.	ID No. Manifest Doc No.			2. Page 1	2. Page 1 of			
	NON-HAZARDOUS MANIFEST	44.5	. *				:	1			
J	3. Generator's Mailing Address:	Ger	Generator's Site Address (If different than mailing):			A. Manife	A. Manifest Number				
	MCAS BEAUFORT					\ \n	/MNA	0151	01/12		
TOR	LAUREL BAY HOUSING								Generator'		
	BEAUFORT, SC 29904							b. 5tate	Generator	שופ	
	4. Generator's Phone 843-87	79-0411									
	5. Transporter 1 Company Name		6.	US EPA I	D Number						
	Small brings Gil						C. State T	ransporter's	ID ·		
	16-6500 -17	4.73					D. Transp	orter's Phon	e .		1
	7. Transporter 2 Company Name		8.	US EPA I	D Number						
	Magazine Charles A			6 474 §14 L	100			ransporter's		11.11.00	* .
		- 1.		===			F. Transp	orter's Phon	9		e la la prima de la composición della composició
	9. Designated Facility Name and Site A	Address	10.	US EPA	ID Number						
	HICKORY HILL LANDFILL						G. State F				
	2621 LOW COUNTRY DRIVE		Will Control		- "	· · · · · · · · · · · · · · · · · · ·	H. State F	acility Phone	e 843-	987-464	.3
	RIDGELAND, SC 29936										
					12. Co	ntainers	13. Total	14. Unit	Т		
	11. Description of Waste Materials	J=			No.	Туре	Quantity	Wt./Vol.	1. 1	1isc. Comme	nts
	a. HEATING OIL TANK FILLED W	/ITH SAND					7 Sa		72 ,7 1	6	/
						304	6060	7014	1 7 0	p. (). A	7
	WM Profil	e# 102655SC				7					
	b										
- 1									1.		ĺ
	WM Profile #										
"	c.								30 00 013 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
					1111			1.1			
	WM Profile #									1000	
[d. 11. 11. 11. 11. 11. 11. 11. 11. 11. 1										
					,	in the contract of		i i		PERAL N	
	WM Profile # J. Additional Descriptions for Materials Listed Above										
t				K. Dispos	al Location	<u> </u>				294547512515	
					Cell				Level		
ļ					Grid		\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \		4	1	
ĺ	15. Special Handling Instructions and Additional Information 779 LAURE BAY 4) 1254 DOVE 6) 1321										
1	N 10 20 MIL /10 - 1 000 0 1 /A 1007 D. 1 194189										
-	AND THE PROPERTY OF THE PROPER	+KO353)	70		RACI		3) 12	(5)1	100z	-1	
-	Purchase Order #		EI	MERGENCY COI	NTACT / PHO	ONE NO.:	<u> </u>				
	16. GENERATOR'S CERTIFICATE:										
- [I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and										
ŀ	accurately described, classified and packaged and are in proper condition for transportation ac Printed Name Signature "On behalf of"					ding to app	licable regul	ations.	Month	Day	Year
	1. C. C.	at water	Jigila	iture On bena		Fre	The second of the second		NOME!	Day	\\\
7	17. Transporter 1 Acknowledgement of Receipt of Materials										
R F	Printed Name // // Signature			111			Month	Day	Year		
N S	FR 14H	SKAU		77		and the second			4	16	13
PO	18. Transporter 2 Acknowledgement of Receipt of Materials										
R	Printed Name		Signa	iture	7				Month	Day	Year
E R	Table Dall	. (12.1 A				U	107	12
+	19. Certificate of Final Treatment/Disposal								1	16	
F	•		ta tha b	t of my leading	dan tha	avo dosseili	ad wasta ····	.c.mar=======	n com-lie	المطاجئيين	
C	l certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.										
	20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.										
1	Printed Name	/	Signa		Control of the second s		A		Month	Day	Year
4	TOME CATE	10	-18.10	La trans	Cha	$J = I_l$	$\overline{\ }$		4/	/ 7	72
	White-TREATMENT STORAGE DISPOSA	AL FACILITY CODY	Pluo	GENERATOR A	to CODY	\	Vol	low- GENERA	TOP #1 CO	<u>((1) </u>	

Pink- FACILITY USE ONLY

Gold- TRANSPORTER #1 COPY

Appendix C Laboratory Analytical Report - Groundwater



Volatile Organic Compounds by GC/MS

Client: AECOM - Resolution Consultants

Description: BEALB762TW01WG20151119

Laboratory ID: QK20097-004

Matrix: Aqueous

90579

Date Sampled:11/19/2015 0920

5030B

Date Received: 11/20/2015 Run Prep Method Analytical Method Dilution Analysis Date Analyst **Prep Date** Batch

	CAS	Analytical							
Parameter	Number	Method	Result	Q	LOQ	LOD	DL	Units	Run
Benzene	71-43-2	8260B	0.45	U	5.0	0.45	0.21	ug/L	1
Ethylbenzene	100-41-4	8260B	0.51	U	5.0	0.51	0.21	ug/L	1
Naphthalene	91-20-3	8260B	0.97	J	5.0	0.96	0.14	ug/L	1
Toluene	108-88-3	8260B	0.48	U	5.0	0.48	0.24	ug/L	1
Xylenes (total)	1330-20-7	8260B	0.57	U	5.0	0.57	0.32	ug/L	1

11/25/2015 1917 ALL

Surrogate		Acceptance Limits	
Bromofluorobenzene	99	75-120	
1,2-Dichloroethane-d4	102	70-120	
Toluene-d8	94	85-120	
Dibromofluoromethane	100	85-115	

PQL = Practical quantitation limit ND = Not detected at or above the MDL B = Detected in the method blank

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

H = Out of holding time

Q = Surrogate failure L = LCS/LCSD failure

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

J = Estimated result < PQL and ≥ MDL

N = Recovery is out of criteria

S = MS/MSD failure

Shealy Environmental Services, Inc.

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

Semivolatile Organic Compounds by GC/MS (SIM)

Client: AECOM - Resolution Consultants

Description: BEALB762TW01WG20151119

Laboratory ID: QK20097-004

Matrix: Aqueous

Date Sampled: 11/19/2015 0920 Date Received: 11/20/2015

Run Prep Method Analytical Method Dilution Analysis Date Analyst Batch **Prep Date** 1 3520C 8270D (SIM) 12/03/2015 2301 RBH 11/24/2015 1615 90443

	CAS	Analytical					
Parameter	Number	Method	Result Q	LOQ	LOD	DL	Units Run
Benzo(a)anthracene	56-55-3	8270D (SIM)	0.040 U	0.20	0.040	0.019	ug/L 1
Benzo(b)fluoranthene	205-99-2	8270D (SIM)	0.040 U	0.20	0.040	0.019	ug/L 1
Benzo(k)fluoranthene	207-08-9	8270D (SIM)	0.040 U	0.20	0.040	0.024	ug/L 1
Chrysene	218-01-9	8270D (SIM)	0.040 U	0.20	0.040	0.021	ug/L 1
Dibenzo(a,h)anthracene	53-70-3	8270D (SIM)	0.080 U	0.20	0.080	0.040	ug/L 1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Methylnaphthalene-d10		61	15-139
Fluoranthene-d10		67	23-154

PQL = Practical quantitation limit ND = Not detected at or above the MDL B = Detected in the method blank

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

H = Out of holding time

Q = Surrogate failure L = LCS/LCSD failure

 $J = Estimated result < PQL and <math>\geq MDL$ Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

N = Recovery is out of criteria

S = MS/MSD failure

Shealy Environmental Services, Inc.

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

Appendix D Regulatory Correspondence





Catherine E. Heigel, Director Promoting and protecting the health of the public and the environment

July 1, 2015

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

RE: IGWA

Laurel Bay Underground Storage Tank Assessment Reports for:

See attached sheet

Dear Mr. Drawdy,

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

The Department has reviewed the referenced assessment reports. The submitted analytical results indicate that petroleum constituents are above established Risk-Based Screening Levels and additional investigation is warranted. Specifically, the Department requests that a groundwater sampling proposal be generated to determine if there has been an impact to groundwater at this site.

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

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

Sincerely,

Kent Krieg

Department of Defense Corrective Action Section

Bureau of Land and Waste Management

South Carolina Department of Health and Environmental Control

Cc: Russell Berry (via email)

Craig Ehde (via email) Bryan Beck (via email)



Catherine E. Heigel, Director

Promoting and protecting the health of the public and the environment

Krieg to Drawdy **Attachment to:**

Subject: IGWA Dated 7/1/2015

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

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

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

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



Catherine E. Heigel, Director

Promoting and protecting the health of the public and the environment

Division of Waste Management Bureau of Land and Waste Management

June 8, 2016

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

RE: Approval and Concurrence with Draft Final Initial Groundwater Investigation Report-November and December 2015

Laurel Bay Military Housing Area Multiple Properties

Dated April 2015

Dear Mr. Drawdy,

The South Carolina Department of Health and Environmental Control (the Department) received groundwater data in the above referenced Groundwater Investigation Report for the attached addresses on May 2, 2016. The regulatory authority for the investigation and cleanup of releases from these tank systems is the South Carolina Pollution Control Act (S.C. Code Ann. §48-1-10 et seq., as amended).

Per the Department's request, groundwater samples were collected from the attached referenced addresses. The Department reviewed the groundwater data and previous investigations and it agrees with the conclusions and recommendations included in the document. To further assess the impact to groundwater, permanent wells should be installed at the 15 stated addresses. For the remaining 80 addresses, there is no indication of contamination on the property and therefore no further investigation is required at this time.

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

If you have any questions, please contact me at <u>petruslb@dhec.sc.gov</u> or 803-898-0294.

Sincerely,

Laurel Petrus

NETS

RCRA Federal Facilities Section

Attachment: Specific Property Recommendations

Cc: Russell Berry, EQC Region 8 (via email)

Shawn Dolan, Resolution Consultants (via email) Bryan Beck, NAVFAC MIDATLANTIC (via email)

Craig Ehde (via email)

Attachment to: Petrus to Drawdy

Subject: Draft Final Initial Groundwater Investigation Report-November and December 2015

Specific Property Recommendations

Dated June 8, 2016

Draft Final Initial Groundwater Investigation Report for (95 addresses)

Permanent Moni	toring Well Investigation recommendation (15 addresses)
130 Banyan Drive	473 Dogwood Drive
256 Beech Street	747 Blue Bell Lane
285 Birch Drive	749 Blue Bell Lane
292 Birch Drive	775 Althea Street
330 Ash Street	1034 Foxglove Street
331 Ash Street	1104 Iris Lane
335 Ash Street	1124 Iris Lane
342 Ash Street	

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

Attachment to: Petrus to Drawdy
Subject: Draft Final Initial Groundwater Investigation Report-November and December 2015
Specific Property Recommendations
Dated June 8, 2016, Page 2