SUMMARY REPORT
77 COBIA DRIVE (FORMERLY 874 COBIA DRIVE)
LAUREL BAY MILITARY HOUSING AREA
MARINE CORPS AIR STATION BEAUFORT
BEAUFORT, SC

Revision: 0 Prepared for:

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

and



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

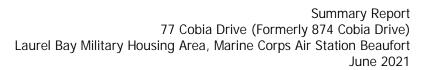


CDM - AECOM Multimedia Joint Venture 10560 Arrowhead Drive, Suite 500 Fairfax, Virginia 22030

Contract Number: N62470-14-D-9016

CTO WE52

**JUNE 2021** 





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## List of Acronyms

bgs below ground surface

BTEX benzene, toluene, ethylbenzene, and xylenes

CTO Contract Task Order

COPC constituents of potential concern

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 77 Cobia Drive (Formerly 874 Cobia Drive). This NFA determination indicates that there are no unacceptable risks to human health or the environment for the petroleum constituents associated with the home heating oil USTs. The following information is included in this report:

- Background information;
- Sampling activities and results; and
- A determination of the property status.

## 1.1 Background Information

The LBMH area is located approximately 3.5 miles west of MCAS Beaufort. The area is approximately 970 acres in size and serves as an enlisted and officer family housing area. The area is configured with single family and duplex residential structures, and includes recreation, open space, and community facilities. The community includes approximately 1,300 housing units, including legacy Capehart style homes and newer duplex style homes. The housing area 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 77 Cobia Drive (Formerly 874 Cobia Drive). Details regarding the soil investigation at this site are provided in the *SCDHEC UST Assessment Report – 874 Cobia Drive* (MCAS Beaufort, 2013). The UST Assessment Report is provided in Appendix B.

## 2.1 UST Removal and Soil Sampling

On January 23, 2013, a single 280 gallon heating oil UST was removed from the front yard under the porch area at 77 Cobia Drive (Formerly 874 Cobia Drive). The former UST location is indicated on Figures 2 and 3 of the UST Assessment Report (Appendix B). The UST was removed and properly disposed of (i.e., shipped offsite for recycling or transported to a landfill). There was no visual evidence (i.e., staining or sheen) of petroleum impact at the time of the UST removal. According to the UST Assessment Report (Appendix B), the depth to the base of the UST was 5'11" bgs and a single soil sample was collected from that depth. The sample was collected from the fill port side of the former UST to represent a worst case scenario.

Following UST removal, a soil sample was collected from the base of the excavation and shipped to an offsite laboratory for analysis of the petroleum COPCs. Sampling was performed in





accordance with applicable South Carolina regulation R.61-92, Part 280 (SCDHEC, 2017) and assessment quidelines.

## 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 77 Cobia Drive (Formerly 874 Cobia Drive) were less than the SCDHEC RBSLs, which indicated the subsurface was not impacted by COPCs associated with the former UST at concentrations that presented a potential risk to human health and the environment.

## 3.0 PROPERTY STATUS

Based on the analytical results for soil, SCDHEC made the determination that NFA was required for 77 Cobia Drive (Formerly 874 Cobia Drive). This NFA determination was obtained in a letter dated May 15, 2014. SCDHEC's NFA letter is provided in Appendix C.

## 4.0 REFERENCES

- Marine Corps Air Station Beaufort, 2013. South Carolina Department of Health and Environmental Control (SCDHEC) Underground Storage Tank Assessment Report 874 Cobia Drive, Laurel Bay Military Housing Area, April 2013.
- South Carolina Department of Health and Environmental Control Bureau of Land and Waste Management, 2013. *Quality Assurance Program Plan for the Underground Storage Tank Management* Division, *Revision 2.0*, April 2013.
- South Carolina Department of Health and Environmental Control Bureau of Land and Waste Management, 2015. *Quality Assurance Program Plan for the Underground Storage Tank Management* Division, *Revision 3.0*, May 2015.





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

## **Table**



# Table 1 Laboratory Analytical Results - Soil 77 Cobia Drive (Formerly 874 Cobia Drive) Laurel Bay Military Housing Area Marine Corps Air Station Beaufort Beaufort, South Carolina

Constituent	SCDHEC RBSLs (1)	Results Sample Collected 01/23/13
Volatile Organic Compounds Analyzed	by EPA Method 8260B (mg/kg)	
Benzene	0.003	ND
Ethylbenzene	1.15	ND
Naphthalene	0.036	ND
Toluene	0.627	0.00181
Xylenes, Total	13.01	ND
Semivolatile Organic Compounds Anal	yzed by EPA Method 8270D (mg/kg)	
Benzo(a)anthracene	0.66	0.511
Benzo(b)fluoranthene	0.66	0.464
Benzo(k)fluoranthene	0.66	0.199
Chrysene	0.66	0.572
Dibenz(a,h)anthracene	0.66	0.0361

## **Notes:**

Bold font indicates the analyte was detected.

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

EPA - United States Environmental Protection Agency

mg/kg - milligram per kilogram

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

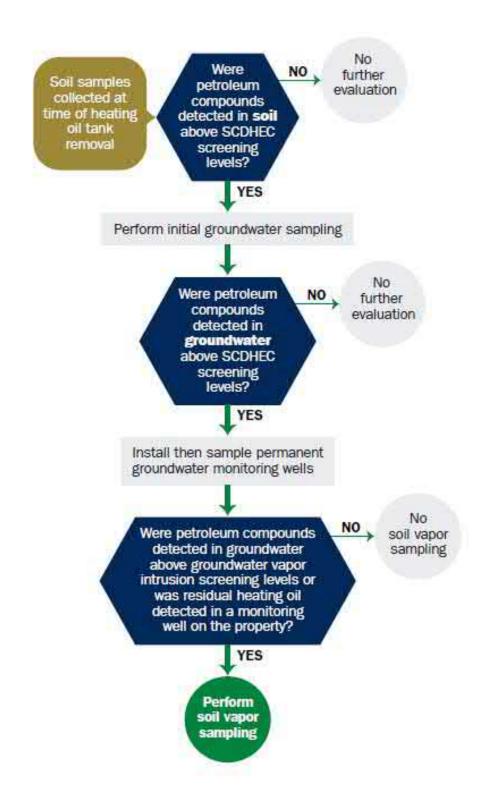
RBSL - Risk-Based Screening Level

SCDHEC - South Carolina Department Of Health and Environmental Control

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

# Appendix A Multi-Media Selection Process for LBMH





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

# Appendix B UST Assessment Report



## Attachment 1

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

# Underground Storage Tank (UST) Assessment Report

Date Received
State Use Only

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

I. OWNERSHIP OF UST (S)

	nmanding Officer Attn: N., , Individual, Public Agency, Other)	REAO (Craig Ehde)
P.O. Box 55001 Mailing Address		
Beaufort,	South Carolina	29904-5001
City 843	State 228-7317	Zip Code Craig Ehde
Area Code	Telephone Number	Contact Person

## II. SITE IDENTIFICATION AND LOCATION

Permit I.D. #	_			
Laurel Bay Milita	ry Housing Area, Ma	rine Corns	Air Station	Reaufort SC
Facility Name or Company	Site Identifier	illie colps	AII Scation,	Beautore, Sc
874 Cobia Lane,	Laurel Bay Military	Housing Ar	ea	
Street Address or State Ro	ad (as applicable)			
Beaufort,	Beaufort			
City	County			

Attachment 2

## III. INSURANCE INFORMATION

III. HISORANCE	MORMATION
Insurance Sta	tement
The petroleum release reported to DHEC on qualify to receive state monies to pay for appropriate site rehallowed in the State Clean-up fund, written confirmation of t insurance policy is required. This section must be complete	abilitation activities. Before participation is he existence or non-existence of an environmental
Is there now, or has there ever been an insurance poli UST release? YES NO (check one)	cy or other financial mechanism that covers this
If you answered YES to the above question, p	lease 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 co	opy of the policy with this report.
IV. REQUEST FOR S	B Program. (Circle one.)
V. CERTIFICATION (To I	be signed by the UST owner)
I certify that I have personally examined and am familia attached documents; and that based on my inquiry of information, I believe that the submitted information is to Name (Type or print.)	ir with the information submitted in this and all those individuals responsible for obtaining this rue, accurate, and complete.
Signature	
To be completed by Notary Public:	
Sworn before me this day of,	20
(Name)	
Notary Public for the state of	

ating oil  gal  e 1950s  eel  d 1980s		
gal ce 1950s cel d 1980s		
eel d 1980s		
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noved		
noved		
noved		
3/2013		
3		
"A".		
3	nd (attach disposal und and dispo	nd (attach disposal manifests) and and disposed at a

# VII. PIPING INFORMATION

	a) 7	
	Steel	
Construction Material(ex. Steel, FRP)	& Copper	
Distance from UST to Dispenser	N/A	
Number of Dispensers	N/A	
Type of System Pressure or Suction	Suction	
Was Piping Removed from the Ground? Y/N	No	
Visible Corrosion or Pitting Y/N	Yes	
Visible Holes Y/N	No	-
Age	Late 1950s	
Corrosion and pitting were foun	d on the surface of t	
	d on the surface of t	
Corrosion and pitting were foun	d on the surface of t	
Corrosion and pitting were foun	d on the surface of t	
Corrosion and pitting were foun	d on the surface of t lines were sound.	he steel v
Corrosion and pitting were foun pipe. Copper supply and return	d on the surface of t lines were sound.	the steel v
Corrosion and pitting were foun pipe. Copper supply and return  VIII. BRIEF SITE DESCRI	d on the surface of the lines were sound.  RIPTION AND HISTOR'S constructed of single	he steel v Y wall steel
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Corrosion and pitting were foun pipe. Copper supply and return  VIII. BRIEF SITE DESCRITTHE USTS at the residences are can and formerly contained fuel oil	d on the surface of the lines were sound.  RIPTION AND HISTOR's constructed of single for heating. These US	Y wall steel STs were
VIII. BRIEF SITE DESCRIPTION OF A STATE OF STATE	d on the surface of the lines were sound.  RIPTION AND HISTOR's constructed of single for heating. These US	Y wall steel STs were
Corrosion and pitting were found pipe. Copper supply and return  VIII. BRIEF SITE DESCRIPTION OF THE USTS at the residences are called and formerly contained fuel oil	d on the surface of the lines were sound.  RIPTION AND HISTOR's constructed of single for heating. These US	Y wall steel STs were
Corrosion and pitting were found pipe. Copper supply and return  VIII. BRIEF SITE DESCRIPTION OF THE USTS at the residences are called and formerly contained fuel oil	d on the surface of the lines were sound.  RIPTION AND HISTOR's constructed of single for heating. These US	Y wall steel STs were

# IX. SITE CONDITIONS

	Yes	No	Unk
A. Were any petroleum-stained or contaminated soils found in the UST excavation, soil borings, trenches, or monitoring wells?  If yes, indicate depth and location on the site map.		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)?		X	
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.		X.	

# X. SAMPLE INFORMATION

A. SCDHEC Lab Certification Number 84009

B.

Sample #	Location	Sample Type (Soil/Water)	Soil Type (Sand/Clay)	Depth*	Date/Time of Collection	Collected by	OVA#
374 Cobia	Excav at fill end	Soil	Sandy	5'11"	1/23/13 1430 hrs	P. Shaw	
							-
8							
9		1.					
10							
11							
12							
13							
14							
15							
16							
17		4					
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.
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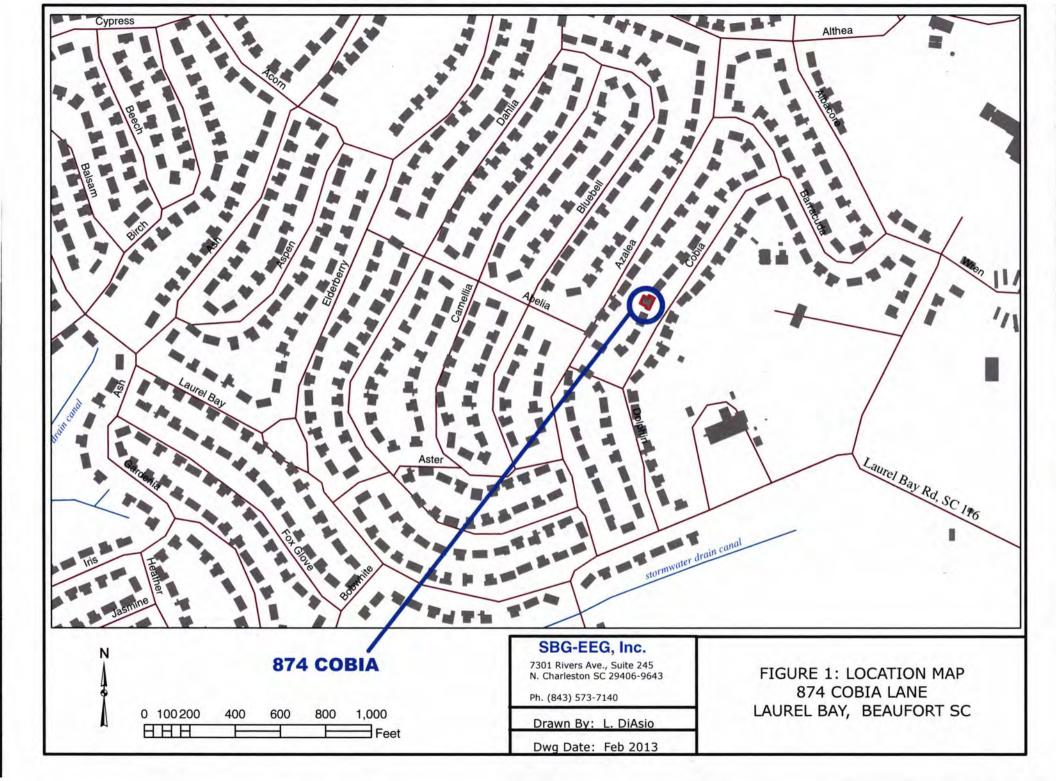
## XII. RECEPTORS

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

# XIII. SITE MAP

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

(Attach Site Map Here)



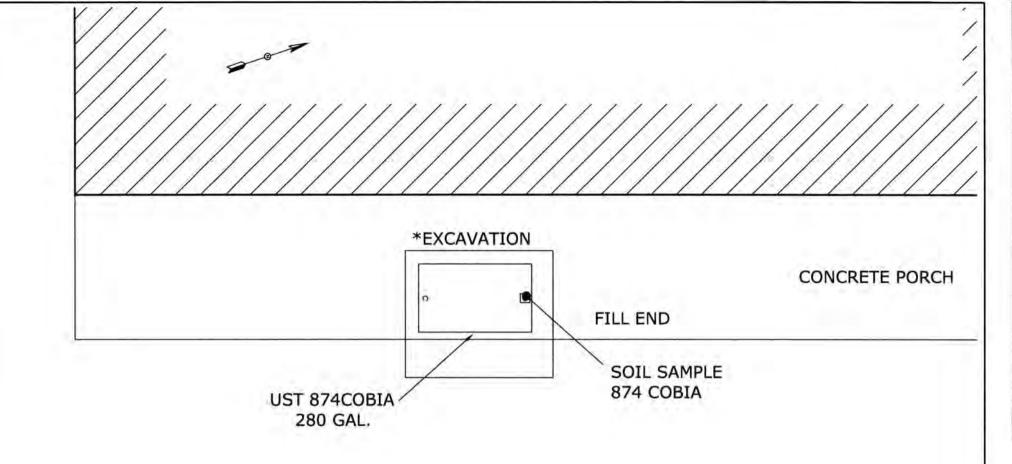
874 COBIA LANE LAUREL BAY MILITARY HOUSING MCAS BEAUFORT, SC **UST 874COBIA** 

TANK DEPTH BELOW GRADE 874COBIA = 35" SBG-EEG

7301 RIVERS AVE., SUITE 245 N. CHARLESTON SC 29406–9643 (843) 573–7140 FIGURE 2 SITE MAP 874 COBIA LANE, LAUREL BAY MCAS BEAUFORT SC

SCALE: GRAPHIC

DWG DATE FEB 2013



GRAPHIC SCALE
0 5'

\*A PORTION OF THE PORCH WAS REMOVED TO FACILITATE TANK EXTRACTION.

# SBG-EEG

7301 RIVERS AVE., SUITE 245 N. CHARLESTON SC 29406-9643 (843) 573-7140 FIGURE 3 UST SAMPLE LOCATIONS 874 COBIA LANE, LAUREL BAY MCAS BEAUFORT SC

SCALE: GRAPHIC

DWG DATE FEB 2013



Picture 1: Location of UST 874Cobia.



Picture 2: UST 874Cobia excavation.

# XIV. SUMMARY OF ANALYSIS RESULTS

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

CoC UST	874Cobia
Benzene	ND
Toluene	0.00181 mg/kg
Ethylbenzene	ND
Xylenes	ND ND
Naphthalene	ND
Benzo (a) anthracene	0.511 mg/kg
Benzo (b) fluoranthene	0.464 mg/kg
Benzo (k) fluoranthene	0.199 mg/kg
Chrysene	0.572 mg/kg
Dibenz (a, h) anthracene	0.0361 mg/kg
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 (µg/l)	W-1	W-2	W -3	W -4
Free Product Thickness	None				
Benzene	5				
Toluene	1,000				
Ethylbenzene	700				
Xylenes	10,000				
Total BTEX	N/A				
МТВЕ	40				
Naphthalene	25				
Benzo (a) anthracene	10				
Benzo (b) flouranthene	10				
Benzo (k) flouranthene	10				
Chrysene	10				
Dibenz (a, h) anthracene	10				
EDB	.05				
1,2-DCA	5				
Lead	Site specific			1	

## 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)



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www.testamericainc.com

# **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: 490-18285-1

Client Project/Site: Laurel Bay Housing Project

For

Environmental Enterprise Group 10179 Highway 78 Ladson, South Carolina 29456

Attn: Mr. Tom McElwee

2/13/2013 2:19:44 PM

Authorized for release by:

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.

1

Z

4

6

7

0

10

10

13

TestAmerica Job ID: 490-18285-1

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

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## **Sample Summary**

Client: Environmental Enterprise Group Project/Site: Laurel Bay Housing Project TestAmerica Job ID: 490-18285-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
490-18285-1	631 Dahlia	Soil	01/21/13 13:45	01/30/13 09:00
490-18285-2	869 Cobia	Soil	01/22/13 14:05	01/30/13 09:00
490-18285-3	874 Cobia	Soil	01/23/13 14:30	01/30/13 09:00
490-18285-4	883 Cobia	Soil	01/24/13 11:45	01/30/13 09:00
490-18285-5	917 Barracuda	Soil	01/21/13 14:30	01/30/13 09:00
490-18285-6	875 Cobia	Soil	01/22/13 14:45	01/30/13 09:00
490-18285-7	880 Cobia	Soil	01/23/13 15:15	01/30/13 09:00
490-18285-8	890 Cobia	Soil	01/24/13 13:45	01/30/13 09:00

## **Case Narrative**

Client: Environmental Enterprise Group Project/Site: Laurel Bay Housing Project TestAmerica Job ID: 490-18285-1

Job ID: 490-18285-1

Laboratory: TestAmerica Nashville

Narrative

Job Narrative 490-18285-1

## Comments

No additional comments.

## Receipt

The samples were received on 1/30/2013 9:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.9° C.

#### GC/MS VOA

Method(s) 8260B: Surrogate recovery for the following sample(s) was outside control limits: 883 Cobia (490-18285-4). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method(s) 8260B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 55008 were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria.

Method(s) 8260B: Internal standard responses were outside of acceptance limits for the following sample(s): 883 Cobia (490-18285-4). The sample(s) shows evidence of matrix interference.

Method(s) 8260B: The method blank for batch 55008 contained Naphthalene, Toluene and Xylenes above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method(s) 8260B: Due to sample matrix effect on the internal standard (ISTD), a dilution was required for the following sample(s): 883 Cobia (490-18285-4).

Method(s) 8260B: The following sample(s) was diluted due to the nature of the sample matrix: 883 Cobia (490-18285-4). Elevated reporting limits (RLs) are provided.

Method(s) 8260B: Surrogate recovery for the following sample(s) was outside control limits: 883 Cobia (490-18285-4). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

## GC/MS Semi VOA

No analytical or quality issues were noted.

## **Organic Prep**

No analytical or quality issues were noted.

## **VOA Prep**

No analytical or quality issues were noted.

# **Definitions/Glossary**

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

Quality Control Relative error ratio

Reporting Limit or Requested Limit (Radiochemistry)

Toxicity Equivalent Factor (Dioxin)

Toxicity Equivalent Quotient (Dioxin)

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

TestAmerica Job ID: 490-18285-1

# 2

## Qualifiers

## GC/MS VOA

Qualifier	Qualifier Description	
В	Compound was found in the blank and sample.	
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.	
X	Surrogate is outside control limits	

## GC/MS Semi VOA

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

## Glossary

QC

RER

RL RPD

TEF

TEQ

Abbreviation	These commonly used abbreviations may or may not be present in this report.
Ċ.	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, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDA	Minimum detectable activity
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

# **Client Sample Results**

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

Client Sample ID: 631 Dahlia

Date Collected: 01/21/13 13:45

Date Received: 01/30/13 09:00

**Percent Solids** 

TestAmerica Job ID: 490-18285-1

Lab Sample ID: 490-18285-1

Matrix: Soil Percent Solids: 90.8

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Method: 8260B - Volatile Org Analyte		(GC/MS) Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00244	0.000818		EF	01/31/13 12:27	01/31/13 15:40	1
Ethylbenzene	ND		0.00244	0.000818		12	01/31/13 12:27	01/31/13 15:40	1
Naphthalene	ND		0.00611	0.00208		23	01/31/13 12:27	01/31/13 15:40	1
Toluene	0.00221	JB	0.00244	0.000904		23	01/31/13 12:27	01/31/13 15:40	1
Xylenes, Total	ND		0.00611	0.000818		п	01/31/13 12:27	01/31/13 15:40	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		70 - 130				01/31/13 12:27	01/31/13 15:40	1
4-Bromofluorobenzene (Surr)	100		70 - 130				01/31/13 12:27	01/31/13 15:40	1
Dibromofluoromethane (Surr)	94		70 - 130				01/31/13 12:27	01/31/13 15:40	1
Toluene-d8 (Surr)	106		70 - 130				01/31/13 12:27	01/31/13 15:40	1
Method: 8270D - Semivolatile	e Organic Compou	nds (GC/MS	5)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0654	0.00977	mg/Kg	П	02/02/13 15:47	02/05/13 12:35	1
Acenaphthylene	ND		0.0654	0.00879	mg/Kg	13	02/02/13 15:47	02/05/13 12:35	1
Anthracene	ND		0.0654	0.00879	mg/Kg	B	02/02/13 15:47	02/05/13 12:35	1
Benzo[a]anthracene	ND		0.0654	0.0146	mg/Kg	12	02/02/13 15:47	02/05/13 12:35	1
Benzo[a]pyrene	ND		0.0654	0.0117	mg/Kg	п	02/02/13 15:47	02/05/13 12:35	1
Benzo[b]fluoranthene	ND		0.0654	0.0117	mg/Kg	D	02/02/13 15:47	02/05/13 12:35	1
Benzo[g,h,i]perylene	ND		0.0654	0.00879	mg/Kg	13	02/02/13 15:47	02/05/13 12:35	1
Benzo[k]fluoranthene	ND		0.0654	0.0137	mg/Kg	ti:	02/02/13 15:47	02/05/13 12:35	1
1-Methylnaphthalene	ND		0.0654	0.0137	mg/Kg	EF.	02/02/13 15:47	02/05/13 12:35	1
Pyrene	ND		0.0654	0.0117	mg/Kg	a	02/02/13 15:47	02/05/13 12:35	1
Phenanthrene	ND		0.0654	0.00879	mg/Kg	D	02/02/13 15:47	02/05/13 12:35	1
Chrysene	ND		0.0654	0.00879	mg/Kg	100	02/02/13 15:47	02/05/13 12:35	1
Dibenz(a,h)anthracene	ND		0.0654	0.00684	mg/Kg	to:	02/02/13 15:47	02/05/13 12:35	1
Fluoranthene	ND		0.0654	0.00879	mg/Kg	122	02/02/13 15:47	02/05/13 12:35	1
Fluorene	ND		0.0654	0.0117	mg/Kg	125	02/02/13 15:47	02/05/13 12:35	1
Indeno[1,2,3-cd]pyrene	ND		0.0654	0.00977	mg/Kg	135	02/02/13 15:47	02/05/13 12:35	1
Naphthalene	ND		0.0654	0.00879	mg/Kg	D	02/02/13 15:47	02/05/13 12:35	1
2-Methylnaphthalene	ND		0.0654	0.0156	mg/Kg	n	02/02/13 15:47	02/05/13 12:35	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	51		29 - 120				02/02/13 15:47	02/05/13 12:35	1
Terphenyl-d14 (Surr)	66		13 - 120				02/02/13 15:47	02/05/13 12:35	1
Nitrobenzene-d5 (Surr)	47		27 - 120				02/02/13 15:47	02/05/13 12:35	1
General Chemistry	0.200		-			1	2	(20,20%)	2.2-
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac

01/31/13 09:26

0.10

0.10 %

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

Client Sample ID: 869 Cobia Date Collected: 01/22/13 14:05 Date Received: 01/30/13 09:00

**General Chemistry** 

Analyte

Percent Solids

TestAmerica Job ID: 490-18285-1

D	Sample ID; 490-10205-2
	Matrix: Soil
	Percent Solids: 96.8

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Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00228	0.000765	mg/Kg	22	01/31/13 12:27	01/31/13 16:10	1
Ethylbenzene	ND		0.00228	0.000765	mg/Kg	(3)	01/31/13 12:27	01/31/13 16:10	1
Naphthalene	ND		0.00571	0.00194	mg/Kg	D	01/31/13 12:27	01/31/13 16:10	1
Toluene	0.00142	JB	0.00228	0.000845	mg/Kg	Ø	01/31/13 12:27	01/31/13 16:10	1
Xylenes, Total	ND		0.00571	0.000765	mg/Kg	D	01/31/13 12:27	01/31/13 16:10	1



Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	90	70 - 130	01/31/13 12:27	01/31/13 16:10	1
4-Bromofluorobenzene (Surr)	102	70 - 130	01/31/13 12:27	01/31/13 16:10	1
Dibromofluoromethane (Surr)	94	70 - 130	01/31/13 12:27	01/31/13 16:10	1
Toluene-d8 (Surr)	107	70 - 130	01/31/13 12:27	01/31/13 16:10	1



Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0668	0.00997	mg/Kg	13	02/02/13 15:47	02/05/13 12:56	1
Acenaphthylene	ND		0.0668	0.00897	mg/Kg	73	02/02/13 15:47	02/05/13 12:56	1
Anthracene	ND		0.0668	0.00897	mg/Kg	.03	02/02/13 15:47	02/05/13 12:56	1
Benzo[a]anthracene	ND		0.0668	0.0150	mg/Kg	10	02/02/13 15:47	02/05/13 12:56	1
Benzo[a]pyrene	ND		0.0668	0.0120	mg/Kg	- 17	02/02/13 15:47	02/05/13 12:56	1
Benzo[b]fluoranthene	ND		0.0668	0.0120	mg/Kg	O.	02/02/13 15:47	02/05/13 12:56	1
Benzo[g,h,i]perylene	ND		0.0668	0.00897	mg/Kg	d	02/02/13 15:47	02/05/13 12:56	1
Benzo[k]fluoranthene	ND		0.0668	0.0140	mg/Kg	rt.	02/02/13 15:47	02/05/13 12:56	1
1-Methylnaphthalene	ND		0.0668	0.0140	mg/Kg	17.1	02/02/13 15:47	02/05/13 12:56	1
Pyrene	ND		0.0668	0.0120	mg/Kg	TI.	02/02/13 15:47	02/05/13 12:56	1
Phenanthrene	ND		0.0668	0.00897	mg/Kg	13	02/02/13 15:47	02/05/13 12:56	1
Chrysene	ND		0.0668	0.00897	mg/Kg	n	02/02/13 15:47	02/05/13 12:56	1
Dibenz(a,h)anthracene	ND		0.0668	0.00698	mg/Kg	323	02/02/13 15:47	02/05/13 12:56	1
Fluoranthene	ND		0.0668	0.00897	mg/Kg	52	02/02/13 15:47	02/05/13 12:56	1
Fluorene	ND		0.0668	0.0120	mg/Kg	2	02/02/13 15:47	02/05/13 12:56	1
Indeno[1,2,3-cd]pyrene	ND		0.0668	0.00997	mg/Kg	13	02/02/13 15:47	02/05/13 12:56	1
Naphthalene	ND		0.0668	0.00897	mg/Kg	0	02/02/13 15:47	02/05/13 12:56	1
2-Methylnaphthalene	ND		0.0668	0.0159	mg/Kg	23	02/02/13 15:47	02/05/13 12:56	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	39		29 - 120				02/02/13 15:47	02/05/13 12:56	1
Terphenyl-d14 (Surr)	64		13 - 120				02/02/13 15:47	02/05/13 12:56	1
Nitrobenzene-d5 (Surr)	34		27 - 120				02/02/13 15:47	02/05/13 12:56	1

RL

0.10

RL Unit

0.10 %

Analyzed

01/31/13 09:26

Prepared

Dil Fac

Result Qualifier

97

Client: Environmental Enterprise Group Project/Site: Laurel Bay Housing Project TestAmerica Job ID: 490-18285-1

Lab Sample ID: 490-18285-3

Matrix: Soil

Percent Solids: 95.1

Client	Sample	ID:	874	Cobia

Date Collected: 01/23/13 14:30 Date Received: 01/30/13 09:00

Analyte

**Percent Solids** 

Method: 8260B - Volatile Orga Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00249	0.000835	mg/Kg	n	01/31/13 12:27	01/31/13 16:41	1
Ethylbenzene	ND		0.00249	0.000835	mg/Kg	n	01/31/13 12:27	01/31/13 16:41	1
Naphthalene	ND		0.00623	0.00212	mg/Kg	n	01/31/13 12:27	01/31/13 16:41	1
Toluene	0.00181	JB	0.00249	0.000923	mg/Kg	×	01/31/13 12:27	01/31/13 16:41	1
Xylenes, Total	ND		0.00623	0.000835	mg/Kg	п	01/31/13 12:27	01/31/13 16:41	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		70 - 130				01/31/13 12:27	01/31/13 16:41	1
4-Bromofluorobenzene (Surr)	108		70 - 130				01/31/13 12:27	01/31/13 16:41	1
Dibromofluoromethane (Surr)	94		70 - 130				01/31/13 12:27	01/31/13 16:41	1
Toluene-d8 (Surr)	109		70 - 130				01/31/13 12:27	01/31/13 16:41	1
Method: 8270D - Semivolatile	Organic Compou	nds (GC/M	3)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0661	0.00987	mg/Kg	Ħ	02/02/13 15:47	02/05/13 13:17	1
Acenaphthylene	ND		0.0661	0.00888	mg/Kg	12	02/02/13 15:47	02/05/13 13:17	1
Anthracene	ND		0.0661	0.00888	mg/Kg		02/02/13 15:47	02/05/13 13:17	1
Benzo[a]anthracene	0.511		0.0661	0.0148	mg/Kg	10	02/02/13 15:47	02/05/13 13:17	1
Benzo[a]pyrene	0.252		0.0661	0.0118	mg/Kg	22	02/02/13 15:47	02/05/13 13:17	1
Benzo[b]fluoranthene	0.464		0.0661	0.0118	mg/Kg	22	02/02/13 15:47	02/05/13 13:17	-1
Benzo[g,h,i]perylene	0.137		0.0661	0.00888	mg/Kg	23	02/02/13 15:47	02/05/13 13:17	-1
Benzo[k]fluoranthene	0.199		0.0661	0.0138	mg/Kg	121	02/02/13 15:47	02/05/13 13:17	1
1-Methylnaphthalene	ND		0.0661	0.0138	mg/Kg	325	02/02/13 15:47	02/05/13 13:17	1
Pyrene	0.686		0.0661	0.0118	mg/Kg	322	02/02/13 15:47	02/05/13 13:17	1
Phenanthrene	ND		0.0661	0.00888	mg/Kg	and the	02/02/13 15:47	02/05/13 13:17	1
Chrysene	0.572		0.0661	0.00888	mg/Kg	10	02/02/13 15:47	02/05/13 13:17	1
Dibenz(a,h)anthracene	0.0361	J	0.0661	0.00691	mg/Kg	n	02/02/13 15:47	02/05/13 13:17	1
Fluoranthene	0.582		0.0661	0.00888	mg/Kg	22	02/02/13 15:47	02/05/13 13:17	1
Fluorene	ND		0.0661	0.0118	mg/Kg	CI.	02/02/13 15:47	02/05/13 13:17	1
Indeno[1,2,3-cd]pyrene	0.130		0.0661	0.00987	mg/Kg	22	02/02/13 15:47	02/05/13 13:17	1
Naphthalene	ND		0.0661	0.00888	mg/Kg	122	02/02/13 15:47	02/05/13 13:17	1
2-Methylnaphthalene	ND		0.0661	0.0158	mg/Kg	D	02/02/13 15:47	02/05/13 13:17	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	44		29 - 120				02/02/13 15:47	02/05/13 13:17	1
Terphenyl-d14 (Surr)	60		13 - 120				02/02/13 15:47	02/05/13 13:17	1
Nitrobenzene-d5 (Surr)	40		27 - 120				02/02/13 15:47	02/05/13 13:17	1
General Chemistry									
Annabate	<b>D</b> 14	0			*****	14	A.X.V	2002	202

Analyzed

01/31/13 09:26

Dil Fac

RL

0.10

RL Unit

0.10 %

Prepared

Result Qualifier

95

Client: Environmental Enterprise Group Project/Site: Laurel Bay Housing Project TestAmerica Job ID: 490-18285-1

Client Sample ID: 883 Cobia

Date Collected: 01/24/13 11:45 Date Received: 01/30/13 09:00

Nitrobenzene-d5 (Surr)

**General Chemistry** 

Analyte

**Percent Solids** 

Lab Sample ID: 490-18285-4

Matrix: Soil

Percent Solids: 86.8

Analyte	The state of the s	(GC/MS) Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND	7777111171	0.00262	0.000878		n	01/31/13 12:27	02/01/13 13:10	1
Ethylbenzene	ND		0.00262	0.000878		- CI	01/31/13 12:27	02/01/13 13:10	1
Naphthalene	ND		0.378	0.129	mg/Kg	13	01/31/13 12:25	02/01/13 13:40	1
Toluene	0.00134	J	0.00262	0.000970	mg/Kg	12	01/31/13 12:27	02/01/13 13:10	1
Xylenes, Total	ND		0.00656	0.000878		n	01/31/13 12:27	02/01/13 13:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		70 - 130				01/31/13 12:27	02/01/13 13:10	1
1,2-Dichloroethane-d4 (Surr)	78		70 - 130				01/31/13 12:25	02/01/13 13:40	1
4-Bromofluorobenzene (Surr)	145	X	70 - 130				01/31/13 12:27	02/01/13 13:10	1
4-Bromofluorobenzene (Surr)	101		70 - 130				01/31/13 12:25	02/01/13 13:40	1
Dibromofluoromethane (Surr)	100		70 - 130				01/31/13 12:27	02/01/13 13:10	1
Dibromofluoromethane (Surr)	88		70 - 130				01/31/13 12:25	02/01/13 13:40	1
Toluene-d8 (Surr)	112		70 - 130				01/31/13 12:27	02/01/13 13:10	1
Toluene-d8 (Surr)	108		70 - 130				01/31/13 12:25	02/01/13 13:40	1
Method: 8270D - Semivolatile (	Organic Compou	nds (GC/M	5)						
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0665	0.00993	mg/Kg	n	02/02/13 15:47	02/05/13 13:38	1
Acenaphthylene	ND		0.0665	0.00893	mg/Kg	D.	02/02/13 15:47	02/05/13 13:38	- 1
Anthracene	ND		0.0665	0.00893	mg/Kg	b	02/02/13 15:47	02/05/13 13:38	1
Benzo[a]anthracene	0.190		0.0665	0.0149	mg/Kg	in	02/02/13 15:47	02/05/13 13:38	1
Benzo[a]pyrene	0.0719		0.0665	0.0119	mg/Kg	n	02/02/13 15:47	02/05/13 13:38	1
Benzo[b]fluoranthene	0.230		0.0665	0.0119	mg/Kg	XI.	02/02/13 15:47	02/05/13 13:38	1
Benzo[g,h,i]perylene	0.0654	J	0.0665	0.00893	mg/Kg	n	02/02/13 15:47	02/05/13 13:38	1
Benzo[k]fluoranthene	0.138		0.0665	0.0139	mg/Kg	33	02/02/13 15:47	02/05/13 13:38	1
1-Methylnaphthalene	ND		0.0665	0.0139	mg/Kg	Ø	02/02/13 15:47	02/05/13 13:38	1
Pyrene	0.833		0.0665	0.0119	mg/Kg	Ø	02/02/13 15:47	02/05/13 13:38	1
Phenanthrene	ND		0.0665	0.00893	mg/Kg	a	02/02/13 15:47	02/05/13 13:38	1
Chrysene	0.207		0.0665	0.00893	mg/Kg	11	02/02/13 15:47	02/05/13 13:38	1
Dibenz(a,h)anthracene	ND		0.0665	0.00695	mg/Kg	Ø	02/02/13 15:47	02/05/13 13:38	1
Fluoranthene	0.494		0.0665	0.00893	mg/Kg	12	02/02/13 15:47	02/05/13 13:38	1
Fluorene	ND		0.0665	0.0119	mg/Kg	Ø	02/02/13 15:47	02/05/13 13:38	1
ndeno[1,2,3-cd]pyrene	0.0553	J	0.0665	0.00993	mg/Kg	Ħ	02/02/13 15:47	02/05/13 13:38	-1
Naphthalene	ND		0.0665	0.00893	mg/Kg	ü	02/02/13 15:47	02/05/13 13:38	1
2-Methylnaphthalene	ND		0.0665	0.0159	mg/Kg	13	02/02/13 15:47	02/05/13 13:38	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	50		29 - 120				02/02/13 15:47	02/05/13 13:38	1
	69		13 - 120				02/02/13 15:47	02/05/13 13:38	1

02/05/13 13:38

Analyzed

01/31/13 09:26

02/02/13 15:47

Prepared

27 - 120

RL

0.10

RL Unit

0.10 %

43

87

Result Qualifier

Dil Fac

Client: Environmental Enterprise Group Project/Site: Laurel Bay Housing Project TestAmerica Job ID: 490-18285-1

2

Client Sample ID: 917 Barracuda

Date Collected: 01/21/13 14:30 Date Received: 01/30/13 09:00

Analyte

**Percent Solids** 

Lab Sample ID: 490-18285-5

Matrix: Soil Percent Solids: 89.5

Soll	
89.5	
89.5	

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00207	0.000694	mg/Kg	22	01/31/13 12:27	01/31/13 17:42	1
Ethylbenzene	ND		0.00207	0.000694	mg/Kg	22	01/31/13 12:27	01/31/13 17:42	1
Naphthalene	ND		0.00518	0.00176	mg/Kg	12	01/31/13 12:27	01/31/13 17:42	1
Toluene	0.00278	В	0.00207	0.000767	mg/Kg	332	01/31/13 12:27	01/31/13 17:42	1
Xylenes, Total	ND		0.00518	0.000694	mg/Kg	11	01/31/13 12:27	01/31/13 17:42	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		70 - 130				01/31/13 12:27	01/31/13 17:42	1
4-Bromofluorobenzene (Surr)	111		70 - 130				01/31/13 12:27	01/31/13 17:42	1
Dibromofluoromethane (Surr)	94		70 - 130				01/31/13 12:27	01/31/13 17:42	1
Toluene-d8 (Surr)	108		70 - 130				01/31/13 12:27	01/31/13 17:42	1
Method: 8270D - Semivolatile	Organic Compou	nds (GC/MS	3)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0653	0.00975	mg/Kg	22	02/02/13 15:47	02/05/13 13:59	1
Acenaphthylene	ND		0.0653	0.00878	mg/Kg	33	02/02/13 15:47	02/05/13 13:59	1
Anthracene	ND		0.0653	0.00878	mg/Kg	23	02/02/13 15:47	02/05/13 13:59	1
Benzo[a]anthracene	0.188		0.0653	0.0146	mg/Kg	101	02/02/13 15:47	02/05/13 13:59	1
Benzo[a]pyrene	0.105		0.0653	0.0117	mg/Kg	101	02/02/13 15:47	02/05/13 13:59	1
Benzo[b]fluoranthene	0.209		0.0653	0.0117	mg/Kg	D	02/02/13 15:47	02/05/13 13:59	1
Benzo[g,h,i]perylene	0.0748		0.0653	0.00878	mg/Kg	121	02/02/13 15:47	02/05/13 13:59	1
Benzo[k]fluoranthene	0.0831		0.0653	0.0137	mg/Kg	a	02/02/13 15:47	02/05/13 13:59	1
1-Methylnaphthalene	ND		0.0653	0.0137	mg/Kg	a	02/02/13 15:47	02/05/13 13:59	1
Pyrene	0.221		0.0653	0.0117	mg/Kg	ū	02/02/13 15:47	02/05/13 13:59	1
Phenanthrene	ND		0.0653	0.00878	mg/Kg	a	02/02/13 15:47	02/05/13 13:59	1
Chrysene	0.192		0.0653	0.00878	mg/Kg	n	02/02/13 15:47	02/05/13 13:59	1
Dibenz(a,h)anthracene	ND		0.0653	0.00683	mg/Kg	13	02/02/13 15:47	02/05/13 13:59	1
Fluoranthene	0.160		0.0653	0.00878	mg/Kg	n	02/02/13 15:47	02/05/13 13:59	1
Fluorene	ND		0.0653	0.0117	mg/Kg	n	02/02/13 15:47	02/05/13 13:59	1
Indeno[1,2,3-cd]pyrene	0.0602	J	0.0653	0.00975	mg/Kg	CE .	02/02/13 15:47	02/05/13 13:59	1
Naphthalene	ND		0.0653	0.00878	mg/Kg	TI	02/02/13 15:47	02/05/13 13:59	1
2-Methylnaphthalene	ND		0.0653	0.0156	mg/Kg	II	02/02/13 15:47	02/05/13 13:59	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	57		29 - 120				02/02/13 15:47	02/05/13 13:59	1
Terphenyl-d14 (Surr)	77		13 - 120				02/02/13 15:47	02/05/13 13:59	1
Nitrobenzene-d5 (Surr)	52		27 - 120				02/02/13 15:47	02/05/13 13:59	1
General Chemistry									
		0 115	-		10.00	100	Chrys Aug 16	Accessorate to the second	

Analyzed

01/31/13 09:26

Prepared

Dil Fac

RL

0.10

RL Unit

0.10 %

Result Qualifier

90

Client: Environmental Enterprise Group Project/Site: Laurel Bay Housing Project TestAmerica Job ID: 490-18285-1

100

Client Sample ID: 875 Cobia

Date Collected: 01/22/13 14:45 Date Received: 01/30/13 09:00

**Percent Solids** 

Lab Sample ID: 490-18285-6

Matrix: Soil Percent Solids: 96.1

96.1		

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00227	0.000761	mg/Kg	D	01/31/13 12:27	01/31/13 18:12	1
Ethylbenzene	ND		0.00227	0.000761	mg/Kg	D.	01/31/13 12:27	01/31/13 18:12	1
Naphthalene	ND		0.00568	0.00193	mg/Kg	12	01/31/13 12:27	01/31/13 18:12	1
Toluene	0.00121	JB	0.00227	0.000841	mg/Kg	23	01/31/13 12:27	01/31/13 18:12	1
Xylenes, Total	ND		0.00568	0.000761	mg/Kg	n	01/31/13 12:27	01/31/13 18:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		70 - 130				01/31/13 12:27	01/31/13 18:12	1
4-Bromofluorobenzene (Surr)	109		70 - 130				01/31/13 12:27	01/31/13 18:12	1
Dibromofluoromethane (Surr)	94		70 - 130				01/31/13 12:27	01/31/13 18:12	1
Toluene-d8 (Surr)	108		70 - 130				01/31/13 12:27	01/31/13 18:12	1
Method: 8270D - Semivolatile	Organic Compou	nds (GC/MS	5)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0649	0.00968	mg/Kg	42	02/02/13 15:47	02/05/13 14:20	1
Acenaphthylene	ND		0.0649	0.00871	mg/Kg	12	02/02/13 15:47	02/05/13 14:20	1
Anthracene	ND		0.0649	0.00871	mg/Kg	10	02/02/13 15:47	02/05/13 14:20	1
Daniel Janthanna	0.405		0.0640	0.0145	malka	255	02/02/12 15:47	02/05/43 14:20	4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0649	0.00968	mg/Kg	421	02/02/13 15:47	02/05/13 14:20	1
Acenaphthylene	ND		0.0649	0.00871	mg/Kg	12	02/02/13 15:47	02/05/13 14:20	1
Anthracene	ND		0.0649	0.00871	mg/Kg	10	02/02/13 15:47	02/05/13 14:20	1
Benzo[a]anthracene	0.185		0.0649	0.0145	mg/Kg	bi	02/02/13 15:47	02/05/13 14:20	1
Benzo[a]pyrene	0.279		0.0649	0.0116	mg/Kg	n	02/02/13 15:47	02/05/13 14:20	1
Benzo[b]fluoranthene	0.591		0.0649	0.0116	mg/Kg	13	02/02/13 15:47	02/05/13 14:20	1
Benzo[g,h,i]perylene	0.665		0.0649	0.00871	mg/Kg	33	02/02/13 15:47	02/05/13 14:20	1
Benzo[k]fluoranthene	0.217		0.0649	0.0136	mg/Kg	n	02/02/13 15:47	02/05/13 14:20	1
1-Methylnaphthalene	ND		0.0649	0.0136	mg/Kg	321	02/02/13 15:47	02/05/13 14:20	1
Pyrene	0.130		0.0649	0.0116	mg/Kg	52	02/02/13 15:47	02/05/13 14:20	1
Phenanthrene	ND		0.0649	0.00871	mg/Kg	222	02/02/13 15:47	02/05/13 14:20	1
Chrysene	0.365		0.0649	0.00871	mg/Kg	131	02/02/13 15:47	02/05/13 14:20	1
Dibenz(a,h)anthracene	0.101		0.0649	0.00678	mg/Kg	33	02/02/13 15:47	02/05/13 14:20	1
Fluoranthene	0.0768		0.0649	0.00871	mg/Kg	E	02/02/13 15:47	02/05/13 14:20	1
Fluorene	ND		0.0649	0.0116	mg/Kg	121	02/02/13 15:47	02/05/13 14:20	1
Indeno[1,2,3-cd]pyrene	0.306		0.0649	0.00968	mg/Kg	22	02/02/13 15:47	02/05/13 14:20	1
Naphthalene	ND		0.0649	0.00871	mg/Kg	121	02/02/13 15:47	02/05/13 14:20	1
2-Methylnaphthalene	ND		0.0649	0.0155	mg/Kg	D	02/02/13 15:47	02/05/13 14:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	55		29 - 120				02/02/13 15:47	02/05/13 14:20	1
Terphenyl-d14 (Surr)	73		13 - 120				02/02/13 15:47	02/05/13 14:20	1
Nitrobenzene-d5 (Surr)	50		27 - 120				02/02/13 15:47	02/05/13 14:20	1
General Chemistry									
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac

0.10

96

0.10 %

01/31/13 09:26

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

Client Sample ID: 880 Cobia

Date Collected: 01/23/13 15:15

Analyte

Percent Solids

TestAmerica Job ID: 490-18285-1

Matrix: Soil

490-18285-7

Percent Solids: 95.5

Lab	Samp	le ID:

Date Received: 01/30/13 09:00							
Method: 8260B - Volatile Org	anic Compounds (	GC/MS)					
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared
Benzene	ND		0.00217	0.000726	mg/Kg	22	01/31/13 12:2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00217	0.000726	mg/Kg	n	01/31/13 12:27	01/31/13 18:43	1
Ethylbenzene	ND		0.00217	0.000726	mg/Kg	ä	01/31/13 12:27	01/31/13 18:43	1
Naphthalene	ND		0.00542	0.00184	mg/Kg	22	01/31/13 12:27	01/31/13 18:43	1
Toluene	0.00183	JB	0.00217	0.000802	mg/Kg	ũ	01/31/13 12:27	01/31/13 18:43	1
Xylenes, Total	ND		0.00542	0.000726	mg/Kg	33	01/31/13 12:27	01/31/13 18:43	1

Tree was the same of the same		The state of the s	G. Sandara and Carrier		
Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93	70 - 130	01/31/13 12:27	01/31/13 18:43	1
4-Bromofluorobenzene (Surr)	101	70 - 130	01/31/13 12:27	01/31/13 18:43	1
Dibromofluoromethane (Surr)	95	70 - 130	01/31/13 12:27	01/31/13 18:43	1
Toluene-d8 (Surr)	106	70 - 130	01/31/13 12:27	01/31/13 18:43	1
Dibromofluoromethane (Surr)	95	70 - 130	01/31/13 12:27	01/31/13 18:43	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0666	0.00994	mg/Kg	12	02/02/13 15:47	02/05/13 14:41	1
Acenaphthylene	ND		0.0666	0.00894	mg/Kg	23	02/02/13 15:47	02/05/13 14:41	1
Anthracene	ND		0.0666	0.00894	mg/Kg	a	02/02/13 15:47	02/05/13 14:41	1
Benzo[a]anthracene	ND		0.0666	0.0149	mg/Kg	TI.	02/02/13 15:47	02/05/13 14:41	1
Benzo[a]pyrene	ND		0.0666	0.0119	mg/Kg	23	02/02/13 15:47	02/05/13 14:41	1
Benzo[b]fluoranthene	ND		0.0666	0.0119	mg/Kg	101	02/02/13 15:47	02/05/13 14:41	1
Benzo[g,h,i]perylene	ND		0.0666	0.00894	mg/Kg	32	02/02/13 15:47	02/05/13 14:41	1
Benzo[k]fluoranthene	ND		0.0666	0.0139	mg/Kg	Ø	02/02/13 15:47	02/05/13 14:41	1
1-Methylnaphthalene	0.149		0.0666	0.0139	mg/Kg	II	02/02/13 15:47	02/05/13 14:41	1
Pyrene	ND		0.0666	0.0119	mg/Kg	O	02/02/13 15:47	02/05/13 14:41	1
Phenanthrene	ND		0.0666	0.00894	mg/Kg	D	02/02/13 15:47	02/05/13 14:41	1
Chrysene	ND		0.0666	0.00894	mg/Kg	D	02/02/13 15:47	02/05/13 14:41	1
Dibenz(a,h)anthracene	ND		0.0666	0.00696	mg/Kg	n	02/02/13 15:47	02/05/13 14:41	1
Fluoranthene	ND		0.0666	0.00894	mg/Kg	133	02/02/13 15:47	02/05/13 14:41	1
Fluorene	ND		0.0666	0.0119	mg/Kg	D	02/02/13 15:47	02/05/13 14:41	1
Indeno[1,2,3-cd]pyrene	ND		0.0666	0.00994	mg/Kg	307	02/02/13 15:47	02/05/13 14:41	1
Naphthalene	ND		0.0666	0.00894	mg/Kg	n	02/02/13 15:47	02/05/13 14:41	1
2-Methylnaphthalene	0.137		0.0666	0.0159	mg/Kg	13	02/02/13 15:47	02/05/13 14:41	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	49		29 - 120				02/02/13 15:47	02/05/13 14:41	1

Surrogate	76Recovery Qualifier	Limits	Prepared	Analyzea	Dii Fac
2-Fluorobiphenyl (Surr)	49	29 - 120	02/02/13 15:47	02/05/13 14:41	1
Terphenyl-d14 (Surr)	62	13 - 120	02/02/13 15:47	02/05/13 14:41	1
Nitrobenzene-d5 (Surr)	43	27 - 120	02/02/13 15:47	02/05/13 14:41	1
General Chemistry					

RL

0.10

RL Unit

0.10 %

Prepared

Result Qualifier

95

Analyzed

01/31/13 09:26

Dil Fac

Client: Environmental Enterprise Group Project/Site: Laurel Bay Housing Project TestAmerica Job ID: 490-18285-1

Ħ

Client Sample ID: 890 Cobia

Date Collected: 01/24/13 13:45 Date Received: 01/30/13 09:00

**General Chemistry** 

Analyte

Percent Solids

Lab Sample ID: 490-18285-8

Matrix: Soil Percent Solids: 94.6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00218	0.000731	mg/Kg	0	01/31/13 12:27	01/31/13 19:13	1
Ethylbenzene	ND		0.00218	0.000731	mg/Kg	33	01/31/13 12:27	01/31/13 19:13	1
Naphthalene	ND		0.00545	0.00185	mg/Kg	T	01/31/13 12:27	01/31/13 19:13	1
Toluene	0.00103	JB	0.00218	0.000807	mg/Kg	n	01/31/13 12:27	01/31/13 19:13	1
Xylenes, Total	ND		0.00545	0.000731	mg/Kg	п	01/31/13 12:27	01/31/13 19:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		70 - 130				01/31/13 12:27	01/31/13 19:13	1
4-Bromofluorobenzene (Surr)	104		70 - 130				01/31/13 12:27	01/31/13 19:13	1
Dibromofluoromethane (Surr)	95		70 - 130				01/31/13 12:27	01/31/13 19:13	1
Toluene-d8 (Surr)	107		70 - 130				01/31/13 12:27	01/31/13 19:13	1
Method: 8270D - Semivolatile	Organic Compou	nds (GC/MS	)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0668	0.00997	mg/Kg	Ø	02/02/13 15:47	02/05/13 15:03	1
Acenaphthylene	ND		0.0668	0.00897	mg/Kg	O	02/02/13 15:47	02/05/13 15:03	1
Anthracene	ND		0.0668	0.00897	mg/Kg	0	02/02/13 15:47	02/05/13 15:03	1
Benzo[a]anthracene	ND		0.0668	0.0150	mg/Kg	D	02/02/13 15:47	02/05/13 15:03	1
Benzo[a]pyrene	ND		0.0668	0.0120	mg/Kg	12	02/02/13 15:47	02/05/13 15:03	1
Benzo[b]fluoranthene	ND		0.0668	0.0120	mg/Kg	30	02/02/13 15:47	02/05/13 15:03	1
Benzo[g,h,i]perylene	ND		0.0668	0.00897	mg/Kg	300	02/02/13 15:47	02/05/13 15:03	1
Benzo[k]fluoranthene	ND		0.0668	0.0140	mg/Kg	E.	02/02/13 15:47	02/05/13 15:03	1
1-Methylnaphthalene	ND		0.0668	0.0140	mg/Kg	0	02/02/13 15:47	02/05/13 15:03	1
Pyrene	ND		0.0668	0.0120	mg/Kg	0	02/02/13 15:47	02/05/13 15:03	1
Phenanthrene	ND		0.0668	0.00897	mg/Kg	0	02/02/13 15:47	02/05/13 15:03	1
Chrysene	ND		0.0668	0.00897	mg/Kg	0	02/02/13 15:47	02/05/13 15:03	1
Dibenz(a,h)anthracene	ND		0.0668	0.00698	mg/Kg	n	02/02/13 15:47	02/05/13 15:03	1
Fluoranthene	ND		0.0668	0.00897	mg/Kg	.0	02/02/13 15:47	02/05/13 15:03	1
Fluorene	ND		0.0668	0.0120	mg/Kg	30	02/02/13 15:47	02/05/13 15:03	1
Indeno[1,2,3-cd]pyrene	ND		0.0668	0.00997	mg/Kg	D	02/02/13 15:47	02/05/13 15:03	1
Naphthalene	ND		0.0668	0.00897	mg/Kg	30	02/02/13 15:47	02/05/13 15:03	1
2-Methylnaphthalene	ND		0.0668	0.0159	mg/Kg	0	02/02/13 15:47	02/05/13 15:03	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	49		29 - 120				02/02/13 15:47	02/05/13 15:03	1
Terphenyl-d14 (Surr)	69		13 - 120				02/02/13 15:47	02/05/13 15:03	1
Nitrobenzene-d5 (Surr)	45		27 - 120				02/02/13 15:47	02/05/13 15:03	1

Analyzed

01/31/13 09:26

Dil Fac

0.10

RL Unit

0.10 %

Prepared

Result Qualifier

95

Client: Environmental Enterprise Group Project/Site: Laurel Bay Housing Project TestAmerica Job ID: 490-18285-1

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

Lab Sample ID: MB 490-55008/7

Matrix: Solid

Analyte

Analysis Batch: 55008

Client	Sample	ID:	Met	hod	Blank
	Dr	an T	Typo	· To	tal/NA

Analyzed

Prepared

Dil Fac	
1	
1	
1	

Benzene	ND		0.00200	0.000670	mg/Kg	01/31/13 11:55	1
Ethylbenzene	ND		0.00200	0.000670	mg/Kg	01/31/13 11:55	1
Naphthalene	0.002894	J	0.00500	0.00170	mg/Kg	01/31/13 11:55	1
Toluene	0.0008617	J	0.00200	0.000740	mg/Kg	01/31/13 11:55	1
Xylenes, Total	0.0007307	J	0.00500	0.000670	mg/Kg	01/31/13 11:55	1
	мв	мв					

MDL Unit

	MB	MB				
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	82		70 - 130		01/31/13 11:55	1
4-Bromofluorobenzene (Surr)	103		70 - 130		01/31/13 11:55	1
Dibromofluoromethane (Surr)	88		70 - 130		01/31/13 11:55	1
Toluene-d8 (Surr)	108		70 - 130		01/31/13 11:55	1

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

## Lab Sample ID: LCS 490-55008/4

Matrix: Solid

Analysis Batch: 55008

	Spike	LCS	LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Benzene	0.0500	0.05098		mg/Kg		102	75 - 127
Ethylbenzene	0.0500	0.05704		mg/Kg		114	80 - 134
Naphthalene	0.0500	0.06438		mg/Kg		129	69 - 150
Toluene	0.0500	0.05673		mg/Kg		113	80 - 132
Xylenes, Total	0.150	0.1684		mg/Kg		112	80 - 137

Result Qualifier

	LUG	200	
Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	90		70 - 130
4-Bromofluorobenzene (Surr)	101		70 - 130
Dibromofluoromethane (Surr)	95		70 - 130
Toluene-d8 (Surr)	105		70 - 130

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Matrix: Solid Analysis Batch: 55008

Lab Sample ID: LCSD 490-55008/5

	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.0500	0.05359		mg/Kg		107	75 - 127	5	50
Ethylbenzene	0.0500	0.06024		mg/Kg		120	80 - 134	5	50
Naphthalene	0.0500	0.06755		mg/Kg		135	69 - 150	5	50
Toluene	0.0500	0.06051		mg/Kg		121	80 - 132	6	50
Xylenes, Total	0.150	0.1785		mg/Kg		119	80 - 137	6	50

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	95		70 - 130
4-Bromofluorobenzene (Surr)	102		70 - 130
Dibromofluoromethane (Surr)	97		70 - 130
Toluene-d8 (Surr)	108		70 - 130

TestAmerica Nashville

Client: Environmental Enterprise Group Project/Site: Laurel Bay Housing Project TestAmerica Job ID: 490-18285-1

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

Lab Sample ID: 490-18287-A-3-D MS

Matrix: Solid

Analysis Batch: 55008

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

Prep	Batch:	5513
Rec.		

	Sample	Sample	Spike	MO	INIO				Mec.
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Benzene	ND		0.0492	0.04600		mg/Kg		93	31 - 143
Ethylbenzene	ND		0.0492	0.05357		mg/Kg		109	23 - 161
Naphthalene	ND		0.0492	0.01941		mg/Kg		39	10 - 176
Toluene	ND		0.0492	0.05293		mg/Kg		108	30 - 155
Xylenes, Total	ND		0.148	0.1519		mg/Kg		103	25 - 162

Limits

70 - 130

70 - 130 70 - 130

70 - 130

Lab Sample ID: 490-18287-A-3-E MSD

Matrix: Solid

Toluene-d8 (Surr)

Surrogate

Analysis Batch: 55008

1,2-Dichloroethane-d4 (Surr)

4-Bromofluorobenzene (Surr)

Dibromofluoromethane (Surr)

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 55137

Analysis Datch, 55000									Freb	Datell.	33131
The state of the s	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	ND		0.0388	0.03141		mg/Kg		81	31 - 143	38	50
Ethylbenzene	ND		0.0388	0.03739		mg/Kg		96	23 - 161	36	50
Naphthalene	ND		0.0388	0.01380		mg/Kg		36	10 - 176	34	50
Toluene	ND		0.0388	0.03661		mg/Kg		94	30 - 155	36	50
Xylenes, Total	ND		0.116	0.1057		mg/Kg		91	25 - 162	36	50

MSD	MSD
11100	11100

MS MS

%Recovery Qualifier

94

99

98

106

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	95		70 - 130
4-Bromofluorobenzene (Surr)	98		70 - 130
Dibromofluoromethane (Surr)	99		70 - 130
Toluene-d8 (Surr)	106		70 - 130

Client Sample ID: Method Blank

Prep Type: Total/NA

Lab Sample ID: MB 490-55412/6 Matrix: Solid

Analysis Batch: 55412

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00200	0.000670	mg/Kg			02/01/13 12:09	1
Ethylbenzene	ND		0.00200	0.000670	mg/Kg			02/01/13 12:09	1
Naphthalene	ND		0.00500	0.00170	mg/Kg			02/01/13 12:09	1
Toluene	ND		0.00200	0.000740	mg/Kg			02/01/13 12:09	1
Xylenes, Total	ND		0.00500	0.000670	mg/Kg			02/01/13 12:09	1
					-				

MB	MB

	WB I	MB				
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	83		70 - 130		02/01/13 12:09	1
4-Bromofluorobenzene (Surr)	103		70 - 130		02/01/13 12:09	1
Dibromofluoromethane (Surr)	94		70 - 130		02/01/13 12:09	1
Toluene-d8 (Surr)	109		70 - 130		02/01/13 12:09	1

TestAmerica Nashville

Client: Environmental Enterprise Group Project/Site: Laurel Bay Housing Project TestAmerica Job ID: 490-18285-1

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

Lab Sample ID: MB 490-55412/7

Matrix: Solid

Analysis Batch: 55412

Client Sample ID: Method Blank

Prep Type: Total/NA

	MD	MD							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.100	0.0335	mg/Kg			02/01/13 12:40	1
Ethylbenzene	ND		0.100	0.0335	mg/Kg			02/01/13 12:40	1
Naphthalene	ND		0.250	0.0850	mg/Kg			02/01/13 12:40	1
Toluene	ND		0.100	0.0370	mg/Kg			02/01/13 12:40	1
Xylenes, Total	ND		0.250	0.0335	mg/Kg			02/01/13 12:40	1

	MB	МВ				
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	79		70 - 130		02/01/13 12:40	1
4-Bromofluorobenzene (Surr)	102		70 - 130		02/01/13 12:40	1
Dibromofluoromethane (Surr)	95		70 - 130		02/01/13 12:40	1
Toluene-d8 (Surr)	109		70 - 130		02/01/13 12:40	1

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Lab Sample ID: LCS 490-55412/3

Matrix: Solid

Analysis Batch: 55412

	Spike	LCS	LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Benzene	0.0500	0.05611		mg/Kg		112	75 - 127
Ethylbenzene	0.0500	0.06149		mg/Kg		123	80 - 134
Naphthalene	0.0500	0.06302		mg/Kg		126	69 - 150
Toluene	0.0500	0.06077		mg/Kg		122	80 - 132
Xylenes, Total	0.150	0.1825		mg/Kg		122	80 - 137

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	92		70 - 130
4-Bromofluorobenzene (Surr)	99		70 - 130
Dibromofluoromethane (Surr)	100		70 - 130
Toluene-d8 (Surr)	104		70 - 130

Lab Sample ID: LCSD 490-55412/4

Matrix: Solid

Analysis Batch: 55412

Client	Sample	ID: La	ab Co	ntrol	San	nple [	Dup
			Pre	p Tv	pe:	Total	/NA

	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.0500	0.05359		mg/Kg		107	75 - 127	5	50
Ethylbenzene	0.0500	0.05943		mg/Kg		119	80 - 134	3	50
Naphthalene	0.0500	0.06231		mg/Kg		125	69 - 150	1	50
Toluene	0.0500	0.05971		mg/Kg		119	80 - 132	2	50
Xylenes, Total	0.150	0.1750		mg/Kg		117	80 - 137	4	50

LCSD LCSD

4			
Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	91		70 - 130
4-Bromofluorobenzene (Surr)	99		70 - 130
Dibromofluoromethane (Surr)	98		70 - 130
Toluene-d8 (Surr)	107		70 - 130

TestAmerica Nashville

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Client: Environmental Enterprise Group Project/Site: Laurel Bay Housing Project TestAmerica Job ID: 490-18285-1

Lab Sample ID: 490-18401-A-5-D MS

Matrix: Solid

Analysis Batch: 55412

Client	Sample	ID:	Matrix	Spike

Prep Type: Total/NA

Prep Batch: 55430

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.00850		0.0500	0.06016		mg/Kg		103	31 - 143	
Ethylbenzene	0.00122	J	0.0500	0.06258		mg/Kg		123	23 - 161	
Naphthalene	0.0346		0.0500	0.06595		mg/Kg		63	10 - 176	
Toluene	ND		0.0500	0.06086		mg/Kg		122	30 - 155	
Xylenes, Total	0.00139	J	0.150	0.1821		mg/Kg		120	25 - 162	

Limits

70 - 130

70 - 130

70 - 130

70 - 130

Lab Sample ID: 490-18401-A-5-E MSD

Matrix: Solid

Toluene-d8 (Surr)

Surrogate

Analysis Batch: 55412

1,2-Dichloroethane-d4 (Surr)

4-Bromofluorobenzene (Surr)

Dibromofluoromethane (Surr)

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

Prep Batch: 55430

randiyono Butoni oo riz									1,00	Datoi.	00100
	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.00850		0.0479	0.06284		mg/Kg	-	113	31 - 143	4	50
Ethylbenzene	0.00122	J	0.0479	0.06052		mg/Kg		124	23 - 161	3	50
Naphthalene	0.0346		0.0479	0.05802		mg/Kg		49	10 - 176	13	50
Toluene	ND		0.0479	0.06017		mg/Kg		126	30 - 155	1	50
Xylenes, Total	0.00139	J	0.144	0.1774		mg/Kg		123	25 - 162	3	50

MSD MSD

MS MS

%Recovery Qualifier

85

102

95

108

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

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	88		70 - 130
4-Bromofluorobenzene (Surr)	100		70 - 130
Dibromofluoromethane (Surr)	96		70 - 130
Toluene-d8 (Surr)	107		70 - 130

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

Lab Sample ID: MB 490-55721/1-A

Matrix: Solid

Analysis Batch: 55763

C	lient Sample ID: Method Blank
	Prep Type: Total/NA
	Dean Databa FF724

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0670	0.0100	mg/Kg		02/02/13 15:32	02/04/13 16:21	1
Acenaphthylene	ND		0.0670	0.00900	mg/Kg		02/02/13 15:32	02/04/13 16:21	1
Anthracene	ND		0.0670	0.00900	mg/Kg		02/02/13 15:32	02/04/13 16:21	1
Benzo[a]anthracene	ND		0.0670	0.0150	mg/Kg		02/02/13 15:32	02/04/13 16:21	1
Benzo[a]pyrene	ND		0.0670	0.0120	mg/Kg		02/02/13 15:32	02/04/13 16:21	1
Benzo[b]fluoranthene	ND		0.0670	0.0120	mg/Kg		02/02/13 15:32	02/04/13 16:21	1
Benzo[g,h,i]perylene	ND		0.0670	0.00900	mg/Kg		02/02/13 15:32	02/04/13 16:21	1
Benzo[k]fluoranthene	ND		0.0670	0.0140	mg/Kg		02/02/13 15:32	02/04/13 16:21	1
1-Methylnaphthalene	ND		0.0670	0.0140	mg/Kg		02/02/13 15:32	02/04/13 16:21	1
Pyrene	ND		0.0670	0.0120	mg/Kg		02/02/13 15:32	02/04/13 16:21	1
Phenanthrene	ND		0.0670	0.00900	mg/Kg		02/02/13 15:32	02/04/13 16:21	1

TestAmerica Nashville

Client: Environmental Enterprise Group Project/Site: Laurel Bay Housing Project TestAmerica Job ID: 490-18285-1

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

Lab Sample ID: MB 490-55721/1-A

Lab Sample ID: LCS 490-55721/2-A

Matrix: Solid

Matrix: Solid

Analysis Batch: 55763

Analysis Batch: 55763

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 55721

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	ND		0.0670	0.00900	mg/Kg		02/02/13 15:32	02/04/13 16:21	1
Dibenz(a,h)anthracene	ND		0.0670	0.00700	mg/Kg		02/02/13 15:32	02/04/13 16:21	1
Fluoranthene	ND		0.0670	0.00900	mg/Kg		02/02/13 15:32	02/04/13 16:21	1
Fluorene	ND		0.0670	0.0120	mg/Kg		02/02/13 15:32	02/04/13 16:21	1
Indeno[1,2,3-cd]pyrene	ND		0.0670	0.0100	mg/Kg		02/02/13 15:32	02/04/13 16:21	1
Naphthalene	ND		0.0670	0.00900	mg/Kg		02/02/13 15:32	02/04/13 16:21	1
2-Methylnaphthalene	ND		0.0670	0.0160	mg/Kg		02/02/13 15:32	02/04/13 16:21	1

	MID MID				
Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	50	29 - 120	02/02/13 15:32	02/04/13 16:21	1
Terphenyl-d14 (Surr)	73	13 - 120	02/02/13 15:32	02/04/13 16:21	1
Nitrobenzene-d5 (Surr)	45	27 - 120	02/02/13 15:32	02/04/13 16:21	1

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 55721

Analysis Batch: 55/63						Prep	,
Contract Contract	Spike	LCS	LCS			%Rec.	
Analyte	Added	Result	Qualifier Unit	D	%Rec	Limits	
Acenaphthylene	1.67	1.337	mg/Kg		80	38 - 120	
Anthracene	1.67	1.220	mg/Kg		73	46 - 124	
Benzo[a]anthracene	1.67	1.367	mg/Kg		82	45 - 120	
Benzo[a]pyrene	1.67	1.270	mg/Kg		76	45 - 120	
Benzo[b]fluoranthene	1.67	1.271	mg/Kg		76	42 - 120	
Benzo[g,h,i]perylene	1.67	1.316	mg/Kg		79	38 - 120	
Benzo[k]fluoranthene	1.67	1.369	mg/Kg		82	42 - 120	
1-Methylnaphthalene	1.67	1.380	mg/Kg		83	32 - 120	
Pyrene	1.67	1.368	mg/Kg		82	43 - 120	
Phenanthrene	1.67	1.282	mg/Kg		77	45 - 120	
Chrysene	1.67	1.298	mg/Kg		78	43 - 120	
Dibenz(a,h)anthracene	1.67	1.324	mg/Kg		79	32 - 128	
Fluoranthene	1.67	1.195	mg/Kg		72	46 - 120	
Fluorene	1.67	1.285	mg/Kg		77	42 - 120	
Indeno[1,2,3-cd]pyrene	1.67	1.304	mg/Kg		78	41 - 121	
Naphthalene	1.67	1.367	mg/Kg		82	32 - 120	
2-Methylnaphthalene	1.67	1.397	mg/Kg		84	28 - 120	

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
2-Fluorobiphenyl (Surr)	65		29 - 120
Terphenyl-d14 (Surr)	86		13 - 120
Nitrobenzene-d5 (Surr)	62		27 120

Lab Sample ID: 490-18287-B-1-D MS

Matrix: Solid

Analysis Batch: 55763

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

Prep Batch: 55721

	Sample	Sample	Spike	MS	MS				%Rec.
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Acenaphthylene	ND		1.61	1.127		mg/Kg		70	25 - 120
Anthracene	ND		1.61	1.081		mg/Kg		67	28 - 125

TestAmerica Nashville

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Client: Environmental Enterprise Group Project/Site: Laurel Bay Housing Project TestAmerica Job ID: 490-18285-1

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

Lab Sample ID: 490-18287-B-1-D MS

Matrix: Solid

Analysis Batch: 55763

Client Sample ID: Matrix Spike

	Prep Type: Total/NA
	Prep Batch: 55721
	%Rec.
%Rec	Limits

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzo[a]anthracene	ND		1.61	1.196		mg/Kg		74	23 - 120	
Benzo[a]pyrene	ND		1.61	1.084		mg/Kg		67	15 - 128	
Benzo[b]fluoranthene	ND		1.61	1.122		mg/Kg		69	12 - 133	
Benzo[g,h,i]perylene	ND		1.61	1.134		mg/Kg		70	22 - 120	
Benzo[k]fluoranthene	ND		1.61	1.117		mg/Kg		69	28 - 120	
1-Methylnaphthalene	ND		1.61	1.127		mg/Kg		70	10 - 120	
Pyrene	ND		1.61	1.173		mg/Kg		73	20 - 123	
Phenanthrene	ND		1.61	1.107		mg/Kg		69	21 - 122	
Chrysene	ND		1.61	1.142		mg/Kg		71	20 - 120	
Dibenz(a,h)anthracene	ND		1.61	1.166		mg/Kg		72	12 - 128	
Fluoranthene	ND		1.61	1.056		mg/Kg		65	10 - 143	
Fluorene	ND		1.61	1.110		mg/Kg		69	20 - 120	
Indeno[1,2,3-cd]pyrene	ND		1.61	1.147		mg/Kg		71	22 - 121	
Naphthalene	ND		1.61	1.120		mg/Kg		69	10 - 120	
2-Methylnaphthalene	ND		1.61	1.164		mg/Kg		72	13 - 120	
	***	***								

Surrogate	%Recovery Qualifier	Limits
2-Fluorobiphenyl (Surr)	51	29 - 120
Terphenyl-d14 (Surr)	72	13 - 120
Nitrobenzene-d5 (Surr)	48	27 - 120

Lab Sample ID: 490-18287-B-1-E MSD

Matrix: Solid

Analysis Batch: 55763

Client Sample	ID:	Matrix	Spike	<b>Duplicate</b>
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Prep Type: Total/NA Prep Batch: 55721

To selve de lande est ano	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Acenaphthylene	ND		1.64	1.147		mg/Kg		70	25 - 120	2	50
Anthracene	ND		1.64	1.085		mg/Kg		66	28 - 125	0	49
Benzo[a]anthracene	ND		1.64	1.219		mg/Kg		75	23 - 120	2	50
Benzo[a]pyrene	ND		1.64	1.138		mg/Kg		70	15 - 128	5	50
Benzo[b]fluoranthene	ND		1.64	1.171		mg/Kg		72	12 - 133	4	50
Benzo[g,h,i]perylene	ND		1.64	1.175		mg/Kg		72	22 - 120	4	50
Benzo[k]fluoranthene	ND		1.64	1.208		mg/Kg		74	28 - 120	8	45
1-Methylnaphthalene	ND		1.64	1.227		mg/Kg		75	10 - 120	9	50
Pyrene	ND		1.64	1.186		mg/Kg		73	20 - 123	1	50
Phenanthrene	ND		1.64	1.150		mg/Kg		70	21 - 122	4	50
Chrysene	ND		1.64	1.171		mg/Kg		72	20 - 120	3	49
Dibenz(a,h)anthracene	ND		1.64	1.209		mg/Kg		74	12 - 128	4	50
Fluoranthene	ND		1.64	1.078		mg/Kg		66	10 - 143	2	50
Fluorene	ND		1.64	1.158		mg/Kg		71	20 - 120	4	50
Indeno[1,2,3-cd]pyrene	ND		1.64	1.170		mg/Kg		72	22 - 121	2	50
Naphthalene	ND		1.64	1.224		mg/Kg		75	10 - 120	9	50
2-Methylnaphthalene	ND		1.64	1.254		mg/Kg		77	13 - 120	7	50

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Surrogate	%Recovery	Qualifier	Limits
2-Fluorobiphenyl (Surr)	52		29 - 120
Terphenyl-d14 (Surr)	73		13 - 120

TestAmerica Nashville

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Client: Environmental Enterprise Group Project/Site: Laurel Bay Housing Project TestAmerica Job ID: 490-18285-1

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

Lab Sample ID: 490-18287-B-1-E MSD

Matrix: Solid

Nitrobenzene-d5 (Surr)

Analysis Batch: 55763

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Client Sample ID: 631 Dahlia

Prep Type: Total/NA

MSD MSD

%Recovery Qualifier

51

Limits 27 - 120 Prep Batch: 55721

RPD

Limit

Method: Moisture - Percent Moisture

Lab Sample ID: 490-18285-1 DU

Matrix: Soil

Percent Solids

Surrogate

Analysis Batch: 55028

Analyte

Sample Sample 91

Result Qualifier

DU DU Result Qualifier 91

Unit

D

RPD

## **QC Association Summary**

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

Method Blank

TestAmerica Job ID: 490-18285-1

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#### GC/MS VOA

Analy	ysis	Batc	h:	550	08
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Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-18285-1	631 Dahlia	Total/NA	Soil	8260B	55160
490-18285-2	869 Cobia	Total/NA	Soil	8260B	55160
490-18285-3	874 Cobia	Total/NA	Soil	8260B	55160
490-18285-5	917 Barracuda	Total/NA	Soil	8260B	55160
490-18285-6	875 Cobia	Total/NA	Soil	8260B	55160
490-18285-7	880 Cobia	Total/NA	Soil	8260B	55160
490-18285-8	890 Cobia	Total/NA	Soil	8260B	55160
490-18287-A-3-D MS	Matrix Spike	Total/NA	Solid	8260B	55137
490-18287-A-3-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8260B	55137
LCS 490-55008/4	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 490-55008/5	Lab Control Sample Dup	Total/NA	Solid	8260B	

#### Prep Batch: 55137

MB 490-55008/7

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-18287-A-3-D MS	Matrix Spike	Total/NA	Solid	5035	
490-18287-A-3-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Total/NA

Solid

8260B

#### Prep Batch: 55159

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-18285-4	883 Cobia	Total/NA	Soil	5035	

#### Prep Batch: 55160

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-18285-1	631 Dahlia	Total/NA	Soil	5035	
490-18285-2	869 Cobia	Total/NA	Soil	5035	
490-18285-3	874 Cobia	Total/NA	Soil	5035	
490-18285-4	883 Cobia	Total/NA	Soil	5035	
490-18285-5	917 Barracuda	Total/NA	Soil	5035	
490-18285-6	875 Cobia	Total/NA	Soil	5035	
490-18285-7	880 Cobia	Total/NA	Soil	5035	
400 18285 8	890 Cobia	Total/NA	Soil	5035	

#### Analysis Batch: 55412

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-18285-4	883 Cobia	Total/NA	Soil	8260B	55160
490-18285-4	883 Cobia	Total/NA	Soil	8260B	55159
490-18401-A-5-D MS	Matrix Spike	Total/NA	Solid	8260B	55430
190-18401-A-5-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8260B	55430
LCS 490-55412/3	Lab Control Sample	Total/NA	Solid	8260B	
CSD 490-55412/4	Lab Control Sample Dup	Total/NA	Solid	8260B	
MB 490-55412/6	Method Blank	Total/NA	Solid	8260B	
MB 490-55412/7	Method Blank	Total/NA	Solid	8260B	

#### Prep Batch: 55430

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-18401-A-5-D MS	Matrix Spike	Total/NA	Solid	5035	
490-18401-A-5-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

TestAmerica Nashville

## **QC Association Summary**

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

TestAmerica Job ID: 490-18285-1

2

#### GC/MS Semi VOA

Prep	Bat	tch:	557	72
------	-----	------	-----	----

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-18285-1	631 Dahlia	Total/NA	Soil	3550C	
490-18285-2	869 Cobia	Total/NA	Soil	3550C	
490-18285-3	874 Cobia	Total/NA	Soil	3550C	
490-18285-4	883 Cobia	Total/NA	Soil	3550C	
490-18285-5	917 Barracuda	Total/NA	Soil	3550C	
490-18285-6	875 Cobia	Total/NA	Soil	3550C	
490-18285-7	880 Cobia	Total/NA	Soil	3550C	
490-18285-8	890 Cobia	Total/NA	Soil	3550C	
490-18287-B-1-D MS	Matrix Spike	Total/NA	Solid	3550C	
490-18287-B-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	3550C	
LCS 490-55721/2-A	Lab Control Sample	Total/NA	Solid	3550C	
MB 490-55721/1-A	Method Blank	Total/NA	Solid	3550C	

#### Analysis Batch: 55763

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-18287-B-1-D MS	Matrix Spike	Total/NA	Solid	8270D	55721
490-18287-B-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8270D	55721
LCS 490-55721/2-A	Lab Control Sample	Total/NA	Solid	8270D	55721
MB 490-55721/1-A	Method Blank	Total/NA	Solid	8270D	55721

#### Analysis Batch: 56216

Burgara and		420040	44.454		(24) E / W
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-18285-1	631 Dahlia	Total/NA	Soil	8270D	55721
490-18285-2	869 Cobia	Total/NA	Soil	8270D	55721
490-18285-3	874 Cobia	Total/NA	Soil	8270D	55721
490-18285-4	883 Cobia	Total/NA	Soil	8270D	55721
490-18285-5	917 Barracuda	Total/NA	Soil	8270D	55721
490-18285-6	875 Cobia	Total/NA	Soil	8270D	55721
490-18285-7	880 Cobia	Total/NA	Soil	8270D	55721
490-18285-8	890 Cobia	Total/NA	Soil	8270D	55721

#### **General Chemistry**

#### Analysis Batch: 55028

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-18285-1	631 Dahlia	Total/NA	Soil	Moisture	
490-18285-1 DU	631 Dahlia	Total/NA	Soil	Moisture	
490-18285-2	869 Cobia	Total/NA	Soil	Moisture	
490-18285-3	874 Cobia	Total/NA	Soil	Moisture	
490-18285-4	883 Cobia	Total/NA	Soil	Moisture	
490-18285-5	917 Barracuda	Total/NA	Soil	Moisture	
490-18285-6	875 Cobia	Total/NA	Soil	Moisture	
490-18285-7	880 Cobia	Total/NA	Soil	Moisture	
490-18285-8	890 Cobia	Total/NA	Soil	Moisture	

TestAmerica Nashville

#### **Lab Chronicle**

Client: Environmental Enterprise Group Project/Site: Laurel Bay Housing Project TestAmerica Job ID: 490-18285-1

Client Sample ID: 631 Dahlia

Date Collected: 01/21/13 13:45 Date Received: 01/30/13 09:00

Lab Sample ID: 490-18285-1

Matrix: Soil

Percent Solids: 90.8

Batch	Batch		Dilution	Batch	Prepared			
Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab	
Prep	5035			55160	01/31/13 12:27	ML	TAL NSH	
Analysis	8260B		1	55008	01/31/13 15:40	KK	TAL NSH	
Prep	3550C			55721	02/02/13 15:47	PA	TAL NSH	
Analysis	8270D		1	56216	02/05/13 12:35	BS	TAL NSH	
Analysis	Moisture		1	55028	01/31/13 09:26	RS	TAL NSH	
	Type Prep Analysis Prep Analysis	Type         Method           Prep         5035           Analysis         8260B           Prep         3550C           Analysis         8270D	Type         Method         Run           Prep         5035           Analysis         8260B           Prep         3550C           Analysis         8270D	Type         Method         Run         Factor           Prep         5035         1           Analysis         8260B         1           Prep         3550C         3550C           Analysis         8270D         1	Type         Method         Run         Factor         Number           Prep         5035         55160           Analysis         8260B         1         55008           Prep         3550C         55721           Analysis         8270D         1         56216	Type         Method         Run         Factor         Number or Analyzed           Prep         5035         55160         01/31/13 12:27           Analysis         8260B         1         55008         01/31/13 15:40           Prep         3550C         55721         02/02/13 15:47           Analysis         8270D         1         56216         02/05/13 12:35	Type         Method         Run         Factor         Number         or Analyzed         Analyst           Prep         5035         55160         01/31/13 12:27         ML           Analysis         8260B         1         55008         01/31/13 15:40         KK           Prep         3550C         55721         02/02/13 15:47         PA           Analysis         8270D         1         56216         02/05/13 12:35         BS	Type         Method         Run         Factor         Number         or Analyzed         Analyst         Lab           Prep         5035         55160         01/31/13 12:27         ML         TAL NSH           Analysis         8260B         1         55008         01/31/13 15:40         KK         TAL NSH           Prep         3550C         55721         02/02/13 15:47         PA         TAL NSH           Analysis         8270D         1         56216         02/05/13 12:35         BS         TAL NSH

Client Sample ID: 869 Cobia

Date Collected: 01/22/13 14:05 Date Received: 01/30/13 09:00 Lab Sample ID: 490-18285-2

Matrix: Soil

Percent Solids: 96.8

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			55160	01/31/13 12:27	ML	TAL NSH
Total/NA	Analysis	8260B		1	55008	01/31/13 16:10	KK	TAL NSH
Total/NA	Prep	3550C			55721	02/02/13 15:47	PA	TAL NSH
Total/NA	Analysis	8270D		1	56216	02/05/13 12:56	BS	TAL NSH
Total/NA	Analysis	Moisture		1	55028	01/31/13 09:26	RS	TAL NSH

Client Sample ID: 874 Cobia

Date Collected: 01/23/13 14:30 Date Received: 01/30/13 09:00 Lab Sample ID: 490-18285-3

Matrix: Soil

Percent Solids: 95.1

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			55160	01/31/13 12:27	ML	TAL NSH
Total/NA	Analysis	8260B		1	55008	01/31/13 16:41	KK	TAL NSH
Total/NA	Prep	3550C			55721	02/02/13 15:47	PA	TAL NSH
Total/NA	Analysis	8270D		1	56216	02/05/13 13:17	BS	TAL NSH
Total/NA	Analysis	Moisture		1	55028	01/31/13 09:26	RS	TAL NSH

Client Sample ID: 883 Cobia

Date Collected: 01/24/13 11:45

Date Received: 01/30/13 09:00

Lab Sample ID: 490-18285-4

Matrix: Soil

Percent Solids: 86.8

200200	Batch	Batch	453	Dilution	Batch	Prepared	2.0	
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			55160	01/31/13 12:27	ML	TAL NSH
Total/NA	Analysis	8260B		-1	55412	02/01/13 13:10	KK	TAL NSH
Total/NA	Prep	5035			55159	01/31/13 12:25	ML	TAL NSH
Total/NA	Analysis	8260B		1	55412	02/01/13 13:40	KK	TAL NSH
Total/NA	Prep	3550C			55721	02/02/13 15:47	PA	TAL NSH
Total/NA	Analysis	8270D		1	56216	02/05/13 13:38	BS	TAL NSH
Total/NA	Analysis	Moisture		1	55028	01/31/13 09:26	RS	TAL NSH

#### Lab Chronicle

Client: Environmental Enterprise Group Project/Site: Laurel Bay Housing Project TestAmerica Job ID: 490-18285-1

Client Sample ID: 917 Barracuda

Date Collected: 01/21/13 14:30 Date Received: 01/30/13 09:00

Client Sample ID: 875 Cobia Date Collected: 01/22/13 14:45

Date Received: 01/30/13 09:00

Lab Sample ID: 490-18285-5

Matrix: Soil

Percent Solids: 89.5

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			55160	01/31/13 12:27	ML	TAL NSH
Total/NA	Analysis	8260B		1	55008	01/31/13 17:42	KK	TAL NSH
Total/NA	Prep	3550C			55721	02/02/13 15:47	PA	TAL NSH
Total/NA	Analysis	8270D		1	56216	02/05/13 13:59	BS	TAL NSH
Total/NA	Analysis	Moisture		1	55028	01/31/13 09:26	RS	TAL NSH

Lab Sample ID: 490-18285-6

Matrix: Soil

Percent Solids: 96.1

Batch Batch Dilution Batch Prepared Method Prep Type Type Run Factor Number or Analyzed Analyst Lab 5035 Total/NA Prep 55160 01/31/13 12:27 TAL NSH Total/NA Analysis 8260B 55008 01/31/13 18:12 TAL NSH Total/NA 3550C PA TAL NSH Prep 55721 02/02/13 15:47 Total/NA 8270D 56216 TAL NSH Analysis 02/05/13 14:20 BS Total/NA Analysis Moisture 55028 01/31/13 09:26 TAL NSH

Client Sample ID: 880 Cobia

Date Collected: 01/23/13 15:15

Date Received: 01/30/13 09:00

Lab Sample ID: 490-18285-7

Matrix: Soil

Percent Solids: 95.5

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			55160	01/31/13 12:27	ML	TAL NSH
Total/NA	Analysis	8260B		1	55008	01/31/13 18:43	KK	TAL NSH
Total/NA	Prep	3550C			55721	02/02/13 15:47	PA	TAL NSH
Total/NA	Analysis	8270D		1	56216	02/05/13 14:41	BS	TAL NSH
Total/NA	Analysis	Moisture		1	55028	01/31/13 09:26	RS	TAL NSH

Client Sample ID: 890 Cobia

Date Collected: 01/24/13 13:45

Date Received: 01/30/13 09:00

Lab Sample ID: 490-18285-8

Matrix: Soil

Percent Solids: 94.6

Batch	Batch		Dilution	Batch	Prepared		
Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Prep	5035			55160	01/31/13 12:27	ML	TAL NSH
Analysis	8260B		1	55008	01/31/13 19:13	KK	TAL NSH
Prep	3550C			55721	02/02/13 15:47	PA	TAL NSH
Analysis	8270D		1	56216	02/05/13 15:03	BS	TAL NSH
Analysis	Moisture		1	55028	01/31/13 09:26	RS	TAL NSH
	Type Prep Analysis Prep Analysis	Type         Method           Prep         5035           Analysis         8260B           Prep         3550C           Analysis         8270D	Type         Method         Run           Prep         5035           Analysis         8260B           Prep         3550C           Analysis         8270D	Type         Method         Run         Factor           Prep         5035         5035         5035         5035         5035         6035 <td< td=""><td>Type         Method         Run         Factor         Number           Prep         5035         55160           Analysis         8260B         1         55008           Prep         3550C         55721           Analysis         8270D         1         56216</td><td>Type         Method         Run         Factor         Number or Analyzed           Prep         5035         55160         01/31/13 12:27           Analysis         8260B         1         55008         01/31/13 19:13           Prep         3550C         55721         02/02/13 15:47           Analysis         8270D         1         56216         02/05/13 15:03</td><td>Type         Method         Run         Factor         Number         or Analyzed         Analyst           Prep         5035         55160         01/31/13 12:27         ML           Analysis         8260B         1         55008         01/31/13 19:13         KK           Prep         3550C         55721         02/02/13 15:47         PA           Analysis         8270D         1         56216         02/05/13 15:03         BS</td></td<>	Type         Method         Run         Factor         Number           Prep         5035         55160           Analysis         8260B         1         55008           Prep         3550C         55721           Analysis         8270D         1         56216	Type         Method         Run         Factor         Number or Analyzed           Prep         5035         55160         01/31/13 12:27           Analysis         8260B         1         55008         01/31/13 19:13           Prep         3550C         55721         02/02/13 15:47           Analysis         8270D         1         56216         02/05/13 15:03	Type         Method         Run         Factor         Number         or Analyzed         Analyst           Prep         5035         55160         01/31/13 12:27         ML           Analysis         8260B         1         55008         01/31/13 19:13         KK           Prep         3550C         55721         02/02/13 15:47         PA           Analysis         8270D         1         56216         02/05/13 15:03         BS

Laboratory References:

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

TestAmerica Nashville

2/13/2013

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## **Method Summary**

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

TestAmerica Job ID: 490-18285-1

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

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Protocol References:

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

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**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 Project TestAmerica Job ID: 490-18285-1

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#### 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	Expiration Dat
	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
Canadian Assoc Lab Accred (CALA)	Canada		3744	03-08-14
Colorado	State Program	8	N/A	02-28-13
Connecticut	State Program	1	PH-0220	12-31-13
Florida	NELAP	4	E87358	06-30-13
Illinois	NELAP	5	200010	12-09-13
lowa	State Program	7	131	05-01-14
Kansas	NELAP	7	E-10229	10-31-13
Kentucky (UST)	State Program	4	19	09-15-13
Louisiana	NELAP	6	30613	06-30-13
Maryland	State Program	3	316	03-31-13
Massachusetts	State Program	1	M-TN032	06-30-13
Minnesota	NELAP	5	047-999-345	12-31-13
Mississippi	State Program	4	N/A	06-30-13
Montana (UST)	State Program	8	NA	01-01-15
Nevada	State Program	9	TN00032	07-31-13
New Hampshire	NELAP	1	2963	10-09-13
New Jersey	NELAP	2	TN965	06-30-13
New York	NELAP	2	11342	04-01-13
North Carolina DENR	State Program	4	387	12-31-13
North Dakota	State Program	8	R-146	06-30-13
Ohio VAP	State Program	5	CL0033	01-19-14
Oklahoma	State Program	6	9412	08-31-13
Oregon	NELAP	10	TN200001	04-30-13
Pennsylvania	NELAP	3	68-00585	06-30-13
Rhode Island	State Program	1	LAO00268	12-30-13
South Carolina	State Program	4	84009 (001)	02-28-13
South Carolina	State Program	4	84009 (002)	02-23-14
Tennessee	State Program	4	2008	02-23-14
Texas	NELAP	6	T104704077-09-TX	08-31-13
JSDA	Federal		S-48469	11-02-13
Jtah	NELAP	8	TAN	06-30-13
Virginia	NELAP	3	460152	06-14-13
Washington	State Program	10	C789	07-19-13
West Virginia DEP	State Program	3	219	02-28-13
Wisconsin	State Program	5	998020430	08-31-13
Wyoming (UST)	A2LA	8	453.07	12-31-13

## Charleston

THE LEADER IN ENVIRONMENTAL TESTING

Nashville, TN

Cooler Received/Opened On: 01/30/13 @ 9:00

9582

490-18285 Chain of Custody

Tracking # 100 (last 4 digits, FedEx)	
Courier: Fed-ex IR Gun ID: 95610068	
1. Temperature of rep. sample or temp blank when opened:	
3. If Item #2 temperature is $0^{\circ}$ C or less, was the representative sample or temp blank frozen?	YES NO. NA
4. Were custody seals on outside of cooler?	YESNONA
If yes, how many and where: Fant / 1Buck	
5. Were the seals intact, signed, and dated correctly?	YES NO NA
6. Were custody papers inside cooler?	YESNONA
I certify that I opened the cooler and answered questions 1-6 (intial)	W
7. Were custody seals on containers: YES and Intact	YES NO
Were these signed and dated correctly?	YESNO.
8. Packing mat'l used? Subblewrap Plastic bag Peanuts Vermiculite Foam Insert Pape	r Other None
9. Cooling process: Ce lce-pack lce (direct contact) Dry ice	Other None
10. Did all containers arrive in good condition (unbroken)?	ESNONA
11. Were all container labels complete (#, date, signed, pres., etc)?	ESNONA
12. Did all container labels and tags agree with custody papers?	ESNONA
13a. Were VOA vials received?	NES NONA
b. Was there any observable headspace present in any VOA vial?	YESNO.
14. Was there a Trip Blank in this cooler? YES(O).NA If multiple coolers, sequen	ce #
I certify that I unloaded the cooler and answered questions 7-14 (intial)	
15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level?	YESNO. NA
b. Did the bottle labels indicate that the correct preservatives were used	(ES).NONA
16. Was residual chlorine present?	YESNONA
I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial)	(W)
17. Were custody papers properly filled out (ink, signed, etc)?	(ES)NONA
18. Did you sign the custody papers in the appropriate place?	ESNONA
19. Were correct containers used for the analysis requested?	ESNONA
20. Was sufficient amount of sample sent in each container?	ESNONA
I certify that I entered this project into LIMS and answered questions 17-20 (intial)	(P)
I certify that I attached a label with the unique LIMS number to each container (intial)	@

COOLER RECEIPT FORM

21. Were there Non-Conformance Issues at login? YES. NO Was a NCM generated? YES NO .:#

	finguished by:		The debted beautiful to the second se	and meturophe.	erial Instructions			2	1/8/1	2019	WINDON	DARLIA 16	0.164	mple ID / Description	1	Sampler Signature:	Sampler Name: (Print)	Telephone Number: 843.412.2097	Project Manager: Tom McElwes email: mcelwes@eeginc.net	City/State/Zip: Ladson, SC 29458	Addrese: 10179 Highway 78	Client Name/Account #: EEG # 2449	estAmerica
	Date	Ç R	1		-	-	-		113/1173	13/1430	13	10	4	Time Sämpled	, ,		Times	097	wee email: moch	C 29458	hway 78	1	20000000
	Time	0900	1						7	1	1,	ナント	r	No. of Containers Shipped			1511	0 100	wee@eegino				Mashvillo Division 2960 Foster Creighton Nashville, TN 37204
25 minus	Received by TestAmerica	FIRM OF	100	3					1	×	_	-	1	Composite Field Filtered	-		CONTRACTOR OF THE PARTY OF THE	Fax	c.net				<sup>e</sup> on
CSQ TAN	estAmerica:	1	memod of Shipment:						*	3 %	) /	78	>	HNO <sub>3</sub> (Red Label)  NeOH (Gluedasher)  NaCH (Orange Label)  H <sub>2</sub> SO <sub>4</sub> Pinetic (Yellow Label)  H <sub>2</sub> SO <sub>4</sub> Glass(Yellow Label)  Nonei (Black Label)  Other ( Specify)	eservative	/		Ex 16:847 87					Phone: 615-726-0177 Toll Free: 800-765-0980 Fax: 615-725-3404
1.30-13	Oate	Die.	L	1					*				4	Groundwater Wastewater Drinking Water Sludge Soll	Matrix			10401					177 980 904
0900	Time	11110	FEDEX						>	×××	, ×	-	4	Other (specify): BTEX + Napth - 82606 PAH - 8270D		Project #:	Project ID: L	TA Quote #:	PO#:	Site State: SC			
			VOCs Free of Headspace?	Temperature Upon Receipt											Analyze For:		Laurel Bay Housing Project		1063	SC	Enforcement Action?	Compliance Monitoring?	To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes?
				36.4					-	-	-	-									Action? Yes	nitoring? Yes	alytical ted for
			4								2	. 3		RUSH TAT (Pre-Schedule)							No No	No No	
			Z		7		-		1	1	+	+	-	Fax Results							1	1	

PS/0f2 LOC: 490
18285

2/13/2013

	Refinquished by:	Control by 1/29//	Instructions:					870 (ODIA 1/24/13)3	0 Cobia 1/23/	875 CobiA 1/22/3 1415	13	Date Sampled	7	Sampler Name: (Print) F.C.A. W. Sampler Signature: ADM	Telephone Number: 843,412.2097	Project Wanager: Tom McEwee email: moelwee@eeginc.net	City/State/Zip: Ladson, SC 29456	Client Name/Account #: EEG # 2449	THE LEADER IN ENVIRONMENTAL TESTING NAME  THE LEADER TESTING NAME  THE LEADER TESTING NAME  THE LEADER TESTING NAM	
	Time	3 0900					#	131342 H X	XHS	X Y Z	× 1 0	No. of Containers Shipped		MARO		ncelwee@eeginc.			Nashville Division 2960 Foeter Creighton Nashville, TN 37204	
I smount	Received by TestAgrerica:	FILE X	Method of Shipment:					2	2	~	2	Composite Field Fittered Ico Ino HNO <sub>3</sub> (Red Label) HG(Fillus-tabel) NaCH (Orange Label) H <sub>2</sub> SO <sub>4</sub> Plastic (Yellow Label) H <sub>2</sub> SO <sub>4</sub> Glass(Yellow Label)	Legres		Fax No.: 8	net				
TAN			ipment:					1	111			None (Black Label) Other (Specify) Musture Groundwater	ervative		43-879-				Phone: 615-726-0177 Toll Frae: 800-765-0980 Fax: 615-726-3404	
1-30-13	Date	Date	FEDEX					2	×	χ	×	Wastewater Drinking Water Studge Soil	Watrix		040					124
0800	Time	ime						×	×	-	XX	Other (specify):  BTEX + Napth - 8260  PAH - 8270D	8	Project #:	TA Quote #:	PO#:	Site State: SC		2 2 -1	e.
			Temperature Upon Receipt 4.4 c VOCs Free of Headspace?		/								Analyze For:	Project ID: Laurel Bay Housing Project  Project #:		1063	SC Entricement Account	Compliance Monitoring?	To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes?	
			۲ ′	1				8	2	26	05	RUSH TAT (Pre-Schedule	2)				150		3	18285 *1
			z	E					P	ag	2	Fax Results Send QC with report								2/13/201

#### Login Sample Receipt Checklist

Client: Environmental Enterprise Group

Job Number: 490-18285-1

SDG Number:

List Source: TestAmerica Nashville

Login Number: 18285 List Number: 1

Creator: McBride, Mike		
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	

True

True

N/A

Multiphasic samples are not present.

Residual Chlorine Checked.

Samples do not require splitting or compositing.

### ATTACHMENT A



# **NON-HAZARDOUS MANIFEST**

The state of the s	1. Generator's U	S EPA ID No.	Manifest Doc No.	2. Page 1	of						
NON-HAZARDOUS MANIFEST					1	9					
3. Generator's Mailing Address:		Generator's Site Address	(If different than mailine):	A, Manife	est Number						
MCAS BEAUFORT		delicitator policination	(in different trials manife).	VA.	MNA	01510	102				
LAUREL BAY HOUSING					CHALLE CO.	01519103 ate Generator's ID					
BEAUFORT, SC 29904					b. State	Generator 5	ID.				
4. Generator's Phone 843-	879-0411										
5. Transporter 1 Company Name		6. US EF	A ID Number								
				C. State 7	ransporter's	ID					
				D. Transp	orter's Phone	9					
7. Transporter 2 Company Name		8. US EF	A ID Number								
				E. State Transporter's ID F. Transporter's Phone							
9. Designated Facility Name and Sit	ο Address	10. US I	PA ID Number	F. Transp	orter's Phone			-			
HICKORY HILL LANDFILL	e Address	10. 031	.FA ID Nulliber	G State	Eacility ID						
2621 LOW COUNTRY DRIVE					G. State Facility ID  H. State Facility Phone 843-987-4643						
RIDGELAND, SC 29936				H. State	racility Phone	043-5	67-4043	)			
MIDGELAND, SC 25550											
11. Description of Waste Materials			12. Containers	13, Total	14. Unit	T	lisc. Commen				
1 A 57 8 9 14 1452 1 4 1 2 2 2 4 1 4 3 4 4 4 4			No. Type	Quantity	Wt./Vol.	1. M	isc. Commen	15			
a. HEATING OIL TANK FILLED	WITH SAND		1786.17								
			-	-							
	ofile # 10265550										
b.					44.0						
WM Profile #											
c.											
WM Profile #			1			W. E.					
d.				-							
WM Profile						J					
J. Additional Descriptions for Mate	erials Listed Above		K. Disposal Locat	tion							
			C.II			Lead					
			Cell			Level					
15. Special Handling Instructions an	nd Additional Informa	ation	11 000	caka	110	III Ra		-1			
UST'S FROM	1 2 5	80 Cobia!	4) 890	COBIA	(6)	III BAI	CRAC	HUM			
1 21001		74 COB, A	1 5)883	Cobia	v						
Purchase Order #	20		CONTACT / PHONE NO		*			-			
16. GENERATOR'S CERTIFICATE:		LIVIENGENCE	CONTACT / THORE NO	**.							
I hereby certify that the above-desc	ribad materials are s	ot hazardous wastes as s	ofined by 40 CEP Part	261 or any appli	cable state la	w have been	n fully and				
accurately described, classified and						w, nave been	Trully and	20.			
Printed Name		Signature "On b				Month	Day	Year			
2.51	The state of	S	1 Fish			7	11	13			
17. Transporter 1 Acknowledgemen	nt of Receipt of Mate	erials	01					- 1			
Printed Name	411/	Signature	11) 1/1			Month	Day	Year			
U-REA	11 2 14	1/	1297			-	4	13			
18. Transporter 2 Acknowledgemer	nt of Receipt of Mate					-					
Printed Name		Signature	- A A			Month	Day	Year			
TAMES RAIdy	1.01	Horas	es Bold	11-		2	5	12			
19. Certificate of Final Treatment/D	isposal	0									
certify, on behalf of the above liste		that to the best of my kn	owledge, the above-de	scribed waste v	vas managed	in compliance	e with all				
applicable laws, regulations, permit			The state of the s								
20. Facility Owner or Operator: Cer	tification of receipt	of non-hazardous materia	als covered by this mani	fest.							
Printed Name	. /	Signature	-	1.1		Month	Day	Year			
TONI COT	cld		one (	Mula	X.	0	5	13			
White-TREATMENT, STORAGE, DISP	POSAL FACILITY COPY	Blue- GENERAT	OR #2 COPY	Ye	ellow- GENER	ATOR #1 CO	γ				

Gold-TRANSPORTER #1 COPY

## Appendix C Regulatory Correspondence





Catherine B. Templeton, Director

May 15, 2014

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

RE: No Further Action

Laurel Bay Underground Storage Tank Assessment Reports for:

See attached sheet

Dear Mr. Drawdy,

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

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

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

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

Sincerely,

Kent Krieg

Department of Defense Corrective Action Section

Bureau of Land and Waste Management

South Carolina Department of Health and Environmental Control

Cc: Russell Berry (via email)

Craig Ehde (via email)



Catherine B. Templeton, Director

Attachment to: Krieg to Drawdy

Subject: NFA Dated 5/15/2014

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

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

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

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

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

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