SUMMARY REPORT
321 WEST DOVE LANE (FORMERLY 1380 WEST DOVE LANE)
LAUREL BAY MILITARY HOUSING AREA
MARINE CORPS AIR STATION BEAUFORT
BEAUFORT, SC

Revision: 0 Prepared for:

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

and



Naval Facilities Engineering Command Atlantic 9324 Virginia Avenue Norfolk, Virginia 23511-3095 SUMMARY REPORT
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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 321 West Dove Lane (Formerly 1380 West Dove Lane). This NFA determination indicates that there are no unacceptable risks to human health or the environment for the petroleum constituents associated with the home heating oil USTs. The following information is included in this report:

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

1.1 Background Information

The LBMH area is located approximately 3.5 miles west of MCAS Beaufort. The area is approximately 970 acres in size and serves as an enlisted and officer family housing area. The area is configured with single family and duplex residential structures, and includes recreation, open space, and community facilities. The community includes approximately 1,300 housing units, including legacy Capehart style homes and newer duplex style homes. The housing area



is bordered on the west by salt marshes and the Broad River, and to the north, east and south by uplands. Forested areas lie along the northern and northeastern borders.

Capehart style homes within the LBMH area were formerly heated using heating oil stored in USTs at each residence. There were 1,100 Capehart style housing units in the LBMH area. The newer duplex homes within the LBMH area never utilized heating oil tanks. Heating oil has not been used at Laurel Bay since the mid-1980s. As was the accepted practice at the time, USTs were drained, filled with dirt, capped, and left in place when they were removed from service. Residential USTs are not regulated in the State of South Carolina (i.e., there are no federal or state laws governing installation, management, or removal).

In 2007, MCAS Beaufort began a voluntary program to remove the unregulated, residential USTs and conduct sampling activities to determine if, and to what extent, petroleum constituents may have impacted the surrounding environment. MCAS Beaufort coordinated with SCDHEC to develop removal procedures that were consistent with procedural requirements for regulated USTs. All tank removal activities and follow-on actions are conducted in coordination with SCDHEC. To date, all known USTs have been removed from all residential properties within the LBMH area.

1.2 UST Removal and Assessment Process

During the UST removal process, a soil sample was collected from beneath the UST excavations (approximately 4 to 6 feet [ft] below ground surface [bgs]) and analyzed for a predetermined list of constituents of potential concern (COPCs) associated with the petroleum compounds found in home heating oil. These COPCs, derived from the *Quality Assurance Program Plan (QAPP) for the Underground Storage Tank Management Division, Revision 3.1* (SCDHEC, 2016) and the *Underground Storage Tank Assessment Instructions for Permanent Closure and Change-In-Service,* (SCDHEC, 2018), are as follows:

- benzene, toluene, ethylbenzene, and xylenes (BTEX),
- naphthalene, and
- five select polynuclear aromatic hydrocarbon (PAHs): benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene and dibenz(a,h)anthracene.

Soil sample results were submitted by MCAS Beaufort to SCDHEC utilizing SCDHEC's UST Assessment Report form. In accordance with SCDHEC's *QAPP for the UST Management*



Division (SCDHEC, 2016), the soil screening levels consists of SCDHEC risk-based screening levels (RBSLs). It should be noted that the RBSLs for select PAHs were revised in Revision 2.0 of the QAPP (SCDHEC, 2013) and were revised again in Revision 3.0 (SCDHEC, 2015). The screening levels used for evaluation at each site were those levels that were in effect at the time of reporting and review by SCDHEC.

The results of the soil sampling at each former UST location were used to determine if a potential for groundwater contamination exists (i.e., soil results greater than RBSLs) and subsequently to select properties for follow-up initial groundwater assessment (IGWA) sampling. The results of the IGWA sampling (if necessary) are used to determine the presence or absence of the aforementioned COPCs in groundwater and identify whether former UST locations will require additional delineation of COPCs in groundwater. In order to delineate the extent of impact to groundwater, permanent wells are installed and a sampling program is established for those former UST locations where IGWA sampling has indicated the presence of COPCs in excess of the SCDHEC RBSLs for groundwater. Groundwater analytical results are also compared to the site specific groundwater vapor intrusion screening levels (VISLs) to evaluate the potential for vapor intrusion and the necessity for an investigation associated with this media. A multi-media investigation selection process tree, applicable to the LBMH UST investigations, is presented as Appendix A.

2.0 SAMPLING ACTIVITIES AND RESULTS

The following section presents the sampling activities and associated results for 321 West Dove Lane (Formerly 1380 West Dove Lane). Details regarding the soil investigation at this site are provided in the *SCDHEC UST Assessment Report – 1380 West Dove Lane* (MCAS Beaufort, 2014). The UST Assessment Report is provided in Appendix B.

2.1 UST Removal and Soil Sampling

On August 27, 2013, a single 280 gallon heating oil UST was removed from the front yard adjacent to the porch area at 321 West Dove Lane (Formerly 1380 West Dove Lane). 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 5'8" bgs and a single soil sample was collected from that



depth. The sample was collected from the fill port side of the former UST to represent a worst case scenario.

Following UST removal, a soil sample was collected from the base of the excavation and shipped to an offsite laboratory for analysis of the petroleum COPCs. Sampling was performed in accordance with applicable South Carolina regulation R.61-92, Part 280 (SCDHEC, 2017) and assessment guidelines.

2.2 Soil Analytical Results

A summary of the laboratory analytical results and SCDHEC RBSLs is presented in Table 1. A copy of the laboratory analytical data report is included in the UST Assessment Report presented in Appendix B. The laboratory analytical data report includes the soil results for the additional PAHs that were analyzed, but do not have associated RBSLs.

The soil sample results were submitted by MCAS Beaufort to SCDHEC utilizing SCDHEC's UST Assessment Report form (Appendix B). The results of the soil sampling at the former UST location were used by MCAS Beaufort, in consultation with SCDHEC, to determine a path forward (i.e., additional sampling or NFA) for the property. The soil results collected from 321 West Dove Lane (Formerly 1380 West Dove Lane) 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 321 West Dove Lane (Formerly 1380 West Dove Lane). This NFA determination was obtained in a letter dated April 9, 2014. SCDHEC's NFA letter is provided in Appendix C.

4.0 REFERENCES

Marine Corps Air Station Beaufort, 2014. South Carolina Department of Health and Environmental Control (SCDHEC) Underground Storage Tank Assessment Report – 1380 West Dove Lane, Laurel Bay Military Housing Area, March 2014.

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 321 West Dove Lane (Formerly 1380 West Dove Lane)

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

Constituent	SCDHEC RBSLs (1)	Results Sample Collected 08/27/13
Volatile Organic Compounds Analyze	d by EPA Method 8260B (mg/kg)	
Benzene	0.003	ND
Ethylbenzene	1.15	0.0377
Naphthalene	0.036	0.0313
Toluene	0.627	ND
Xylenes, Total	13.01	0.102
Semivolatile Organic Compounds Ana	alyzed by EPA Method 8270D (mg/kg)	
Benzo(a)anthracene	0.66	ND
Benzo(b)fluoranthene	0.66	ND
Benzo(k)fluoranthene	0.66	ND
Chrysene	0.66	ND
Dibenz(a,h)anthracene	0.66	ND

Notes:

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.

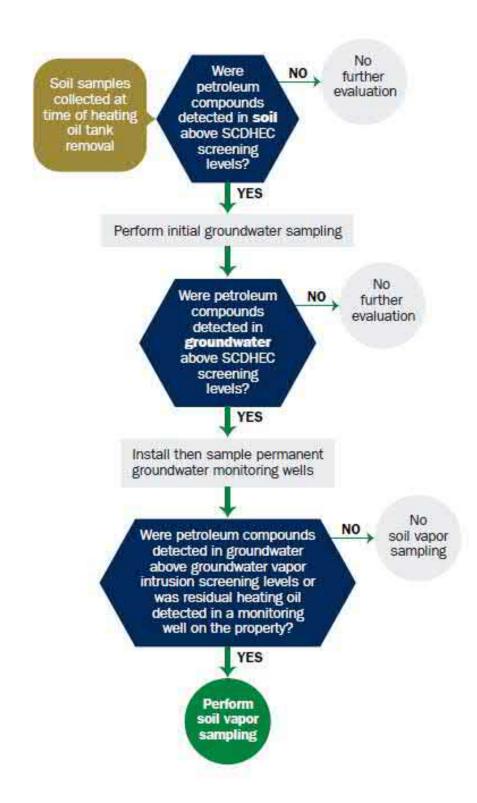
RBSL - Risk-Based Screening Level

SCDHEC - South Carolina Department Of Health and Environmental Control

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

Appendix A Multi-Media Selection Process for LBMH





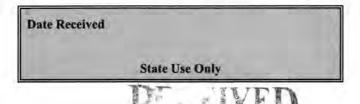
Appendix A - Multi-Media Selection Process for LBMH

Appendix B UST Assessment Report



South Carolina Department of Health and Environmental Control (SCDHEC)

Underground Storage Tank (UST) Assessment Report



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

MAR 1 9 2014

SC DHEC - Bureau of Land & Waste Management

OWNERSHIP OF UST (S) I.

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

II. SITE IDENTIFICATION AND LOCATION

Permit I.D. #	
Laurel Bay Militar	y Housing Area, Marine Corps Air Station, Beaufort, SC
Facility Name or Company S	ite Identifier
1380 Dove Lane, La	urel Bay Military Housing Area
Street Address or State Road	(as applicable)
	7. 77. 22. 25.
Beaufort, City	Beaufort
City	County
7. 7	

Attachment 2

III. INSURANCE INFORMATION

	Insurance	Statement
qualify to receive state moni-	es to pay for appropriate site p fund, written confirmation	at Permit ID Number may be rehabilitation activities. Before participation is nof the existence or non-existence of an environmental pleted.
	here ever been an insurance NO (check one)	e policy or other financial mechanism that covers this
If you answere	ed YES to the above question	on, please complete the following information:
	My policy provider is: The policy deductible is: The policy limit is:	
If you have this type	of insurance, please include	e a copy of the policy with this report.
V.		PERB Program. (Circle one.) (To be signed by the UST owner)
I certify that I have person attached documents; and information, I believe that	nally examined and am far that based on my inquiry the submitted information	miliar with the information submitted in this and al y of those individuals responsible for obtaining this i is true, accurate, and complete.
Name (Type or print.)		3
Signature		= -
To be completed by N	otary Public:	
Sworn before me this	day of	, 20
(Name)		
Notary Public for the state of Please affix State seal if you	are commissioned outside S	South Carolina

VI. UST INFORMATION	1380Dove
Product(ex. Gas, Kerosene)	Heating oil
Capacity(ex. 1k, 2k)	280 gal
Age	Late 1950s
Construction Material(ex. Steel, FRP)	Steel
Month/Year of Last Use	Mid 1980s
Depth (ft.) To Base of Tank	5'8"
Spill Prevention Equipment Y/N	No
Overfill Prevention Equipment Y/N	No
Method of Closure Removed/Filled	Removed
Date Tanks Removed/Filled	8/27/2013
Visible Corrosion or Pitting Y/N	Yes
Visible Holes Y/N	Yes
Method of disposal for any USTs removed from	om the ground (attach disposal manifests) om the ground and disposed at a
Subtitle "D" landfill. See A	

VII. PIPING INFORMATION

opper			
ion			
ion			
ion			
		No	
	Yes		
1950s			
he surface	of the ste		
to solve the second of		teel	
sed in the m	mid 1980s.		
	he location and he surface ines were s N AND HIST cted of sing ating. These	he location and extent for each the surface of the steines were sound. N AND HISTORY eted of single wall sating. These USTs were sed in the mid 1980s.	

IX. SITE CONDITIONS

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

X. SAMPLE INFORMATION

A. SCDHEC Lab Certification Number 84009

B.

Sample #	Location	Sample Type (Soil/Water)	Soil Type (Sand/Clay)	Depth*	Date/Time of Collection	Collected by	OVA#
1380 Dove	Excav at fill end	Soil	Sandy	5'8"	8/27/13 1545 hrs	P. Shaw	
							-
8							
9							
10							
11							
12							
13							
14						l d	
15							
16		•					
17							
18							-
19							
20							

^{* =} Depth Below the Surrounding Land Surface

XI. SAMPLING METHODOLOGY

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

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

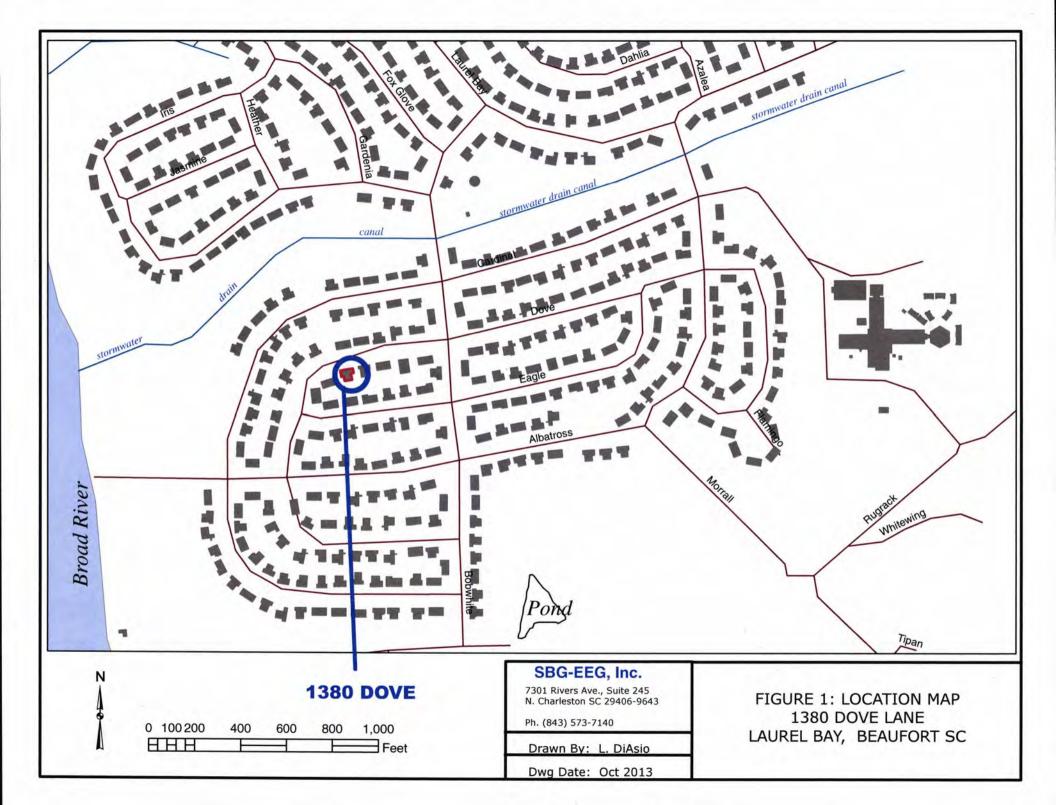
XII. RECEPTORS

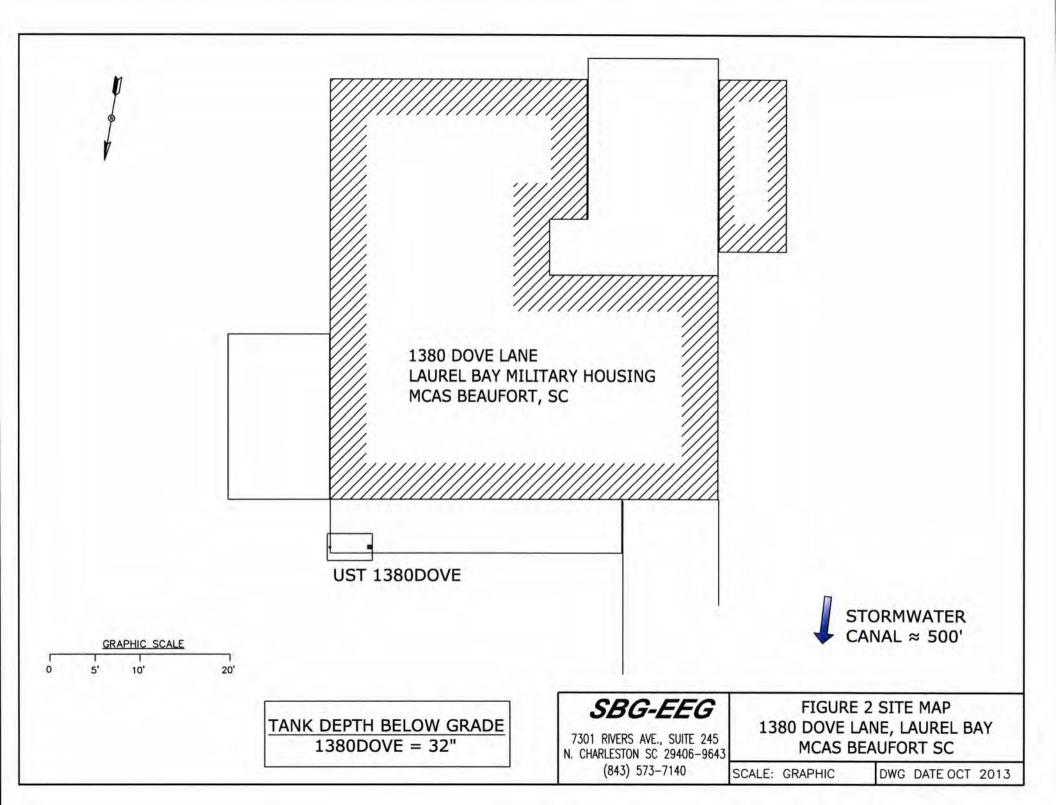
		Yes	No
A.	Are there any lakes, ponds, streams, or wetlands located within 1000 feet of the UST system? *Stormwater drain	*X	canal
	If yes, indicate type of receptor, distance, and direction on site map.		-
В.	Are there any public, private, or irrigation water supply wells within 1000 feet of the UST system?		Х
	If yes, indicate type of well, distance, and direction on site map.		
C.	Are there any underground structures (e.g., basements) Located within 100 feet of the UST system?		х
	If yes, indicate type of structure, distance, and direction on site map.		
D.	Are there any underground utilities (e.g., telephone, electricity, gas, water, sewer, storm drain) located within 100 feet of the UST system that could potentially come in contact with the contamination? *Sewer, water, electricity cable, fiber optic & geot	7.0	al
	If yes, indicate the type of utility, distance, and direction on the site map.		
E.	Has contaminated soil been identified at a depth less than 3 feet below land surface in an area that is not capped by asphalt or concrete?		Х
	If yes, indicate the area of contaminated soil on the site map.		

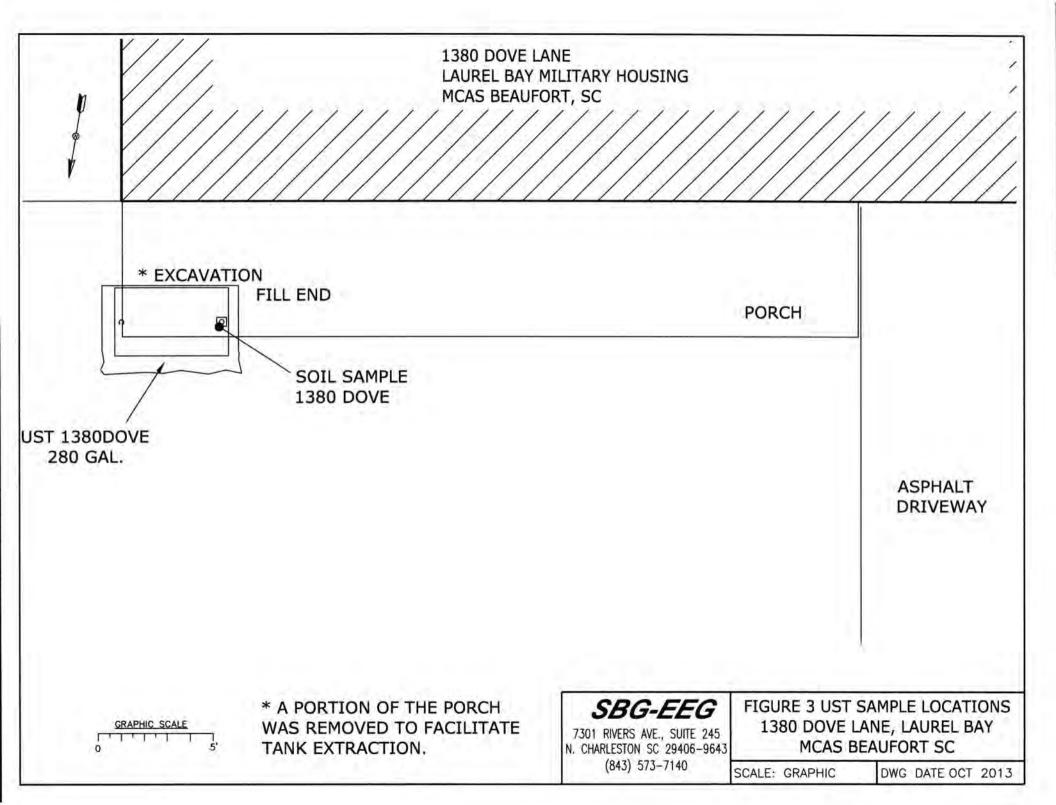
XIII. SITE MAP

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

(Attach Site Map Here)









Picture 1: Location of UST 1380Dove.



Picture 2: UST 1380Dove 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	1380Dove				
Benzene	ND				
Toluene	ND				
Ethylbenzene	0.0377 mg/kg				
Xylenes	0.102 mg/kg				
Naphthalene	0.0313 mg/kg				
Benzo (a) anthracene	ND			=0	
Benzo (b) fluoranthene	ND				
Benzo (k) fluoranthene	ND				
Chrysene	ND				
Dibenz (a, h) anthracene	ND				
TPH (EPA 3550)					
CoC					
Benzene					
Toluene					
Ethylbenzene					
Xylenes					
Naphthalene					
Benzo (a) anthracene			Y - 4		
Benzo (b) fluoranthene					
Benzo (k) fluoranthene	7-(
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			1 1	
Toluene	1,000				
Ethylbenzene	700				
Xylenes	10,000				
Total BTEX	N/A				
МТВЕ	40				
Naphthalene	25				
Benzo (a) anthracene	10				
Benzo (b) flouranthene	10		10		
Benzo (k) flouranthene	10				
Chrysene	10			-	
Dibenz (a, h) anthracene	10				
EDB	.05				
1,2-DCA	5				
Lead	Site specific				

XV. ANALYTICAL RESULTS

You must submit the laboratory report and chain-of-custody form for the samples. These samples must be analyzed by a South Carolina certified laboratory.

(Attach Certified Analytical Results and Chain-of-Custody Here) (Please see Form #4)

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: 490-34496-1 Client Project/Site: Laurel Bay Site

For:

Small Business Group Inc. 10179 Highway 78 Ladson, South Carolina 29456

Attn: Tom McElwee

Authorized for release by: 9/17/2013 12:29:37 PM

Kuth Haye

Ken Hayes, Project Manager I ken.hayes@testamericainc.com



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

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

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

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Sample Summary

Client: Small Business Group Inc. Project/Site: Laurel Bay Site

TestAmerica Job ID: 490-34496-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
490-34496-1	1380 Dove	Solid	08/27/13 15:45	09/04/13 09:05
490-34496-2	1427 Albatross	Solid	08/28/13 15:30	09/04/13 09:05
490-34496-3	1128 Iris	Solid	08/29/13 14:30	09/04/13 09:05

Case Narrative

Client: Small Business Group Inc. Project/Site: Laurel Bay Site

TestAmerica Job ID: 490-34496-1

Job ID: 490-34496-1

Laboratory: TestAmerica Nashville

Narrative

Job Narrative 490-34496-1

Comments

No additional comments.

Receipt

The samples were received on 9/4/2013 9:05 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.0° C.

Except:

The following sample(s) was received at the laboratory without a sample collection time documented on the chain-of-custody: 1128 Iris (490-34496-3). As a result, a sample collection time consistent with the time written on the sample bottle was used.

GC/MS VOA

Method(s) 8260B: Surrogate recovery for the following sample(s) was outside control limits: 1380 Dove (490-34496-1), 1427 Albatross (490-34496-2). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method(s) 8260B: The method blank for batch 104803 contained toluene 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: The method blank for batch 104801 contained Naphthalene 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: Internal standard responses were outside of acceptance limits for the following sample(s): 1427 Albatross (490-34496-2). The sample(s) shows evidence of matrix interference.

Method(s) 8260B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with batch 105150. see lcs/lcsd

No other analytical or quality issues were noted.

GC/MS Semi VOA

No analytical or quality issues were noted.

Organic Prep

No analytical or quality issues were noted.

VOA Prep

No analytical or quality issues were noted.

Definitions/Glossary

Client: Small Business Group Inc. Project/Site: Laurel Bay Site TestAmerica Job ID: 490-34496-1

5

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description	
X	Surrogate is outside control limits	

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

GC/MS Semi VOA

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

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

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

Reporting Limit or Requested Limit (Radiochemistry)

Practical Quantitation Limit

Toxicity Equivalent Factor (Dioxin)

Toxicity Equivalent Quotient (Dioxin)

Quality Control

Relative error ratio

Glossary

ND

PQL

QC

RER

RPD

TEF

TEQ

RL

Abbreviation	These commonly used abbreviations may or may not be present in this report.
п	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)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated

Client Sample Results

Client: Small Business Group Inc. Project/Site: Laurel Bay Site TestAmerica Job ID: 490-34496-1

R

Client Sample ID: 1380 Dove

Date Collected: 08/27/13 15:45 Date Received: 09/04/13 09:05

Percent Solids

Lab Sample ID: 490-34496-1

Matrix: Solid Percent Solids: 83.4

ent	Sol	ids:	83.4		
				- 1	

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00214	0.000715	mg/Kg	\$35	09/05/13 11:01	09/05/13 16:58	1
Ethylbenzene	0.0377		0.00214	0.000715	mg/Kg	22	09/05/13 11:01	09/05/13 16:58	1
Naphthalene	0.0313		0.00534	0.00181	mg/Kg	EF	09/05/13 11:01	09/05/13 16:58	1
Toluene	ND		0.00214	0.000790	mg/Kg	3.2	09/05/13 11:01	09/05/13 16:58	1
Xylenes, Total	0.102		0.00320	0.000715	mg/Kg	52	09/05/13 11:01	09/05/13 16:58	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	79		70 - 130				09/05/13 11:01	09/05/13 16:58	1
4-Bromofluorobenzene (Surr)	365	X	70 - 130				09/05/13 11:01	09/05/13 16:58	1
Dibromofluoromethane (Surr)	90		70 - 130				09/05/13 11:01	09/05/13 16:58	1
Toluene-d8 (Surr)	51	X	70 - 130				09/05/13 11:01	09/05/13 16:58	1
Method: 8270D - Semivolatile	Organic Compou	nds (GC/MS	5)						
Analyte		Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0668	0.00996	mg/Kg	B	09/09/13 07:20	09/09/13 20:08	
Acenaphthylene	0.0628	J	0.0668	0.00897	mg/Kg	D	09/09/13 07:20	09/09/13 20:08	
Anthracene	0.0966		0.0668	0.00897	mg/Kg	13	09/09/13 07:20	09/09/13 20:08	
Benzo[a]anthracene	ND		0.0668	0.0149	mg/Kg	п	09/09/13 07:20	09/09/13 20:08	
Benzo[a]pyrene	ND		0.0668	0.0120	mg/Kg	.0.	09/09/13 07:20	09/09/13 20:08	1
Benzo[b]fluoranthene	ND		0.0668	0.0120	mg/Kg	a	09/09/13 07:20	09/09/13 20:08	1
Benzo[g,h,i]perylene	ND		0.0668	0.00897	mg/Kg	р	09/09/13 07:20	09/09/13 20:08	13
Benzo[k]fluoranthene	ND		0.0668	0.0140	mg/Kg	-101	09/09/13 07:20	09/09/13 20:08	la la
1-Methylnaphthalene	0.221		0.0668	0.0140	mg/Kg	D	09/09/13 07:20	09/09/13 20:08	1
Pyrene	0.113		0.0668	0.0120	mg/Kg	Ω	09/09/13 07:20	09/09/13 20:08	1.16
Phenanthrene	0.594		0.0668	0.00897	mg/Kg	O	09/09/13 07:20	09/09/13 20:08	17
Chrysene	ND		0.0668	0.00897	mg/Kg	ū	09/09/13 07:20	09/09/13 20:08	1
Dibenz(a,h)anthracene	ND		0.0668	0.00698	mg/Kg	D	09/09/13 07:20	09/09/13 20:08	
Fluoranthene	0.0496	J	0.0668	0.00897	mg/Kg	-52	09/09/13 07:20	09/09/13 20:08	10
Fluorene	ND		0.0668	0.0120	mg/Kg	0	09/09/13 07:20	09/09/13 20:08	
Indeno[1,2,3-cd]pyrene	ND		0.0668	0.00996	mg/Kg	23	09/09/13 07:20	09/09/13 20:08	178
Naphthalene	ND		0.0668	0.00897	mg/Kg	13	09/09/13 07:20	09/09/13 20:08	
2-Methylnaphthalene	0.164		0.0668	0.0159	mg/Kg	п	09/09/13 07:20	09/09/13 20:08	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
2-Fluorobiphenyl (Surr)	66		29 - 120				09/09/13 07:20	09/09/13 20:08	
Terphenyl-d14 (Surr)	86		13 - 120				09/09/13 07:20	09/09/13 20:08	1
Nitrobenzene-d5 (Surr)	61		27 - 120				09/09/13 07:20	09/09/13 20:08	
General Chemistry									
		Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fa

09/05/13 09:40

0.10

83

0.10 %

Client Sample Results

Client: Small Business Group Inc. Project/Site: Laurel Bay Site TestAmerica Job ID: 490-34496-1

Client Sample ID: 1427 Albatross

Date Collected: 08/28/13 15:30 Date Received: 09/04/13 09:05

Percent Solids

Lab Sample ID: 490-34496-2

Matrix: Solid

Percent Solids: 81.2

Method: 8260B - Volatile Orga Analyte	The second secon	Qualifier	RL	MDI	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00221	Qualifier	0.00192	0.000643		- 2	09/05/13 11:01	09/05/13 17:27	Dii Fac
Ethylbenzene	0.343		0.138	0.0468	mg/Kg	13	09/05/13 11:18	09/06/13 16:27	1
	4.72		0.344	0.117		a	09/05/13 11:18	09/06/13 16:27	1
Naphthalene Toluene	ND ND		0.138	0.0510	mg/Kg	53	09/05/13 11:18	09/06/13 16:27	1
	ND		0.130	0.0310	1000	33	09/05/13 11:18	09/06/13 16:27	1
Xylenes, Total	ND		0.207	0.0400	mg/kg		09/05/13 11.16	09/06/13 16.27	4
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	86		70 - 130				09/05/13 11:01	09/05/13 17:27	1
1,2-Dichloroethane-d4 (Surr)	91		70 - 130				09/05/13 11:18	09/06/13 16:27	1
4-Bromofluorobenzene (Surr)	150	X	70 - 130				09/05/13 11:01	09/05/13 17:27	1
4-Bromofluorobenzene (Surr)	93		70 - 130				09/05/13 11:18	09/06/13 16:27	1
Dibromofluoromethane (Surr)	94		70 - 130				09/05/13 11:01	09/05/13 17:27	1
Dibromofluoromethane (Surr)	88		70 - 130				09/05/13 11:18	09/06/13 16:27	1
Toluene-d8 (Surr)	129		70 - 130				09/05/13 11:01	09/05/13 17:27	1
Toluene-d8 (Surr)	104		70 - 130				09/05/13 11:18	09/06/13 16:27	1
Method: 8270D - Semivolatile	Organic Compou	nds (GC/MS)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.0990		0.0670	0.0100	mg/Kg	E	09/09/13 07:20	09/09/13 21:18	1
Acenaphthylene	0.0670		0.0670	0.00900	mg/Kg	ir.	09/09/13 07:20	09/09/13 21:18	1
Anthracene	0.0903		0.0670	0.00900	mg/Kg	,13	09/09/13 07:20	09/09/13 21:18	1
Benzo[a]anthracene	ND		0.0670	0.0150	mg/Kg	D	09/09/13 07:20	09/09/13 21:18	1
Benzo[a]pyrene	ND		0.0670	0.0120	mg/Kg	13	09/09/13 07:20	09/09/13 21:18	1
Benzo[b]fluoranthene	ND		0.0670	0.0120	mg/Kg	52	09/09/13 07:20	09/09/13 21:18	1
Benzo[g,h,i]perylene	ND		0.0670	0.00900	mg/Kg	7.2	09/09/13 07:20	09/09/13 21:18	1
Benzo[k]fluoranthene	ND		0.0670	0.0140	mg/Kg	E	09/09/13 07:20	09/09/13 21:18	1
1-Methylnaphthalene	0.615		0.0670	0.0140	mg/Kg	EX.	09/09/13 07:20	09/09/13 21:18	1
Pyrene	0.103		0.0670	0.0120	mg/Kg	C	09/09/13 07:20	09/09/13 21:18	1
Phenanthrene	0.441		0.0670	0.00900	mg/Kg	D	09/09/13 07:20	09/09/13 21:18	1
Chrysene	ND		0.0670	0.00900	mg/Kg	120	09/09/13 07:20	09/09/13 21:18	1
Dibenz(a,h)anthracene	ND		0.0670	0.00700	mg/Kg	D	09/09/13 07:20	09/09/13 21:18	1
Fluoranthene	ND		0.0670	0.00900	mg/Kg	0	09/09/13 07:20	09/09/13 21:18	1
Fluorene	0.254		0.0670	0.0120	mg/Kg	D	09/09/13 07:20	09/09/13 21:18	1
Indeno[1,2,3-cd]pyrene	ND		0.0670	0.0100	mg/Kg	O	09/09/13 07:20	09/09/13 21:18	1
Naphthalene	0.0510	J	0.0670	0.00900	mg/Kg	n	09/09/13 07:20	09/09/13 21:18	1
2-Methylnaphthalene	0.609		0.0670	0.0160	mg/Kg	n	09/09/13 07:20	09/09/13 21:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	58		29 - 120				09/09/13 07:20	09/09/13 21:18	1
Terphenyl-d14 (Surr)	79		13 - 120				09/09/13 07:20	09/09/13 21:18	1
Nitrobenzene-d5 (Surr)	55		27 - 120				09/09/13 07:20	09/09/13 21:18	1
General Chemistry									
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
								CONTRACTOR STATE OF THE	

09/05/13 09:40

0.10

81

0.10 %

Client Sample Results

Client: Small Business Group Inc. Project/Site: Laurel Bay Site TestAmerica Job ID: 490-34496-1

P

Client Sample ID: 1128 Iris

Date Collected: 08/29/13 14:30 Date Received: 09/04/13 09:05

Naphthalene

2-Methylnaphthalene

Percent Solids

Lab Sample ID: 490-34496-3

Matrix: Solid Percent Solids: 85.9

	-	
-	-	
	-91	

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00226	0.000757	mg/Kg	13	09/05/13 11:01	09/06/13 14:01	1
Ethylbenzene	ND		0.00226	0.000757	mg/Kg	ZZ.	09/05/13 11:01	09/06/13 14:01	1
Naphthalene	ND		0.00565	0.00192	mg/Kg	13	09/05/13 11:01	09/06/13 14:01	1
Toluene	ND		0.00226	0.000836	mg/Kg	n	09/05/13 11:01	09/06/13 14:01	1
Xylenes, Total	ND		0.00339	0.000757	mg/Kg	32	09/05/13 11:01	09/06/13 14:01	1

Surrogate	%Recovery Qualifier	Limits		Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	87	70 - 130		09/05/13 11:01	09/06/13 14:01	1
4-Bromofluorobenzene (Surr)	113	70 - 130	7	09/05/13 11:01	09/06/13 14:01	1
Dibromofluoromethane (Surr)	93	70 - 130		09/05/13 11:01	09/06/13 14:01	1
Toluene-d8 (Surr)	103	70 - 130		09/05/13 11:01	09/06/13 14:01	1

4-Bromofluorobenzene (Surr)	113		70 - 130				09/05/13 11:01	09/06/13 14:01	1
Dibromofluoromethane (Surr)	93		70 - 130				09/05/13 11:01	09/06/13 14:01	1
Toluene-d8 (Surr)	103		70 - 130				09/05/13 11:01	09/06/13 14:01	1
Method: 8270D - Semivolatile C	rganic Compou	nds (GC/MS)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0668	0.00997	mg/Kg	33	09/09/13 07:20	09/09/13 21:42	1
Acenaphthylene	ND		0.0668	0.00898	mg/Kg	32	09/09/13 07:20	09/09/13 21:42	1
Anthracene	ND		0.0668	0.00898	mg/Kg	33	09/09/13 07:20	09/09/13 21:42	1
Benzo[a]anthracene	ND		0.0668	0.0150	mg/Kg	12	09/09/13 07:20	09/09/13 21:42	1
Benzo[a]pyrene	ND		0.0668	0.0120	mg/Kg	13	09/09/13 07:20	09/09/13 21:42	1
Benzo[b]fluoranthene	ND		0.0668	0.0120	mg/Kg	53	09/09/13 07:20	09/09/13 21:42	1
Benzo[g,h,i]perylene	0.0970		0.0668	0.00898	mg/Kg	3/2	09/09/13 07:20	09/09/13 21:42	1
Benzo[k]fluoranthene	ND		0.0668	0.0140	mg/Kg	27	09/09/13 07:20	09/09/13 21:42	1
1-Methylnaphthalene	ND		0.0668	0.0140	mg/Kg	123	09/09/13 07:20	09/09/13 21:42	1
Pyrene	0.0376	J	0.0668	0.0120	mg/Kg	100	09/09/13 07:20	09/09/13 21:42	1
Phenanthrene	ND		0.0668	0.00898	mg/Kg	D	09/09/13 07:20	09/09/13 21:42	1
Chrysene	ND		0.0668	0.00898	mg/Kg	83	09/09/13 07:20	09/09/13 21:42	1
Dibenz(a,h)anthracene	ND		0.0668	0.00698	mg/Kg	23	09/09/13 07:20	09/09/13 21:42	1
Fluoranthene	0.0405	J	0.0668	0.00898	mg/Kg	23	09/09/13 07:20	09/09/13,21:42	1
Fluorene	ND		0.0668	0.0120	mg/Kg	п	09/09/13 07:20	09/09/13 21:42	1
Indeno[1,2,3-cd]pyrene	0.0536	J	0.0668	0.00997	mg/Kg	13	09/09/13 07:20	09/09/13 21:42	1
The state of the s									

Surrogate	%Recovery Qualifier	Limits			Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	61	29 - 120			09/09/13 07:20	09/09/13 21:42	1
Terphenyl-d14 (Surr)	68	13 - 120			09/09/13 07:20	09/09/13 21:42	1
Nitrobenzene-d5 (Surr)	56	27 - 120			09/09/13 07:20	09/09/13 21:42	1
General Chemistry							
Analyte	Result Qualifier	RL	RL Unit	D	Prepared	Analyzed	Dil Fac

0.10

0.0668

0.0668

0.00898 mg/Kg

0.0160 mg/Kg

0.10

09/09/13 07:20

09/09/13 07:20

09/09/13 21:42

09/09/13 21:42

09/05/13 09:40

ND

ND

86

Client: Small Business Group Inc. Project/Site: Laurel Bay Site

TestAmerica Job ID: 490-34496-1

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

Lab Sample ID: MB 490-104801/6

Matrix: Solid

Analysis Batch: 104801

Client Sample ID: Method Blank

Prep Type: Total/NA

	· · · ·	INID							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00200	0.000670	mg/Kg			09/05/13 11:57	1
Ethylbenzene	ND		0.00200	0.000670	mg/Kg			09/05/13 11:57	1
Naphthalene	0.001933	J	0.00500	0.00170	mg/Kg			09/05/13 11:57	1
Toluene	ND		0.00200	0.000740	mg/Kg			09/05/13 11:57	1
Xylenes, Total	0.0006947	J	0.00300	0.000670	mg/Kg			09/05/13 11:57	1

MB N	MB		
%Recovery C	Qualifier Limits	Prepared Analyze	d Dil Fac
93	70 - 130	09/05/13 1	1:57 1
101	70 - 130	09/05/13 1	1:57 1
91	70 - 130	09/05/13 1	1:57 1
104	70 - 130	09/05/13 1	1:57 1
	%Recovery 0 93 101 91	%Recovery Qualifier Limits 93 70 - 130 101 70 - 130 91 70 - 130	%Recovery Qualifier Limits Prepared Analyze 93 70 - 130 09/05/13 11 101 70 - 130 09/05/13 11 91 70 - 130 09/05/13 11

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

Lab Sample ID: LCS 490-104801/29

Matrix: Solid

Analysis Batch: 104801

	Spike	LCS	LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Benzene	0.0500	0.05140		mg/Kg		103	75 - 127
Ethylbenzene	0.0500	0.05300		mg/Kg		106	80 - 134
Naphthalene	0.0500	0.05679		mg/Kg		114	69 - 150
Toluene	0.0500	0.05132		mg/Kg		103	80 - 132
Xylenes, Total	0.100	0.1051		mg/Kg		105	80 - 137

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
1.2-Dichloroethane-d4 (Surr)	94		70 - 130
4-Bromofluorobenzene (Surr)	101		70 - 130
Dibromofluoromethane (Surr)	98		70 - 130
Toluene-d8 (Surr)	105		70 - 130

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Lab Sample ID: LCSD 490-104801/30

Matrix: Solid

Analysis Batch: 104801

And the second second	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.0500	0.04917		mg/Kg		98	75 - 127	4	50
Ethylbenzene	0.0500	0.05009		mg/Kg		100	80 - 134	6	50
Naphthalene	0.0500	0.05890		mg/Kg		118	69 - 150	4	50
Toluene	0.0500	0.04883		mg/Kg		98	80 - 132	5	50
Xylenes, Total	0.100	0.09898		mg/Kg		99	80 - 137	6	50

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	93		70 - 130
4-Bromofluorobenzene (Surr)	102		70 - 130
Dibromofluoromethane (Surr)	98		70 - 130
Toluene-d8 (Surr)	104		70 - 130

Client: Small Business Group Inc. Project/Site: Laurel Bay Site

TestAmerica Job ID: 490-34496-1

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

Lab Sample ID: MB 490-104803/7

Matrix: Solid

Surrogate

Analysis Batch: 104803

Client	Sample	ID:	Method	Blank

Prep Type: Total/NA

Prep Type: Total/NA

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00200	0.000670	mg/Kg			09/05/13 12:33	1
Ethylbenzene	ND		0.00200	0.000670	mg/Kg			09/05/13 12:33	-1
Naphthalene	ND		0.00500	0.00170	mg/Kg			09/05/13 12:33	1
Toluene	0.0009890	J	0.00200	0.000740	mg/Kg			09/05/13 12:33	1
Xylenes, Total	ND		0.00300	0.000670	mg/Kg			09/05/13 12:33	1

MB MB Dil Fac %Recovery Qualifier Limits Prepared Analyzed 70 - 130 09/05/13 12:33 74 119 70 - 130 09/05/13 12:33 85 70 - 130 09/05/13 12:33

Dibromofluoromethane (Surr) Toluene-d8 (Surr) 105 70 - 130 09/05/13 12:33 Lab Sample ID: LCS 490-104803/4 Client Sample ID: Lab Control Sample

Analysis Batch: 104803

Matrix: Solid

1,2-Dichloroethane-d4 (Surr)

4-Bromofluorobenzene (Surr)

Spike LCS LCS %Rec. Analyte Added Result Qualifier Unit %Rec Limits Benzene 0.0500 0.04244 mg/Kg 85 75 - 127 Ethylbenzene 0.0500 0.04669 mg/Kg 93 80 - 134 Naphthalene 0.0500 0.06116 mg/Kg 122 69 - 150 Toluene 0.0500 0.04987 mg/Kg 100 80 - 132 80 - 137 Xylenes, Total 0.150 0.1341 mg/Kg 89

LCS LCS Qualifier Limits Surrogate %Recovery 1,2-Dichloroethane-d4 (Surr) 70 - 130 79 4-Bromofluorobenzene (Surr) 109 70 - 130 Dibromofluoromethane (Surr) 86 70 - 130 Toluene-d8 (Surr) 104 70 - 130

Lab Sample ID: LCSD 490-104803/5

Matrix: Solid

Analysis Batch: 104803

Client Sample ID: Lab	Control Sample Dup
	Pren Tyne: Total/NA

Analysis Batch. 104003	Spike	LCSD LCSD				%Rec.		RPD
Analyte	Added	Result Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.0500	0.04398	mg/Kg		88	75 - 127	4	50
Ethylbenzene	0.0500	0.04739	mg/Kg		95	80 - 134	1	50
Naphthalene	0.0500	0.06072	mg/Kg		121	69 - 150	1	50
Toluene	0.0500	0.05058	mg/Kg		101	80 - 132	1	50
Xylenes, Total	0.150	0.1359	mg/Kg		91	80 - 137	1	50

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	80		70 - 130
4-Bromofluorobenzene (Surr)	111		70 - 130
Dibromofluoromethane (Surr)	86		70 - 130
Toluene-d8 (Surr)	104		70 - 130

Client: Small Business Group Inc. Project/Site: Laurel Bay Site

TestAmerica Job ID: 490-34496-1

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

Lab Sample ID: 490-34477-E-1-A MS

Matrix: Solid

Analysis Batch: 104801

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

Prep Batch: 104871

Accessed agency and any	Sample	Sample	Spike	MS	MS				%Rec.
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Benzene	ND		0.0551	0.05128		mg/Kg	п	93	31 - 143
Ethylbenzene	ND		0.0551	0.04314		mg/Kg	ET.	78	23 - 161
Naphthalene	ND		0.0551	0.01815		mg/Kg	2,2	33	10 - 176
Toluene	ND		0.0551	0.04518		mg/Kg	32	82	30 - 155
Xylenes, Total	ND		0.110	0.08351		mg/Kg	ET.	76	25 - 162

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	95		70 - 130
4-Bromofluorobenzene (Surr)	100		70 - 130
Dibromofluoromethane (Surr)	98		70 - 130
Toluene-d8 (Surr)	104		70 - 130

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 104871

Lab Sample ID: 490-34477-F-1-A MSD

Matrix: Solid

Analysis Batch: 104801

Tillaly bio Batoli. 10 1001										Daton. I	0.10.1
	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	ND		0.0495	0.04337		mg/Kg	p	88	31 - 143	17	50
Ethylbenzene	ND		0.0495	0.03991		mg/Kg	Ø	81	23 - 161	8	50
Naphthalene	ND		0.0495	0.02060		mg/Kg	n	42	10 - 176	13	50
Toluene	ND		0.0495	0.04064		mg/Kg	H	82	30 - 155	11	50
Xylenes, Total	ND		0.0989	0.07726		mg/Kg	10	78	25 - 162	8	50

MSD MSD

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

Lab Sample ID: MB 490-105150/7

Matrix: Solid

Analysis Batch: 105150

Client	Sample	ID: Method	d Blank
	-		

Prep Type: Total/NA

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00200	0.000670	mg/Kg			09/06/13 13:02	1
Ethylbenzene	ND		0.00200	0.000670	mg/Kg			09/06/13 13:02	1
Naphthalene	ND		0.00500	0.00170	mg/Kg			09/06/13 13:02	1
Toluene	ND		0.00200	0.000740	mg/Kg			09/06/13 13:02	1
Xylenes, Total	ND		0.00300	0.000670	mg/Kg			09/06/13 13:02	1

	МВ	MB				
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	81		70 - 130		09/06/13 13:02	1
4-Bromofluorobenzene (Surr)	113		70 - 130		09/06/13 13:02	1
Dibromofluoromethane (Surr)	87		70 - 130		09/06/13 13:02	1
Toluene-d8 (Surr)	104		70 - 130		09/06/13 13:02	1

TestAmerica Nashville

9/17/2013

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Client: Small Business Group Inc. Project/Site: Laurel Bay Site

TestAmerica Job ID: 490-34496-1

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

Lab Sample ID: MB 490-105150/8

Matrix: Solid

Analysis Batch: 105150

Client Sample I	D: Method Blank
Pre	Type: Total/NA

	IMB	MB								ø
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		0.100	0.0335	mg/Kg			09/06/13 13:31	1	
Ethylbenzene	ND		0.100	0.0335	mg/Kg			09/06/13 13:31	1	1
Naphthalene	ND		0.250	0.0850	mg/Kg			09/06/13 13:31	1	ı
Toluene	ND		0.100	0.0370	mg/Kg			09/06/13 13:31	1	i
Xylenes, Total	ND		0.150	0.0335	mg/Kg			09/06/13 13:31	1	

	MB	MB				
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	79		70 - 130		09/06/13 13:31	1
4-Bromofluorobenzene (Surr)	113		70 - 130		09/06/13 13:31	1
Dibromofluoromethane (Surr)	89		70 - 130		09/06/13 13:31	1
Toluene-d8 (Surr)	103		70 - 130		09/06/13 13:31	1

Lab Sample ID: LCS 490-105150/4

Matrix: Solid

Analysis Batch: 105150

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

	Spike	LCS	LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Benzene	0.0500	0.04454		mg/Kg		89	75 - 127
Ethylbenzene	0.0500	0.04810		mg/Kg		96	80 - 134
Naphthalene	0.0500	0.06038		mg/Kg		121	69 - 150
Toluene	0.0500	0.05069		mg/Kg		101	80 - 132
Xylenes, Total	0.150	0.1364		mg/Kg		91	80 - 137

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	777	quamer	70 - 130
4-Bromofluorobenzene (Surr)	110		70 - 130
	V 15		
Dibromofluoromethane (Surr)	87		70 - 130
Toluene-d8 (Surr)	104		70 - 130

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Lab Sample ID: LCSD 490-105150/5 Matrix: Solid

Analysis Batch: 105150

Activities and a second	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.0500	0.04415		mg/Kg		88	75 - 127	1	50
Ethylbenzene	0.0500	0.04806		mg/Kg		96	80 - 134	0	50
Naphthalene	0.0500	0.05978		mg/Kg		120	69 - 150	1	50
Toluene	0.0500	0.05006		mg/Kg		100	80 - 132	1	50
Xylenes, Total	0.150	0.1380		mg/Kg		92	80 - 137	1	50

LCSD LCSD

%Recovery	Qualifier	Limits
84		70 - 130
112		70 - 130
89		70 - 130
104		70 - 130
	84 112 89	84 112 89

RL

0.0670

0.0670

0.0670

0.0670

0.0670

0.0670

0.0670

0.0670

0.0670

0.0670

0.0670

0.0670

0.0670

0.0670

0.0670

0.0670

0.0670

0.0670

Limits

29 120

13 - 120

27 - 120

MDL Unit

0.0100 mg/Kg

0.00900 mg/Kg

0.00900 mg/Kg

0.0150 mg/Kg

0.0120 mg/Kg

0.00900 mg/Kg

0.0140 mg/Kg

0.0140 mg/Kg

0.0120 mg/Kg

0.00900 mg/Kg

0.00900 mg/Kg

0.00700 mg/Kg

0.00900 mg/Kg

0.0120 mg/Kg

0.0100 mg/Kg

0.00900 mg/Kg

0.0160 mg/Kg

mg/Kg

0.0120

Client: Small Business Group Inc. Project/Site: Laurel Bay Site

Matrix: Solid

Analyte

Acenaphthene

Anthracene Benzo[a]anthracene

Pyrene

Chrysene

Phenanthrene

Fluoranthene

Naphthalene

Surrogate

Acenaphthylene

Benzo[a]pyrene

Benzo[b]fluoranthene

Benzo[g,h,i]perylene Benzo[k]fluoranthene

1-Methylnaphthalene

Dibenz(a,h)anthracene

Indeno[1,2,3-cd]pyrene

2-Methylnaphthalene

2-Fluorobiphenyl (Surr)

Terphenyl-d14 (Surr)

Matrix: Solid

Nitrobenzene-d5 (Surr)

Analysis Batch: 105537

Lab Sample ID: LCS 490-105553/2-A

Analysis Batch: 105537

Lab Sample ID: MB 490-105553/1-A

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

MB MB

ND

MB %Recovery

60

74

62

Qualifier

Result Qualifier

TestAmerica Job ID: 490-34496-1

Analyzed

09/09/13 19:45

09/09/13 19:45

09/09/13 19:45

09/09/13 19:45

09/09/13 19:45

09/09/13 19:45

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09/09/13 19:45

Analyzed

09/09/13 19:45

09/09/13 19:45

Prepared

09/09/13 07:20

09/09/13 07:20

09/09/13 07:20

09/09/13 07:20

09/09/13 07:20

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09/09/13 07:20

09/09/13 07:20

09/09/13 07:20

09/09/13 07:20

Prepared

09/09/13 07:20

09/09/13 07:20

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

Prep Batch: 105553

Dil Fac

1

Dil Fac

09/09/13 07:20 09/09/13 19:45 Client Sample ID: Lab Control Sample

Prep Batch: 105553

Prep Type: Total/NA

	Spike	LCS	LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Acenaphthylene	1.67	1.114		mg/Kg		67	38 - 120
Anthracene	1.67	1.221		mg/Kg		73	46 - 124
Benzo[a]anthracene	1.67	1.218		mg/Kg		73	45 - 120
Benzo[a]pyrene	1.67	1.220		mg/Kg		73	45 - 120
Benzo[b]fluoranthene	1.67	1.200		mg/Kg		72	42 - 120
Benzo[g,h,i]perylene	1.67	1.195		mg/Kg		72	38 - 120
Benzo[k]fluoranthene	1.67	1.268		mg/Kg		76	42 - 120
1-Methylnaphthalene	1.67	1.097		mg/Kg		66	32 - 120
Pyrene	1.67	1.173		mg/Kg		70	43 - 120
Phenanthrene	1.67	1.187		mg/Kg		71	45 - 120
Chrysene	1.67	1.214		mg/Kg		73	43 - 120
Dibenz(a,h)anthracene	1.67	1.265		mg/Kg		76	32 - 128
Fluoranthene	1.67	1.264		mg/Kg		76	46 - 120
Fluorene	1.67	1.150		mg/Kg		69	42 - 120
Indeno[1,2,3-cd]pyrene	1.67	1.196		mg/Kg		72	41 - 121
Naphthalene	1.67	1.044		mg/Kg		63	32 - 120
2-Methylnaphthalene	1.67	1.082		mg/Kg		65	28 - 120

Client: Small Business Group Inc. Project/Site: Laurel Bay Site

TestAmerica Job ID: 490-34496-1

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

Lab Sample ID: LCS 490-105553/2-A

Matrix: Solid

Analysis Batch: 105537

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 105553

	LOG	LUG	
Surrogate	%Recovery	Qualifier	Limits
2-Fluorobiphenyl (Surr)	57		29 - 120
Terphenyl-d14 (Surr)	72		13 - 120
Nitrobenzene-d5 (Surr)	59		27 - 120

Client Sample ID: 1380 Dove

Prep Type: Total/NA

Prep Batch: 105553

Lab Sample ID: 490-34496-1 MS

Matrix: Solid

Analysis Batch: 105537

	Sample	Sample	Spike	MS	MS				%Rec.
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Acenaphthylene	0.0628	J	1.64	1.172		mg/Kg	Ċ.	68	25 - 120
Anthracene	0.0966		1.64	1.375		mg/Kg	0	78	28 - 125
Benzo[a]anthracene	ND		1.64	1.313		mg/Kg	Œ	80	23 - 120
Benzo[a]pyrene	ND		1.64	1,250		mg/Kg	X	76	15 - 128
Benzo[b]fluoranthene	ND		1.64	1,203		mg/Kg	ŭ	74	12 - 133
Benzo[g,h,i]perylene	ND		1.64	1.323		mg/Kg	0	81	22 - 120
Benzo[k]fluoranthene	ND		1.64	1.245		mg/Kg	0	76	28 - 120
1-Methylnaphthalene	0.221		1.64	1.486		mg/Kg	0	77	10 - 120
Pyrene	0.113		1.64	1.501		mg/Kg	n	85	20 - 123
Phenanthrene	0.594		1.64	1.997		mg/Kg	ū	86	21 - 122
Chrysene	ND		1.64	1.300		mg/Kg	0	79	20 - 120
Dibenz(a,h)anthracene	ND		1.64	1.344		mg/Kg	n	82	12 - 128
Fluoranthene	0.0496	J	1.64	1.294		mg/Kg	Ü	76	10 - 143
Fluorene	ND		1.64	1.432		mg/Kg	D	88	20 - 120
Indeno[1,2,3-cd]pyrene	ND		1.64	1.261		mg/Kg	n	77	22 - 121
Naphthalene	ND		1.64	0.9806		mg/Kg	U	60	10 - 120

1.64

1.348

mg/Kg

MS MS

0.164

Surrogate	%Recovery	Qualifier	Limits
2-Fluorobiphenyl (Surr)	55		29 - 120
Terphenyl-d14 (Surr)	80		13 - 120
Nitrobenzene-d5 (Surr)	52		27 - 120

Lab Sample ID: 490-34496-1 MSD

Matrix: Solid

2-Methylnaphthalene

Analysis Batch: 105537

Client	Sample	ID:	1380	Dove
	Drop 7	Turn.	To!	AIALA

13 - 120

Prep Batch: 105553

The state of the s											
	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Acenaphthylene	0.0628	J	1.66	1.175		mg/Kg	Ω.	67	25 - 120	0	50
Anthracene	0.0966		1.66	1.379		mg/Kg	Œ	77	28 - 125	0	49
Benzo[a]anthracene	ND		1.66	1.253		mg/Kg	££	76	23 - 120	5	50
Benzo[a]pyrene	ND		1.66	1.212		mg/Kg	TI.	73	15 - 128	3	50
Benzo[b]fluoranthene	ND		1.66	1.268		mg/Kg	327	76	12 - 133	5	50
Benzo[g,h,i]perylene	ND		1.66	1.268		mg/Kg	12	76	22 - 120	4	50
Benzo[k]fluoranthene	ND		1.66	1.132		mg/Kg	13	68	28 - 120	10	45
1-Methylnaphthalene	0.221		1.66	1.463		mg/Kg	II	75	10 - 120	2	50
Pyrene	0.113		1.66	1.448		mg/Kg	12	81	20 - 123	4	50
Phenanthrene	0.594		1.66	2.073		mg/Kg	22	89	21 - 122	4	50
Chrysene	ND		1.66	1.211		mg/Kg	EX.	73	20 - 120	7	49

TestAmerica Nashville

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Client: Small Business Group Inc. Project/Site: Laurel Bay Site TestAmerica Job ID: 490-34496-1

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

Lab Sample ID: 490-34496-1 MSD

Matrix: Solid

Analysis Batch: 105537

Client	Sample	ID:	1380	Dove

Client Sample ID: Duplicate

Prep Type: Total/NA

Prep Type: Total/NA Prep Batch: 105553

Analysis Duton. 100001									Frep	Daten. I	05555
	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Dibenz(a,h)anthracene	ND		1.66	1.282		mg/Kg	DE.	77	12 - 128	5	50
Fluoranthene	0.0496	J	1.66	1.295		mg/Kg	Ħ	75	10 - 143	0	50
Fluorene	ND		1.66	1.454		mg/Kg	100	88	20 - 120	2	50
Indeno[1,2,3-cd]pyrene	ND		1.66	1.218		mg/Kg	n	73	22 - 121	3	50
Naphthalene	ND		1.66	1.046		mg/Kg	D	63	10 - 120	6	50
2-Methylnaphthalene	0.164		1.66	1.296		mg/Kg	Ø	68	13 - 120	4	50

 MSD
 MSD

 Surrogate
 %Recovery
 Qualifier
 Limits

 2-Fluorobiphenyl (Surr)
 52
 29 - 120

 Terphenyl-d14 (Surr)
 74
 13 - 120

 Nitrobenzene-d5 (Surr)
 46
 27 - 120

Method: Moisture - Percent Moisture

Lab Sample ID: 490-34488-A-1 DU

Matrix: Solid

Analysis Batch: 104823

	Sample	Sample	DU	DU				RPD
Analyte	Result	Qualifier	Result	Qualifier	Unit	D	RPD	Limit
Percent Solids	84		85		%		0.8	20

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QC Association Summary

Client: Small Business Group Inc. Project/Site: Laurel Bay Site

TestAmerica Job ID: 490-34496-1

GC/MS VOA

Analysis Batch: 104801

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-34477-E-1-A MS	Matrix Spike	Total/NA	Solid	8260B	104871
490-34477-F-1-A MSD	Matrix Spike Duplicate	Total/NA	Solid	8260B	104871
LCS 490-104801/29	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 490-104801/30	Lab Control Sample Dup	Total/NA	Solid	8260B	
MB 490-104801/6	Method Blank	Total/NA	Solid	8260B	

Analysis Batch: 104803

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-34496-1	1380 Dove	Total/NA	Solid	8260B	104871
490-34496-2	1427 Albatross	Total/NA	Solid	8260B	104871
LCS 490-104803/4	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 490-104803/5	Lab Control Sample Dup	Total/NA	Solid	8260B	
MB 490-104803/7	Method Blank	Total/NA	Solid	8260B	

Prep Batch: 104871

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-34477-E-1-A MS	Matrix Spike	Total/NA	Solid	5035	
490-34477-F-1-A MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	
490-34496-1	1380 Dove	Total/NA	Solid	5035	
490-34496-2	1427 Albatross	Total/NA	Solid	5035	
490-34496-3	1128 Iris	Total/NA	Solid	5035	

Prep Batch: 104873

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-34496-2	1427 Albatross	Total/NA	Solid	5035	

Analysis Batch: 105150

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-34496-2	1427 Albatross	Total/NA	Solid	8260B	104873
490-34496-3	1128 Iris	Total/NA	Solid	8260B	104871
LCS 490-105150/4	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 490-105150/5	Lab Control Sample Dup	Total/NA	Solid	8260B	
MB 490-105150/7	Method Blank	Total/NA	Solid	8260B	
MB 490-105150/8	Method Blank	Total/NA	Solid	8260B	

GC/MS Semi VOA

Analysis Batch: 105537

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-34496-1	1380 Dove	Total/NA	Solid	8270D	105553
490-34496-1 MS	1380 Dove	Total/NA	Solid	8270D	105553
490-34496-1 MSD	1380 Dove	Total/NA	Solid	8270D	105553
490-34496-2	1427 Albatross	Total/NA	Solid	8270D	105553
490-34496-3	1128 Iris	Total/NA	Solid	8270D	105553
LCS 490-105553/2-A	Lab Control Sample	Total/NA	Solid	8270D	105553
MB 490-105553/1-A	Method Blank	Total/NA	Solid	8270D	105553

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-34496-1	1380 Dove	Total/NA	Solid	3550C	

TestAmerica Nashville

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QC Association Summary

Client: Small Business Group Inc. Project/Site: Laurel Bay Site TestAmerica Job ID: 490-34496-1

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GC/MS Semi VOA (Continued)

Prep Batch: 105553 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-34496-1 MS	1380 Dove	Total/NA	Solid	3550C	
490-34496-1 MSD	1380 Dove	Total/NA	Solid	3550C	
490-34496-2	1427 Albatross	Total/NA	Solid	3550C	
490-34496-3	1128 Iris	Total/NA	Solid	3550C	
LCS 490-105553/2-A	Lab Control Sample	Total/NA	Solid	3550C	
MB 490-105553/1-A	Method Blank	Total/NA	Solid	3550C	

General Chemistry

Analysis Batch: 104823

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-34488-A-1 DU	Duplicate	Total/NA	Solid	Moisture	
490-34496-1	1380 Dove	Total/NA	Solid	Moisture	
490-34496-2	1427 Albatross	Total/NA	Solid	Moisture	
490-34496-3	1128 Iris	Total/NA	Solid	Moisture	

Lab Chronicle

Client: Small Business Group Inc. Project/Site: Laurel Bay Site TestAmerica Job ID: 490-34496-1

Client Sample ID: 1380 Dove

Client Sample ID: 1427 Albatross

Date Collected: 08/28/13 15:30

Date Received: 09/04/13 09:05

Date Collected: 08/27/13 15:45 Date Received: 09/04/13 09:05 Lab Sample ID: 490-34496-1

Matrix: Solid

Percent Solids: 83.4

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			104871	09/05/13 11:01	GLN	TAL NSH
Total/NA	Analysis	8260B		1	104803	09/05/13 16:58	KKK	TAL NSH
Total/NA	Prep	3550C			105553	09/09/13 07:20	LP	TAL NSH
Total/NA	Analysis	8270D		1	105537	09/09/13 20:08	KJP	TAL NSH
Total/NA	Analysis	Moisture		1	104823	09/05/13 09:40	RRS	TAL NSH

Lab Sample ID: 490-34496-2

Matrix: Solid

Percent Solids: 81.2

Batch Dilution Batch Batch Prepared **Prep Type** Method Run Number or Analyzed Analyst Lab Type Factor Total/NA Prep 5035 104871 09/05/13 11:01 GLN TAL NSH Total/NA 8260B 104803 09/05/13 17:27 KKK TAL NSH Analysis 1 Total/NA 5035 GLN TAL NSH Prep 104873 09/05/13 11:18 Total/NA 8260B 09/06/13 16:27 TAL NSH Analysis 1 105150 KKK Total/NA 3550C 105553 LP TAL NSH Prep 09/09/13 07:20 Total/NA Analysis 8270D 1 105537 09/09/13 21:18 **KJP** TAL NSH Total/NA Analysis Moisture 104823 09/05/13 09:40 RRS TAL NSH

Client Sample ID: 1128 Iris Lab Sample ID: 490-34496-3

104823

09/05/13 09:40

RRS

Date Collected: 08/29/13 14:30 Date Received: 09/04/13 09:05

Analysis

Percent Solids: 85.9

TAL NSH

Matrix: Solid

Batch Batch Dilution Batch Prepared Prep Type Method Run Number or Analyzed Analyst Lab Type Factor Total/NA Prep 5035 104871 09/05/13 11:01 GLN TAL NSH Total/NA 8260B KKK TAL NSH Analysis 105150 09/06/13 14:01 LP Total/NA Prep 3550C 105553 09/09/13 07:20 TAL NSH Total/NA Analysis 8270D 1 105537 09/09/13 21:42 **KJP** TAL NSH

Laboratory References:

Total/NA

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

Moisture

Method Summary

Client: Small Business Group Inc. Project/Site: Laurel Bay Site

TestAmerica Job ID: 490-34496-1

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

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

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

Certification Summary

Client: Small Business Group Inc. Project/Site: Laurel Bay Site TestAmerica Job ID: 490-34496-1

Laboratory: TestAmerica Nashville

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

Authority	Program	EPA Region	Certification ID	Expiration Date
A2LA	ISO/IEC 17025		0453.07	12-31-13
Alaska (UST)	State Program	10	UST-087	07-24-14
Arizona	State Program	9	AZ0473	05-05-14
Arizona	State Program	9	AZ0473	05-05-14 *
Arkansas DEQ	State Program	6	88-0737	04-25-14
California	NELAP	9	1168CA	10-31-13
Canadian Assoc Lab Accred (CALA)	Canada		3744	03-08-14
Connecticut	State Program	1	PH-0220	12-31-13
florida	NELAP	4	E87358	06-30-14
llinois	NELAP	5	200010	12-09-13
owa	State Program	7	131	05-01-14
ansas	NELAP	7	E-10229	10-31-13
Centucky (UST)	State Program	4	19	06-30-14
ouisiana	NELAP	6	30613	06-30-14
Maryland	State Program	3	316	03-31-14
Massachusetts	State Program	1	M-TN032	06-30-14
Minnesota	NELAP	5	047-999-345	12-31-13
lississippi	State Program	4	N/A	06-30-14
fontana (UST)	State Program	8	NA	01-01-15
levada	State Program	9	TN00032	07-31-14
lew Hampshire	NELAP	1	2963	10-10-13
lew Jersey	NELAP	2	TN965	06-30-14
lew York	NELAP	2	11342	04-01-14
Iorth Carolina DENR	State Program	4	387	12-31-13
lorth Dakota	State Program	8	R-146	06-30-14
Phio VAP	State Program	5	CL0033	01-19-14
Oklahoma	State Program	6	9412	08-31-14
Pregon	NELAP	10	TN200001	04-29-14
Pennsylvania	NELAP	3	68-00585	06-30-14
thode Island	State Program	1	LAO00268	12-30-13
outh Carolina	State Program	4	84009 (001)	02-28-14
ennessee	State Program	4	2008	02-23-14
exas	NELAP	6	T104704077-09-TX	08-31-14
SDA	Federal		S-48469	11-02-13
tah	NELAP	8	TN00032	07-31-14
/irginia	NELAP	3	460152	06-14-14
Vashington	State Program	10	C789	07-19-14
Vest Virginia DEP	State Program	3	219	02-28-14
Visconsin	State Program	5	998020430	08-31-14
Vyoming (UST)	A2LA	8	453.07	12-31-13

^{*} Expired certification is currently pending renewal and is considered valid.



THE LEADER IN ENVIRONMENTAL TESTING Nashville, TN

COOLER RECEIPT FORM



Cooler Received/Opened On9/4/2013 @ 0905	490-34496 Chain of C
1. Tracking # 9568 (last 4 digits, FedEx)	
Courier:Fedex IR Gun ID18290455	1.0
2. Temperature of rep, sample or temp blank when opened: 170_Degrees Celsius	
3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank froz	en? YES NO
4. Were custody seals on outside of cooler? If yes, how many and where:	(FBSNONA
5. Were the seals intact, signed, and dated correctly?	(FESNONA
6. Were custody papers inside cooler?	(ESNONA
I certify that I opened the cooler and answered questions 1-6 (intial)	
7. Were custody seals on containers: YES No and Intact	YESNO.(NA
Were these signed and dated correctly?	YESNONA
8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert F	aper Other None
	yice Other None
10. Did all containers arrive in good condition (unbroken)?	YESNONA
11. Were all container labels complete (#, date, signed, pres., etc)?	YESNONA
12. Did all container labels and tags agree with custody papers?	(YESNONA
13a. Were VOA vials received?	Æ8NONA
b. Was there any observable headspace present in any VOA vial?	YESNONA
14. Was there a Trip Blank in this cooler? YESNA If multiple coolers, seq	
I certify that I unloaded the cooler and answered questions 7-14 (intial)	7#
15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH le	VALS VES NOCKA
b. Did the bottle labels indicate that the correct preservatives were used	YESNOQ
16. Was residual chlorine present?	YESNO(NA)
	TH
I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (inti	_
17. Were custody papers properly filled out (ink, signed, etc)?	(YES)NONA
18. Did you sign the custody papers in the appropriate place?	YESNONA
19. Were correct containers used for the analysis requested?	YES NO NA
20. Was sufficient amount of sample sent in each container?	YESNONA
I certify that I entered this project into LIMS and answered questions 17-20 (intial)	Att
I certify that I attached a label with the unique LIMS number to each container (intial)	AJH
21. Were there Non-Conformance Issues at login? YESNO Was a NCM generated?	8NO# 76363

Account #: EE	Client Name/Account #: EEG - SBG # 2449	Nashville Division 2960 Foster Creighton Nashville, TN 37204 49	Creig N 3720	hton A			To	Free	Phone: 615-726-0177 Toll Free: 800-755-0980 Fax: 615-726-3404	Phone: 615-726-0177 NI Free: 800-765-0980 Fax: 615-726-3404	3404						netho regula	ds, is the tony puri	To assist us in using the methods, is this work regulatory purposes?	he propr being co mpliance	To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes? Compliance Monitoring?	ing for an	Yes		2		
dress: 10	Address: 10179 Highway 78	_											1						ш	inforcem	Enforcement Action?	n?	X.	1	Se Se		
ate/Zip: La	City/State/Zip: Ladson, SC 29456												,		Sign	Site State: SC	SS	60	20								
anager: To	Project Manager: Tom McEwee email: moelwee@eeginc.net	ail: moelwe	Geeg Geeg	inc.net	1	010 200 200	OX.	Ba	2	50	5	Ari	14		1	0 0		5	2			V					
tumber. of	amolor Mamo: (Delet)	Thought	V	11	-	Pax NC	3	3	,	1		2	1		N C	A Guote #		Done	oniono.	Smitore							
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	Dale Sampled	belqme2 amiT	No. of Containers Shipped	Generalie	Composite	eol	HNO ₅ (Red Label)	(ledal egnmO) HOBN	H ₂ SO ₄ Pleatic (Yellow Label)	Morre (Black Label)	Groundwater Other (Specify) VV 2775	Wastewalor Drinking Weler	Shudge Shudge	Soll Olher (specify):	BTEX + Napth - 8260	PAH - 8270D									Inberio2-eng) TAT H2UR TAT brebnet2	Fax Results	Send QC with report
00	8/27/13	1545	5	×	-		0			3	_		_	X	×	X									+	-	1
A 26.95	8/28/13	1530	6	X			7	-		3		-		X	X	×						-			-	-	-
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						Met	Method of Shipment:	Ship	ment					FEDEX	ă		Lab	Temp	Laboratory Comments: Temperature Upor VOCs Free of Hez	atory Comments: Temperature Upon Receipt: VOCs Free of Headspace?	eceipt.	5		1	2	z	
	Date		Time		Received by	- A	K	13	Off	1	\	9/6	Date		· Same	100.											
	Date		Time		Received by		TestAmerica	.83	1				Date		F	Ime											

Login Sample Receipt Checklist

Client: Small Business Group Inc.

Job Number: 490-34496-1

Login Number: 34496 List Number: 1

List Source: TestAmerica Nashville

Creator: Huskey, Adam

Creator: Huskey, Adam	
Question	Answer Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td>	True
The cooler's custody seal, if present, is intact.	True
Sample custody seals, if present, are intact.	N/A
The cooler or samples do not appear to have been compromised or tampered with.	True
Samples were received on ice.	True
Cooler Temperature is acceptable.	True
Cooler Temperature is recorded.	True
COC is present.	True
COC is filled out in ink and legible.	True
COC is filled out with all pertinent information.	True
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	True

True

True

N/A

<6mm (1/4").

Multiphasic samples are not present.

Residual Chlorine Checked.

Samples do not require splitting or compositing.

ATTACHMENT A



NON-HAZARDOUS MANIFEST

		1. Generator's US EP	A ID No. N	lanifest Doc	No.	2. Page 1	of				
	NON-HAZARDOUS MANIFEST					1		7/	643	7	
	3. Generator's Mailing Address: MCAS, BEAUFORT LAUREL BAY HOUSING	Gen	erator's Site Address (If	different than n	nailing):	12.0	MNA B. State G	00316	5839		
	BEAUFORT, SC 29907 4. Generator's Phone 843-2	228-6461									
	5. Transporter 1 Company Name		6. US EPA I	D Number							
Ш	EEG, INC. P. O. Box 1935	WE IN TRAIL					ansporter's ID		220 044	4	
	7. Transporter 2 Company Name		D Number		D. Transpo	orter's Phone		879-041			
	7. Hansporter 2 company Name		d. OSEFA	D Ivalliber		E. State Tr	ansporter's ID		12-13	30	
						F. Transporter's Phone					
	9. Designated Facility Name and Site	e Address	10. US EPA	ID Number	2	VE SEE					
	HICKORY HILL LANDFILL					G. State Fa	cility ID				
	2621 LOW COUNTRY ROAD					H. State Fa	cility Phone	843-9	987-464	3	
	RIDGELAND, SC 29936										
	11. Description of Waste Materials			12. C	ontainers	13. Total	14. Unit	()	fisc. Comme	ntr	
G E		MATHEMAN		No.	Туре	Quantity	Wt./Vol.	1. 19	iisc. comine	iits	
N E	a. HEATING OIL TANKS FILLED WM Pro	No.		1	204	4.20	TON	7/	643	7	
R	b.	me# 1020333C		+	-			1			
T											
0	WM Profile #			-							
R	C.										
- 1				1							
1	WM Profile #										
	d.				2						
-	WM Profile # J. Additional Descriptions for Mate			V Disno	sal Location	V.					
	J. Additional Descriptions for Water	ilais Listeu Above		K. Dispo	sai cocation						
-				Cell				Level			
-				Grid	101	. /	2	7/1/1	-	1	
	15. Special Handling Instructions and	Additional Information	Eldenber. EMERGENCY CO	4) 141 0 5) NTACT / PH	1380L ONE NO.:	0002	5)112	MI.	\$1.1	1	
İ	16. GENERATOR'S CERTIFICATE:										
	I hereby certify that the above-described materials are not hazardous wastes as defined by CFR Part 261 or any applicable state law, have been fully and										
1	accurately described, classified and packaged and are in proper condition for transpor				ording to app	olicable regul	ations.	Month	Day	Year	
	Printed Name Signature "On beha				1			Month	Dey	12	
1	17. Transporter 1 Acknowledgement	11	1				0	it			
R A N S	Printed Name	Shau.	Signature	N	-			Month	Day	Year	
P	18. Transporter 2 Acknowledgement of Receipt of Materials							(1/	
ORTER	Printed Name	•	Signature					Month	Day	Year	
1	19. Certificate of Final Treatment/Dis	sposal								1	
F A	I certify, on behalf of the above listed applicable laws, regulations, permits	I treatment facility, that and licenses on the date	es listed above.			, 1	s managed in	complianc	e with all		
51	20. Facility Owner or Operator: Cert	ification of receipt of no		overed by the	nis manifest.						
Y	Printed Name	d	Signature	7	21			Month	Day	Year	
_	WALL TOTAL STATE STORAGE DIST	DEAL EXCILITY CORY	Blue CENERATOR		march 1		OW- GENERAT	to the last	1	16.4	

Appendix C Regulatory Correspondence





W. Marshall Taylor Jr., Acting Director

Promoting and protecting the health of the public and the environment

April 9, 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)



W. Marshall Taylor Jr., Acting Director Promoting and protecting the health of the public and the environment

Attachment to: Krieg to Drawdy

Subject: NFA Dated 4/9/2015

Laurel Bay Underground Storage Tank Assessment Reports for: (9 addresses/10 tanks)

1179 Bobwhite	1380 Dove
1188 Bobwhite Tank 1	1383 Dove
1188 Bobwhite Tank 2	1400 Eagle
1358 Cardinal	1402 Eagle
1372 Dove	1419 Albatross