

**SUMMARY REPORT
262 EAGLE LANE (FORMERLY 1403 EAGLE LANE)
LAUREL BAY MILITARY HOUSING AREA
MARINE CORPS AIR STATION BEAUFORT
BEAUFORT, SC**

**Revision: 0
Prepared for:**

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

and



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

JUNE 2021

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Prepared by:

CDM - AECOM
Multimedia Joint Venture

**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
ft	feet
IDIQ	Indefinite Delivery, Indefinite Quantity
IGWA	Initial Groundwater Assessment
JV	Joint Venture
LBMH	Laurel Bay Military Housing
MCAS	Marine Corps Air Station
NAVFAC Mid-Lant	Naval Facilities Engineering Command Mid-Atlantic
NFA	No Further Action
PAH	polynuclear aromatic hydrocarbon
QAPP	Quality Assurance Program Plan
RBSL	risk-based screening level
SCDHEC	South Carolina Department of Health and Environmental Control
Site	LBMH area at MCAS Beaufort, South Carolina
UST	underground storage tank
VISL	vapor intrusion screening level

1.0 INTRODUCTION

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

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

This report summarizes the results the environmental investigation activities associated with the storage of home heating oil and the potential release of petroleum constituents at the referenced property. Based on the results of the investigation, a No Further Action (NFA) determination has been made by the South Carolina Department of Health and Environmental Control (SCDHEC) for 262 Eagle Lane (Formerly 1403 Eagle Lane). This NFA determination indicates that there are no unacceptable risks to human health or the environment for the petroleum constituents associated with the home heating oil USTs. The following information is included in this report:

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

1.1 Background Information

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

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

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

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

1.2 UST Removal and Assessment Process

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

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

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

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

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

2.0 SAMPLING ACTIVITIES AND RESULTS

The following section presents the sampling activities and associated results for 262 Eagle Lane (Formerly 1403 Eagle Lane). Details regarding the soil investigation at this site are provided in the *SCDHEC UST Assessment Report – 1403 Eagle Lane* (MCAS Beaufort, 2013). The UST Assessment Report is provided in Appendix B. Details regarding the IGWA sampling activities at this site are provided in the *Initial Groundwater Investigation Report – May and June 2015* (Resolution Consultants, 2015). The laboratory report that includes the pertinent IGWA analytical results for this site is presented in Appendix C.

2.1 UST Removal and Soil Sampling

On May 15, 2013, a single 280 gallon heating oil UST was removed from the rear patio area at 262 Eagle Lane (Formerly 1403 Eagle Lane). The former UST location is indicated on Figures 2 and 3 of the UST Assessment Report (Appendix B). The UST was removed, cleaned, and shipped offsite for recycling. There was no visual evidence (i.e., staining or sheen) of

petroleum impact at the time of the UST removal. According to the UST Assessment Report (Appendix B), the depth to the base of the UST was 6'0" 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 262 Eagle Lane (Formerly 1403 Eagle Lane) were greater than the SCDHEC RBSLs, which indicated further investigation was required. In a letter dated April 7, 2015, SCDHEC requested an IGWA for 262 Eagle Lane (Formerly 1403 Eagle Lane) to determine if the groundwater was impacted by petroleum COPCs. SCDHEC's request letter is provided in Appendix D.

2.3 Groundwater Sampling

On June 18, 2015, a temporary monitoring well was installed at 262 Eagle Lane (Formerly 1403 Eagle Lane), in accordance with the South Carolina Well Standards and Regulations (R.61-71.H-I, updated June 24, 2016). In order to provide data that can be used to determine whether COPCs are migrating to underlying groundwater, the monitoring well was placed in the same general location as the former heating oil UST. The former UST location is indicated on Figures 2 and 3 of the UST Assessment Report (Appendix B). Further details are provided in the *Initial Groundwater Investigation Report – May and June 2015* (Resolution Consultants, 2015).

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

2.4 Groundwater Analytical Results

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

The groundwater results collected from 262 Eagle Lane (Formerly 1403 Eagle Lane) were less than the SCDHEC RBSLs and the site specific groundwater VISLs (Table 2), which indicated that the groundwater was not impacted by COPCs associated with the former UST at concentrations that present a potential risk to human health and the environment.

3.0 PROPERTY STATUS

Based on the analytical results for groundwater, SCDHEC made the determination that NFA was required for 262 Eagle Lane (Formerly 1403 Eagle Lane). This NFA determination was obtained in a letter dated February 22, 2016. SCDHEC's NFA letter is provided in Appendix D.

4.0 REFERENCES

Marine Corps Air Station Beaufort, 2013. *South Carolina Department of Health and Environmental Control (SCDHEC) Underground Storage Tank Assessment Report – 1403 Eagle Lane, Laurel Bay Military Housing Area*, October 2013.

Resolution Consultants, 2015. *Initial Groundwater Investigation Report – May and June 2015 for Laurel Bay Military Housing Area, Multiple Properties, Laurel Bay Military Housing Area, Marine Corps Air Station Beaufort, Beaufort, South Carolina*, October 2015.

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

South Carolina Department of Health and Environmental Control Bureau of Land and Waste Management, 2015. *Quality Assurance Program Plan for the Underground Storage Tank Management Division, Revision 3.0*, May 2015.

South Carolina Department of Health and Environmental Control Bureau of Land and Waste Management, 2016. *Quality Assurance Program Plan for the Underground Storage Tank Management Division, Revision 3.1*, February 2016.

South Carolina Department of Health and Environmental Control Bureau of Land and Waste Management, 2017. *R.61-92, Part 280, Underground Storage Tank Control Regulations*, March 2017.

South Carolina Department of Health and Environmental Control Bureau of Land and Waste Management, 2018. *Underground Storage Tank Assessment Instructions for Permanent Closure and Change-In-Service*, March 2018.

South Carolina Department of Health and Environmental Control Bureau of Water, 2016. *R.61-71, Well Standards*, June 2016.

Tables

Table 1
Laboratory Analytical Results - Soil
262 Eagle Lane (Formerly 1403 Eagle Lane)
Laurel Bay Military Housing Area
Marine Corps Air Station Beaufort
Beaufort, South Carolina

Constituent	SCDHEC RBSLs ⁽¹⁾	Results Sample Collected 05/15/13
Volatatile Organic Compounds Analyzed by EPA Method 8260B (mg/kg)		
Benzene	0.003	ND
Ethylbenzene	1.15	0.00748
Naphthalene	0.036	ND
Toluene	0.627	0.00164
Xylenes, Total	13.01	0.0319
Semivolatile Organic Compounds Analyzed by EPA Method 8270D (mg/kg)		
Benzo(a)anthracene	0.66	0.116
Benzo(b)fluoranthene	0.66	0.149
Benzo(k)fluoranthene	0.66	0.0644
Chrysene	0.66	0.205
Dibenz(a,h)anthracene	0.66	ND

Notes:

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

Bold font indicates the analyte was detected.

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

EPA - United States Environmental Protection Agency

mg/kg - milligrams per kilogram

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

RBSL - Risk-Based Screening Level

SCDHEC - South Carolina Department Of Health and Environmental Control

Table 2
Laboratory Analytical Results - Groundwater
262 Eagle Lane (Formerly 1403 Eagle Lane)
Laurel Bay Military Housing Area
Marine Corps Air Station Beaufort
Beaufort, South Carolina

Constituent	SCDHEC RBSLs ⁽¹⁾	Site-Specific Groundwater VISLs (µg/L) ⁽²⁾	Results Sample Collected 06/18/15
Volatile Organic Compounds Analyzed by EPA Method 8260B (µg/L)			
Benzene	5	16.24	ND
Ethylbenzene	700	45.95	ND
Naphthalene	25	29.33	ND
Toluene	1000	105,445	ND
Xylenes, Total	10,000	2,133	ND
Semivolatile Organic Compounds Analyzed by EPA Method 8270D (µg/L)			
Benzo(a)anthracene	10	NA	ND
Benzo(b)fluoranthene	10	NA	ND
Benzo(k)fluoranthene	10	NA	ND
Chrysene	10	NA	ND
Dibenz(a,h)anthracene	10	NA	ND

Notes:

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

⁽²⁾ Site-specific groundwater VISLs were calculated using the EPA JE Model Spreadsheets (Version 3.1, February 2004) and conservative modeling inputs representative of a small single-story house with an 8 foot ceiling. Site-specific groundwater VISLs were developed based on a target risk level of 1×10^{-6} , a target hazard quotient of 1 (per target organ), and a default residential exposure scenario, assuming exposure for 24 hours/day, 350 days/year, for 26 years. Modeling was performed for a range of depths to groundwater for application as appropriate in different areas of the Laurel Bay Military Housing Area. The most conservative levels are presented for comparison. Refer to Appendix H of the Uniform Federal Policy Sampling Analysis and Sampling Plan for Vapor Media, Revision 4 (Resolution Consultants, April 2017) for additional information.

Bold font indicates the analyte was detected.

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

EPA - United States Environmental Protection Agency

JE - Johnson & Ettinger

NA - Not Applicable

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

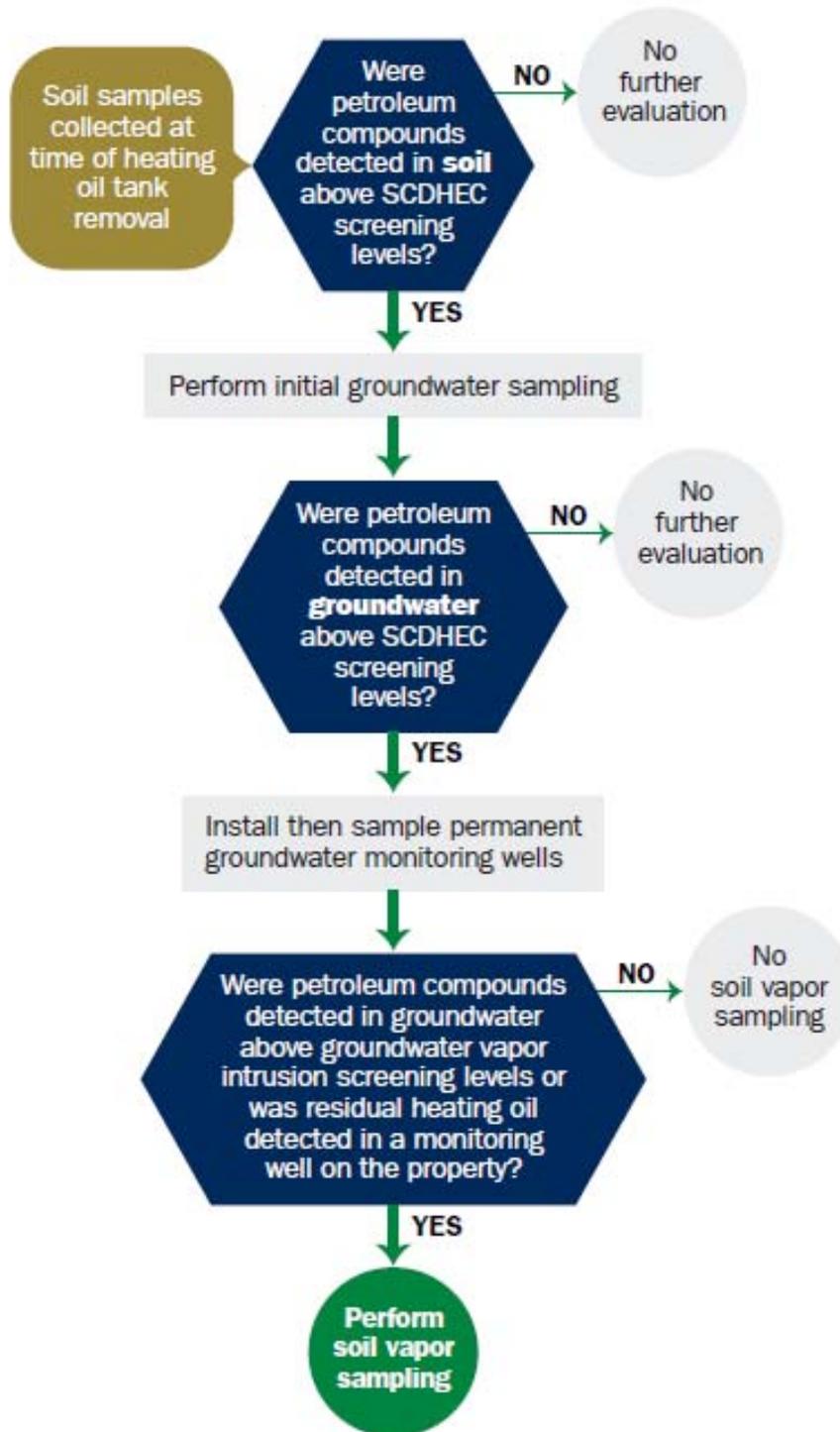
RBSL - Risk-Based Screening Level

SCDHEC - South Carolina Department Of Health and Environmental Control

µg/L - micrograms per liter

VISL - Vapor Intrusion Screening Level

Appendix A
Multi-Media Selection Process for LBMH



Appendix A - Multi-Media Selection Process for LBMH

Appendix B
UST Assessment Report

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

Date Received	State Use Only
---------------	----------------

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

RECEIVED

OCT 23 2013

SC DHEC - Bureau of
Land & Waste Management

I. OWNERSHIP OF UST (S)

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

II. SITE IDENTIFICATION AND LOCATION

Permit I.D. #	
Laurel Bay Military Housing Area, Marine Corps Air Station, Beaufort, SC	
Facility Name or Company Site Identifier	
1403 Eagle Lane, Laurel Bay Military Housing Area	
Street Address or State Road (as applicable)	
Beaufort,	Beaufort
City	County

III. INSURANCE INFORMATION

Insurance Statement

The petroleum release reported to DHEC on _____ at Permit ID Number _____ may qualify to receive state monies to pay for appropriate site rehabilitation activities. Before participation is allowed in the State Clean-up fund, written confirmation of the existence or non-existence of an environmental insurance policy is required. **This section must be completed.**

Is there now, or has there ever been an insurance policy or other financial mechanism that covers this UST release? YES ___ NO ___ (check one)

If you answered YES to the above question, please complete the following information:

My policy provider is: _____
The policy deductible is: _____
The policy limit is: _____

If you have this type of insurance, please include a copy of the policy with this report.

IV. REQUEST FOR SUPERB FUNDING

I **DO / DO NOT** wish to participate in the SUPERB Program. (Circle one.)

V. CERTIFICATION (To be signed by the UST owner)

I certify that I have personally examined and am familiar with the information submitted in this and all attached documents; and that based on my inquiry of those individuals responsible for obtaining this information, I believe that the submitted information is true, accurate, and complete.

Name (Type or print.)

Signature

To be completed by Notary Public:

Sworn before me this _____ day of _____, 20____

(Name)

Notary Public for the state of _____.
Please affix State seal if you are commissioned outside South Carolina

VI. UST INFORMATION

- A. Product...(ex. Gas, Kerosene).....
- B. Capacity..(ex. 1k, 2k).....
- C. Age.....
- D. Construction Material..(ex. Steel, FRP).....
- E. Month/Year of Last Use.....
- F. Depth (ft.) To Base of Tank.....
- G. Spill Prevention Equipment Y/N.....
- H. Overfill Prevention Equipment Y/N.....
- I. Method of Closure Removed/Filled.....
- J. Date Tanks Removed/Filled.....
- K. Visible Corrosion or Pitting Y/N.....
- L. Visible Holes Y/N.....

1403Eagle				
Heating oil				
280 gal				
Late 1950s				
Steel				
Mid 1980s				
6'				
No				
No				
Removed				
5/15/2013				
Yes				
Yes				

M. Method of disposal for any USTs removed from the ground (attach disposal manifests)
UST 1403Eagle was removed from the ground and disposed at a
Subtitle "D" landfill. See Attachment "A."

N. Method of disposal for any liquid petroleum, sludges, or wastewaters removed from the USTs (attach disposal manifests)
UST 1403Eagle had been previously filled with sand by others.

O. If any corrosion, pitting, or holes were observed, describe the location and extent for each UST
Corrosion, pitting and holes were found throughout the tank.

VII. PIPING INFORMATION

A.	Construction Material..(ex. Steel, FRP).....	1403Eagle				
B.	Distance from UST to Dispenser.....	Steel & Copper				
C.	Number of Dispensers.....	N/A				
D.	Type of System Pressure or Suction.....	N/A				
E.	Was Piping Removed from the Ground? Y/N	Suction				
F.	Visible Corrosion or Pitting Y/N.....	No				
G.	Visible Holes Y/N.....	Yes				
H.	Age.....	No				
I.	Age.....	Late 1950s				

I. If any corrosion, pitting, or holes were observed, describe the location and extent for each piping run.

Corrosion and pitting were found on the surface of the steel vent pipe. Copper supply and return lines were sound.

VIII. BRIEF SITE DESCRIPTION AND HISTORY

The USTs at the residences are constructed of single wall steel and formerly contained fuel oil for heating. These USTs were installed in the late 1950s and last used in the mid 1980s.

IX. SITE CONDITIONS

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

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 #
1403 Eagle	Excav at fill end	Soil	Sandy	6'	5/15/13 1500 hrs	P. Shaw	
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

* = Depth Below the Surrounding Land Surface

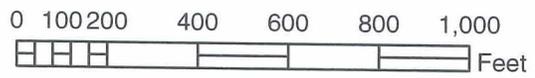
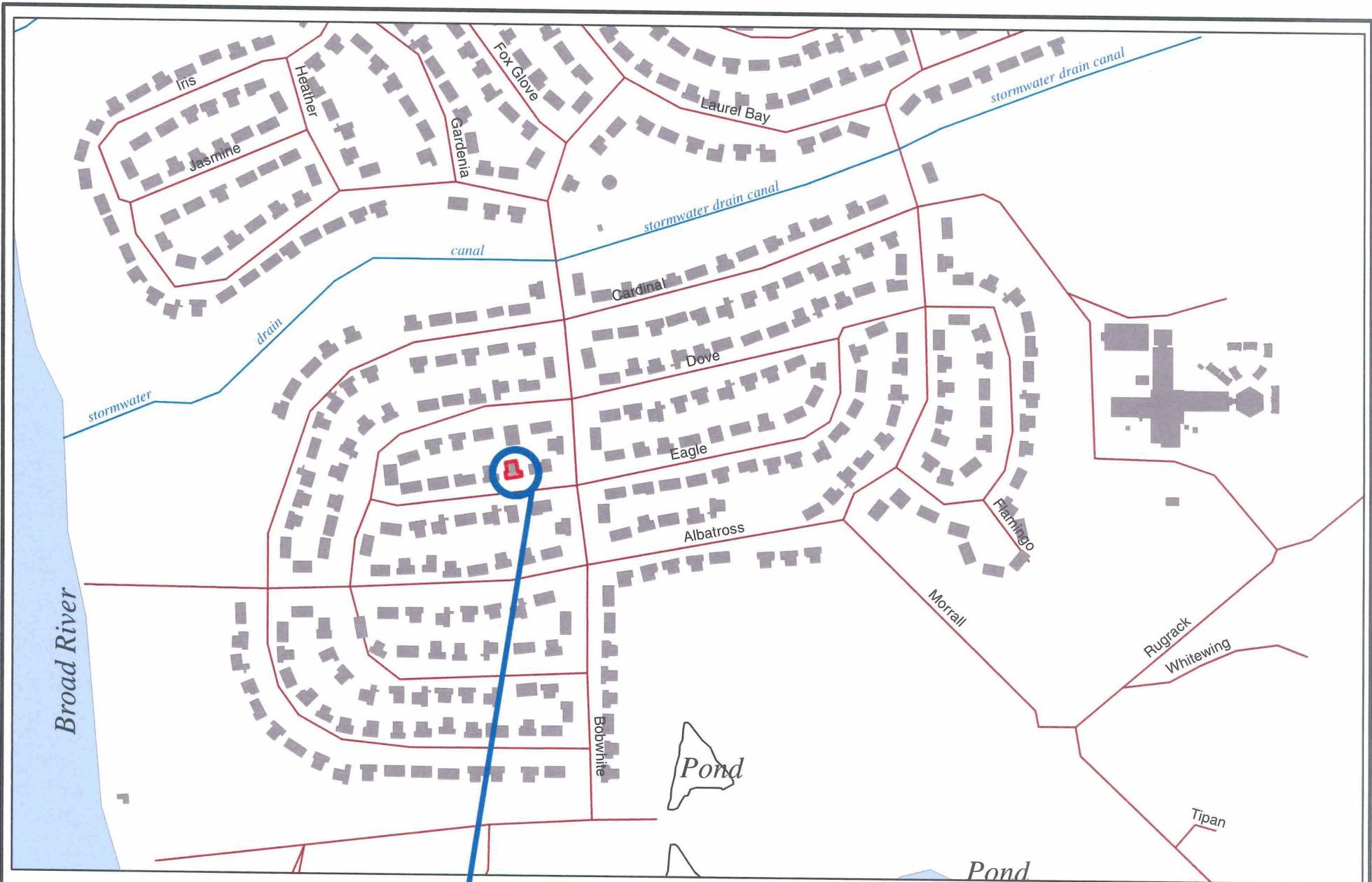
XII. RECEPTORS

	Yes	No
<p>A. Are there any lakes, ponds, streams, or wetlands located within 1000 feet of the UST system? *stormwater drainage canal</p> <p>If yes, indicate type of receptor, distance, and direction on site map.</p>	*X	
<p>B. Are there any public, private, or irrigation water supply wells within 1000 feet of the UST system?</p> <p>If yes, indicate type of well, distance, and direction on site map.</p>		X
<p>C. Are there any underground structures (e.g., basements) Located within 100 feet of the UST system?</p> <p>If yes, indicate type of structure, distance, and direction on site map.</p>		X
<p>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</p> <p>If yes, indicate the type of utility, distance, and direction on the site map.</p>	*X	
<p>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?</p> <p>If yes, indicate the area of contaminated soil on the site map.</p>		X

XIII. SITE MAP

You must supply a scaled 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)



1403 EAGLE

SBG-EEG, Inc.

7301 Rivers Ave., Suite 245
N. Charleston SC 29406-9643

Ph. (843) 573-7140

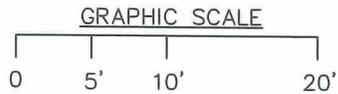
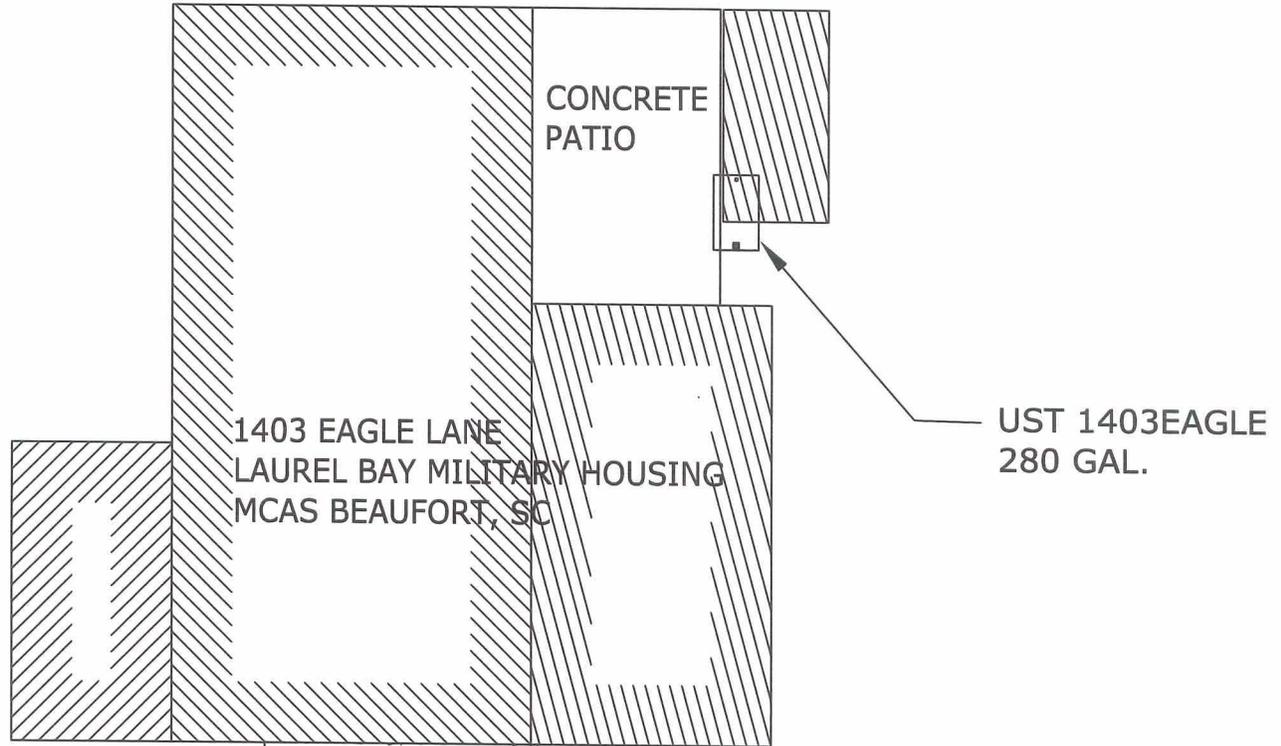
Drawn By: L. DiAsio

Dwg Date: June 2013

**FIGURE 1: LOCATION MAP
1403 EAGLE LANE
LAUREL BAY, BEAUFORT SC**



STORMWATER DRAINAGE
CANAL ≈ 640'



ASPHALT
DRIVEWAY

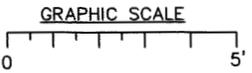
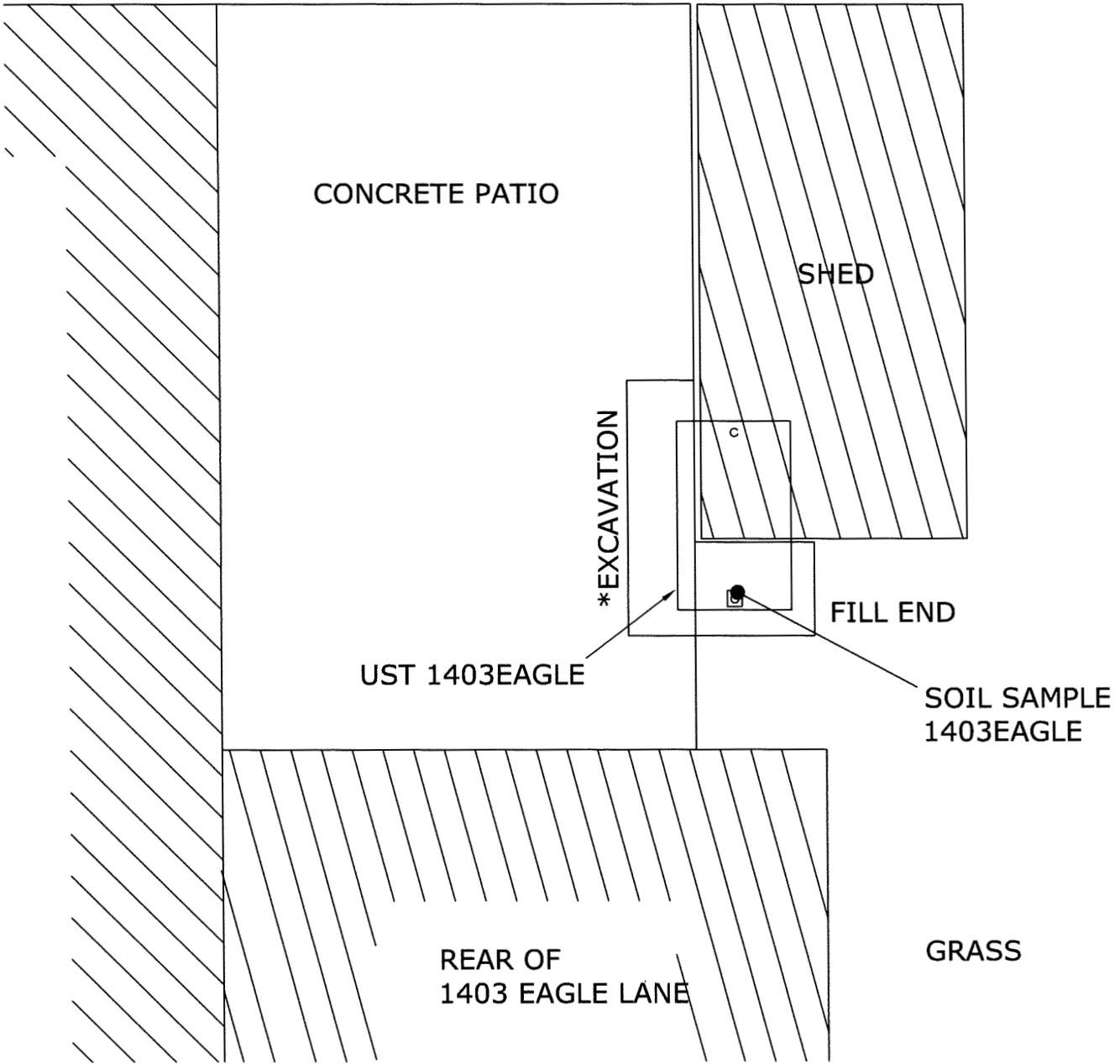
UST 1403EAGLE WAS
36" BELOW GRADE.

SBG-EEG
 7301 RIVERS AVE., SUITE 245
 N. CHARLESTON SC 29406-9643
 (843) 573-7140

FIGURE 2 SITE MAP
 1403 EAGLE LANE, LAUREL BAY
 MCAS BEAUFORT SC

SCALE: GRAPHIC

DWG DATE JUNE 2013



*A PORTION OF THE CONCRETE PATIO 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
1403 EAGLE LANE, LAUREL BAY
MCAS BEAUFORT SC

SCALE: GRAPHIC | DWG DATE JUNE 2013



Picture 1: Location of UST 1403Eagle.



Picture 2: UST 1403Eagle 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	1403Eagle						
Benzene		ND						
Toluene		0.00164 mg/kg						
Ethylbenzene		0.00748 mg/kg						
Xylenes		0.0319 mg/kg						
Naphthalene		ND						
Benzo (a) anthracene		0.116 mg/kg						
Benzo (b) fluoranthene		0.149 mg/kg						
Benzo (k) fluoranthene		0.0644 mg/kg						
Chrysene		0.205 mg/kg						
Dibenz (a, h) anthracene		ND						
TPH (EPA 3550)								

CoC								
Benzene								
Toluene								
Ethylbenzene								
Xylenes								
Naphthalene								
Benzo (a) anthracene								
Benzo (b) fluoranthene								
Benzo (k) fluoranthene								
Chrysene								
Dibenz (a, h) anthracene								
TPH (EPA 3550)								

SUMMARY OF ANALYSIS RESULTS (cont'd)

Enter the ground water analytical data for each sample for all CoC in the table below. If free product is present, indicate the measured thickness to the nearest 0.01 feet.

CoC	RBSL (µg/l)	W-1	W-2	W -3	W -4
Free Product Thickness	None				
Benzene	5				
Toluene	1,000				
Ethylbenzene	700				
Xylenes	10,000				
Total BTEX	N/A				
MTBE	40				
Naphthalene	25				
Benzo (a) anthracene	10				
Benzo (b) flouranthene	10				
Benzo (k) flouranthene	10				
Chrysene	10				
Dibenz (a, h) anthracene	10				
EDB	.05				
1,2-DCA	5				
Lead	Site specific				

XV. ANALYTICAL RESULTS

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

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

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

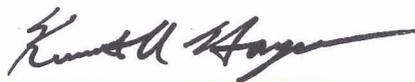
TestAmerica Laboratories, Inc.

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

TestAmerica Job ID: 490-27307-1
Client Project/Site: Laurel Bay Site

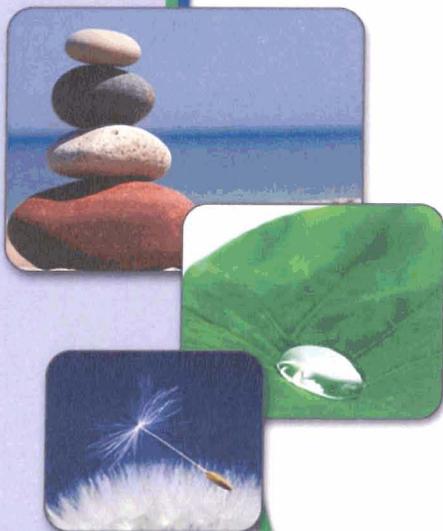
For:
Small Business Group Inc.
10179 Highway 78
Ladson, South Carolina 29456

Attn: Tom McElwee



Authorized for release by:
6/6/2013 3:03:49 PM

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



LINKS

Review your project results through
TotalAccess

Have a Question?

 **Ask The Expert**

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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: 490-27307-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
490-27307-1	1464 Cardinal	Solid	05/14/13 15:15	05/23/13 08:30
490-27307-2	1403 Eagle	Solid	05/15/13 15:00	05/23/13 08:30
490-27307-3	603 Dahlia	Solid	05/16/13 14:15	05/23/13 08:30



Case Narrative

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

TestAmerica Job ID: 490-27307-1

Job ID: 490-27307-1

Laboratory: TestAmerica Nashville

Narrative

Job Narrative 490-27307-1

Comments

No additional comments.

Receipt

The samples were received on 5/23/2013 8:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.8° C.

GC/MS VOA

Method(s) 8260B: Due to sample matrix effect on the internal standard (ISTD), a dilution was required for the following sample(s): 1403 Eagle (490-27307-2).

Method(s) 8260B: The following sample(s) was diluted due to the nature of the sample matrix: 1403 Eagle (490-27307-2). Elevated reporting limits (RLs) are provided.

Method(s) 8260B: Surrogate recovery for the following sample(s) was outside control limits: 1403 Eagle (490-27307-2). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

No other analytical or quality issues were noted.

GC/MS Semi VOA

Method(s) 8270C, 8270D: The matrix spike duplicate (MSD) percent recoveries and %RPD for batch 81594 were outside control limits for Naphthalene. This is attributed to matrix interferences. The laboratory control sample (LCS) was within control limits, so re-extraction and re-analysis was not needed.

No other 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: 490-27307-1

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.
F	MS or MSD exceeds the control limits
F	RPD of the MS and MSD exceeds the control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client Sample Results

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

TestAmerica Job ID: 490-27307-1

Client Sample ID: 1464 Cardinal

Lab Sample ID: 490-27307-1

Date Collected: 05/14/13 15:15

Matrix: Solid

Date Received: 05/23/13 08:30

Percent Solids: 85.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00222	0.000744	mg/Kg	☐	05/23/13 17:00	05/28/13 15:21	1
Ethylbenzene	ND		0.00222	0.000744	mg/Kg	☐	05/23/13 17:00	05/28/13 15:21	1
Naphthalene	ND		0.00555	0.00189	mg/Kg	☐	05/23/13 17:00	05/28/13 15:21	1
Toluene	ND		0.00222	0.000822	mg/Kg	☐	05/23/13 17:00	05/28/13 15:21	1
Xylenes, Total	ND		0.00555	0.000744	mg/Kg	☐	05/23/13 17:00	05/28/13 15:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		70 - 130	05/23/13 17:00	05/28/13 15:21	1
4-Bromofluorobenzene (Surr)	99		70 - 130	05/23/13 17:00	05/28/13 15:21	1
Dibromofluoromethane (Surr)	101		70 - 130	05/23/13 17:00	05/28/13 15:21	1
Toluene-d8 (Surr)	100		70 - 130	05/23/13 17:00	05/28/13 15:21	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0766	0.0114	mg/Kg	☐	05/24/13 06:55	05/25/13 03:46	1
Acenaphthylene	ND		0.0766	0.0103	mg/Kg	☐	05/24/13 06:55	05/25/13 03:46	1
Anthracene	ND		0.0766	0.0103	mg/Kg	☐	05/24/13 06:55	05/25/13 03:46	1
Benzo[a]anthracene	ND		0.0766	0.0172	mg/Kg	☐	05/24/13 06:55	05/25/13 03:46	1
Benzo[a]pyrene	ND		0.0766	0.0137	mg/Kg	☐	05/24/13 06:55	05/25/13 03:46	1
Benzo[b]fluoranthene	ND		0.0766	0.0137	mg/Kg	☐	05/24/13 06:55	05/25/13 03:46	1
Benzo[g,h,i]perylene	ND		0.0766	0.0103	mg/Kg	☐	05/24/13 06:55	05/25/13 03:46	1
Benzo[k]fluoranthene	ND		0.0766	0.0160	mg/Kg	☐	05/24/13 06:55	05/25/13 03:46	1
1-Methylnaphthalene	ND		0.0766	0.0160	mg/Kg	☐	05/24/13 06:55	05/25/13 03:46	1
Pyrene	ND		0.0766	0.0137	mg/Kg	☐	05/24/13 06:55	05/25/13 03:46	1
Phenanthrene	ND		0.0766	0.0103	mg/Kg	☐	05/24/13 06:55	05/25/13 03:46	1
Chrysene	ND		0.0766	0.0103	mg/Kg	☐	05/24/13 06:55	05/25/13 03:46	1
Dibenz(a,h)anthracene	ND		0.0766	0.00801	mg/Kg	☐	05/24/13 06:55	05/25/13 03:46	1
Fluoranthene	ND		0.0766	0.0103	mg/Kg	☐	05/24/13 06:55	05/25/13 03:46	1
Fluorene	ND		0.0766	0.0137	mg/Kg	☐	05/24/13 06:55	05/25/13 03:46	1
Indeno[1,2,3-cd]pyrene	ND		0.0766	0.0114	mg/Kg	☐	05/24/13 06:55	05/25/13 03:46	1
Naphthalene	ND		0.0766	0.0103	mg/Kg	☐	05/24/13 06:55	05/25/13 03:46	1
2-Methylnaphthalene	ND		0.0766	0.0183	mg/Kg	☐	05/24/13 06:55	05/25/13 03:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	79		29 - 120	05/24/13 06:55	05/25/13 03:46	1
Terphenyl-d14 (Surr)	101		13 - 120	05/24/13 06:55	05/25/13 03:46	1
Nitrobenzene-d5 (Surr)	84		27 - 120	05/24/13 06:55	05/25/13 03:46	1

General Chemistry

Analyte	Result	Qualifier	RL	RL Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	86		0.10	0.10 %			05/24/13 08:49	1

TestAmerica Nashville

Client Sample Results

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

TestAmerica Job ID: 490-27307-1

Client Sample ID: 1403 Eagle

Lab Sample ID: 490-27307-2

Date Collected: 05/15/13 15:00

Matrix: Solid

Date Received: 05/23/13 08:30

Percent Solids: 74.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00237	0.000795	mg/Kg	☒	05/23/13 17:00	05/28/13 16:15	1
Ethylbenzene	0.00748		0.00237	0.000795	mg/Kg	☒	05/23/13 17:00	05/28/13 16:15	1
Naphthalene	ND		0.476	0.162	mg/Kg	☒	05/23/13 16:56	05/28/13 16:42	1
Toluene	0.00164	J	0.00237	0.000879	mg/Kg	☒	05/23/13 17:00	05/28/13 16:15	1
Xylenes, Total	0.0319		0.00594	0.000795	mg/Kg	☒	05/23/13 17:00	05/28/13 16:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		70 - 130	05/23/13 17:00	05/28/13 16:15	1
1,2-Dichloroethane-d4 (Surr)	93		70 - 130	05/23/13 16:56	05/28/13 16:42	1
4-Bromofluorobenzene (Surr)	176	X	70 - 130	05/23/13 17:00	05/28/13 16:15	1
4-Bromofluorobenzene (Surr)	106		70 - 130	05/23/13 16:56	05/28/13 16:42	1
Dibromofluoromethane (Surr)	105		70 - 130	05/23/13 17:00	05/28/13 16:15	1
Dibromofluoromethane (Surr)	96		70 - 130	05/23/13 16:56	05/28/13 16:42	1
Toluene-d8 (Surr)	104		70 - 130	05/23/13 17:00	05/28/13 16:15	1
Toluene-d8 (Surr)	101		70 - 130	05/23/13 16:56	05/28/13 16:42	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.639		0.0887	0.0132	mg/Kg	☒	05/24/13 06:55	05/25/13 04:09	1
Acenaphthylene	ND		0.0887	0.0119	mg/Kg	☒	05/24/13 06:55	05/25/13 04:09	1
Anthracene	0.139		0.0887	0.0119	mg/Kg	☒	05/24/13 06:55	05/25/13 04:09	1
Benzo[a]anthracene	0.116		0.0887	0.0199	mg/Kg	☒	05/24/13 06:55	05/25/13 04:09	1
Benzo[a]pyrene	0.0795	J	0.0887	0.0159	mg/Kg	☒	05/24/13 06:55	05/25/13 04:09	1
Benzo[b]fluoranthene	0.149		0.0887	0.0159	mg/Kg	☒	05/24/13 06:55	05/25/13 04:09	1
Benzo[g,h,i]perylene	ND		0.0887	0.0119	mg/Kg	☒	05/24/13 06:55	05/25/13 04:09	1
Benzo[k]fluoranthene	0.0644	J	0.0887	0.0185	mg/Kg	☒	05/24/13 06:55	05/25/13 04:09	1
1-Methylnaphthalene	2.60		0.0887	0.0185	mg/Kg	☒	05/24/13 06:55	05/25/13 04:09	1
Pyrene	1.42		0.0887	0.0159	mg/Kg	☒	05/24/13 06:55	05/25/13 04:09	1
Phenanthrene	0.434		0.0887	0.0119	mg/Kg	☒	05/24/13 06:55	05/25/13 04:09	1
Chrysene	0.205		0.0887	0.0119	mg/Kg	☒	05/24/13 06:55	05/25/13 04:09	1
Dibenz(a,h)anthracene	ND		0.0887	0.00927	mg/Kg	☒	05/24/13 06:55	05/25/13 04:09	1
Fluoranthene	0.401		0.0887	0.0119	mg/Kg	☒	05/24/13 06:55	05/25/13 04:09	1
Fluorene	1.08		0.0887	0.0159	mg/Kg	☒	05/24/13 06:55	05/25/13 04:09	1
Indeno[1,2,3-cd]pyrene	ND		0.0887	0.0132	mg/Kg	☒	05/24/13 06:55	05/25/13 04:09	1
Naphthalene	ND		0.0887	0.0119	mg/Kg	☒	05/24/13 06:55	05/25/13 04:09	1
2-Methylnaphthalene	1.07		0.0887	0.0212	mg/Kg	☒	05/24/13 06:55	05/25/13 04:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	87		29 - 120	05/24/13 06:55	05/25/13 04:09	1
Terphenyl-d14 (Surr)	108		13 - 120	05/24/13 06:55	05/25/13 04:09	1
Nitrobenzene-d5 (Surr)	82		27 - 120	05/24/13 06:55	05/25/13 04:09	1

General Chemistry

Analyte	Result	Qualifier	RL	RL Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	75		0.10	0.10 %			05/24/13 08:49	1

TestAmerica Nashville

Client Sample Results

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

TestAmerica Job ID: 490-27307-1

Client Sample ID: 603 Dahlia

Lab Sample ID: 490-27307-3

Date Collected: 05/16/13 14:15

Matrix: Solid

Date Received: 05/23/13 08:30

Percent Solids: 94.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00223	0.000748	mg/Kg	☒	05/23/13 17:00	05/28/13 15:48	1
Ethylbenzene	ND		0.00223	0.000748	mg/Kg	☒	05/23/13 17:00	05/28/13 15:48	1
Naphthalene	ND		0.00558	0.00190	mg/Kg	☒	05/23/13 17:00	05/28/13 15:48	1
Toluene	ND		0.00223	0.000827	mg/Kg	☒	05/23/13 17:00	05/28/13 15:48	1
Xylenes, Total	ND		0.00558	0.000748	mg/Kg	☒	05/23/13 17:00	05/28/13 15:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		70 - 130	05/23/13 17:00	05/28/13 15:48	1
4-Bromofluorobenzene (Surr)	112		70 - 130	05/23/13 17:00	05/28/13 15:48	1
Dibromofluoromethane (Surr)	102		70 - 130	05/23/13 17:00	05/28/13 15:48	1
Toluene-d8 (Surr)	102		70 - 130	05/23/13 17:00	05/28/13 15:48	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0696	0.0104	mg/Kg	☒	05/24/13 06:55	05/25/13 02:37	1
Acenaphthylene	ND		0.0696	0.00934	mg/Kg	☒	05/24/13 06:55	05/25/13 02:37	1
Anthracene	ND		0.0696	0.00934	mg/Kg	☒	05/24/13 06:55	05/25/13 02:37	1
Benzo[a]anthracene	ND		0.0696	0.0156	mg/Kg	☒	05/24/13 06:55	05/25/13 02:37	1
Benzo[a]pyrene	0.200		0.0696	0.0125	mg/Kg	☒	05/24/13 06:55	05/25/13 02:37	1
Benzo[b]fluoranthene	0.0907		0.0696	0.0125	mg/Kg	☒	05/24/13 06:55	05/25/13 02:37	1
Benzo[g,h,i]perylene	0.0823		0.0696	0.00934	mg/Kg	☒	05/24/13 06:55	05/25/13 02:37	1
Benzo[k]fluoranthene	ND		0.0696	0.0145	mg/Kg	☒	05/24/13 06:55	05/25/13 02:37	1
1-Methylnaphthalene	ND		0.0696	0.0145	mg/Kg	☒	05/24/13 06:55	05/25/13 02:37	1
Pyrene	0.0797		0.0696	0.0125	mg/Kg	☒	05/24/13 06:55	05/25/13 02:37	1
Phenanthrene	ND		0.0696	0.00934	mg/Kg	☒	05/24/13 06:55	05/25/13 02:37	1
Chrysene	0.0391	J	0.0696	0.00934	mg/Kg	☒	05/24/13 06:55	05/25/13 02:37	1
Dibenz(a,h)anthracene	ND		0.0696	0.00727	mg/Kg	☒	05/24/13 06:55	05/25/13 02:37	1
Fluoranthene	ND		0.0696	0.00934	mg/Kg	☒	05/24/13 06:55	05/25/13 02:37	1
Fluorene	ND		0.0696	0.0125	mg/Kg	☒	05/24/13 06:55	05/25/13 02:37	1
Indeno[1,2,3-cd]pyrene	0.0741		0.0696	0.0104	mg/Kg	☒	05/24/13 06:55	05/25/13 02:37	1
Naphthalene	ND		0.0696	0.00934	mg/Kg	☒	05/24/13 06:55	05/25/13 02:37	1
2-Methylnaphthalene	ND		0.0696	0.0166	mg/Kg	☒	05/24/13 06:55	05/25/13 02:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	76		29 - 120	05/24/13 06:55	05/25/13 02:37	1
Terphenyl-d14 (Surr)	97		13 - 120	05/24/13 06:55	05/25/13 02:37	1
Nitrobenzene-d5 (Surr)	79		27 - 120	05/24/13 06:55	05/25/13 02:37	1

General Chemistry

Analyte	Result	Qualifier	RL	RL Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	95		0.10	0.10 %			05/24/13 08:49	1

QC Sample Results

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

TestAmerica Job ID: 490-27307-1

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

Lab Sample ID: 490-27047-C-4-D MS

Matrix: Solid

Analysis Batch: 82155

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 80593

Analyte	Sample	Sample	Spike	MS		Unit	D	%Rec	%Rec.
	Result	Qualifier		Result	Qualifier				
Benzene	ND		0.0586	0.05736		mg/Kg	☒	98	31 - 143
Ethylbenzene	ND		0.0586	0.05871		mg/Kg	☒	100	23 - 161
Naphthalene	ND		0.0586	0.04106		mg/Kg	☒	70	10 - 176
Toluene	ND		0.0586	0.05816		mg/Kg	☒	99	30 - 155
Xylenes, Total	ND		0.176	0.1759		mg/Kg	☒	100	25 - 162

Surrogate	MS		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	100		70 - 130
4-Bromofluorobenzene (Surr)	100		70 - 130
Dibromofluoromethane (Surr)	102		70 - 130
Toluene-d8 (Surr)	100		70 - 130

Lab Sample ID: 490-27047-C-4-E MSD

Matrix: Solid

Analysis Batch: 82155

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 80593

Analyte	Sample	Sample	Spike	MSD		Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier		Result	Qualifier						
Benzene	ND		0.0737	0.06470		mg/Kg	☒	88	31 - 143	12	50
Ethylbenzene	ND		0.0737	0.06423		mg/Kg	☒	87	23 - 161	9	50
Naphthalene	ND		0.0737	0.04632		mg/Kg	☒	63	10 - 176	12	50
Toluene	ND		0.0737	0.06547		mg/Kg	☒	89	30 - 155	12	50
Xylenes, Total	ND		0.221	0.1910		mg/Kg	☒	86	25 - 162	8	50

Surrogate	MSD		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	97		70 - 130
4-Bromofluorobenzene (Surr)	101		70 - 130
Dibromofluoromethane (Surr)	101		70 - 130
Toluene-d8 (Surr)	101		70 - 130

Lab Sample ID: MB 490-82155/6

Matrix: Solid

Analysis Batch: 82155

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Benzene	ND		0.100	0.0335	mg/Kg			05/28/13 12:32	1
Ethylbenzene	ND		0.100	0.0335	mg/Kg			05/28/13 12:32	1
Naphthalene	ND		0.250	0.0850	mg/Kg			05/28/13 12:32	1
Toluene	ND		0.100	0.0370	mg/Kg			05/28/13 12:32	1
Xylenes, Total	ND		0.250	0.0335	mg/Kg			05/28/13 12:32	1

Surrogate	MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	98		70 - 130		05/28/13 12:32	1
4-Bromofluorobenzene (Surr)	101		70 - 130		05/28/13 12:32	1
Dibromofluoromethane (Surr)	99		70 - 130		05/28/13 12:32	1
Toluene-d8 (Surr)	97		70 - 130		05/28/13 12:32	1

TestAmerica Nashville

QC Sample Results

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

TestAmerica Job ID: 490-27307-1

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

Lab Sample ID: MB 490-82155/7										Client Sample ID: Method Blank		
Matrix: Solid										Prep Type: Total/NA		
Analysis Batch: 82155												
Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac		
	Result	Qualifier										
Benzene	ND		0.00200	0.000670	mg/Kg			05/28/13 12:59		1		
Ethylbenzene	ND		0.00200	0.000670	mg/Kg			05/28/13 12:59		1		
Naphthalene	ND		0.00500	0.00170	mg/Kg			05/28/13 12:59		1		
Toluene	ND		0.00200	0.000740	mg/Kg			05/28/13 12:59		1		
Xylenes, Total	ND		0.00500	0.000670	mg/Kg			05/28/13 12:59		1		
Surrogate	MB MB		Limits			Prepared	Analyzed	Dil	Fac			
	%Recovery	Qualifier										
1,2-Dichloroethane-d4 (Surr)	98		70 - 130				05/28/13 12:59		1			
4-Bromofluorobenzene (Surr)	100		70 - 130				05/28/13 12:59		1			
Dibromofluoromethane (Surr)	100		70 - 130				05/28/13 12:59		1			
Toluene-d8 (Surr)	100		70 - 130				05/28/13 12:59		1			

Lab Sample ID: LCS 490-82155/3										Client Sample ID: Lab Control Sample	
Matrix: Solid										Prep Type: Total/NA	
Analysis Batch: 82155											
Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits				
		Result	Qualifier								
Benzene	0.0500	0.04954		mg/Kg		99	75 - 127				
Ethylbenzene	0.0500	0.05202		mg/Kg		104	80 - 134				
Naphthalene	0.0500	0.05264		mg/Kg		105	69 - 150				
Toluene	0.0500	0.05154		mg/Kg		103	80 - 132				
Xylenes, Total	0.150	0.1569		mg/Kg		105	80 - 137				
Surrogate	LCS LCS		Limits			Prepared	Analyzed	Dil	Fac		
	%Recovery	Qualifier									
1,2-Dichloroethane-d4 (Surr)	98		70 - 130								
4-Bromofluorobenzene (Surr)	100		70 - 130								
Dibromofluoromethane (Surr)	100		70 - 130								
Toluene-d8 (Surr)	101		70 - 130								

Lab Sample ID: LCSD 490-82155/4										Client Sample ID: Lab Control Sample Dup	
Matrix: Solid										Prep Type: Total/NA	
Analysis Batch: 82155											
Analyte	Spike Added	LCSD LCSD		Unit	D	%Rec	%Rec. Limits		RPD		
		Result	Qualifier						RPD	Limit	
Benzene	0.0500	0.04671		mg/Kg		93	75 - 127	6	50		
Ethylbenzene	0.0500	0.04886		mg/Kg		98	80 - 134	6	50		
Naphthalene	0.0500	0.05059		mg/Kg		101	69 - 150	4	50		
Toluene	0.0500	0.04893		mg/Kg		98	80 - 132	5	50		
Xylenes, Total	0.150	0.1485		mg/Kg		99	80 - 137	6	50		
Surrogate	LCSD LCSD		Limits			Prepared	Analyzed	Dil	Fac		
	%Recovery	Qualifier									
1,2-Dichloroethane-d4 (Surr)	98		70 - 130								
4-Bromofluorobenzene (Surr)	101		70 - 130								
Dibromofluoromethane (Surr)	101		70 - 130								
Toluene-d8 (Surr)	101		70 - 130								

TestAmerica Nashville

QC Sample Results

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

TestAmerica Job ID: 490-27307-1

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

Lab Sample ID: MB 490-81594/1-A

Matrix: Solid

Analysis Batch: 81747

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 81594

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Acenaphthene	ND		0.0670	0.0100	mg/Kg		05/24/13 06:55	05/25/13 02:14	1
Acenaphthylene	ND		0.0670	0.00900	mg/Kg		05/24/13 06:55	05/25/13 02:14	1
Anthracene	ND		0.0670	0.00900	mg/Kg		05/24/13 06:55	05/25/13 02:14	1
Benzo[a]anthracene	ND		0.0670	0.0150	mg/Kg		05/24/13 06:55	05/25/13 02:14	1
Benzo[a]pyrene	ND		0.0670	0.0120	mg/Kg		05/24/13 06:55	05/25/13 02:14	1
Benzo[b]fluoranthene	ND		0.0670	0.0120	mg/Kg		05/24/13 06:55	05/25/13 02:14	1
Benzo[g,h,i]perylene	ND		0.0670	0.00900	mg/Kg		05/24/13 06:55	05/25/13 02:14	1
Benzo[k]fluoranthene	ND		0.0670	0.0140	mg/Kg		05/24/13 06:55	05/25/13 02:14	1
1-Methylnaphthalene	ND		0.0670	0.0140	mg/Kg		05/24/13 06:55	05/25/13 02:14	1
Pyrene	ND		0.0670	0.0120	mg/Kg		05/24/13 06:55	05/25/13 02:14	1
Phenanthrene	ND		0.0670	0.00900	mg/Kg		05/24/13 06:55	05/25/13 02:14	1
Chrysene	ND		0.0670	0.00900	mg/Kg		05/24/13 06:55	05/25/13 02:14	1
Dibenz(a,h)anthracene	ND		0.0670	0.00700	mg/Kg		05/24/13 06:55	05/25/13 02:14	1
Fluoranthene	ND		0.0670	0.00900	mg/Kg		05/24/13 06:55	05/25/13 02:14	1
Fluorene	ND		0.0670	0.0120	mg/Kg		05/24/13 06:55	05/25/13 02:14	1
Indeno[1,2,3-cd]pyrene	ND		0.0670	0.0100	mg/Kg		05/24/13 06:55	05/25/13 02:14	1
Naphthalene	ND		0.0670	0.00900	mg/Kg		05/24/13 06:55	05/25/13 02:14	1
2-Methylnaphthalene	ND		0.0670	0.0160	mg/Kg		05/24/13 06:55	05/25/13 02:14	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2-Fluorobiphenyl (Surr)	80		29 - 120	05/24/13 06:55	05/25/13 02:14	1
Terphenyl-d14 (Surr)	106		13 - 120	05/24/13 06:55	05/25/13 02:14	1
Nitrobenzene-d5 (Surr)	84		27 - 120	05/24/13 06:55	05/25/13 02:14	1

Lab Sample ID: LCS 490-81594/2-A

Matrix: Solid

Analysis Batch: 81747

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 81594

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec.	
						%Rec	Limits
Acenaphthylene	1.67	1.535		mg/Kg		92	38 - 120
Anthracene	1.67	1.556		mg/Kg		93	46 - 124
Benzo[a]anthracene	1.67	1.470		mg/Kg		88	45 - 120
Benzo[a]pyrene	1.67	1.515		mg/Kg		91	45 - 120
Benzo[b]fluoranthene	1.67	1.597		mg/Kg		96	42 - 120
Benzo[g,h,i]perylene	1.67	1.511		mg/Kg		91	38 - 120
Benzo[k]fluoranthene	1.67	1.391		mg/Kg		83	42 - 120
1-Methylnaphthalene	1.67	1.300		mg/Kg		78	32 - 120
Pyrene	1.67	1.512		mg/Kg		91	43 - 120
Phenanthrene	1.67	1.460		mg/Kg		88	45 - 120
Chrysene	1.67	1.455		mg/Kg		87	43 - 120
Dibenz(a,h)anthracene	1.67	1.524		mg/Kg		91	32 - 128
Fluoranthene	1.67	1.549		mg/Kg		93	46 - 120
Fluorene	1.67	1.468		mg/Kg		88	42 - 120
Indeno[1,2,3-cd]pyrene	1.67	1.511		mg/Kg		91	41 - 121
Naphthalene	1.67	1.226		mg/Kg		74	32 - 120
2-Methylnaphthalene	1.67	1.279		mg/Kg		77	28 - 120

TestAmerica Nashville

QC Sample Results

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

TestAmerica Job ID: 490-27307-1

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

Lab Sample ID: LCS 490-81594/2-A
Matrix: Solid
Analysis Batch: 81747

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 81594

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
2-Fluorobiphenyl (Surr)	81		29 - 120
Terphenyl-d14 (Surr)	100		13 - 120
Nitrobenzene-d5 (Surr)	78		27 - 120

Lab Sample ID: 490-27307-3 MS
Matrix: Solid
Analysis Batch: 81747

Client Sample ID: 603 Dahlia
Prep Type: Total/NA
Prep Batch: 81594

Analyte	Sample	Sample	Spike	MS MS		Unit	D	%Rec	%Rec.	Limits
	Result	Qualifier	Added	Result	Qualifier					
Acenaphthylene	ND		1.76	1.360		mg/Kg	☒	77	77	25 - 120
Anthracene	ND		1.76	1.384		mg/Kg	☒	79	79	28 - 125
Benzo[a]anthracene	ND		1.76	1.306		mg/Kg	☒	74	74	23 - 120
Benzo[a]pyrene	0.200		1.76	1.343		mg/Kg	☒	65	65	15 - 128
Benzo[b]fluoranthene	0.0907		1.76	1.430		mg/Kg	☒	76	76	12 - 133
Benzo[g,h,i]perylene	0.0823		1.76	1.356		mg/Kg	☒	73	73	22 - 120
Benzo[k]fluoranthene	ND		1.76	1.254		mg/Kg	☒	71	71	28 - 120
1-Methylnaphthalene	ND		1.76	1.138		mg/Kg	☒	65	65	10 - 120
Pyrene	0.0797		1.76	1.445		mg/Kg	☒	78	78	20 - 123
Phenanthrene	ND		1.76	1.301		mg/Kg	☒	74	74	21 - 122
Chrysene	0.0391	J	1.76	1.283		mg/Kg	☒	71	71	20 - 120
Dibenz(a,h)anthracene	ND		1.76	1.347		mg/Kg	☒	77	77	12 - 128
Fluoranthene	ND		1.76	1.378		mg/Kg	☒	78	78	10 - 143
Fluorene	ND		1.76	1.293		mg/Kg	☒	74	74	20 - 120
Indeno[1,2,3-cd]pyrene	0.0741		1.76	1.338		mg/Kg	☒	72	72	22 - 121
Naphthalene	ND		1.76	1.116		mg/Kg	☒	64	64	10 - 120
2-Methylnaphthalene	ND		1.76	1.156		mg/Kg	☒	66	66	13 - 120

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
2-Fluorobiphenyl (Surr)	71		29 - 120
Terphenyl-d14 (Surr)	90		13 - 120
Nitrobenzene-d5 (Surr)	67		27 - 120

Lab Sample ID: 490-27307-3 MSD
Matrix: Solid
Analysis Batch: 81747

Client Sample ID: 603 Dahlia
Prep Type: Total/NA
Prep Batch: 81594

Analyte	Sample	Sample	Spike	MSD MSD		Unit	D	%Rec	%Rec.	Limits	RPD	
	Result	Qualifier	Added	Result	Qualifier						RPD	Limit
Acenaphthylene	ND		1.73	1.327		mg/Kg	☒	77	77	25 - 120	2	50
Anthracene	ND		1.73	1.273		mg/Kg	☒	74	74	28 - 125	8	49
Benzo[a]anthracene	ND		1.73	1.221		mg/Kg	☒	71	71	23 - 120	7	50
Benzo[a]pyrene	0.200		1.73	1.250		mg/Kg	☒	61	61	15 - 128	7	50
Benzo[b]fluoranthene	0.0907		1.73	1.310		mg/Kg	☒	71	71	12 - 133	9	50
Benzo[g,h,i]perylene	0.0823		1.73	1.258		mg/Kg	☒	68	68	22 - 120	8	50
Benzo[k]fluoranthene	ND		1.73	1.213		mg/Kg	☒	70	70	28 - 120	3	45
1-Methylnaphthalene	ND		1.73	1.170		mg/Kg	☒	68	68	10 - 120	3	50
Pyrene	0.0797		1.73	1.343		mg/Kg	☒	73	73	20 - 123	7	50
Phenanthrene	ND		1.73	1.219		mg/Kg	☒	71	71	21 - 122	7	50
Chrysene	0.0391	J	1.73	1.260		mg/Kg	☒	71	71	20 - 120	2	49

TestAmerica Nashville

QC Sample Results

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

TestAmerica Job ID: 490-27307-1

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

Lab Sample ID: 490-27307-3 MSD
Matrix: Solid
Analysis Batch: 81747

Client Sample ID: 603 Dahlia
Prep Type: Total/NA
Prep Batch: 81594

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier		Result	Qualifier				Limits		
Dibenz(a,h)anthracene	ND		1.73	1.255		mg/Kg	☒	73	12 - 128	7	50
Fluoranthene	ND		1.73	1.295		mg/Kg	☒	75	10 - 143	6	50
Fluorene	ND		1.73	1.258		mg/Kg	☒	73	20 - 120	3	50
Indeno[1,2,3-cd]pyrene	0.0741		1.73	1.255		mg/Kg	☒	68	22 - 121	6	50
Naphthalene	ND		1.73	0.03588	J F	mg/Kg	☒	2	10 - 120	188	50
2-Methylnaphthalene	ND		1.73	1.169		mg/Kg	☒	68	13 - 120	1	50
		<i>MSD</i>	<i>MSD</i>								
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>								
2-Fluorobiphenyl (Surr)	74		29 - 120								
Terphenyl-d14 (Surr)	88		13 - 120								
Nitrobenzene-d5 (Surr)	71		27 - 120								

Method: Moisture - Percent Moisture

Lab Sample ID: 490-27263-E-1 DU
Matrix: Solid
Analysis Batch: 81636

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Percent Solids	79		78		%		2	20

QC Association Summary

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

TestAmerica Job ID: 490-27307-1

GC/MS VOA

Prep Batch: 80593

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-27047-C-4-D MS	Matrix Spike	Total/NA	Solid	5035	
490-27047-C-4-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 81551

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-27307-2	1403 Eagle	Total/NA	Solid	5035	

Prep Batch: 81556

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-27307-1	1464 Cardinal	Total/NA	Solid	5035	
490-27307-2	1403 Eagle	Total/NA	Solid	5035	
490-27307-3	603 Dahlia	Total/NA	Solid	5035	

Analysis Batch: 82155

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-27047-C-4-D MS	Matrix Spike	Total/NA	Solid	8260B	80593
490-27047-C-4-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8260B	80593
490-27307-1	1464 Cardinal	Total/NA	Solid	8260B	81556
490-27307-2	1403 Eagle	Total/NA	Solid	8260B	81556
490-27307-2	1403 Eagle	Total/NA	Solid	8260B	81551
490-27307-3	603 Dahlia	Total/NA	Solid	8260B	81556
LCS 490-82155/3	Lab Control Sample	Total/NA	Solid	8260B	
LCS 490-82155/4	Lab Control Sample Dup	Total/NA	Solid	8260B	
MB 490-82155/6	Method Blank	Total/NA	Solid	8260B	
MB 490-82155/7	Method Blank	Total/NA	Solid	8260B	

GC/MS Semi VOA

Prep Batch: 81594

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-27307-1	1464 Cardinal	Total/NA	Solid	3550C	
490-27307-2	1403 Eagle	Total/NA	Solid	3550C	
490-27307-3	603 Dahlia	Total/NA	Solid	3550C	
490-27307-3 MS	603 Dahlia	Total/NA	Solid	3550C	
490-27307-3 MSD	603 Dahlia	Total/NA	Solid	3550C	
LCS 490-81594/2-A	Lab Control Sample	Total/NA	Solid	3550C	
MB 490-81594/1-A	Method Blank	Total/NA	Solid	3550C	

Analysis Batch: 81747

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-27307-1	1464 Cardinal	Total/NA	Solid	8270D	81594
490-27307-2	1403 Eagle	Total/NA	Solid	8270D	81594
490-27307-3	603 Dahlia	Total/NA	Solid	8270D	81594
490-27307-3 MS	603 Dahlia	Total/NA	Solid	8270D	81594
490-27307-3 MSD	603 Dahlia	Total/NA	Solid	8270D	81594
LCS 490-81594/2-A	Lab Control Sample	Total/NA	Solid	8270D	81594
MB 490-81594/1-A	Method Blank	Total/NA	Solid	8270D	81594

TestAmerica Nashville

QC Association Summary

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

TestAmerica Job ID: 490-27307-1

General Chemistry

Analysis Batch: 81636

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-27263-E-1 DU	Duplicate	Total/NA	Solid	Moisture	
490-27307-1	1464 Cardinal	Total/NA	Solid	Moisture	
490-27307-2	1403 Eagle	Total/NA	Solid	Moisture	
490-27307-3	603 Dahlia	Total/NA	Solid	Moisture	

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Lab Chronicle

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

TestAmerica Job ID: 490-27307-1

Client Sample ID: 1464 Cardinal

Date Collected: 05/14/13 15:15

Date Received: 05/23/13 08:30

Lab Sample ID: 490-27307-1

Matrix: Solid

Percent Solids: 85.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			81556	05/23/13 17:00	ML	TAL NSH
Total/NA	Analysis	8260B		1	82155	05/28/13 15:21	MH	TAL NSH
Total/NA	Prep	3550C			81594	05/24/13 06:55	JP	TAL NSH
Total/NA	Analysis	8270D		1	81747	05/25/13 03:46	JS	TAL NSH
Total/NA	Analysis	Moisture		1	81636	05/24/13 08:49	RS	TAL NSH

Client Sample ID: 1403 Eagle

Date Collected: 05/15/13 15:00

Date Received: 05/23/13 08:30

Lab Sample ID: 490-27307-2

Matrix: Solid

Percent Solids: 74.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			81556	05/23/13 17:00	ML	TAL NSH
Total/NA	Analysis	8260B		1	82155	05/28/13 16:15	MH	TAL NSH
Total/NA	Prep	5035			81551	05/23/13 16:56	ML	TAL NSH
Total/NA	Analysis	8260B		1	82155	05/28/13 16:42	MH	TAL NSH
Total/NA	Prep	3550C			81594	05/24/13 06:55	JP	TAL NSH
Total/NA	Analysis	8270D		1	81747	05/25/13 04:09	JS	TAL NSH
Total/NA	Analysis	Moisture		1	81636	05/24/13 08:49	RS	TAL NSH

Client Sample ID: 603 Dahlia

Date Collected: 05/16/13 14:15

Date Received: 05/23/13 08:30

Lab Sample ID: 490-27307-3

Matrix: Solid

Percent Solids: 94.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			81556	05/23/13 17:00	ML	TAL NSH
Total/NA	Analysis	8260B		1	82155	05/28/13 15:48	MH	TAL NSH
Total/NA	Prep	3550C			81594	05/24/13 06:55	JP	TAL NSH
Total/NA	Analysis	8270D		1	81747	05/25/13 02:37	JS	TAL NSH
Total/NA	Analysis	Moisture		1	81636	05/24/13 08:49	RS	TAL NSH

Laboratory References:

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

Method Summary

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

TestAmerica Job ID: 490-27307-1

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

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

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

Certification Summary

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

TestAmerica Job ID: 490-27307-1

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
	ACIL		393	10-30-13
A2LA	ISO/IEC 17025		0453.07	12-31-13
Alaska (UST)	State Program	10	UST-087	07-24-13
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
Connecticut	State Program	1	PH-0220	12-31-13
Florida	NELAP	4	E87358	06-30-13
Illinois	NELAP	5	200010	12-09-13
Iowa	State Program	7	131	05-01-14
Kansas	NELAP	7	E-10229	10-31-13
Kentucky (UST)	State Program	4	19	09-15-13
Louisiana	NELAP	6	30613	06-30-13
Maryland	State Program	3	316	03-31-14
Massachusetts	State Program	1	M-TN032	06-30-13
Minnesota	NELAP	5	047-999-345	12-31-13
Mississippi	State Program	4	N/A	06-30-13
Montana (UST)	State Program	8	NA	01-01-15
Nevada	State Program	9	TN00032	07-31-13
New Hampshire	NELAP	1	2963	10-10-13
New Jersey	NELAP	2	TN965	06-30-13
New York	NELAP	2	11342	04-01-14
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	04-29-14
Pennsylvania	NELAP	3	68-00585	06-30-13
Rhode Island	State Program	1	LAO00268	12-30-13
South Carolina	State Program	4	84009 (001)	02-28-14
South Carolina	State Program	4	84009 (002)	02-23-14
Tennessee	State Program	4	2008	02-23-14
Texas	NELAP	6	T104704077-09-TX	08-31-13
USDA	Federal		S-48469	11-02-13
Utah	NELAP	8	TAN	06-30-13
Virginia	NELAP	3	460152	06-14-13
Washington	State Program	10	C789	07-19-13
West Virginia DEP	State Program	3	219	02-28-14
Wisconsin	State Program	5	998020430	08-31-13
Wyoming (UST)	A2LA	8	453.07	12-31-13

* Expired certification is currently pending renewal and is considered valid.

COOLER RECEIPT FORM

Charleston



490-27307 Chain of Custody

Cooler Received/Opened On 5/23/2013 @ 0830

1. Tracking # 1763 (last 4 digits, FedEx)

Courier: FedEx IR Gun ID 94660220

2. Temperature of rep. sample or temp blank when opened: 0.8 Degrees Celsius

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO NA

4. Were custody seals on outside of cooler? YES...NO...NA

If yes, how many and where: (2) Front/Back

5. Were the seals intact, signed, and dated correctly? YES...NO...NA

6. Were custody papers inside cooler? YES...NO...NA

I certify that I opened the cooler and answered questions 1-6 (initial) AW

7. Were custody seals on containers: YES NO and Intact YES...NO...NA

Were these signed and dated correctly? YES...NO...NA

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? YES...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES...NO...NA

12. Did all container labels and tags agree with custody papers? YES...NO...NA

13a. Were VOA vials received? YES...NO...NA

b. Was there any observable headspace present in any VOA vial? YES...NO...NA

14. Was there a Trip Blank in this cooler? YES...NO...NA If multiple coolers, sequence # _____

I certify that I unloaded the cooler and answered questions 7-14 (initial) AW

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES..NO NA

b. Did the bottle labels indicate that the correct preservatives were used YES...NO...NA

16. Was residual chlorine present? YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (initial) AW

17. Were custody papers properly filled out (ink, signed, etc)? YES...NO...NA

18. Did you sign the custody papers in the appropriate place? YES...NO...NA

19. Were correct containers used for the analysis requested? YES...NO...NA

20. Was sufficient amount of sample sent in each container? YES...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (initial) AW

I certify that I attached a label with the unique LIMS number to each container (initial) AW

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

Login Sample Receipt Checklist

Client: Small Business Group Inc.

Job Number: 490-27307-1

Login Number: 27307
List Number: 1
Creator: McBride, Mike

List Source: TestAmerica Nashville

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	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 $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ATTACHMENT A



NON-HAZARDOUS MANIFEST

NON-HAZARDOUS MANIFEST	1. Generator's US EPA ID No.	Manifest Doc No.	2. Page 1 of 1
3. Generator's Mailing Address: MCAS BEAUFORT LAUREL BAY HOUSING BEAUFORT, SC 29904		Generator's Site Address (If different than mailing):	A. Manifest Number WMNA 01519142
4. Generator's Phone 843-879-0411			B. State Generator's ID
5. Transporter 1 Company Name <i>Carolina Containers P.O. Box 1925 BF SC 29901</i>		6. US EPA ID Number	C. State Transporter's ID
7. Transporter 2 Company Name		8. US EPA ID Number	D. Transporter's Phone <i>(253) 521-1508</i>
9. Designated Facility Name and Site Address HICKORY HILL LANDFILL 2621 LOW COUNTRY DRIVE RIDGELAND, SC 29936		10. US EPA ID Number	E. State Transporter's ID
			F. Transporter's Phone
			G. State Facility ID
			H. State Facility Phone 843-987-4643
GENERATOR	11. Description of Waste Materials		12. Containers
	a. HEATING OIL TANK FILLED WITH SAND		No. Type
	WM Profile # 102655SC		1 20g 5.38 TON
	b.		
	WM Profile #		
	c.		
WM Profile #			
d.			
WM Profile #			
J. Additional Descriptions for Materials Listed Above		K. Disposal Location	
		Cell	Level
		Grid	
15. Special Handling Instructions and Additional Information <i>UST's from: 2) 610 Dahlia ✓ 4) 637 Dahlia - 2 ✓ 6) 297 Birch ✓ 1) 1403 Eagle ✓ 3) 637 Dahlia - 1 ✓ 5) 265 Beech - 3</i>			
Purchase Order #		EMERGENCY CONTACT / PHONE NO.:	
16. GENERATOR'S CERTIFICATE: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations.			
Printed Name <i>Timothy Whaley</i>		Signature "On behalf of" <i>Timothy Whaley</i>	
		Month	Day Year
		8	14 13
TRANSPORTER	17. Transporter 1 Acknowledgement of Receipt of Materials		
	Printed Name <i>Pratt Shaw</i>		Signature <i>[Signature]</i>
			Month Day Year
		8	14 13
18. Transporter 2 Acknowledgement of Receipt of Materials			
Printed Name		Signature	
		Month	Day Year
FACILITY	19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.		
	20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.		
	Printed Name <i>Toni Cofield</i>		Signature <i>Toni Cofield</i>
		Month	Day Year
		9	3 13

White- TREATMENT, STORAGE, DISPOSAL FACILITY COPY

Blue- GENERATOR #2 COPY

Yellow- GENERATOR #1 COPY

Pink- FACILITY USE ONLY

Gold- TRANSPORTER #1 COPY

Appendix C
Laboratory Analytical Report - Groundwater

Volatile Organic Compounds by GC/MS

Client: AECOM - Resolution Consultants	Laboratory ID: QF20008-005
Description: BEALB1403TW01WG20150619	Matrix: Aqueous
Date Sampled: 06/18/2015 0915	
Date Received: 06/20/2015	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	06/26/2015 2024	ALL		78249

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	LOD	DL	Units	Run
Benzene	71-43-2	8260B	0.45	U	5.0	0.45	0.21	ug/L	1
Ethylbenzene	100-41-4	8260B	0.51	U	5.0	0.51	0.21	ug/L	1
Naphthalene	91-20-3	8260B	0.96	U	5.0	0.96	0.14	ug/L	1
Toluene	108-88-3	8260B	0.48	U	5.0	0.48	0.24	ug/L	1
Xylenes (total)	1330-20-7	8260B	0.57	U	5.0	0.57	0.19	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		91	75-120
1,2-Dichloroethane-d4		98	70-120
Toluene-d8		96	85-120
Dibromofluoromethane		99	85-115

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time Q = Surrogate failure
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria L = LCS/LCSD failure
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W" S = MS/MSD failure

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

Semivolatile Organic Compounds by GC/MS (SIM)

Client: **AECOM - Resolution Consultants**

Laboratory ID: **QF20008-005**

Description: **BEALB1403TW01WG20150619**

Matrix: **Aqueous**

Date Sampled: **06/18/2015 0915**

Date Received: **06/20/2015**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D (SIM)	1	06/23/2015 1843	RBH	06/22/2015 1610	77836

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

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Methylnaphthalene-d10		74	15-139
Fluoranthene-d10		86	23-154

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time Q = Surrogate failure
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria L = LCS/LCSD failure
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W" S = MS/MSD failure

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

Appendix D
Regulatory Correspondence



W. Marshall Taylor Jr., Acting Director

Promoting and protecting the health of the public and the environment

April 7, 2015

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

RE: IGWA
Laurel Bay Underground Storage Tank Assessment Reports for:
See attached sheet

Dear Mr. Drawdy,

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

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

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

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

Sincerely,

Kent Krieg
Department of Defense Corrective Action Section
Bureau of Land and Waste Management
South Carolina Department of Health and Environmental Control

Cc: Russell Berry (via email)
Craig Ehde (via email)



Catherine B. Templeton, Director

Promoting and protecting the health of the public and the environment

Attachment to: Krieg to Drawdy
Subject: IGWA
Dated 4/7/2015

Laurel Bay Underground Storage Tank Assessment Reports for: (18 addresses/19 tanks)

1186 Bobwhite	1417 Albatross
1194 Cardinal	1420 Dove
1354 Cardinal	1421 Albatross Tank 1
1362 Cardinal	1421 Albatross Tank 2
1364 Cardinal Tank 1	1427 Albatross
1403 Eagle	1429 Albatross
1404 Eagle	1444 Dove Tank 1
1405 Eagle	1453 Cardinal
1408 Eagle	1455 Cardinal
1410 Eagle	



Catherine E. Heigel, Director

Promoting and protecting the health of the public and the environment

Division of Waste Management
Bureau of Land and Waste Management

February 22, 2016

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

RE: Approval and Concurrence with Draft Final Initial Groundwater Investigation Report-May and June 2015
Laurel Bay Military Housing Area Multiple Properties
Dated October 2015

Dear Mr. Drawdy,

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

Per the Department's request, groundwater samples were collected from the attached referenced addresses. The Department reviewed the groundwater data and previous investigations and it agrees with the conclusions and recommendations included in the document. To further assess the impact to groundwater, permanent wells should be installed at the 52 stated addresses. For the remaining 91 addresses, there is no indication of contamination on the property and therefore no further investigation is required at this time.

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

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

Sincerely,

Laurel Petrus
RCRA Federal Facilities Section

Attachment: Specific Property Recommendations

Cc: Russell Berry, EQC Region 8 (via email)
Shawn Dolan, Resolution Consultants (via email)
Bryan Beck, NAVFAC MIDATLANTIC (via email)
Craig Ehde (via email)

Attachment to: Petrus to Drawdy
 Subject: Draft Final Initial Groundwater Investigation Report-May and June 2015
 Specific Property Recommendations
 Dated February 22, 2016

Draft Final Initial Groundwater Investigation Report for (143 addresses)

Permanent Monitoring Well Investigation recommendation (52 addresses)

273 Birch Drive	1192 Bobwhite Drive
325 Ash Street	1194 Bobwhite Drive
326 Ash Street	1272 Albatross Drive
336 Ash Street	1352 Cardinal Lane
343 Ash Street	1356 Cardinal Lane
353 Ash Street	1359 Cardinal Lane
430 Elderberry Drive	1360 Cardinal Lane
440 Elderberry Drive	1362 Cardinal Lane
456 Elderberry Drive	1370 Cardinal Lane
458 Elderberry Drive	1382 Dove Lane
468 Dogwood Drive	1384 Dove lane
518 Laurel Bay Blvd	1385 Dove Lane
635 Dahlia Drive	1389 Dove Lane
638 Dahlia Drive	1392 Dove Lane
640 Dahlia Drive	1393 Dove Lane
647 Dahlia Drive	1407 Eagle Lane
648 Dahlia Drive	1411 Eagle Lane
650 Dahlia Drive	1418 Albatross Drive
652 Dahlia Drive	1420 Albatross Drive
760 Althea Street	1426 Albatross Drive
1102 Iris Lane	1429 Albatross Drive
1132 Iris Lane	1434 Dove Lane
1133 Iris Lane	1436 Dove Lane
1144 Iris Lane	1440 Dove Lane
1148 Iris Lane	1442 Dove Lane
1186 Bobwhite Drive	1444 Dove Lane

No Further Action recommendation (91 addresses):

137 Laurel Bay Blvd	771 Althea Street
139 Laurel Bay Blvd	927 Albacore Street
229 Cypress Street	1015 Foxglove Street
261 Beech Street	1046 Gardenia Drive
276 Birch Drive	1062 Gardenia Drive
278 Birch Drive	1070 Heather Street
291 Birch Drive	1072 Heather Street

300 Ash Street	1107 Iris Lane
304 Ash Street	1126 Iris Lane
314 Ash Street	1129 Iris Lane
322 Ash Street	1138 Iris Lane
323 Ash Street	1161 Jasmine Street
324 Ash Street	1167 Jasmine Street
339 Ash Street	1170 Jasmine Street
344 Ash Street	1190 Bobwhite Drive
348 Ash Street	1219 Cardinal Lane
349 Ash Street	1305 Eagle Lane
362 Aspen Street	1353 Cardinal Lane
376 Aspen Street	1354 Cardinal Lane
380 Aspen Street	1357 Cardinal Lane
383 Aspen Street	1361 Cardinal Lane
387 Acorn Drive	1364 Cardinal Lane
392 Acorn Drive	1368 Cardinal Lane
396 Acorn Drive	1377 Dove Lane
433 Elderberry Drive	1381 Dove Lane
439 Elderberry Drive	1391 Dove Lane
442 Elderberry Drive	1403 Eagle Lane
443 Elderberry Drive	1404 Eagle Lane
444 Elderberry Drive	1405 Eagle Lane
445 Elderberry Drive	1406 Eagle Lane
446 Elderberry Drive	1408 Eagle Lane
448 Elderberry Drive	1410 Eagle Lane
449 Elderberry Drive	1412 Eagle Lane
451 Elderberry Drive	1413 Albatross Drive
453 Elderberry Drive	1414 Albatross Drive
464 Dogwood Drive	1417 Albatross Drive
466 Dogwood Drive	1421 Albatross Drive
467 Dogwood Drive	1422 Albatross Drive
469 Dogwood Drive	1425 Albatross Drive
471 Dogwood Drive	1427 Albatross Drive
475 Dogwood Drive	1430 Dove Lane
516 Laurel Bay Blvd	1432 Dove Lane
531 Laurel Bay Blvd	1438 Dove Lane
532 Laurel Bay Blvd	1453 Cardinal Lane
645 Dahlia Drive	1455 Cardinal Lane
763 Althea Street	