SUMMARY REPORT
132 EAGLE LANE (FORMERLY 1299 EAGLE LANE)
LAUREL BAY MILITARY HOUSING AREA
MARINE CORPS AIR STATION BEAUFORT
BEAUFORT, SC

Revision: 0 Prepared for:

Department of the Navy
Naval Facilities Engineering Command, Mid-Atlantic
9324 Virginia Avenue
Norfolk, Virginia 23511-3095

and



Naval Facilities Engineering Command Atlantic 9324 Virginia Avenue Norfolk, Virginia 23511-3095 SUMMARY REPORT
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9324 Virginia Avenue Norfolk, Virginia 23511-3095

Prepared by:



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

CTO WE52

**JUNE 2021** 



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#### **List of Acronyms**

bgs below ground surface

BTEX benzene, toluene, ethylbenzene, and xylenes

CTO Contract Task Order

COPC constituents of potential concern

ft feet

IDIQ Indefinite Delivery, Indefinite Quantity

IGWA Initial Groundwater Assessment

JV Joint Venture

LBMH Laurel Bay Military Housing MCAS Marine Corps Air Station

NAVFAC Mid-Lant Naval Facilities Engineering Command Mid-Atlantic

NFA No Further Action

PAH polynuclear aromatic hydrocarbon QAPP Quality Assurance Program Plan

RBSL risk-based screening level

SCDHEC South Carolina Department of Health and Environmental Control

Site LBMH area at MCAS Beaufort, South Carolina

UST underground storage tank
VISL vapor intrusion screening level



#### 1.0 INTRODUCTION

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

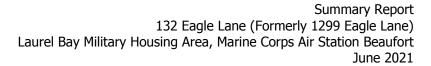
As of January 2014, the LBMH addresses were re-numbered to comply with the E-911 emergency response addressing system; however, in order to remain consistent with historical sampling and reporting for LBMH area, the residences will continue to be referenced with their original address numbers in sample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

This report summarizes the results the environmental investigation activities associated with the storage of home heating oil and the potential release of petroleum constituents at the referenced property. Based on the results of the investigation, a No Further Action (NFA) determination has been made by the South Carolina Department of Health and Environmental Control (SCDHEC) for 132 Eagle Lane (Formerly 1299 Eagle Lane). 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 132 Eagle Lane (Formerly 1299 Eagle Lane). Details regarding the soil investigation at this site are provided in the *SCDHEC UST Assessment Report – 1299 Eagle Lane* (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 March 14, 2013, two 280 gallon heating oil USTs were removed at 132 Eagle Lane (Formerly 1299 Eagle Lane). Tank 1 was removed from underneath the edge of the rear concrete patio and the rear grassed area. Tank 2 was removed from the rear grassed area, adjacent to Tank 1. Both tanks were partially covered by the rear shed. The former UST locations are indicated



on Figures 2 and 3 of the UST Assessment Report (Appendix B). The USTs were 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 depths to the bases of the USTs were 5'10" (Tank 1) and 3'11" (Tank 2) bgs and a single soil sample was collected for each at that depth. The samples were collected from the fill port side of the former USTs to represent a worst case scenario.

Following UST removal, a soil sample was collected from the base of each 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 132 Eagle Lane (Formerly 1299 Eagle Lane) were greater than the SCDHEC RBSLs, which indicated further investigation was required. In a letter dated July 1, 2015, SCDHEC requested an IGWA for 132 Eagle Lane (Formerly 1299 Eagle Lane) to determine if the groundwater was impacted by petroleum COPCs. SCDHEC's request letter is provided in Appendix D.

#### 2.3 Groundwater Sampling

On December 3, 2015, a temporary monitoring well was installed at 132 Eagle Lane (Formerly 1299 Eagle Lane), 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 locations are 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 132 Eagle Lane (Formerly 1299 Eagle Lane) 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 USTs at concentrations that present a potential risk to human health and the environment.

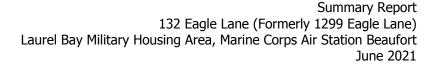
#### 3.0 PROPERTY STATUS

Based on the analytical results for groundwater, SCDHEC made the determination that NFA was required for 132 Eagle Lane (Formerly 1299 Eagle Lane). 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 – 1299 Eagle Lane, Laurel Bay Military Housing Area, June 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 132 Eagle Lane (Formerly 1299 Eagle Lane) Laurel Bay Military Housing Area Marine Corps Air Station Beaufort

Beaufort, South Carolina

Constituent	SCDHEC RBSLs (1)	Results Samples Collected 03/14/13		
	002.1120.1120.120	1299 Eagle - 1	1299 Eagle - 2	
Volatile Organic Compounds Analyzed	by EPA Method 8260B (mg/kg)			
Benzene	0.003	ND	ND	
Ethylbenzene	1.15	ND	ND	
Naphthalene	0.036	0.00243	ND	
Toluene	0.627	ND ND		
Xylenes, Total	13.01	0.000787	ND	
Semivolatile Organic Compounds Anal	yzed by EPA Method 8270D (mg/kg)			
Benzo(a)anthracene	0.66	5.22	ND	
Benzo(b)fluoranthene	0.66	3.28	ND	
Benzo(k)fluoranthene	0.66	<b>1.57</b> NE		
Chrysene	0.66	5.44	ND	
Dibenz(a,h)anthracene	0.66	<b>0.293</b> 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 132 Eagle Lane (Formerly 1299 Eagle Lane) Laurel Bay Military Housing Area Marine Corps Air Station Beaufort Beaufort, South Carolina

Constituent	SCDHEC RBSLs (1)	Site-Specific Groundwater VISLs (µg/L) <sup>(2)</sup>	Results Sample Collected 12/03/15
<b>Volatile Organic Compounds Analyzed</b>	l by EPA Method 8260B (µg	/L)	
Benzene	5	16.24	ND
Ethylbenzene	700	45.95	ND
Naphthalene	25	29.33	ND
Toluene	1000	105,445	ND
Xylenes, Total	10,000	2,133	ND
Semivolatile Organic Compounds Ana	lyzed by EPA Method 82701	) (μg/L)	
Benzo(a)anthracene	10	NA	ND
Benzo(b)fluoranthene	10	NA NA	ND
Benzo(k)fluoranthene	10	NA NA	ND
Chrysene	10	NA NA	ND
Dibenz(a,h)anthracene	10	NA NA	ND

#### Notes:

(2) Site-specific groundwater VISLs were calculated using the EPA JE Model Spreadsheets (Version 3.1, February 2004) and conservative modeling inputs representative of a small single-story house with an 8 foot ceiling. Site-specific groundwater VISLs were developed based on a target risk level of 1x10<sup>-6</sup>, a target hazard quotient of 1 (per target organ), and a default residential exposure scenario, assuming exposure for 24 hours/day, 350 days/year, for 26 years. Modeling was performed for a range of depths to groundwater for application as appropriate in different areas of the Laurel Bay Military Housing Area. The most conservative levels are presented for comparison. Refer to Appendix H of the Uniform Federal Policy Sampling Analysis and Sampling Plan for Vapor Media, Revision 4 (Resolution Consultants, April 2017) for additional information.

Bold font indicates the analyte was detected.

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

EPA - United States Environmental Protection Agency

JE - Johnson & Ettinger

NA - Not Applicable

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

RBSL - Risk-Based Screening Level

SCDHEC - South Carolina Department Of Health and Environmental Control

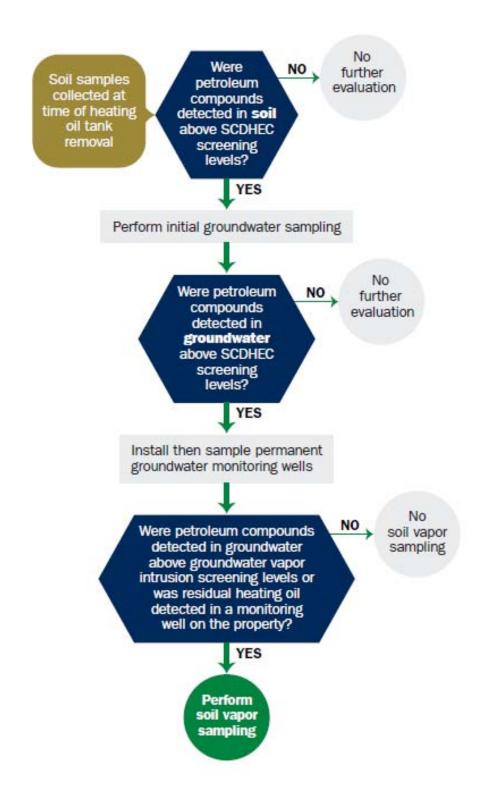
μg/L - micrograms per liter

VISL - Vapor Intrusion Screening Level

<sup>(1)</sup> South Carolina Risk-Based Screening Levels from the Quality Assurance Program Plan for the Underground Storage Tank Management Division, Revision 3.1 (SCDHEC, February 2016).

# Appendix A Multi-Media Selection Process for LBMH





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

# Appendix B UST Assessment Report



# South Carolina Department of Health and Environmental Control (SCDHEC)

# Underground Storage Tank (UST) Assessment Report

Date Rec		
	State Use 0	

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

# I. OWNERSHIP OF UST (S)

	ommanding Officer Attn: NF n, Individual, Public Agency, Other)	REAO (Craig Ehde)
P.O. Box 55001 Mailing Address		
Beaufort,	South Carolina	29904-5001
City	State	Zip Code
Area Code	228-7317 Telephone Number	Craig Ehde Contact Person

## II. SITE IDENTIFICATION AND LOCATION

Permit I.D. #
Laurel Bay Military Housing Area, Marine Corps Air Station, Beaufort, SC
Facility Name or Company Site Identifier
1299 Eagle Lane, Laurel Bay Military Housing Area
Street Address or State Road (as applicable)
Beaufort, Beaufort
City County

Attachment 2

# III. INSURANCE INFORMATION

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

VI. UST INFORMATION	1299Eagle-1	   1299Eagle-2	
Product(ex. Gas, Kerosene)	Heating oil	Heating oil	
Capacity(ex. 1k, 2k)	280 gal	280 gal	
Age	Late 1950s	Late 1950s	
Construction Material(ex. Steel, FRP)	Steel	Steel	
Month/Year of Last Use	Mid 80s	Mid 80s	
Depth (ft.) To Base of Tank	5'10"	3'11"	
Spill Prevention Equipment Y/N	No	No	
Overfill Prevention Equipment Y/N	No	No	
Method of Closure Removed/Filled	Removed	Removed	
Date Tanks Removed/Filled	3/14/2013	3/14/2013	
Visible Corrosion or Pitting Y/N	Yes	Yes	
Visible Holes Y/N	Yes	Yes	
Method of disposal for any USTs removed from th  UST 1299Eagle-1 was removed from UST 1299Eagle-2 was removed from	the ground,	cleaned & re	ecycled.
Subtitle "D" landfill. See Attac	•		
Subtitle "D" landfill. See Attac Method of disposal for any liquid petroleum, sludg disposal manifests) Contaminated water was pumped fro	ges, or wastewaters		•
contaminated water was pumped in			

# VII. PIPING INFORMATION

	1299Eagle-1	1299Eagle-2	
	Steel	Steel	
Construction Material(ex. Steel, FRP)	& Copper	& Copper	
Distance from UST to Dispenser	N/A	N/A	
	N/A	N/A	
Number of Dispensers			
Type of System Pressure or Suction	Suction	Suction	
Was Piping Removed from the Ground? Y/N	No	No	
Visible Corrosion or Pitting Y/N	Yes	Yes	
Visible Holes Y/N	No	No	
Age	Late 1950s	Late 1950s	
If any corrosion, pitting, or holes were observed, des	scribe the location	and extent for each	ch piping run.
Steel vent piping for both tanks v	vere corrode	d and pitted	. All
copper supply and return piping we	ere sound.		_
VIII. BRIEF SITE DESCRIPTION The USTs at the residences are con			steel
and formerly contained fuel oil fo		<del>_</del>	
installed in the late 1950s and la	_		

# IX. SITE CONDITIONS

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

# X. SAMPLE INFORMATION

A. SCDHEC Lab Certification Number 84009

B.

Sample #	Location	Sample Type (Soil/Water)	Soil Type (Sand/Clay)	Depth*	Date/Time of Collection	by	OVA#
Eagle-1	Excav at fill end	Soil	Sandy	5'10"	3/14/13 1215 hrs	P. Shaw	
1299	Excav at		Sandy	3'11"	3/14/13 1415 hrs	[[	
			_				
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

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

## XI. SAMPLING METHODOLOGY

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

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

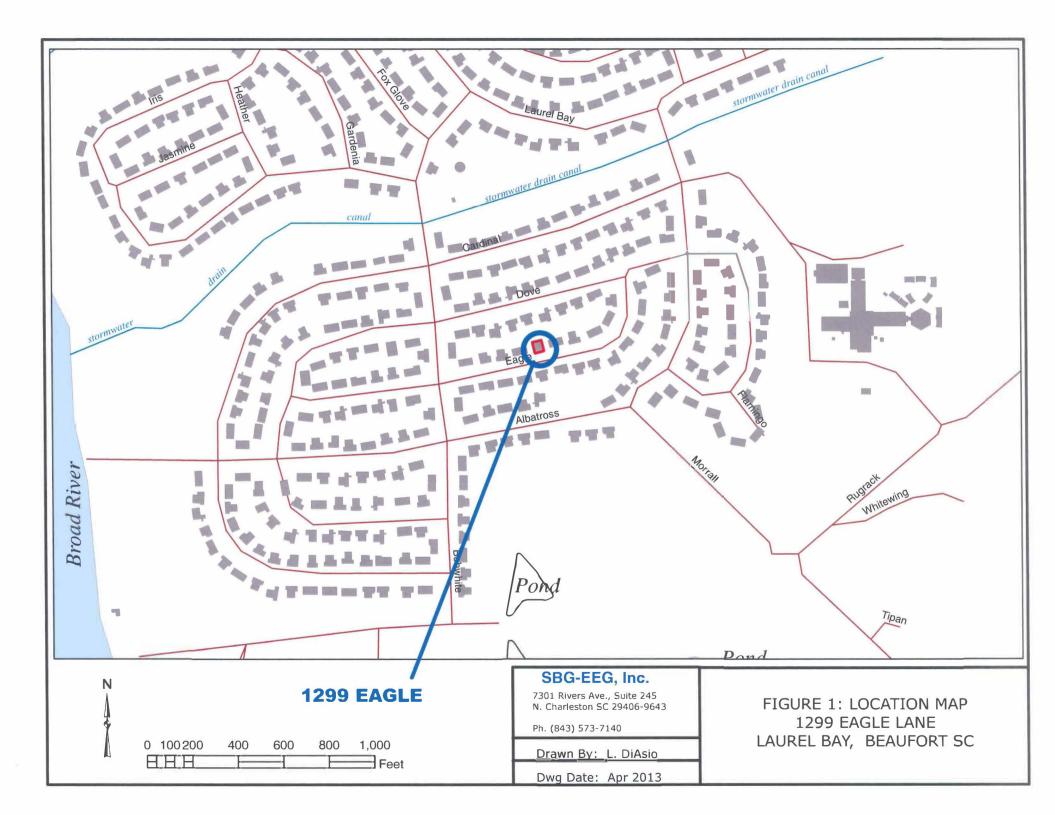
# XII. RECEPTORS

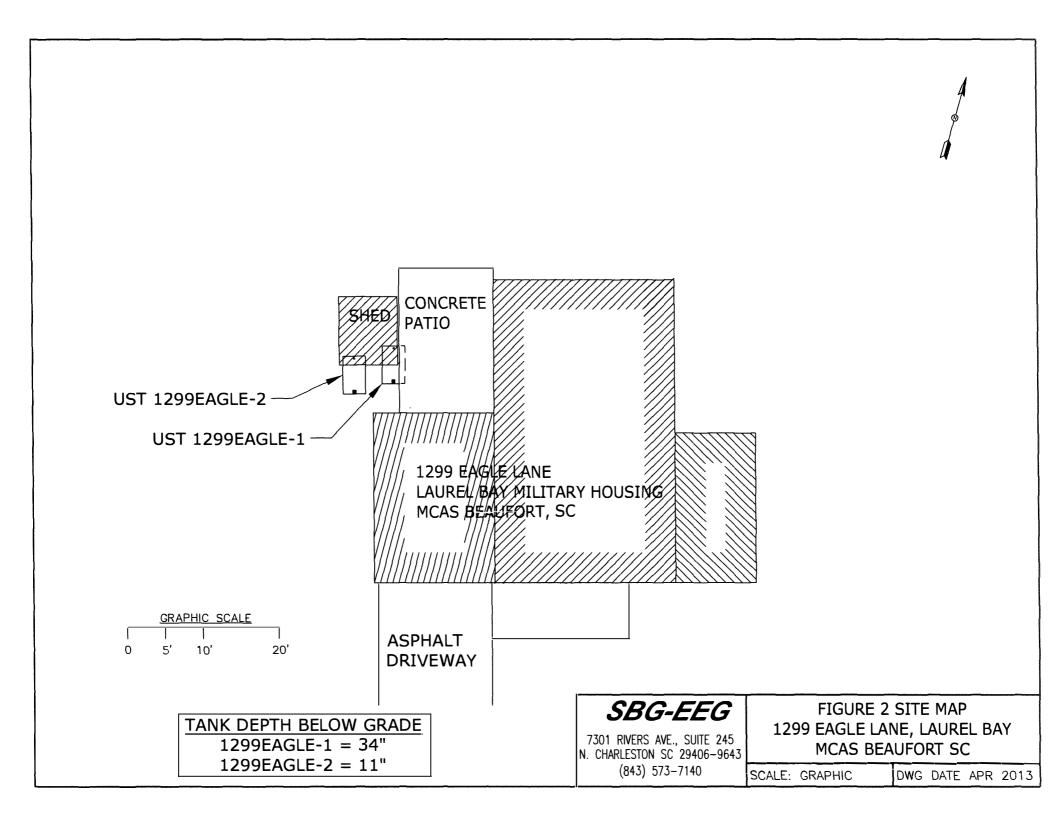
		Yes	No
A.	Are there any lakes, ponds, streams, or wetlands located within 1000 feet of the UST system?		Х
	If yes, indicate type of receptor, distance, and direction on site map.		
B.	Are there any public, private, or irrigation water supply wells within 1000 feet of the UST system?		Х
	If yes, indicate 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, electricity.	*X icity	,
	cable, fiber optic & If yes, indicate the type of utility, distance, and direction on the site map.	geoth	ermal
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.		

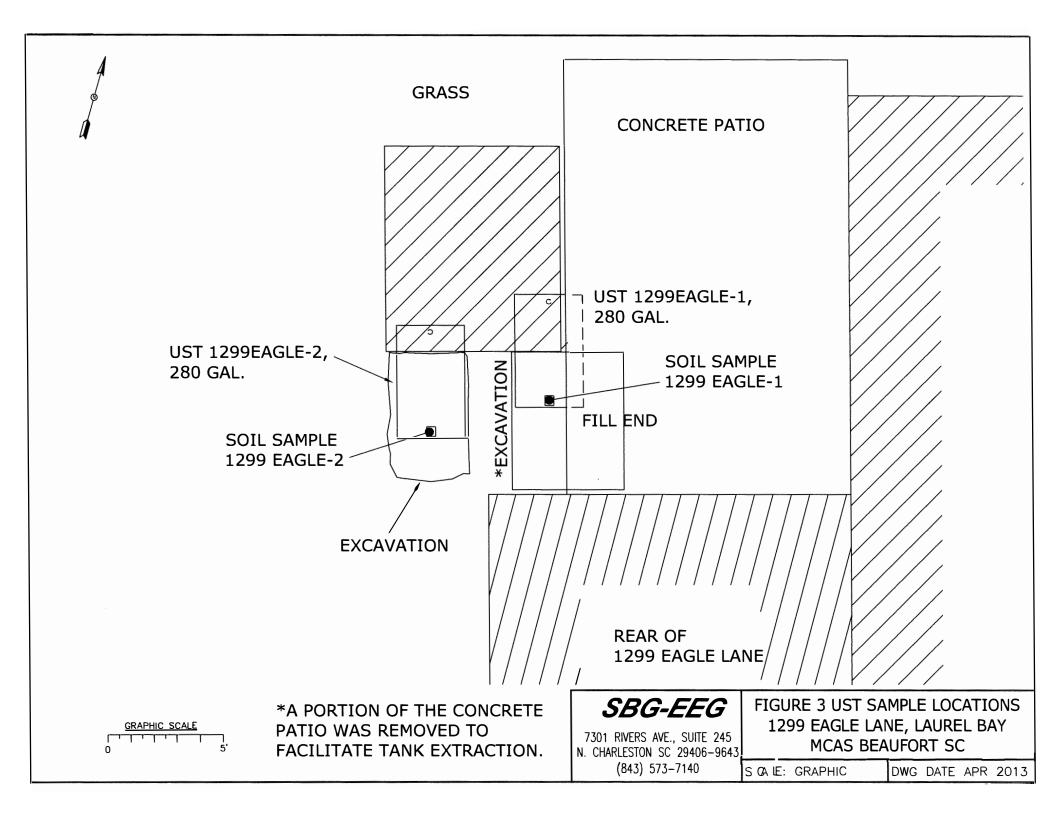
# XIII. SITE MAP

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 1299Eagle-1.



Picture 2: UST 1299Eagle-1 excavation.



Picture 3: UST 1299Eagle-2 was located on the right side of the building corner.



Picture 4: UST 1299Eagle-2 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.

	T		T	1		1	Ī	
CoC UST	1299Eag	le-1		1299E	agle-2			
Benzene		ND		<u></u>	ND			
Toluene	ND		ND			0.00		
Ethylbenzene	ND		ND					
Xylenes	0.000787 mg/kg		kg	ND				
Naphthalene	0.00243 mg/kg		8	ND				
Benzo (a) anthracene	5.22 mg/kg		ND					
Benzo (b) fluoranthene	3.28 mg/kg		ND					
Benzo (k) fluoranthene	nene 1.57 mg/kg		ND					
Chrysene	5.44 mg/kg		ND					
Dibenz (a, h) anthracene	thracene 0.293 mg/kg			ND				
TPH (EPA 3550)								
CoC								
Benzene								
Toluene			:					
Ethylbenzene								
Xylenes								
Naphthalene								
Benzo (a) anthracene								
Benzo (b) fluoranthene								
Benzo (k) fluoranthene								
Chrysene								
Dibenz (a, h) anthracene								
TPH (EPA 3550)								

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

CoC RBSL							
	W-1	W-2	W -3	W -4			
(µg/l)							
None							
1		1		1			
5							
1,000							
700							
10,000							
N/A							
40							
25							
10							
10							
10							
10				To a second			
10							
		1					
.05							
5							
Site specific							
	5 1,000 700 10,000 N/A 40 25 10 10 10 10 5 5 Site	(μg/l)   W-1     None   5     1,000   700     10,000   N/A     40   25     10   10     10   10     10   10     10   5     5   5     Site	None   W-1   W-2     None   5   1,000     10,000   10,000     N/A   40   25     10   10     10   10     10   10     10   5     Site   Site	(μg/l)   W-1   W-2   W-3     None			

# 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)



Visit us at:

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# **TestAmerica**

THE LEADER IN ENVIRONMENTAL TESTING

# **ANALYTICAL REPORT**

TestAmerica Laboratories, Inc.

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

TestAmerica Job ID: 490-22235-1

Client Project/Site: Laurel Bay Housing

#### For:

Environmental Enterprise Group 10179 Highway 78 Ladson, South Carolina 29456

Attn: Mr. Tom McElwee

Kuth Hage

Authorized for release by: 4/2/2013 3:50:12 PM

Ken Hayes Project Manager I

ken.hayes@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.

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# Sample Summary

Client: Environmental Enterprise Group

Project/Site: Laurel Bay Housing

TestAmerica Job ID: 490-22235-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
490-22235-1	581 Aster	Solid	03/12/13 13:40	03/20/13 08:30
490-22235-2	1289 Eagle	Solid	03/13/13 13:30	03/20/13 08:30
490-22235-3	1333 Albatross	Solid	03/14/13 12:00	03/20/13 08:30
490-22235-4	582 Aster	Solid	03/12/13 13:45	03/20/13 08:30
490-22235-5	864 Dolphin	Solid	03/13/13 15:45	03/20/13 08:30
490-22235-6	1299 Eagle-1	Solid	03/14/13 12:15	03/20/13 08:30
490-22235-7	1299 Eagle-2	Solid	03/14/13 14:15	03/20/13 08:30

#### **Case Narrative**

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

TestAmerica Job ID: 490-22235-1

Job ID: 490-22235-1

Laboratory: TestAmerica Nashville

Narrative

Job Narrative 490-22235-1

#### Comments

No additional comments.

#### Receipt

The samples were received on 3/20/2013~8:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was  $4.4^{\circ}$  C.

#### GC/MS VOA

Method(s) 8260B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with batch 66946.

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.



B













#### **Definitions/Glossary**

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

TestAmerica Job ID: 490-22235-1

#### Qualifiers

#### GC/MS VOA

Qualifier Qualifier Description

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

#### GC/MS Semi VOA

Qualifier 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.

Example 2 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)







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

TestAmerica Job ID: 490-22235-1

Client Sample ID: 581 Aster

Date Collected: 03/12/13 13:40 Date Received: 03/20/13 08:30

Percent Solids

Lab Sample ID: 490-22235-1

Matrix: Solid Percent Solids: 76.6

Jale Necelved, 03/20/13 00.30								reiteili 30i	Jus. 10.0
Method: 8260B - Volatile Orga			DI	MDI	11.16		D		D'I E
Analyte	ND	Qualifier	RL 0.00281		Unit	D	Prepared 03/21/13 09:34	Analyzed	Dil Fac
Benzene	ND		0.00281	0.000940	mg/Kg	n		03/22/13 17:50	3
Ethylbenzene	ND			0.000940	mg/Kg	n	03/21/13 09:34	03/22/13 17:50	
Naphthalene			0.00702	0.00239	mg/Kg	n	03/21/13 09:34	03/22/13 17:50	1
Toluene Xylenes, Total	ND ND		0.00281 0.00702	0.00104	mg/Kg mg/Kg	п	03/21/13 09:34 03/21/13 09:34	03/22/13 17:50 03/22/13 17:50	1
Ayleties, rotal	140		0.00702	0.000340	mg/rkg		03/2 1/13 03.34	03/22/13 17:30	,
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		70 - 130				03/21/13 09:34	03/22/13 17:50	1
4-Bromofluorobenzene (Surr)	110		70 - 130				03/21/13 09:34	03/22/13 17:50	1
Dibromofluoromethane (Surr)	97		70 _ 130				03/21/13 09:34	03/22/13 17:50	1
Toluene-d8 (Surr)	109		70 - 130				03/21/13 09:34	03/22/13 17:50	1
Method: 8270D - Semivolatile	Organic Compou	ınds (GC/MS	S)						
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0862	0.0129	mg/Kg	п	03/21/13 11:04	03/23/13 19:31	1
Acenaphthylene	ND		0.0862	0.0116	mg/Kg	Ħ	03/21/13 11:04	03/23/13 19:31	1
Anthracene	ND		0.0862	0.0116	mg/Kg	□	03/21/13 11:04	03/23/13 19:31	9
Benzo[a]anthracene	ND		0.0862	0.0193	mg/Kg	171	03/21/13 11:04	03/23/13 19:31	1
Benzo[a]pyrene	ND		0.0862	0.0154	mg/Kg	Ħ	03/21/13 11:04	03/23/13 19:31	- 1
Benzo[b]fluoranthene	ND		0.0862	0.0154	mg/Kg	13	03/21/13 11:04	03/23/13 19:31	1
Benzo[g,h,i]perylene	ND		0.0862	0.0116	mg/Kg	Ħ	03/21/13 11:04	03/23/13 19:31	1
Benzo[k]fluoranthene	ND		0.0862	0.0180	mg/Kg	12	03/21/13 11:04	03/23/13 19:31	4
1-Methylnaphthalene	ND		0.0862	0.0180	mg/Kg	n	03/21/13 11:04	03/23/13 19:31	1
Pyrene	ND		0.0862	0.0154	mg/Kg	п	03/21/13 11:04	03/23/13 19:31	1
Phenanthrene	ND		0.0862	0.0116	mg/Kg	n	03/21/13 11:04	03/23/13 19:31	-1
Chrysene	ND		0.0862	0.0116	mg/Kg	3.4	03/21/13 11:04	03/23/13 19:31	-1
Dibenz(a,h)anthracene	ND		0.0862	0.00900	mg/Kg	II	03/21/13 11:04	03/23/13 19:31	1
Fluoranthene	ND		0.0862	0.0116	mg/Kg	12	03/21/13 11:04	03/23/13 19:31	1
luorene	ND		0.0862	0.0154	mg/Kg	121	03/21/13 11:04	03/23/13 19:31	1
ndeno[1,2,3-cd]pyrene	ND		0.0862		mg/Kg	(3)	03/21/13 11:04	03/23/13 19:31	1
Naphthalene	ND		0.0862		mg/Kg	33	03/21/13 11:04	03/23/13 19:31	1
2-Methylnaphthalene	ND		0.0862	0.0206		Ľ.	03/21/13 11:04	03/23/13 19:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	54		29 - 120				03/21/13 11:04	03/23/13 19:31	1
Terphenyl-d14 (Surr)	74		13 - 120				03/21/13 11:04	03/23/13 19:31	1
Nitrobenzene-d5 (Surr)	45		27 - 120				03/21/13 11:04	03/23/13 19:31	1
General Chemistry									
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac

03/21/13 09:58

0.10

77

0.10 %

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

TestAmerica Job ID: 490-22235-1

Client Sample ID: 1289 Eagle

Date Collected: 03/13/13 13:30 Date Received: 03/20/13 08:30 Lab Sample ID: 490-22235-2

Matrix: Solid Percent Solids: 96.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00228	0.000765		п	03/21/13 09:34	03/22/13 18:17	
Ethylbenzene	ND		0.00228	0.000765	0 0	n	03/21/13 09:34	03/22/13 18:17	
Naphthalene	ND		0.00571	0.00194	mg/Kg	п	03/21/13 09:34	03/22/13 18:17	4
Toluene	ND		0.00228	0.000845		п	03/21/13 09:34	03/22/13 18:17	
Xylenes, Total	ND		0.00571	0.000765	0 0	п	03/21/13 09:34	03/22/13 18:17	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		70 - 130				03/21/13 09:34	03/22/13 18:17	1
4-Bromofluorobenzene (Surr)	117		70 - 130				03/21/13 09:34	03/22/13 18.17	1
Dibromofluoromethane (Surr)	95		70 - 130				03/21/13 09:34	03/22/13 18:17	7
Toluene-d8 (Surr)	111		70 - 130				03/21/13 09:34	03/22/13 18:17	1
Method: 8270D - Semivolatile	Organic Compou	nds (GC/MS	3)						
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0689	0.0103	mg/Kg	Ħ	03/21/13 11:04	03/23/13 19:53	3
Acenaphthylene	ND		0.0689	0.00925	mg/Kg	n	03/21/13 11:04	03/23/13 19:53	1
inthracene	ND		0.0689	0.00925	mg/Kg	Ħ	03/21/13 11:04	03/23/13 19:53	1
Benzo[a]anthracene	0.0459	J	0.0689	0.0154	mg/Kg	23	03/21/13 11:04	03/23/13 19:53	1
senzo[a]pyrene	0.0607	J	0.0689	0.0123	mg/Kg	3.11	03/21/13 11:04	03/23/13 19:53	1
Benzo[b]fluoranthene	0.0440	J	0.0689	0.0123	mg/Kg	Ħ	03/21/13 11:04	03/23/13 19:53	1
enzo[g,h,i]perylene	ND		0.0689	0.00925	mg/Kg	17	03/21/13 11:04	03/23/13 19:53	1
Benzo[k]fluoranthene	ND		0.0689	0.0144	mg/Kg	131	03/21/13 11:04	03/23/13 19:53	1
-Methylnaphthalene	ND		0.0689	0.0144	mg/Kg	n	03/21/13 11:04	03/23/13 19:53	1
yrene	ND		0.0689	0.0123	mg/Kg	II	03/21/13 11:04	03/23/13 19:53	1
Phenanthrene	ND		0.0689	0.00925	mg/Kg	Ħ	03/21/13 11:04	03/23/13 19:53	1
Chrysene	ND		0.0689	0.00925	mg/Kg	п	03/21/13 11:04	03/23/13 19:53	1
Dibenz(a,h)anthracene	ND		0.0689	0.00719	mg/Kg	Ľ	03/21/13 11:04	03/23/13 19:53	1
luoranthene	ND		0.0689	0.00925	mg/Kg	Ħ	03/21/13 11:04	03/23/13 19:53	1
luorene	ND		0.0689	0.0123	mg/Kg	3.2	03/21/13 11:04	03/23/13 19:53	1
deno[1,2,3-cd]pyrene	ND		0.0689	0.0103	mg/Kg	Ħ	03/21/13 11:04	03/23/13 19:53	1
aphthalene	ND		0.0689	0.00925	mg/Kg	Ħ	03/21/13 11:04	03/23/13 19:53	1
-Methylnaphthalene	ND		0.0689	0.0164	mg/Kg	n	03/21/13 11:04	03/23/13 19:53	1
urrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
-Fluorobiphenyl (Surr)	59		29 - 120				03/21/13 11:04	03/23/13 19.53	1
erphenyl-d14 (Surr)	79		13 - 120				03/21/13 11:04	03/23/13 19:53	1
litrobenzene-d5 (Surr)	47		27 - 120				03/21/13 11:04	03/23/13 19.53	7
General Chemistry									
nalyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
ercent Solids	96		0.10	0.10	%			03/21/13 09:58	1

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

TestAmerica Job ID: 490-22235-1

#### Client Sample ID: 1333 Albatross

Date Collected: 03/14/13 12:00 Date Received: 03/20/13 08:30

#### Lab Sample ID: 490-22235-3

Matrix: Solid Percent Solids: 88.7

Date Received: 03/20/13 08:3	30							Percent Sol	Ids: 88.7
Method: 8260B - Volatile O	rganic Compounds	(GC/MS)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00256	0.000858	mg/Kg	п	03/21/13 09:34	03/22/13 18:44	1
Ethylbenzene	ND		0.00256	0.000858	mg/Kg	n	03/21/13 09:34	03/22/13 18:44	1
Naphthalene	ND		0.00640	0.00218	mg/Kg	II	03/21/13 09:34	03/22/13 18:44	1
Toluene	ND		0.00256	0.000947	mg/Kg	II	03/21/13 09:34	03/22/13 18:44	1
Xylenes, Total	ND		0.00640	0.000858	mg/Kg	E	03/21/13 09:34	03/22/13 18:44	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		70 - 130				03/21/13 09:34	03/22/13 18:44	1
4-Bromofluorobenzene (Surr)	124		70 - 130				03/21/13 09:34	03/22/13 18:44	7
Dibromofluoromethane (Surr)	94		70 - 130				03/21/13 09:34	03/22/13 18.44	1
Toluene-d8 (Surr)	110		70 - 130				03/21/13 09:34	03/22/13 18:44	1
Method: 8270D - Semivolati	ile Organic Compou	nds (GC/M	S)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0754	0.0113	mg/Kg	n	03/21/13 11:04	03/23/13 20:15	1
Acenaphthylene	ND		0.0754	0.0101	mg/Kg	Ж	03/21/13 11:04	03/23/13 20:15	1
Anthracene	ND		0.0754	0.0101	mg/Kg	n	03/21/13 11:04	03/23/13 20:15	1
Benzo[a]anthracene	0.412		0.0754	0.0169	mg/Kg	13	03/21/13 11:04	03/23/13 20:15	1
Benzo(a)pyrene	0.104		0.0754	0.0135	mg/Kg	Ħ	03/21/13 11:04	03/23/13 20:15	1
Benzo[b]fluoranthene	0.424		0.0754	0.0135	mg/Kg	n	03/21/13 11:04	03/23/13 20:15	1
Benzo[g,h,i]perylene	0.0640	J	0.0754	0.0101	mg/Kg	п	03/21/13 11:04	03/23/13 20:15	4
Benzo[k]fluoranthene	0.179		0.0754	0.0158	mg/Kg	iii	03/21/13 11:04	03/23/13 20:15	4
1-Methylnaphthalene	ND		0.0754	0.0158	mg/Kg	互	03/21/13 11:04	03/23/13 20:15	-1
Pyrene	1.26		0.0754	0.0135	mg/Kg	n	03/21/13 11:04	03/23/13 20:15	1
Phenanthrene	0.533		0.0754	0.0101	mg/Kg	I	03/21/13 11:04	03/23/13 20:15	1
Chrysene	0.548		0.0754	0.0101	mg/Kg	D	03/21/13 11:04	03/23/13 20:15	1
Dibenz(a,h)anthracene	ND		0.0754	0.00788	mg/Kg	n	03/21/13 11:04	03/23/13 20:15	1
Fluoranthene	1.45		0.0754	0.0101	mg/Kg	n	03/21/13 11:04	03/23/13 20:15	1
Fluorene	ND		0.0754	0.0135	mg/Kg	n	03/21/13 11:04	03/23/13 20:15	1
Indeno[1,2,3-cd]pyrene	0.0788		0.0754	0.0113	mg/Kg	13	03/21/13 11:04	03/23/13 20:15	1
Naphthalene	ND		0.0754	0.0101	mg/Kg	U	03/21/13 11:04	03/23/13 20:15	1
2-Methylnaphthalene	ND		0.0754	0.0180	mg/Kg	27	03/21/13 11:04	03/23/13 20:15	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	55		29 - 120				03/21/13 11:04	03/23/13 20:15	1
Terphenyl-d14 (Surr)	75		13 - 120				03/21/13 11:04	03/23/13 20:15	1
Nitrobenzene-d5 (Surr)	42		27.120				03/21/13 11:04	03/23/13 20:15	1
General Chemistry									
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	89		0.10	0.10	%			03/21/13 09:58	1

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

TestAmerica Job ID: 490-22235-1

Client Sample ID: 582 Aster

Date Collected: 03/12/13 13:45 Date Received: 03/20/13 08:30 Lab Sample ID: 490-22235-4

Matrix: Solid

Percent Solids: 89.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	ND		0.00219	0.000732	mg/Kg	300	03/21/13 09:34	03/22/13 19:11	
Ethylbenzene	ND		0.00219	0.000732	mg/Kg	逦	03/21/13 09:34	03/22/13 19:11	
Naphthalene	ND		0.00546	0.00186	mg/Kg	300	03/21/13 09:34	03/22/13 19:11	
Toluene	ND		0.00219	0.000808	mg/Kg	II	03/21/13 09:34	03/22/13 19:11	3
Xylenes, Total	ND		0.00546	0.000732	mg/Kg	II	03/21/13 09:34	03/22/13 19:11	3
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
1,2-Dichloroethane-d4 (Surr)	104		70 - 130				03/21/13 09:34	03/22/13 19:11	
4-Bromofluorobenzene (Surr)	113		70 - 130				03/21/13 09:34	03/22/13 19:11	8
Dibromofluoromethane (Surr)	96		70 - 130				03/21/13 09:34	03/22/13 19:11	3
Toluene-d8 (Surr)	109		70 - 130				03/21/13 09:34	03/22/13 19:11	
Method: 8270D - Semivolatile	Organic Compou	nds (GC/MS	6)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0725	0.0108	mg/Kg	n	03/21/13 11:04	03/23/13 20:37	3
Acenaphthylene	ND		0.0725	0.00974	mg/Kg	333	03/21/13 11:04	03/23/13 20:37	3
Anthracene	ND		0.0725	0.00974	mg/Kg	33	03/21/13 11:04	03/23/13 20:37	Î
Benzo[a]anthracene	ND		0.0725	0.0162	mg/Kg	n	03/21/13 11:04	03/23/13 20:37	9
Benzo[a]pyrene	ND		0.0725	0.0130	mg/Kg	II.	03/21/13 11:04	03/23/13 20:37	9
Benzo[b]fluoranthene	ND		0.0725	0.0130	mg/Kg	300	03/21/13 11:04	03/23/13 20:37	9
Benzo[g,h,i]perylene	ND		0.0725	0.00974	mg/Kg	Ħ	03/21/13 11:04	03/23/13 20:37	1
Benzo[k]fluoranthene	ND		0.0725	0.0151	mg/Kg	301	03/21/13 11:04	03/23/13 20:37	1
-Methylnaphthalene	ND		0.0725	0.0151	mg/Kg	300	03/21/13 11:04	03/23/13 20:37	9
Pyrene	ND		0.0725	0.0130	mg/Kg	II	03/21/13 11:04	03/23/13 20:37	3
Phenanthrene	ND		0.0725	0.00974	mg/Kg	n	03/21/13 11:04	03/23/13 20:37	1
Chrysene	ND		0.0725	0.00974	mg/Kg	п	03/21/13 11:04	03/23/13 20:37	1
Dibenz(a,h)anthracene	ND		0.0725	0.00757	mg/Kg	300	03/21/13 11:04	03/23/13 20:37	1
luoranthene	ND		0.0725	0.00974	mg/Kg		03/21/13 11:04	03/23/13 20:37	1
Fluorene	ND		0.0725	0.0130	mg/Kg	п	03/21/13 11:04	03/23/13 20:37	1
ndeno[1,2,3-cd]pyrene	ND		0.0725	0.0108	mg/Kg	Œ	03/21/13 11:04	03/23/13 20:37	3
laphthalene	ND		0.0725	0.00974	mg/Kg	Ø	03/21/13 11:04	03/23/13 20:37	1
-Methylnaphthalene	ND		0.0725	0.0173	mg/Kg	n	03/21/13 11:04	03/23/13 20:37	1
Gurrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
-Fluorobiphenyl (Surr)	45		29 _ 120				03/21/13 11:04	03/23/13 20:37	1
erphenyl-d14 (Surr)	76		13 - 120				03/21/13 11:04	03/23/13 20:37	1
litrobenzene-d5 (Surr)	36		27 _ 120				03/21/13 11:04	03/23/13 20:37	1
General Chemistry									
nalyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	90		0.10	0.10	%			03/21/13 09:58	1

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

TestAmerica Job ID: 490-22235-1

Lab Sample ID: 490-22235-5

Matrix: Solid Percent Solids: 93.7

Client Sample ID: 864 Dolphin

Date Collected: 03/13/13 15:45 Date Received: 03/20/13 08:30

**Percent Solids** 

Method: 8260B - Volatile Orga Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00231	0.000775	mg/Kg	n	03/21/13 09:34	03/22/13 20:05	
Ethylbenzene	ND		0.00231	0.000775	mg/Kg	n	03/21/13 09:34	03/22/13 20:05	
Naphthalene	ND		0.00579	0.00197	mg/Kg	п	03/21/13 09:34	03/22/13 20:05	
Toluene	ND		0.00231	0.000856	mg/Kg	E	03/21/13 09:34	03/22/13 20:05	7
Xylenes, Total	ND		0.00579	0.000775	mg/Kg	п	03/21/13 09:34	03/22/13 20:05	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
1,2-Dichloroethane-d4 (Surr)	105		70 - 130				03/21/13 09:34	03/22/13 20:05	
4-Bromofl uorobenzene (Surr)	112		70 - 130				03/21/13 09:34	03/22/13 20:05	a a
Dibromofl uoromethane (Surr)	96		70 _ 130				03/21/13 09:34	03/22/13 20:05	
Toluene-d8 (Surr)	109		70 _ 130				03/21/13 09:34	03/22/13 20:05	9
Method: 8270D - Semivolatile	Organic Compou	nds (GC/MS	3)						
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0698	0.0104	mg/Kg	p	03/21/13 11:04	03/23/13 20:59	
Acenaphthylene	ND		0.0698	0.00937	mg/Kg	a	03/21/13 11:04	03/23/13 20:59	3
Anthracene	ND		0.0698	0.00937	mg/Kg	CI.	03/21/13 11:04	03/23/13 20:59	1
Benzo[a]anthracene	0.113		0.0698	0.0156	mg/Kg	团	03/21/13 11:04	03/23/13 20:59	1
Benzo[a]pyrene	0.0520	J	0.0698	0.0125	mg/Kg	Ø	03/21/13 11:04	03/23/13 20:59	
Benzo[b]fluoranthene	0.108		0.0698	0.0125	mg/Kg	n	03/21/13 11:04	03/23/13 20:59	
Benzo[g,h,i]perylene	0.0371	J	0.0698	0.00937	mg/Kg	n	03/21/13 11:04	03/23/13 20:59	
Benzo[k]fluoranthene	0.0418	J	0.0698	0.0146	mg/Kg	¤	03/21/13 11:04	03/23/13 20:59	9
1-Methylnaphthalene	ND		0.0698	0.0146	mg/Kg	п	03/21/13 11:04	03/23/13 20:59	
Pyrene	0.193		0.0698	0.0125	mg/Kg	n	03/21/13 11:04	03/23/13 20:59	
Phenanthrene	0.0433	J	0.0698	0.00937	mg/Kg	n	03/21/13 11:04	03/23/13 20:59	3
Chrysene	0.112		0.0698	0.00937	mg/Kg	TI.	03/21/13 11:04	03/23/13 20:59	3
Dibenz(a,h)anthracene	ND		0.0698	0.00729	mg/Kg	□	03/21/13 11:04	03/23/13 20:59	
Fluoranthene	0.223		0.0698	0.00937	mg/Kg	131	03/21/13 11:04	03/23/13 20:59	7
Fluorene	ND		0.0698	0.0125	mg/Kg	n	03/21/13 11:04	03/23/13 20:59	
ndeno[1,2,3-cd]pyrene	ND		0.0698	0.0104	mg/Kg	E	03/21/13 11:04	03/23/13 20:59	
Naphthalene	ND		0.0698	0.00937	mg/Kg	п	03/21/13 11:04	03/23/13 20:59	9
2-Methylnaphthalene	ND		0.0698		mg/Kg	ū	03/21/13 11:04	03/23/13 20:59	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
2-Fluorobiphenyl (Surr)	56		29 - 120				03/21/13 11:04	03/23/13 20:59	
Terphenyl-d14 (Surr)	83		13 - 120				03/21/13 11:04	03/23/13 20:59	3
Nitrobenzene-d5 (Surr)	46		27 - 120				03/21/13 11:04	03/23/13 20:59	3
General Chemistry									
Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
				0.40	0.4			02/04/42 00.50	

03/21/13 09:58

0.10

94

0.10 %

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

TestAmerica Job ID: 490-22235-1

Client Sample ID: 1299 Eagle-1

Date Collected: 03/14/13 12:15 Date Received: 03/20/13 08:30 Lab Sample ID: 490-22235-6

Matrix: Solid Percent Solids: 95.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00228	0.000764	mg/Kg	n	03/21/13 09:34	03/22/13 19:38	-
Ethylbenzene	ND		0.00228	0.000764	mg/Kg	17	03/21/13 09:34	03/22/13 19:38	- 1
Naphthalene	0.00243	J	0.00570	0.00194	mg/Kg	п	03/21/13 09:34	03/22/13 19:38	1
Toluene	ND		0.00228	0.000844	mg/Kg	n	03/21/13 09:34	03/22/13 19:38	1
Xylenes, Total	0.000787	J	0.00570	0.000764	mg/Kg	ŭ	03/21/13 09:34	03/22/13 19:38	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		70 - 130				03/21/13 09:34	03/22/13 19:38	1
4-Bromofluorobenzene (Surr)	111		70 _ 130				03/21/13 09:34	03/22/13 19.38	1
Dibromofluoromethane (Surr)	95		70 - 130				03/21/13 09:34	03/22/13 19:38	1
Toluene-d8 (Surr)	109		70 - 130				03/21/13 09:34	03/22/13 19:38	1
Method: 8270D - Semivolatile	Organic Compou	nds (GC/MS	5)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.132		0.0696	0.0104	mg/Kg	n	03/21/13 11:04	03/23/13 21:20	1
Acenaphthylene	ND		0.0696	0.00936	mg/Kg	n	03/21/13 11:04	03/23/13 21:20	1
Anthracene	0.586		0.0696	0.00936	mg/Kg	E	03/21/13 11:04	03/23/13 21:20	1
Benzo[a]anthracene	5.22		0.348	0.0780	mg/Kg	n	03/21/13 11:04	03/25/13 19:36	5
Benzo[a]pyrene	1.87		0.0696	0.0125	mg/Kg	II	03/21/13 11:04	03/23/13 21:20	1
Benzo[b]fluoranthene	3.28		0.0696	0.0125	mg/Kg	n	03/21/13 11:04	03/23/13 21:20	1
Benzo[g,h,i]perylene	0.752		0.0696	0.00936	mg/Kg	II.	03/21/13 11:04	03/23/13 21:20	1
Benzo[k]fluoranthene	1.57		0.0696	0.0146	mg/Kg	n	03/21/13 11:04	03/23/13 21:20	1
1-Methylnaphthalene	0.0374	J	0.0696	0.0146	mg/Kg	n	03/21/13 11:04	03/23/13 21:20	1
Pyrene	9.29		0.348	0.0624	mg/Kg	I	03/21/13 11:04	03/25/13 19:36	5
Phenanthrene	5.93		0.348	0.0468	mg/Kg	n	03/21/13 11:04	03/25/13 19:36	5
Chrysene	5.44		0.348	0.0468	mg/Kg	п	03/21/13 11:04	03/25/13 19:36	5
Dibenz(a,h)anthracene	0.293		0.0696	0.00728	mg/Kg	Q.	03/21/13 11:04	03/23/13 21:20	1
Fluoranthene	11.5		0.348	0.0468	mg/Kg	n	03/21/13 11:04	03/25/13 19:36	5
Fluorene	0.163		0.0696	0.0125	mg/Kg	п	03/21/13 11:04	03/23/13 21:20	1
ndeno[1,2,3-cd]pyrene	0.755		0.0696	0.0104	mg/Kg	44	03/21/13 11:04	03/23/13 21:20	1
laphthalene	0.114		0.0696	0.00936	mg/Kg	n	03/21/13 11:04	03/23/13 21:20	1
2-Methylnaphthalene	0.0358	J	0.0696	0.0166	mg/Kg	n	03/21/13 11:04	03/23/13 21:20	1
Gurrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
-Fluorobiphenyl (Surr)	56		29 - 120				03/21/13 11.04	03/23/13 21:20	1
-Fluorobiphenyl (Surr)	64		29 - 120				03/21/13 11:04	03/25/13 19:36	5
erphenyl-d14 (Surr)	98		13 - 120				03/21/13 11:04	03/23/13 21:20	1
Ferphenyl-d14 (Surr)	90		13 - 120				03/21/13 11:04	03/25/13 19:36	5
litrobenzene-d5 (Surr)	46		27 - 120				03/21/13 11:04	03/23/13 21:20	7
litrobenzene-d5 (Surr)	64		27 - 120				03/21/13 11:04	03/25/13 19:36	5
General Chemistry									
nalyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
ercent Solids	95		0.10	0.10	%			03/21/13 09:58	1

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

TestAmerica Job ID: 490-22235-1

#### Client Sample ID: 1299 Eagle-2

Date Collected: 03/14/13 14:15 Date Received: 03/20/13 08:30

**Percent Solids** 

#### Lab Sample ID: 490-22235-7

Matrix: Solid Percent Solids: 89.8

Date Received: 03/20/13 08:30		(00/200)						Percent Son	as: 89.8
Method: 8260B - Volatile Orga Analyte		(GC/MS) Qualifier	RL	MDI	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00249	0.000834		13	03/21/13 09:34	03/22/13 20:32	1
Ethylbenzene	ND		0.00249	0.000834	0 0	n	03/21/13 09:34	03/22/13 20:32	1
Naphthalene	ND		0.00623	0.00212		n	03/21/13 09:34	03/22/13 20:32	1
Toluene	ND		0.00249	0.000921	mg/Kg	323	03/21/13 09:34	03/22/13 20:32	1
Xylenes, Total	ND		0.00623			n	03/21/13 09:34	03/22/13 20:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		70 - 130				03/21/13 09:34	03/22/13 20:32	1
4-Bromofluorobenzene (Surr)	113		70 - 130				03/21/13 09:34	03/22/13 20.32	1
Dibromofluoromethane (Surr)	94		70 - 130				03/21/13 09:34	03/22/13 20:32	1
Toluene-d8 (Surr)	109		70 - 130				03/21/13 09:34	03/22/13 20:32	1
Method: 8270D - Semivolatile	Organic Compou	inds (GC/MS	3)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0735	0.0110	mg/Kg	II.	03/21/13 12:52	03/21/13 22:01	1
Acenaphthylene	ND		0.0735	0.00988	mg/Kg	M	03/21/13 12:52	03/21/13 22:01	1
Anthracene	ND		0.0735	0.00988	mg/Kg	177	03/21/13 12:52	03/21/13 22:01	1
Benzo[a]anthracene	ND		0.0735	0.0165	mg/Kg	TX.	03/21/13 12:52	03/21/13 22:01	1
Benzo[a]pyrene	ND		0.0735	0.0132	mg/Kg	121	03/21/13 12:52	03/21/13 22:01	1
Benzo[b]fluoranthene	ND		0.0735	0.0132	mg/Kg	n	03/21/13 12:52	03/21/13 22:01	1
Benzo[g,h,i]perylene	ND		0.0735	0.00988	mg/Kg	Œ	03/21/13 12:52	03/21/13 22:01	1
Benzo[k]fluoranthene	ND		0.0735	0.0154	mg/Kg	E	03/21/13 12:52	03/21/13 22:01	1
1-Methylnaphthalene	ND		0.0735	0.0154	mg/Kg	Д	03/21/13 12:52	03/21/13 22:01	1
Pyrene	ND		0.0735	0.0132	mg/Kg	301	03/21/13 12:52	03/21/13 22:01	-1
Phenanthrene	ND		0.0735	0.00988	mg/Kg	n	03/21/13 12:52	03/21/13 22:01	1
Chrysene	ND		0.0735	0.00988	mg/Kg	11	03/21/13 12:52	03/21/13 22:01	-1
Dibenz(a,h)anthracene	ND		0.0735	0.00768	mg/Kg	П	03/21/13 12:52	03/21/13 22:01	1
Fluoranthene	ND		0.0735	0.00988	mg/Kg	Ħ	03/21/13 12:52	03/21/13 22:01	1
Fluorene	ND		0.0735	0.0132	mg/Kg	E	03/21/13 12:52	03/21/13 22:01	1
Indeno[1,2,3-cd]pyrene	ND		0.0735	0.0110	mg/Kg	n	03/21/13 12:52	03/21/13 22:01	1
Naphthalene	ND		0.0735	0.00988	mg/Kg	D	03/21/13 12:52	03/21/13 22:01	1
2-Methylnaphthalene	ND		0.0735	0.0176	mg/Kg	n	03/21/13 12:52	03/21/13 22:01	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	57		29 - 120				03/21/13 12:52	03/21/13 22:01	1
Terphenyld14 (Surr)	80		13 - 120				03/21/13 12:52	03/21/13 22:01	1
Nitrobenzene-d5 (Surr)	57		27 - 120				03/21/13 12:52	03/21/13 22:01	1
General Chemistry									
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac

03/21/13 09:58

0.10

0.10 %

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

TestAmerica Job ID: 490-22235-1

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

Lab Sample ID: MB 490-66946/7

Matrix: Solid

Analysis Batch: 66946

Client Sample ID: Method Blank

Prep Type: Total/NA

MB MB Analyte Result Qualifier RL MDL Unit Prepared Analyzed Dil Fac ND 0.00200 0.000670 mg/Kg 03/22/13 14:39 Benzene 0.00200 0.000670 mg/Kg 03/22/13 14:39 ND Ethylbenzene 03/22/13 14:39 Naphthalene ND 0.00500 0.00170 mg/Kg ND 0.00200 0.000740 mg/Kg 03/22/13 14:39 Toluene ND 0.00500 0.000670 mg/Kg 03/22/13 14:39 Xylenes, Total

мв мв				
covery Qualifier	Limits	Prepared	Analyzed	Dil Fac
104	70 - 130		03/22/13 14:39	1
110	70 - 130		03/22/13 14:39	1
94	70 - 130		03/22/13 14:39	1
110	70 - 130		03/22/13 14:39	1
	104 110 94	covery         Qualifier         Limits           104         70 - 130           110         70 - 130           94         70 - 130	covery         Qualifier         Limits         Prepared           104         70 - 130           110         70 - 130           94         70 - 130	covery         Qualifier         Limits         Prepared         Analyzed           104         70 - 130         03/22/13 14:39           110         70 - 130         03/22/13 14:39           94         70 - 130         03/22/13 14:39

Lab Sample ID: LCS 490-66946/3

Matrix: Solid

Analysis Batch: 66946

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

	Spike	LCS	LUS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.0500	0.04651		mg/Kg		93	75 - 127	
Ethylbenzene	0.0500	0.04757		mg/Kg		95	80 - 134	
Naphthalene	0.0500	0.05365		mg/Kg		107	69 - 150	
Toluene	0.0500	0.05005		mg/Kg		100	80 - 132	
Xylenes, Total	0.150	0.1432		mg/Kg		95	80 - 137	

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	102		70 - 130
4-Bromofluorobenzene (Surr)	112		70 - 130
Dibromofluoromethane (Surr)	96		70 - 130
Toluene-d8 (Surr)	111		70 - 130

Lab Sample ID: LCSD 490-66946/4

Matrix: Solid

Analysis Batch: 66946

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

	Spike	LCSD LCSD				%Rec.		RPD
Analyte	Added	Result Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.0500	0.04850	mg/Kg		97	75 - 127	4	50
Ethylbenzene	0.0500	0.04934	mg/Kg		99	80 - 134	4	50
Naphthalene	0.0500	0.05463	mg/Kg		109	69 - 150	2	50
Toluene	0.0500	0.05191	mg/Kg		104	80 - 132	4	50
Xylenes, Total	0.150	0.1495	mg/Kg		100	80 - 137	4	50

LCSD LCSD

Surrogate	%Recovery Q	ualifier	Limits
1,2-Dichloroethane-d4 (Surr)	103		70 - 130
4-Bromofluorobenzene (Surr)	111		70 - 130
Dibromofluoromethane (Surr)	96		70 - 130
Toluene-d8 (Surr)	110		70 - 130

TestAmerica Nashville

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

TestAmerica Job ID: 490-22235-1

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

Lab Sample ID: MB 490-66640/1-A

Matrix: Solid

Analysis Batch: 67211

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 66640

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0670	0.0100	mg/Kg		03/21/13 11:04	03/23/13 13:02	1
Acenaphthylene	ND		0.0670	0.00900	mg/Kg		03/21/13 11:04	03/23/13 13:02	1
Anthracene	ND		0.0670	0.00900	mg/Kg		03/21/13 11:04	03/23/13 13:02	1
Benzo[a]anthracene	ND		0.0670	0.0150	mg/Kg		03/21/13 11:04	03/23/13 13:02	1
Benzo[a]pyrene	ND		0.0670	0.0120	mg/Kg		03/21/13 11:04	03/23/13 13:02	1
Benzo[b]fluoranthene	ND		0.0670	0.0120	mg/Kg		03/21/13 11:04	03/23/13 13:02	1
Benzo[g,h,i]perylene	ND		0.0670	0.00900	mg/Kg		03/21/13 11:04	03/23/13 13:02	1
Benzo[k]fluoranthene	ND		0.0670	0.0140	mg/Kg		03/21/13 11:04	03/23/13 13:02	1
1-Methylnaphthalene	ND		0.0670	0.0140	mg/Kg		03/21/13 11:04	03/23/13 13:02	1
Pyrene	ND		0.0670	0.0120	mg/Kg		03/21/13 11:04	03/23/13 13:02	1
Phenanthrene	ND		0.0670	0.00900	mg/Kg		03/21/13 11:04	03/23/13 13:02	1
Chrysene	ND		0.0670	0.00900	mg/Kg		03/21/13 11:04	03/23/13 13:02	1
Dibenz(a,h)anthracene	ND		0.0670	0.00700	mg/Kg		03/21/13 11:04	03/23/13 13:02	1
Fluoranthene	ND		0.0670	0.00900	mg/Kg		03/21/13 11:04	03/23/13 13:02	1
Fluorene	ND		0.0670	0.0120	mg/Kg		03/21/13 11:04	03/23/13 13:02	1
Indeno[1,2,3-cd]pyrene	ND		0.0670	0.0100	mg/Kg		03/21/13 11:04	03/23/13 13:02	-1
Naphthalene	ND		0.0670	0.00900	mg/Kg		03/21/13 11:04	03/23/13 13:02	1
2-Methylnaphthalene	ND		0.0670	0.0160	mg/Kg		03/21/13 11:04	03/23/13 13:02	1

MB MB

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	64	29 - 120	03/21/13 11:04	03/23/13 13:02	1
Terphenyl-d14 (Surr)	83	13 - 120	03/21/13 11.04	03/23/13 13:02	1
Nitrobenzene-d5 (Surr)	62	27 - 120	03/21/13 11:04	03/23/13 13:02	1

Lab Sample ID: LCS 490-66640/2-A

Matrix: Solid

Analysis Batch: 67211

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 66640

Analysis Batch: 6/211					riek
	Spike	LCS	LCS		%Rec.
Analyte	Added	Result	Qualifier Unit	D %Rec	Limits
Acenaphthylene	1.67	1.041	mg/Kg	62	38 - 120
Anthracene	1.67	1.085	mg/Kg	65	46 - 124
Benzo[a]anthracene	1.67	1.128	mg/Kg	68	45 - 120
Benzo[a]pyrene	1.67	1.082	mg/Kg	65	45 - 120
Benzo[b]fluoranthene	1.67	1.150	mg/Kg	69	42 - 120
Benzo[g,h,i]perylene	1.67	1.229	mg/Kg	74	38 - 120
Benzo[k]fluoranthene	1.67	1.082	mg/Kg	65	42 - 120
1-Methylnaphthalene	1.67	0.8838	mg/Kg	53	32 - 120
Pyrene	1.67	1.134	mg/Kg	68	43 - 120
Phenanthrene	1.67	1.133	mg/Kg	68	45 - 120
Chrysene	1.67	1.130	mg/Kg	68	43 - 120
Dibenz(a,h)anthracene	1.67	1.231	mg/Kg	74	32 - 128
Fluoranthene	1.67	1.099	mg/Kg	66	46 - 120
Fluorene	1.67	1.036	mg/Kg	62	42 - 120
Indeno[1,2,3-cd]pyrene	1.67	1.210	mg/Kg	73	41 - 121
Naphthalene	1.67	0.8737	mg/Kg	52	32 - 120
2-Methylnaphthalene	1.67	0.8932	mg/Kg	54	28 - 120

TestAmerica Nashville

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

TestAmerica Job ID: 490-22235-1

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

Lab Sample ID: LCS 490-66640/2-A

Matrix: Solid

Analysis Batch: 67211

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 66640

	LCS LCS	
Surrogate	%Recovery Qualifier	Limits
2-Fluorobiphenyl (Surr)	48	29 - 120
Terphenyl-d14 (Surr)	72	13 - 120
Nitrobenzene-d5 (Surr)	36	27 - 120

Lab Sample ID: 490-22195-G-5-B MSD

Matrix: Solid

Analysis Batch: 67211

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA Prep Batch: 66640

rilary oro Batom or Err											
	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Acenaphthylene	ND		2.34	1.716		mg/Kg	n	73	25 - 120	18	50
Anthracene	ND		2.34	1.733		mg/Kg	n	74	28 - 125	21	49
Benzo[a]anthracene	ND		2.34	1.787		mg/Kg	n	76	23 - 120	20	50
Benzo[a]pyrene	ND		2.34	1.752		mg/Kg	n	75	15 - 128	24	50
Benzo[b]fluoranthene	ND		2.34	1.875		mg/Kg	ũ	80	12 - 133	29	50
Benzo[g,h,i]perylene	ND		2.34	1.741		mg/Kg	Ħ	74	22 - 120	31	50
Benzo[k]fluoranthene	ND		2.34	1.730		mg/Kg	n	74	28 - 120	15	45
1-Methylnaphthalene	ND		2.34	1.426		mg/Kg	17	61	10 - 120	12	50
Pyrene	ND		2.34	1.780		mg/Kg	П	76	20 - 123	21	50
Phenanthrene	ND		2.34	1.806		mg/Kg	n	77	21 - 122	21	50
Chrysene	ND		2.34	1.809		mg/Kg	n	77	20 - 120	15	49
Dibenz(a,h)anthracene	ND		2.34	1.835		mg/Kg	II	78	12 - 128	33	50
Fluoranthene	ND		2.34	1.752		mg/Kg	n	75	10 - 143	18	50
Fluorene	ND		2.34	1.644		mg/Kg	ü	70	20 - 120	18	50
Indeno[1,2,3-cd]pyrene	ND		2.34	1.761		mg/Kg	n	75	22 _ 121	32	50
Naphthalene	ND		2.34	1.509		mg/Kg	ü	64	10 - 120	23	50
2-Methylnaphthalene	ND		2.34	1.481		mg/Kg	Ja.	63	13 - 120	16	50

MSD MSD

Surrogate	%Recovery Qualifier	Limits
2-Fluorobiphenyl (Surr)	59	29 - 120
Terphenyl-d14 (Surr)	84	13 - 120
Nitrobenzene-d5 (Surr)	50	27 - 120

Lab Sample ID: 490-22195-I-5-A MS

Matrix: Solid

Analysis Batch: 67211

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 66640

	Sample	Sample	Spike	MS	MS				%Rec.
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Acenaphthylene	ND		2.40	1.427		mg/Kg	n	60	25 - 120
Anthracene	ND		2.40	1.402		mg/Kg	n	58	28 - 125
Benzo[a]anthracene	ND		2.40	1.459		mg/Kg	u	61	23 - 120
Benzo[a]pyrene	ND		2.40	1.376		mg/Kg	II	57	15 - 128
Benzo[b]fluoranthene	ND		2.40	1.396		mg/Kg	Ħ	58	12 - 133
Benzo[g,h,i]perylene	ND		2.40	1.271		mg/Kg	n	53	22 - 120
Benzo[k]fluoranthene	ND		2.40	1.495		mg/Kg	n	62	28 - 120
1-Methylnaphthalene	ND		2.40	1.262		mg/Kg	275	53	10 - 120
Pyrene	ND		2.40	1.437		mg/Kg	n	60	20 - 123
Phenanthrene	ND		2.40	1.462		mg/Kg	100	61	21 - 122
Chrysene	ND		2.40	1.557		mg/Kg	II	65	20 - 120

TestAmerica Nashville

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TestAmerica Job ID: 490-22235-1

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

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

Lab Sample ID: 490-22195-I-5-A MS

Matrix: Solid

Analysis Batch: 67211

Client Sample ID: Matrix Spike Prep Type: Total/NA Prep Batch: 66640

	Sample	Sample	Spike	MS	MS				%Rec.
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Dibenz(a,h)anthracene	ND		2.40	1.319		mg/Kg	n	55	12 - 128
Fluoranthene	ND		2.40	1.462		mg/Kg	11	61	10 - 143
Fluorene	ND		2.40	1.378		mg/Kg	II	57	20 - 120
Indeno[1,2,3-cd]pyrene	ND		2.40	1.277		mg/Kg	n	53	22 - 121
Naphthalene	ND		2.40	1.203		mg/Kg	II	50	10 - 120
2-Methylnaphthalene	ND		2.40	1.259		mg/Kg	Ħ	53	13 _ 120

MS MS

Surrogate	%Recovery	Qualifier	Limits
2-Fluorobiphenyl (Surr)	46		29 - 120
Terphenyl-d14 (Surr)	68		13 - 120
Nitrobenzene-d5 (Surr)	35		27 - 120

Lab Sample ID: MB 490-66691/1-A

Matrix: Solid

Analysis Batch: 66721

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 66691

	IVID	IVID							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0670	0.0100	mg/Kg		03/21/13 12:52	03/21/13 16:49	1
Acenaphthylene	ND		0.0670	0.00900	mg/Kg		03/21/13 12:52	03/21/13 16:49	1
Anthracene	ND		0.0670	0.00900	mg/Kg		03/21/13 12:52	03/21/13 16:49	1
Benzo[a]anthracene	ND		0.0670	0.0150	mg/Kg		03/21/13 12:52	03/21/13 16 49	1
Benzo[a]pyrene	ND		0.0670	0.0120	mg/Kg		03/21/13 12:52	03/21/13 16:49	1
Benzo[b]fluoranthene	ND		0.0670	0.0120	mg/Kg		03/21/13 12:52	03/21/13 16:49	1
Benzo[g,h,i]perylene	ND		0.0670	0.00900	mg/Kg		03/21/13 12:52	03/21/13 16:49	1
Benzo[k]fluoranthene	ND		0.0670	0.0140	mg/Kg		03/21/13 12:52	03/21/13 16:49	1
1-Methylnaphthalene	ND		0.0670	0.0140	mg/Kg		03/21/13 12:52	03/21/13 16:49	1
Pyrene	ND		0.0670	0.0120	mg/Kg		03/21/13 12:52	03/21/13 16:49	1
Phenanthrene	ND		0.0670	0.00900	mg/Kg		03/21/13 12:52	03/21/13 16:49	1
Chrysene	ND		0.0670	0.00900	mg/Kg		03/21/13 12:52	03/21/13 16:49	1
Dibenz(a,h)anthracene	ND		0.0670	0.00700	mg/Kg		03/21/13 12:52	03/21/13 16:49	1
Fluoranthene	ND		0.0670	0.00900	mg/Kg		03/21/13 12:52	03/21/13 16:49	1
Fluorene	ND		0.0670	0.0120	mg/Kg		03/21/13 12:52	03/21/13 16:49	1
Indeno[1,2,3-cd]pyrene	ND		0.0670	0.0100	mg/Kg		03/21/13 12:52	03/21/13 16:49	1
Naphthalene	ND		0.0670	0.00900	mg/Kg		03/21/13 12:52	03/21/13 16:49	1
2-Methylnaphthalene	ND		0.0670	0.0160	mg/Kg		03/21/13 12:52	03/21/13 16:49	3

AAD	AAD
VID.	IVID

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	48	29 - 120	03/21/13 12:52	03/21/13 16:49	1
Terphenyl-d14 (Surr)	75	13 - 120	03/21/13 12.52	03/21/13 16:49	1
Nitrobenzene-d5 (Surr)	55	27 - 120	03/21/13 12.52	03/21/13 16:49	1

Lab Sample ID: LCS 490-66691/2-A

Matrix: Solid

Analysis Batch: 66721

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 66691

	Spike	LCS LCS				%Rec.
Analyte	Added	Result Qualifier	Unit	D	%Rec	Limits
Acenaphthylene	1.67	1.194	mg/Kg		72	38 - 120
Anthracene	1.67	1.315	mg/Kg		79	46 - 124

TestAmerica Nashville

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TestAmerica Job ID: 490-22235-1

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

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

Lab Sample ID: LCS 490-66691/2-A

Matrix: Solid

Analysis Batch: 66721

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 66691

Analysis Batch: 66721					
Third Jacob Carani Cova	Spike	LCS L	cs		%Rec.
Analyte	Added	Result C	ualifier Unit	D %Rec	Limits
Benzo[a]anthracene	1.67	1.270	mg/Kg	76	45 - 120
Benzo[a]pyrene	1.67	1.269	mg/Kg	76	45 _ 120
Benzo[b]fluoranthene	1.67	1.329	mg/Kg	80	42 - 120
Benzo[g,h,i]perylene	1.67	1.218	mg/Kg	73	38 - 120
Benzo[k]fluoranthene	1.67	1.194	mg/Kg	72	42 - 120
1-Methylnaphthalene	1.67	1.313	mg/Kg	79	32 _ 120
Pyrene	1.67	1.271	mg/Kg	76	43 - 120
Phenanthrene	1.67	1.305	mg/Kg	78	45 - 120
Chrysene	1.67	1.272	mg/Kg	76	43 - 120
Dibenz(a,h)anthracene	1.67	1.277	mg/Kg	77	32 - 128
Fluoranthene	1.67	1.301	mg/Kg	78	46 - 120
Fluorene	1.67	1.104	mg/Kg	66	42 - 120
Indeno[1,2,3-cd]pyrene	1.67	1.256	mg/Kg	75	41 - 121
Naphthalene	1.67	1.305	mg/Kg	78	32 - 120
2-Methylnaphthalene	1.67	1.380	mg/Kg	83	28 - 120

LCS LCS

Surrogate	%Recovery Qualifie	er Limits
2-Fluorobiphenyl (Surr)	56	29 - 120
Terphenyl-d14 (Surr)	81	13 - 120
Nitrobenzene-d5 (Surr)	66	27 - 120

Lab Sample ID: 490-22250-F-1-B MS

Matrix: Solid

Analysis Batch: 66721

Client Sample ID: Matrix Spike Prep Type: Total/NA Prep Batch: 66691

ranary or o Daton. co. 21	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Acenaphthylene	ND		1.73	1.161		mg/Kg	n	67	25 - 120	
Anthracene	ND		1.73	1.374		mg/Kg	Ti.	79	28 - 125	
Benzo[a]anthracene	ND		1.73	1.297		mg/Kg	X	75	23 - 120	
Benzo[a]pyrene	ND		1.73	1.292		mg/Kg	П	75	15 - 128	
Benzo[b]fluoranthene	ND		1.73	1.377		mg/Kg	П	79	12 - 133	
Benzo[g,h,i]perylene	ND		1.73	1.278		mg/Kg	ŭ	74	22 - 120	
Benzo[k]fluoranthene	ND		1.73	1.310		mg/Kg	10	76	28 - 120	
1-Methylnaphthalene	ND		1.73	1.224		mg/Kg	10	71	10 - 120	
Pyrene	ND		1.73	1.547		mg/Kg	ŭ	89	20 - 123	
Phenanthrene	ND		1.73	1.385		mg/Kg	n	80	21 - 122	
Chrysene	ND		1.73	1.394		mg/Kg	Ħ	80	20 - 120	
Dibenz(a,h)anthracene	ND		1.73	1.282		mg/Kg	II	74	12 - 128	
Fluoranthene	ND		1.73	1.348		mg/Kg	37	78	10 - 143	
Fluorene	ND		1.73	1.185		mg/Kg	II	68	20 - 120	
Indeno[1,2,3-cd]pyrene	ND		1.73	1.189		mg/Kg	Ω	69	22 - 121	
Naphthalene	ND		1.73	1.152		mg/Kg	C	66	10 - 120	
2-Methylnaphthalene	ND		1.73	1.246		mg/Kg	Ħ	72	13 - 120	
	MS	MS								
Surrogate	%Recovery	Qualifier	Limits							
2-Fluorobiphenyl (Surr)	54		29 - 120							
Terphenyl-d14 (Surr)	89		13 - 120							

TestAmerica Nashville

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

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

Lab Sample ID: 490-22250-F-1-B MS

Lab Sample ID: 490-22250-F-1-C MSD

Matrix: Solid

Matrix: Solid

Analysis Batch: 66721

Client Sample ID: Matrix Spike Prep Type: Total/NA

Prep Batch: 66691

MS MS

Surrogate %Recovery Qualifier Limits 27 - 120 Nitrobenzene-d5 (Surr) 55

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 66691

Analysis Batch: 66721 Sample Spike MSD MSD Sample Qualifier Added Result Qualifier %Rec Limits RPD Limit Analyte Result Unit D 79 25 - 120 50 ND 1.75 18 Acenaphthylene 1 393 mg/Kg 28 - 125 ND 1.75 49 Anthracene 1.341 mg/Kg 77 2 ND 1.75 1,405 mg/Kg 23 - 120 50 Benzo[a]anthracene mg/Kg ND 1.75 1.366 78 15 - 128 50 Benzo[a]pyrene 6 1.75 n ND Benzo[b]fluoranthene 1.370 mg/Kg 78 12 - 133 50 Benzo[g,h,i]perylene ND 1.75 1.369 mg/Kg 78 22 - 120 50 28 - 120 H 45 Benzo[k]fluoranthene ND 1.75 1.310 mg/Kg 75 0 1-Methylnaphthalene ND 1 75 1 321 75 10 - 120 8 50 mg/Kg ND 20 - 123 50 Pyrene 1.75 1.405 mg/Kg 80 10 Phenanthrene ND 1.75 1.343 mg/Kg 77 21 - 122 3 50 ND 1.75 1.346 77 20 - 120 49 Chrysene mg/Kg 4 1 75 12 - 128 Dibenz(a,h)anthracene ND 1.315 mg/Kg 75 3 50 Fluoranthene ND 1.75 1.206 mg/Kg 69 10 - 143 11 50 Fluorene ND 1.75 1.230 mg/Kg 70 20 - 120 4 50 Indeno[1,2,3-cd]pyrene ND 1 75 1 287 mg/Kg 73 22 - 121 8 50 275 Naphthalene ND 1.75 1.319 mg/Kg 75 10 - 120 14 50 2-Methylnaphthalene ND 1.75 1.426 mg/Kg 13 - 120 13 50

MSD MSD

Surrogate %Recovery Qualifier Limits 2-Fluorobiphenyl (Surr) 59 29 - 120 Terphenyl-d14 (Surr) 79 13 - 120 27 - 120 Nitrobenzene-d5 (Surr) 59

Method: Moisture - Percent Moisture

Lab Sample ID: 490-22235-1 DU

Matrix: Solid

Analysis Batch: 66580

Client Sample ID: 581 Aster Prep Type: Total/NA

Sample Sample DU DU RPD RPD Analyte Result Qualifier Result Qualifier Unit Limit Percent Solids 77 77 0.1 20

TestAmerica Nashville

# **QC Association Summary**

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

TestAmerica Job ID: 490-22235-1

#### GC/MS VOA

#### Prep Batch: 66559

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-22235-1	581 Aster	Total/NA	Solid	5035	
490-22235-2	1289 Eagle	Total/NA	Solid	5035	
490-22235-3	1333 Albatross	Total/NA	Solid	5035	
490-22235-4	582 Aster	Total/NA	Solid	5035	
490-22235-5	864 Dolphin	Total/NA	Solid	5035	
490-22235-6	1299 Eagle-1	Total/NA	Solid	5035	
490-22235-7	1299 Eagle-2	Total/NA	Solid	5035	
Analysis Batch: 6694	46				
Lah Sample ID	Client Sample ID	Pren Tyne	Matrix	Method	Pren Batch

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-22235-1	581 Aster	Total/NA	Solid	8260B	66559
490-22235-2	1289 Eagle	Total/NA	Solid	8260B	66559
490-22235-3	1333 Albatross	Total/NA	Solid	8260B	66559
490-22235-4	582 Aster	Total/NA	Solid	8260B	66559
490-22235-5	864 Dolphin	Total/NA	Solid	8260B	66559
490-22235-6	1299 Eagle-1	Total/NA	Solid	8260B	66559
490-22235-7	1299 Eagle-2	Total/NA	Solid	8260B	66559
LCS 490-66946/3	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 490-66946/4	Lab Control Sample Dup	Total/NA	Solid	8260B	
MB 490-66946/7	Method Blank	Total/NA	Solid	8260B	

#### GC/MS Semi VOA

#### Prep Batch: 66640

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batc
490-22195-G-5-B MSD	Matrix Spike Duplicate	Total/NA	Solid	3550C	
490-22195-I-5-A MS	Matrix Spike	Total/NA	Solid	3550C	
490-22235-1	581 Aster	Total/NA	Solid	3550C	
490-22235-2	1289 Eagle	Total/NA	Solid	3550C	
490-22235-3	1333 Albatross	Total/NA	Solid	3550C	
490-22235-4	582 Aster	Total/NA	Solid	3550C	
490-22235-5	864 Dolphin	Total/NA	Solid	3550C	
490-22235-6	1299 Eagle-1	Total/NA	Solid	3550C	
LCS 490-66640/2-A	Lab Control Sample	Total/NA	Solid	3550C	
MB 490-66640/1-A	Method Blank	Total/NA	Solid	3550C	

#### Prep Batch: 66691

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-22235-7	1299 Eagle-2	Total/NA	Solid	3550C	
490-22250-F-1-B MS	Matrix Spike	Total/NA	Solid	3550C	
490-22250-F-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	3550C	
LCS 490-66691/2-A	Lab Control Sample	Total/NA	Solid	3550C	
MB 490-66691/1-A	Method Blank	Total/NA	Solid	3550C	

#### Analysis Batch: 66721

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-22235-7	1299 Eagle-2	Total/NA	Solid	8270D	66691
490-22250-F-1-B MS	Matrix Spike	Total/NA	Solid	8270D	66691
490-22250-F-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8270D	66691
LCS 490-66691/2-A	Lab Control Sample	Total/NA	Solid	8270D	66691

TestAmerica Nashville

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# **QC Association Summary**

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

TestAmerica Job ID: 490-22235-1

# GC/MS Semi VOA (Continued)

#### Analysis Batch: 66721 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 490-66691/1-A	Method Blank	Total/NA	Solid	8270D	66691
Analysis Batch: 67211					
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-22195-G-5-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8270D	66640
490-22195-I-5-A MS	Matrix Spike	Total/NA	Solid	8270D	66640
490-22235-1	581 Aster	Total/NA	Solid	8270D	66640
490-22235-2	1289 Eagle	Total/NA	Solid	8270D	66640
490-22235-3	1333 Albatross	Total/NA	Solid	8270D	66640
490-22235-4	582 Aster	Total/NA	Solid	8270D	66640
490-22235-5	864 Dolphin	Total/NA	Solid	8270D	66640
490-22235-6	1299 Eagle-1	Total/NA	Solid	8270D	66640
LCS 490-66640/2-A	Lab Control Sample	Total/NA	Solid	8270D	66640
MB 490-66640/1-A	Method Blank	Total/NA	Solid	8270D	66640
Analysis Batch: 67393					
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-22235-6	1299 Eagle-1	Total/NA	Solid	8270D	66640

#### **General Chemistry**

#### Analysis Batch: 66580

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-22235-1	581 Aster	Total/NA	Solid	Moisture	
490-22235-1 DU	581 Aster	Total/NA	Solid	Moisture	
490-22235-2	1289 Eagle	Total/NA	Solid	Moisture	
490-22235-3	1333 Albatross	Total/NA	Solid	Moisture	
490-22235-4	582 Aster	Total/NA	Solid	Moisture	
490-22235-5	864 Dolphin	Total/NA	Solid	Moisture	
490-22235-6	1299 Eagle-1	Total/NA	Solid	Moisture	
490-22235-7	1299 Eagle-2	Total/NA	Solid	Moisture	

#### **Lab Chronicle**

Client: Environmental Enterprise Group

Project/Site: Laurel Bay Housing

Lab Sample ID: 490-22235-1

TestAmerica Job ID: 490-22235-1

Matrix: Solid

Percent Solids: 76.6

# Client Sample ID: 581 Aster

Date Collected: 03/12/13 13:40 Date Received: 03/20/13 08:30

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			66559	03/21/13 09:34	ML	TAL NSH
Total/NA	Analysis	8260B		1	66946	03/22/13 17:50	MH	TAL NSH
Total/NA	Prep	3550C			66640	03/21/13 11:04	AK	TAL NSH
Total/NA	Analysis	8270D		1	67211	03/23/13 19:31	JS	TAL NSH
Total/NA	Analysis	Moisture		1	66580	03/21/13 09:58	RS	TAL NSH

Lab Sample ID: 490-22235-2

Matrix: Solid

Percent Solids: 96.4

Client Sample ID: 1289 Eagle

Date Collected: 03/13/13 13:30 Date Received: 03/20/13 08:30

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			66559	03/21/13 09:34	ML	TAL NSH
Total/NA	Analysis	8260B		1	66946	03/22/13 18:17	MH	TAL NSH
Total/NA	Prep	3550C			66640	03/21/13 11:04	AK	TAL NSH
Total/NA	Analysis	8270D		1	67211	03/23/13 19:53	JS	TAL NSH
Total/NA	Analysis	Moisture		1	66580	03/21/13 09:58	RS	TAL NSH

Client Sample ID: 1333 Albatross

Date Collected: 03/14/13 12:00

Date Received: 03/20/13 08:30

Lab Sample	ID:	490-22235-3
		Matrix: Solid

Percent Solids: 88.7

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			66559	03/21/13 09:34	ML	TAL NSH
Total/NA	Analysis	8260B		4.	66946	03/22/13 18:44	MH	TAL NSH
Total/NA	Prep	3550C			66640	03/21/13 11:04	AK	TAL NSH
Total/NA	Analysis	8270D		1	67211	03/23/13 20:15	JS	TAL NSH
Total/NA	Analysis	Moisture		1	66580	03/21/13 09:58	RS	TAL NSH

Client Sample ID: 582 Aster

Date Collected: 03/12/13 13:45

Date Received: 03/20/13 08:30

ab Sam	ple ID:	490-22235-4
--------	---------	-------------

Matrix: Solid Percent Solids: 89.9

	Batch	Batch	1	Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			66559	03/21/13 09:34	ML	TAL NSH
Total/NA	Analysis	8260B		1	66946	03/22/13 19:11	MH	TAL NSH
Total/NA	Prep	3550C			66640	03/21/13 11:04	AK	TAL NSH
Total/NA	Analysis	8270D		1	67211	03/23/13 20:37	JS	TAL NSH
Total/NA	Analysis	Moisture		1	66580	03/21/13 09:58	RS	TAL NSH

TestAmerica Nashville

#### Lab Chronicle

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

TestAmerica Job ID: 490-22235-1

Client Sample ID: 864 Dolphin

Client Sample ID: 1299 Eagle-1

Date Collected: 03/14/13 12:15

Date Received: 03/20/13 08:30

Date Collected: 03/13/13 15:45 Date Received: 03/20/13 08:30

Lab Sample ID: 490-22235-5

Matrix: Solid

Percent Solids: 93.7

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			66559	03/21/13 09:34	ML	TAL NSH
Total/NA	Analysis	8260B		1	66946	03/22/13 20:05	MH	TAL NSH
Total/NA	Prep	3550C			66640	03/21/13 11:04	AK	TAL NSH
Total/NA	Analysis	8270D		1	67211	03/23/13 20:59	JS	TAL NSH
Total/NA	Analysis	Moisture		1	66580	03/21/13 09:58	RS	TAL NSH

Lab Sample ID: 490-22235-6

Matrix: Solid

Percent Solids: 95.3

Batch Batch Dilution Batch Prepared Method Prep Type Туре Run Factor Number or Analyzed Analyst Lab Total/NA Prep 5035 66559 03/21/13 09:34 ML TAL NSH Total/NA Analysis 8260B 66946 03/22/13 19:38 TAL NSH TAL NSH Total/NA Prep 3550C 66640 03/21/13 11:04 AK Total/NA Analysis 8270D 03/23/13 21:20 JS TAL NSH 67211 Total/NA Analysis 8270D 67393 03/25/13 19:36 TAL NSH Total/NA 66580 03/21/13 09:58 RS TAL NSH Analysis Moisture

Client Sample ID: 1299 Eagle-2

Date Collected: 03/14/13 14:15

Date Received: 03/20/13 08:30

Lab Sample ID: 490-22235-7

Matrix: Solid

Percent Solids: 89.8

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			66559	03/21/13 09:34	ML	TAL NSH
Total/NA	Analysis	8260B		1	66946	03/22/13 20:32	MH	TAL NSH
Total/NA	Prep	3550C			66691	03/21/13 12:52	AK	TAL NSH
Total/NA	Analysis	8270D		1	66721	03/21/13 22:01	BS	TAL NSH
Total/NA	Analysis	Moisture		1	66580	03/21/13 09:58	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

TestAmerica Job ID: 490-22235-1

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

#### 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

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# **Certification Summary**

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

TestAmerica Job ID: 490-22235-1

#### Laboratory: TestAmerica Nashville

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

Authority	Program	EPA Region	Certification ID	<b>Expiration Date</b>
	ACIL		393	10-30-13
A2LA	ISO/IEC 17025		0453.07	12-31-13
Alabama	State Program	4	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	1	PH-0220	12-31-13
Florida	NELAP	4	E87358	06-30-13
Ilinois	NELAP	5	200010	12-09-13
owa	State Program	7	131	05-01-14
Kansas	NELAP	7	E-10229	10-31-13
Kentucky (UST)	State Program	4	19	09-15-13
ouisiana	NELAP	6	30613	06-30-13
Maryland	State Program	3	316	03-31-14
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
levada	State Program	9	TN00032	07-31-13
lew Hampshire	NELAP	1	2963	10-09-13
lew Jersey	NELAP	2	TN965	06-30-13
lew York	NELAP	2	11342	04-01-13
lorth Carolina DENR	State Program	4	387	12-31-13
lorth Dakota	State Program	8	R-146	06-30-13
Dhio VAP	State Program	5	CL0033	01-19-14
klahoma	State Program	6	9412	08-31-13
regon	NELAP	10	TN200001	04-30-13
ennsylvania	NELAP	3	68-00585	06-30-13
hode Island	State Program	1	LAO00268	12-30-13
outh Carolina	State Program	4	84009 (001)	04-30-14
outh Carolina	State Program	4	84009 (002)	02-23-14
ennessee	State Program	4	2008	02-23-14
exas	NELAP	6	T104704077-09-TX	08-31-13
SDA	Federal		S-48469	11-02-13
tah	NELAP	8	TAN	06-30-13
irginia	NELAP	3	460152	06-14-13
/ashington	State Program	10	C789	07-19-13
est Virginia DEP	State Program	3	219	02-28-14
isconsin	State Program	5	998020430	08-31-13
/yoming (UST)	A2LA	8	453.07	12-31-13

LUS.

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#### **COOLER RECEIPT FORM**

# Charleston



190-22235 Chain of Custody

Cooler Received/Opened On 3/20/2013 @ 0830	490-22235 Ch
1. Tracking #(last 4 digits, FedEx)	
Courier: FedEx IR Gun ID 94660220	
2. Temperature of rep. sample or temp blank when opened:	
3. If Item #2 temperature is $0^{\circ}\text{C}$ or less, was the representative sample or temp blank frozen?	YES NO. (NA)
4. Were custody seals on outside of cooler?	(ES).NONA
If yes, how many and where: (2) From HBack	·
5. Were the seals intact, signed, and dated correctly?	ES)NONA
6. Were custody papers inside cooler?	(ES).NONA
certify that I opened the cooler and answered questions 1-6 (Intial)	(P)
7. Were custody seals on containers:  YES  and Intact	YESNO. NA
Were these signed and dated correctly?	YESNO.
8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Pape	r Other None
9. Cooling process: (ce   Ice-pack   Ice (direct contact)   Dry Ice	Other None
10. Did all containers arrive in good condition (unbroken)?	ÆSNONA
11. Were all container labels complete (#, date, signed, pres., etc)?	ES).NONA
12. Did all container labels and tags agree with custody papers?	ES)NONA
13a. Were VOA vials received?	ES.NONA
b. Was there any observable headspace present in any VOA vial?	YESNO NA
14. Was there a Trip Blank in this cooler? YESNO. If multiple coolers, sequence	ce #
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?	YESNO
b. Did the bottle labels indicate that the correct preservatives were used	NONA
16. Was residual chlorine present?	YESNO(NA)
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)?	ES).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?	ESNONA
certify that I entered this project into LIMS and answered questions 17-20 (intial)	@
certify that I attached a label with the unique LIMS number to each container (intial)	_@
21. Were there Non-Conformance issues at login? YESMO Was a NCM generated? YES	vo.).#

	-	Relinquished by:	Relinquished by:		Special instructions:					1333 H/bithess	1289 1295/	551 HSTER	01.000	1048 GARDEN	Sample ID / Description			Sampler Signature:	Sampler Name: (Print)	Telephone Num	Project Illana	City/State/	Addn	THE LEADER IN ENVIRONMENTAL TESTING Client Name/Account #. EEG #2449
	Ç	3/19//	Date /			+			11111	2/11/12	1/2/17	3/12/13	D	2 3/1/1/3	Date Sampled		Jak	- 1	言いたし	Telephone Number: 843.412.2097	Project Manager: Tom McElwee email: mcelwee@eeginc.net	City/State/Zip: Ladson, SC 29456	Address: 10179 Highway 78	1
	ime	13 DS100	Time		-		+		1800	1	222	5 040	S	$\parallel$	Time Sampled	ned	7	N STATE OF THE STA	111		zil: mcelwee@eer			Nashville Division 2960 Foster Creighton Nashville, TN 37204
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MUM" X TAN	estAmerica:	tex	Method of Shipment:						7 71	3/4		2		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	INO <sub>3</sub> (Red Label) IGH(Bitte Label) IGH(Bitte Label) IGH(Corange Label) I <sub>2</sub> SO <sub>4</sub> Plestic (Yellow Label) I <sub>2</sub> SO <sub>4</sub> Glass(Yellow Label) Ione (Black Label)	12 mayor	To Company		Carrier O	343-878				Phone: 615-726-0177 Toli Free: 800-765-0980 Fax: 615-726-3404
3.20.13	Date	8 6 0	1	-						X	\ \!\	\$	 	D	Vastewater rinking Water ludge oit	Matrix				our				
0630	Time	ine		Lab					×	×	×		ドト	В	ther (specify): TEX + Napth - 8260 AH - 8270D	DE	Project #:	Project ID: Lau	TA Quote #:	PO#:	one order	eit ett. en		To me reg
			Temperature Upon Receipt: 4 C	Laboratory Comments:									1.11			Analyze For:	5-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1	ID: Laurel Bay Housing Project	and the second s	1035	5	Emorcement Action?	Compliance Monitoring?	To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes?
			≺ 2	7					3	2	-)			Sta	SH TAT (Pre-Schedule) ndard TAT Resulis							Yes	Yes No	
				F	1					P.	 ag		-		id QC with report									. 4

Polota

Loc: 490 **22235** 

Relinquished by Relinquished by:	Sample ID / Description  582 A342  864 Dolph; 2  1299 E354-1  1299 E354-2  3	THE LEADER IN ENVIRONMENTAL TESTING Na Client Name/Account #: EEG - SBG # 2449 Address: 10179 Highway 78 City/State/Zip: Ladson, SC 29456 Project Manager: Tom McElwee ema Telephone Number: 843.412.2097 Sampler Name: (Print) Sampler Signature:
Date Time Rece	Date Sampled  Time Sampled  No. of Containers Shipped  A A A Grab  Composite	Nashville Division 2960 Foster Creighton NVIRONMENTAL TESTING Nashville, TN 37204 Name/Account #: EEG - SBG # 2449 Address: 10179 Highway 78 City/State/Zip: Ladson, SC 29456 Project Manager: Tom McElwee email: mcelwee@eeginc.net lephone Number: 843.412.2097 pler Name: (Print)  PAH STAR
Method of Shipment:  Received by:  Lie Gie K  Received by TestAmerica:  Date  3-20-(3	None (Black Label) Other (Specify) Whith A Groundwater Wastewater Drinking Water Sludge	Phone: 615-726-0177 Toll Free: 800-765-0980 Fax: 615-726-3404  Fax No.: 843-879-040
Laboratory Comments:  Temperature Upon Receipt: 44  VOCs Free of Headspace?  Time  Time	Other (specify):	To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes?  Compliance Monitoring? Enforcement Action? Site State: SC PO#: 10.35  TA Quote #: Project ID: Laurel Bay Housing Project Project #:  Analyze For
< /	RUSH TAT (Pre-Schedule Standard TAT Fax Results Send QC with report Page 27 of 28	Yes No A/2

Loc: 490 22235 #1 A

#### 13

# Login Sample Receipt Checklist

Client: Environmental Enterprise Group

Job Number: 490-22235-1

Login Number: 22235 List Source: TestAmerica Nashville

List Number: 1

Creator: McBride, Mike

oreator. Mobiled, Mine		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td></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	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

# ATTACHMENT A

# **UST Certificate of Disposal**

# **CONTRACTOR**

Small Business Group, Inc. 10179 Highway 78 Ladson, SC 29456

TEL (843) 879-0403 FAX (843) 879-0401

# **TANK ID & LOCATION**

UST 1299Eagle-1; 1299 Eagle Lane, Laurel Bay Housing Area, MCAS Beaufort, S.C.

# **DISPOSAL LOCATION**

Coastal Auto Salvage Co., Inc. 130 Laurel Bay Road Beaufort, S.C. 29906

TYPE OF TANK	SIZE (GAL)
Steel	280

# **CLEANING/DISPOSAL METHOD**

The tank and piping were unearthed, cut open, cleaned with a pressure washer, cut into sections, and recycled.

# **DISPOSAL CERTIFICATION**

I certify that the above tank, piping and equipment has been properly cleaned and disposed of.

(Name) (Date)



# **NON-HAZARDOUS MANIFEST**

1011	1. Generator's US	EPA ID No.	Ma	nifest Doc	No.	2. Page 1	of			
NON-HAZARDOUS WIANIFES	3.14	Generator's Site Address (If different than mailing):			1	L				
3. Generator's Mailing Address:					A. Manife	st Number				
MCAS BEAUFORT					<b>G</b> /-	W	ΜΝΔ	0151	0115	
LAUREL BAY HOUSING										
BEAUFORT, SC 29904										
4. Generator's Phone 843-8	79-0411									
5. Transporter 1 Company Name		6.	US EPA ID	Number						
			ng kan			C. State T	ransporter's I	D		
				44.7		D. Transp	orter's Phone	1. 74.	.31.1	14 . 4
7. Transporter 2 Company Name		8.	US EPA ID	Number						
Totale the way yay yay				i ala		E. State T	ransporter's I	D i	<u> </u>	
					······	F. Transp	orter's Phone			on the state of th
	Address	10.	US EPA I	D Number						
HICKORY HILL LANDFILL				1.125.14.15		G. State F	acility ID		rugged) t	
2621 LOW COUNTRY DRIVE						H. State F	acility Phone	843-	987-464	3
RIDGELAND, SC 29936										
				12.6-		<u> </u>	T			
G 11. Description of Waste Materials				No.	Type	13. Total Quantity	14. Unit Wt./Vol.	1. 1	Misc. Comme	nts
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	and materials are no	t hazardous was	tec ac define	d by Ance	P Part 261	ar any annlic	able state law	, have bee	n fully and	4
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Printed Name	421.	Signature	e 🔥		195			Month	Day	Үеаг
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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: BEALB1299TW01WG20151203

Laboratory ID: QL04022-011

Matrix: Aqueous

Date Sampled: 12/03/2015 1615 Date Received: 12/04/2015

Run	Prep Method	Analytical Method	Dilution	Analysis Date Analyst	Prep Date	Batch
1	5030B	8260B	1	12/09/2015 1701 ALL		91718

Paramatan.	CAS	Analytical	Danult	_	1.00	LOD	ы	Unita D.	_
Parameter	Number	Method	Result	Q	LOQ	LOD	DL	Units Rui	n_
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	0.96	U	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	

Surrogate	Run 1 Q % Recovery	Acceptance Limits
Bromofluorobenzene	99	75-120
1,2-Dichloroethane-d4	101	70-120
Toluene-d8	104	85-120
Dibromofluoromethane	98	85-115

PQL = Practical quantitation limit ND = Not detected at or above the MDL B = Detected in the method blank J = Estimated result < PQL and ≥ MDL 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 N = Recovery is out of criteria L = LCS/LCSD failure

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

S = MS/MSD failure

# Semivolatile Organic Compounds by GC/MS (SIM)

Client: AECOM - Resolution Consultants

Description: BEALB1299TW01WG20151203

Laboratory ID: QL04022-011 Matrix: Aqueous

Date Sampled: 12/03/2015 1615

3520C

Date Received: 12/04/2015

Run Prep Method

1

Analytical Method Dilution Analysis Date Analyst Batch **Prep Date** 8270D (SIM) 12/11/2015 2146 DRB1 12/10/2015 0918 91795

	CAS	Analytical	<b>.</b>	_					_
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		70	15-139
Fluoranthene-d10		103	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 2	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 2
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
	/ CO I Italieu I ullis 2

# 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 Mon	itoring 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	- 30
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