SUMMARY REPORT
260 BIRCH ROAD (FORMERLY 297 BIRCH ROAD)
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
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 260 Birch Road (Formerly 297 Birch Road). 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 260 Birch Road (Formerly 297 Birch Road). Details regarding the soil investigation at this site are provided in the *SCDHEC UST Assessment Report – 297 Birch Road* (MCAS Beaufort, 2013). The UST Assessment Report is provided in Appendix B. Details regarding the IGWA sampling activities at this site are provided in the *Initial Groundwater Investigation Report – November and December 2015* (Resolution Consultants, 2016). The laboratory report that includes the pertinent IGWA analytical results for this site is presented in Appendix C.

2.1 UST Removal and Soil Sampling

On May 30, 2013, a single 280 gallon heating oil UST was removed from underneath the rear concrete patio at 260 Birch Road (Formerly 297 Birch Road). 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 4'2" 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 260 Birch Road (Formerly 297 Birch Road) were greater than the SCDHEC RBSLs, which indicated further investigation was required. In a letter dated July 1, 2015, SCDHEC requested an IGWA for 260 Birch Road (Formerly 297 Birch Road) to determine if the groundwater was impacted by petroleum COPCs. SCDHEC's request letter is provided in Appendix D.

2.3 Groundwater Sampling

On November 12, 2015, a temporary monitoring well was installed at 260 Birch Road (Formerly 297 Birch Road), in accordance with the South Carolina Well Standards and Regulations (R.61-71.H-I, updated June 24, 2016). In order to provide data that can be used to determine whether COPCs are migrating to underlying groundwater, the monitoring well was placed in the same general location as the former heating oil UST. The former UST location is indicated on Figures 2 and 3 of the UST Assessment Report (Appendix B). Further details are provided in the *Initial Groundwater Investigation Report – November and December 2015* (Resolution Consultants, 2016).

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

2.4 Groundwater Analytical Results

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

The groundwater results collected from 260 Birch Road (Formerly 297 Birch Road) 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 260 Birch Road (Formerly 297 Birch Road). This NFA determination was obtained in a letter dated June 8, 2016. SCDHEC's NFA letter is provided in Appendix D.

4.0 REFERENCES

Marine Corps Air Station Beaufort, 2013. *South Carolina Department of Health and Environmental Control (SCDHEC) Underground Storage Tank Assessment Report – 297 Birch Road, Laurel Bay Military Housing Area*, October 2013.

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

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

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

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

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

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

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

Tables

Table 1
Laboratory Analytical Results - Soil
260 Birch Road (Formerly 297 Birch Road)
Laurel Bay Military Housing Area
Marine Corps Air Station Beaufort
Beaufort, South Carolina

Constituent	SCDHEC RBSLs [(1)]	Results Sample Collected 05/30/13
Volatile Organic Compounds Analyzed by EPA Method 8260B (mg/kg)		
Benzene	0.003	**0.00108**
Ethylbenzene	1.15	**0.0280**
Naphthalene	0.036	**0.142**
Toluene	0.627	ND
Xylenes, Total	13.01	ND
Semivolatile Organic Compounds Analyzed by EPA Method 8270D (mg/kg)		
Benzo(a)anthracene	0.66	ND
Benzo(b)fluoranthene	0.66	ND
Benzo(k)fluoranthene	0.66	ND
Chrysene	0.66	ND
Dibenz(a,h)anthracene	0.66	ND

Notes:

[(1)] South Carolina Risk-Based Screening Levels from the Quality Assurance Program Plan for the Underground Storage Tank Management Division, Revision 3.0 and 3.1 (SCDHEC, May 2015 and SCDHEC, February 2016) and the Underground Storage Tank Assessment Guidelines (SCDHEC, February 2006).

Bold font indicates the analyte was detected.

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

EPA - United States Environmental Protection Agency

mg/kg - milligrams per kilogram

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

RBSL - Risk-Based Screening Level

SCDHEC - South Carolina Department Of Health and Environmental Control

Table 2
Laboratory Analytical Results - Groundwater
260 Birch Road (Formerly 297 Birch Road)
Laurel Bay Military Housing Area
Marine Corps Air Station Beaufort
Beaufort, South Carolina

Constituent	SCDHEC RBSLs [1]	Site-Specific Groundwater VISLs (µg/L)[2]	Results Sample Collected 11/12/15
Volatile Organic Compounds Analyzed by EPA Method 8260B (µg/L)			
Benzene	5	16.24	ND
Ethylbenzene	700	45.95	**0.45**
Naphthalene	25	29.33	**0.92**
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 $1x10^{-6}$, a target hazard quotient of 1 (per target organ), and a default residential exposure scenario, assuming exposure for 24 hours/day, 350 days/year, for 26 years. Modeling was performed for a range of depths to groundwater for application as appropriate in different areas of the Laurel Bay Military Housing Area. The most conservative levels are presented for comparison. Refer to Appendix H of the Uniform Federal Policy Sampling Analysis and Sampling Plan for Vapor Media, Revision 4 (Resolution Consultants, April 2017) for additional information.

Bold font indicates the analyte was detected.

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

EPA - United States Environmental Protection Agency

JE - Johnson & Ettinger

NA - Not Applicable

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

RBSL - Risk-Based Screening Level

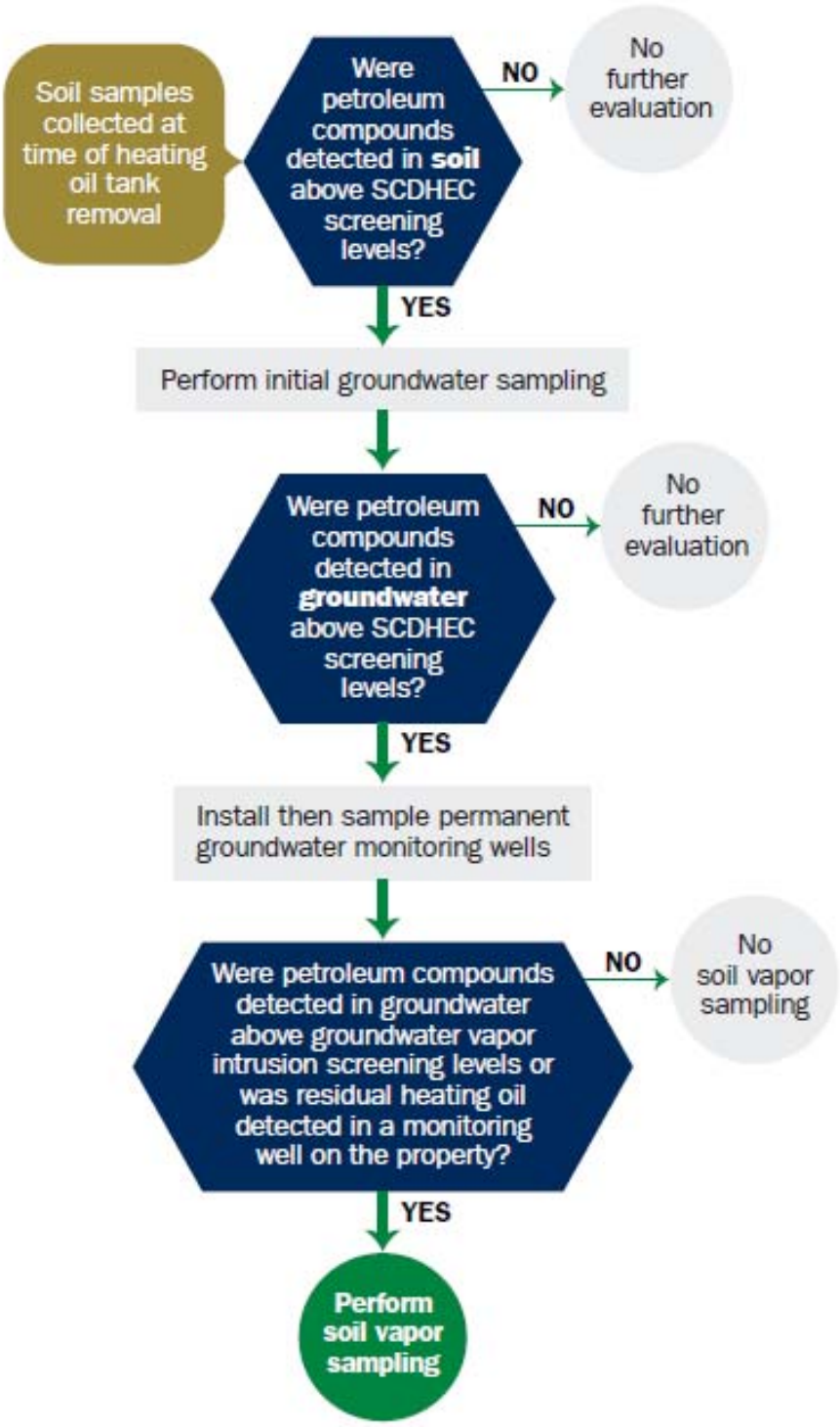
SCDHEC - South Carolina Department Of Health and Environmental Control

µg/L - micrograms per liter

VISL - Vapor Intrusion Screening Level

Appendix A
Multi-Media Selection Process for LBMH

CDM - AECOM
Multimedia Joint Venture



Appendix A - Multi-Media Selection Process for LBMH

Appendix B
UST Assessment Report

CDM - AECOM
Multimedia Joint Venture

South Carolina Department of Health and Environmental Control (SCDHEC)

Underground Storage Tank (UST) Assessment Report

Date Received State Use Only

RECEIVED
OCT 23 2013
SC DHEC - Bureau of
Land & Waste Management

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

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

297 Birch Drive, 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).....	297Birch				
B.	Capacity..(ex. 1k, 2k).....	Heating oil				
C.	Age.....	280 gal				
D.	Construction Material..(ex. Steel, FRP).....	Late 1950s				
E.	Month/Year of Last Use.....	Steel				
F.	Depth (ft.) To Base of Tank.....	Mid 1980s				
G.	Spill Prevention Equipment Y/N.....	4'2"				
H.	Overfill Prevention Equipment Y/N.....	No				
I.	Method of Closure Removed/Filled.....	No				
J.	Date Tanks Removed/Filled.....	Removed				
K.	Visible Corrosion or Pitting Y/N.....	5/30/2013				
L.	Visible Holes Y/N.....	Yes				
		Yes				

M. Method of disposal for any USTs removed from the ground (attach disposal manifests)
UST 297Birch 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 297Birch 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).....	297Birch				
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				
	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
A. Were any petroleum-stained or contaminated soils found in the UST excavation, soil borings, trenches, or monitoring wells? If yes, indicate depth and location on the site map.		X	
B. Were any petroleum odors detected in the excavation, soil borings, trenches, or monitoring wells? If yes, indicate location on site map and describe the odor (strong, mild, etc.)		X	
C. Was water present in the UST excavation, soil borings, or trenches? If yes, how far below land surface (indicate location and depth)?		X	
D. Did contaminated soils remain stockpiled on site after closure? If yes, indicate the stockpile location on the site map. Name of DHEC representative authorizing soil removal:		X	
E. Was a petroleum sheen or free product detected on any excavation or boring waters? If yes, indicate location and thickness.		X	

X. SAMPLE INFORMATION

A. SCDHEC Lab Certification Number 84009

B.

Sample #	Location	Sample Type (Soil/Water)	Soil Type (Sand/Clay)	Depth*	Date/Time of Collection	Collected by	OVA #
297 Birch	Excav at fill end	Soil	Sandy/Clay	4'2"	5/30/13 1515 hrs	P. Shaw	
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

* = Depth Below the Surrounding Land Surface

XI. SAMPLING METHODOLOGY

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

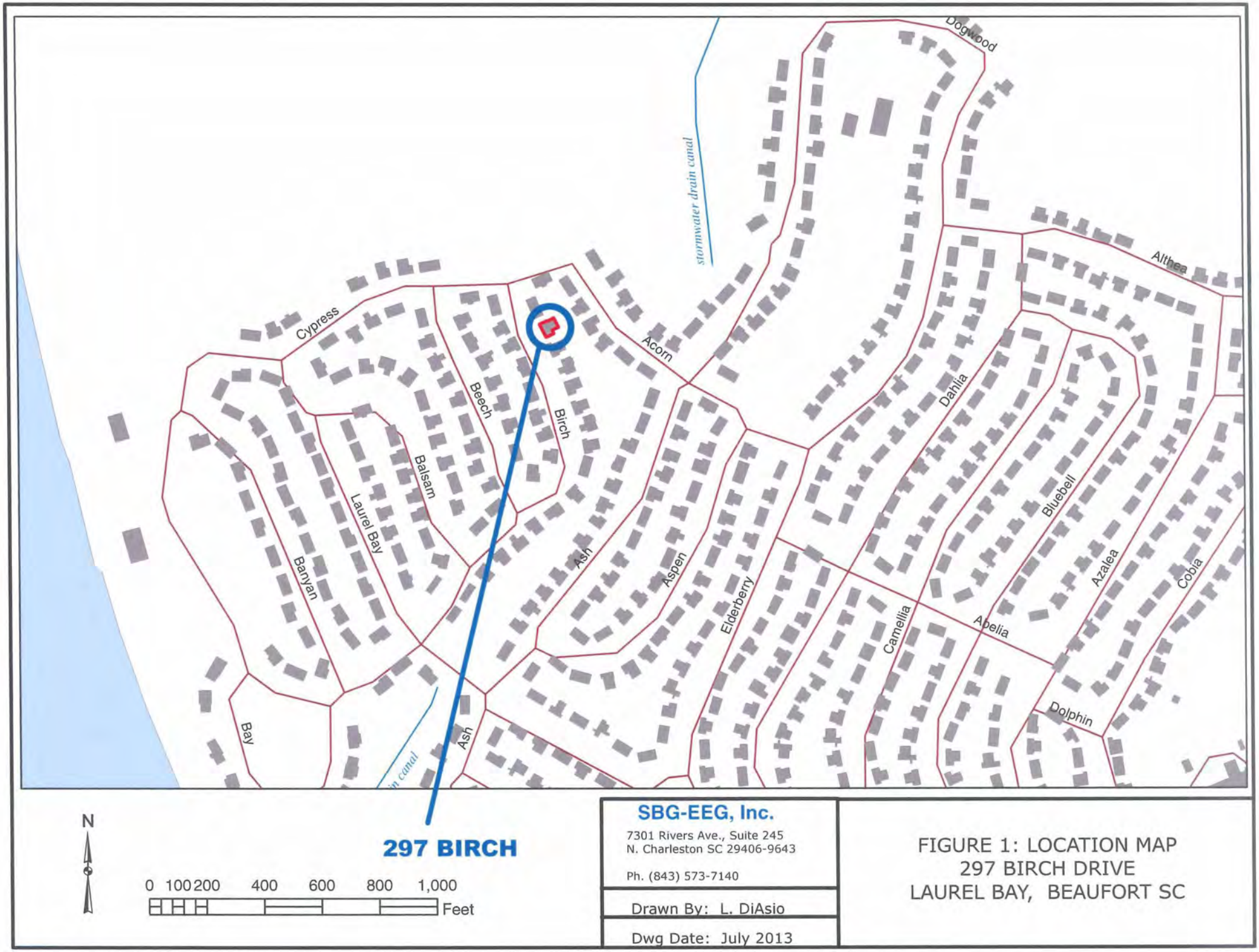
XII. RECEPTORS

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



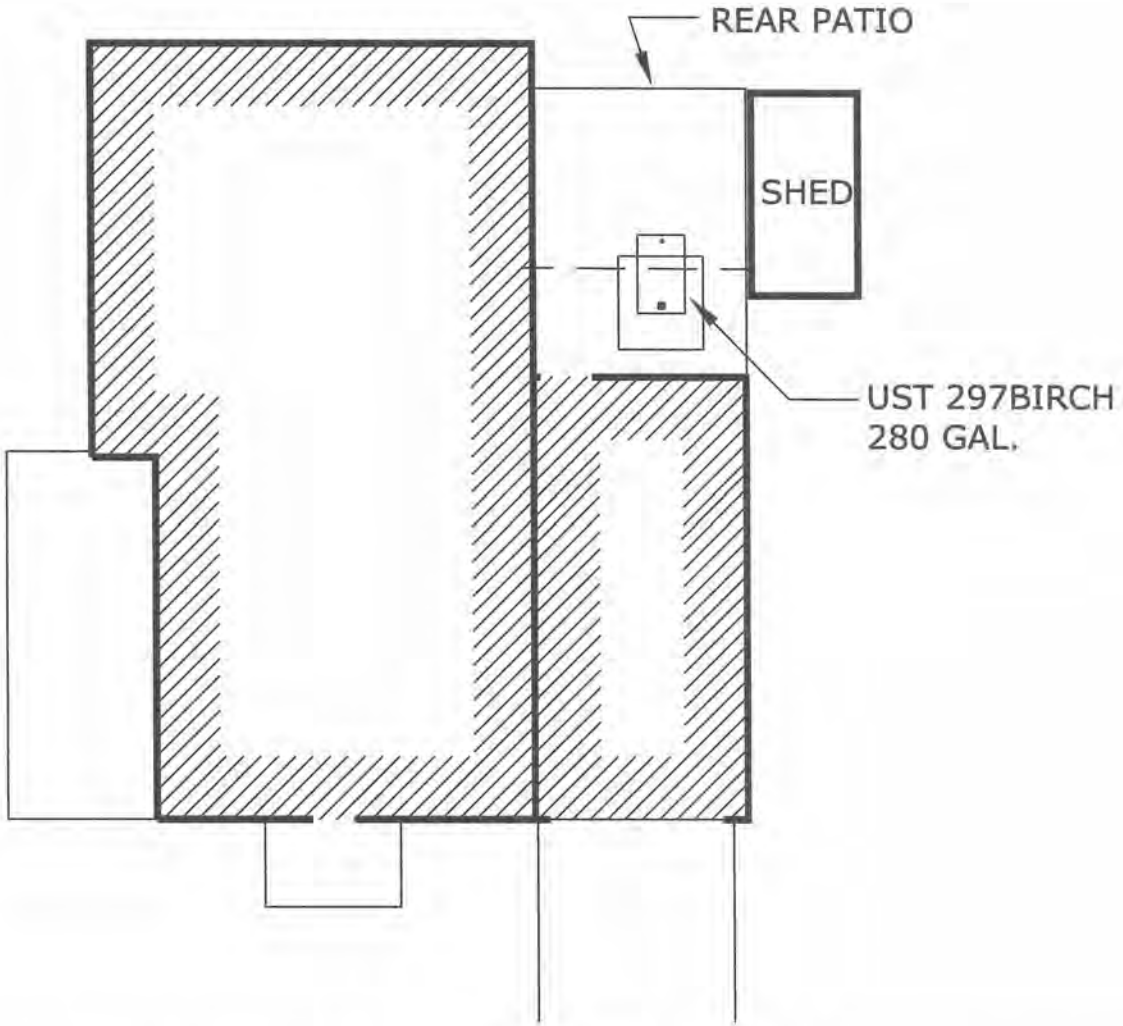
SBG-EEG, Inc.
7301 Rivers Ave., Suite 245
N. Charleston SC 29406-9643
Ph. (843) 573-7140

Drawn By: L. DiAsio

Dwg Date: July 2013

FIGURE 1: LOCATION MAP
297 BIRCH DRIVE
LAUREL BAY, BEAUFORT SC

STORMWATER DRAINAGE CANAL ≈ 500'



GRAPHIC SCALE

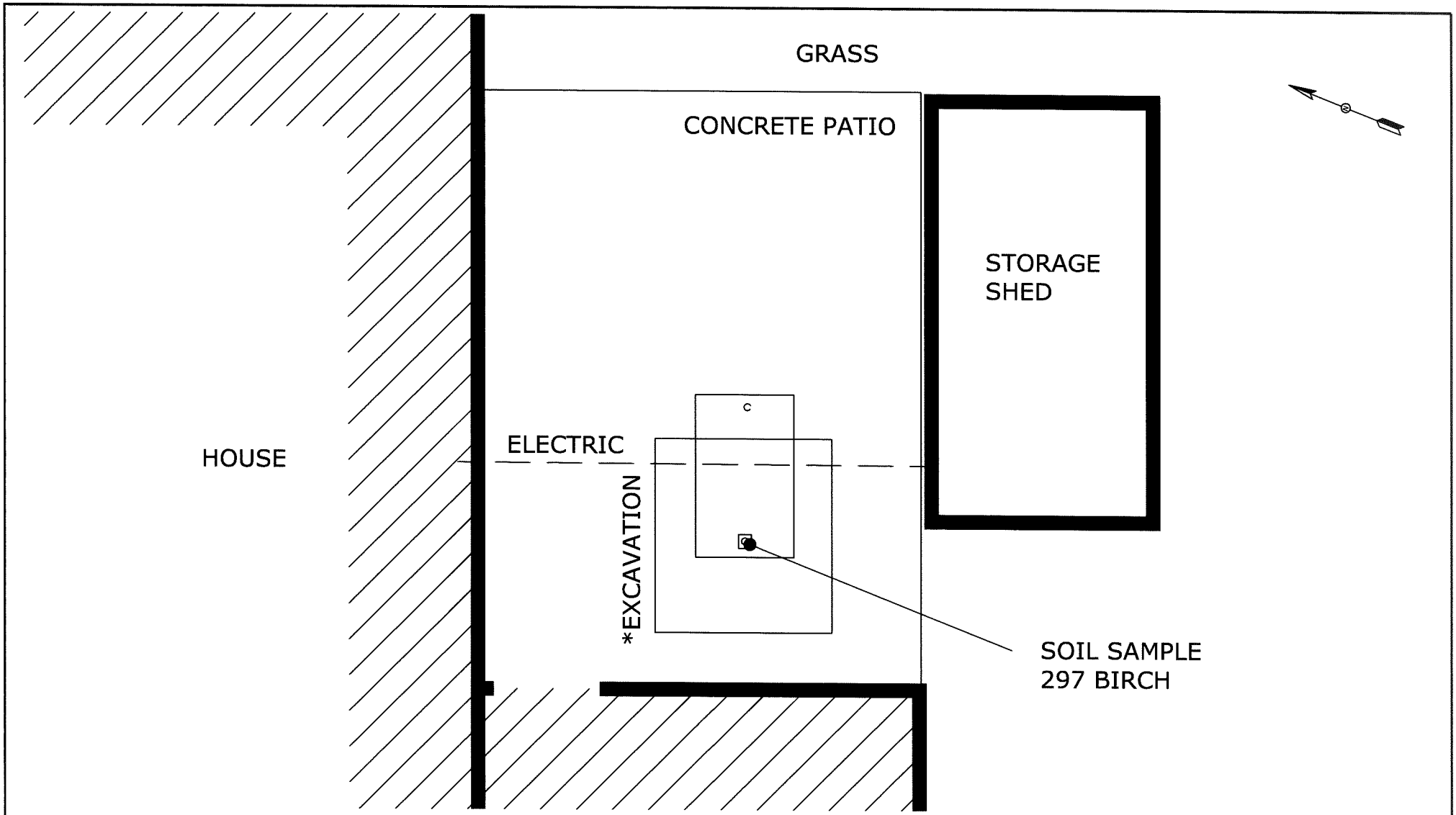
0 5' 10' 20'

TANK DEPTH BELOW GRADE
297BIRCH = 14"

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

FIGURE 2 SITE MAP
297 BIRCH DRIVE, LAUREL BAY
MCAS BEAUFORT SC

SCALE: GRAPHIC | DWG DATE JULY 2013



GRAPHIC SCALE
0 5'

*A PORTION OF THE PATIO WAS REMOVED TO FACILITATE EXTRACTING THE TANK.

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

FIGURE 3 UST SAMPLE LOCATIONS
297 BIRCH DRIVE LAUREL BAY
MCAS BEAUFORT SC

SCALE: GRAPHIC | DWG DATE JULY 2013

Picture 1: Location of UST 297Birch.

Picture 2: UST 297Birch 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	297Birch						
Benzene	0.00108 mg/kg						
Toluene	ND						
Ethylbenzene	0.0280 mg/kg						
Xylenes	ND						
Naphthalene	0.142 mg/kg						
Benzo (a) anthracene	ND						
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								
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: 490-28243-1
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:
6/20/2013 3:16:32 PM

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

Table of Contents

Sample Summary

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

TestAmerica Job ID: 490-28243-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
490-28243-1	265 Beech-3	Soil	05/28/13 12:15	06/06/13 08:30
490-28243-2	297 Birch	Soil	05/30/13 15:15	06/06/13 08:30

Job ID: 490-28243-1

Laboratory: TestAmerica Nashville

Narrative

Job Narrative
490-28243-1

Comments
No additional comments.

Receipt
The samples were received on 6/6/2013 8:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.2° C.

GC/MS VOA
Method(s) 8260B: Surrogate recovery for the following sample(s) was outside control limits: 265 Beech-3 (490-28243-1). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method(s) 8260B: Due to sample matrix effect on the internal standard (ISTD), a dilution was required for the following sample(s): 265 Beech-3 (490-28243-1).

Method(s) 8260B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with batches 84868 and 85245.

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.

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.

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)
NC	Not Calculated
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: Small Business Group Inc.
Project/Site: Laurel Bay Site

TestAmerica Job ID: 490-28243-1

Client Sample ID: 265 Beech-3
Date Collected: 05/28/13 12:15
Date Received: 06/06/13 08:30

Lab Sample ID: 490-28243-1
Matrix: Soil
Percent Solids: 79.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00318		0.00206	0.000690	mg/Kg		06/07/13 16:19	06/08/13 17:44	1
Ethylbenzene	0.742		0.141	0.0481	mg/Kg		06/07/13 16:30	06/11/13 12:29	1
Naphthalene	6.48		0.354	0.120	mg/Kg		06/07/13 16:30	06/11/13 12:29	1
Toluene	ND		0.00206	0.000762	mg/Kg		06/07/13 16:19	06/08/13 17:44	1
Xylenes, Total	0.121		0.00515	0.000690	mg/Kg		06/07/13 16:19	06/08/13 17:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*110*		*70 - 130*	*06/07/13 16:19*	*06/08/13 17:44*	*1*
1,2-Dichloroethane-d4 (Surr)	*86*		*70 - 130*	*06/07/13 16:30*	*06/11/13 12:29*	*1*
4-Bromofluorobenzene (Surr)	*332*	*X*	*70 - 130*	*06/07/13 16:19*	*06/08/13 17:44*	*1*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*	*06/07/13 16:30*	*06/11/13 12:29*	*1*
Dibromofluoromethane (Surr)	*108*		*70 - 130*	*06/07/13 16:19*	*06/08/13 17:44*	*1*
Dibromofluoromethane (Surr)	*100*		*70 - 130*	*06/07/13 16:30*	*06/11/13 12:29*	*1*
Toluene-d8 (Surr)	*105*		*70 - 130*	*06/07/13 16:19*	*06/08/13 17:44*	*1*
Toluene-d8 (Surr)	*109*		*70 - 130*	*06/07/13 16:30*	*06/11/13 12:29*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.226		0.0837	0.0125	mg/Kg		06/08/13 11:38	06/10/13 23:37	1
Acenaphthylene	0.0492	J	0.0837	0.0112	mg/Kg		06/08/13 11:38	06/10/13 23:37	1
Anthracene	0.0744	J	0.0837	0.0112	mg/Kg		06/08/13 11:38	06/10/13 23:37	1
Benzo[a]anthracene	ND		0.0837	0.0187	mg/Kg		06/08/13 11:38	06/10/13 23:37	1
Benzo[a]pyrene	ND		0.0837	0.0150	mg/Kg		06/08/13 11:38	06/10/13 23:37	1
Benzo[b]fluoranthene	ND		0.0837	0.0150	mg/Kg		06/08/13 11:38	06/10/13 23:37	1
Benzo[g,h,i]perylene	ND		0.0837	0.0112	mg/Kg		06/08/13 11:38	06/10/13 23:37	1
Benzo[k]fluoranthene	ND		0.0837	0.0175	mg/Kg		06/08/13 11:38	06/10/13 23:37	1
1-Methylnaphthalene	1.44		0.0837	0.0175	mg/Kg		06/08/13 11:38	06/10/13 23:37	1
Pyrene	0.0669	J	0.0837	0.0150	mg/Kg		06/08/13 11:38	06/10/13 23:37	1
Phenanthrene	0.784		0.0837	0.0112	mg/Kg		06/08/13 11:38	06/10/13 23:37	1
Chrysene	ND		0.0837	0.0112	mg/Kg		06/08/13 11:38	06/10/13 23:37	1
Dibenz(a,h)anthracene	ND		0.0837	0.00874	mg/Kg		06/08/13 11:38	06/10/13 23:37	1
Fluoranthene	ND		0.0837	0.0112	mg/Kg		06/08/13 11:38	06/10/13 23:37	1
Fluorene	0.388		0.0837	0.0150	mg/Kg		06/08/13 11:38	06/10/13 23:37	1
Indeno[1,2,3-cd]pyrene	ND		0.0837	0.0125	mg/Kg		06/08/13 11:38	06/10/13 23:37	1
Naphthalene	0.114		0.0837	0.0112	mg/Kg		06/08/13 11:38	06/10/13 23:37	1
2-Methylnaphthalene	1.86		0.0837	0.0200	mg/Kg		06/08/13 11:38	06/10/13 23:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*53*		*29 - 120*	*06/08/13 11:38*	*06/10/13 23:37*	*1*
Terphenyl-d14 (Surr)	*57*		*13 - 120*	*06/08/13 11:38*	*06/10/13 23:37*	*1*
Nitrobenzene-d5 (Surr)	*63*		*27 - 120*	*06/08/13 11:38*	*06/10/13 23:37*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	79		0.10	0.10	%			06/07/13 10:28	1

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

TestAmerica Job ID: 490-28243-1

Client Sample ID: 297 Birch
Date Collected: 05/30/13 15:15
Date Received: 06/06/13 08:30

Lab Sample ID: 490-28243-2
Matrix: Soil
Percent Solids: 78.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00108	J	0.00236	0.000791	mg/Kg		06/07/13 16:19	06/08/13 18:14	1
Ethylbenzene	0.0280		0.00236	0.000791	mg/Kg		06/07/13 16:19	06/08/13 18:14	1
Naphthalene	0.142		0.00590	0.00201	mg/Kg		06/07/13 16:19	06/08/13 18:14	1
Toluene	ND		0.00236	0.000874	mg/Kg		06/07/13 16:19	06/08/13 18:14	1
Xylenes, Total	ND		0.00590	0.000791	mg/Kg		06/07/13 16:19	06/08/13 18:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*117*		*70 - 130*	*06/07/13 16:19*	*06/08/13 18:14*	*1*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*	*06/07/13 16:19*	*06/08/13 18:14*	*1*
Dibromofluoromethane (Surr)	*114*		*70 - 130*	*06/07/13 16:19*	*06/08/13 18:14*	*1*
Toluene-d8 (Surr)	*98*		*70 - 130*	*06/07/13 16:19*	*06/08/13 18:14*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0845	0.0126	mg/Kg		06/08/13 11:38	06/11/13 00:01	1
Acenaphthylene	ND		0.0845	0.0114	mg/Kg		06/08/13 11:38	06/11/13 00:01	1
Anthracene	ND		0.0845	0.0114	mg/Kg		06/08/13 11:38	06/11/13 00:01	1
Benzo[a]anthracene	ND		0.0845	0.0189	mg/Kg		06/08/13 11:38	06/11/13 00:01	1
Benzo[a]pyrene	ND		0.0845	0.0151	mg/Kg		06/08/13 11:38	06/11/13 00:01	1
Benzo[b]fluoranthene	ND		0.0845	0.0151	mg/Kg		06/08/13 11:38	06/11/13 00:01	1
Benzo[g,h,i]perylene	ND		0.0845	0.0114	mg/Kg		06/08/13 11:38	06/11/13 00:01	1
Benzo[k]fluoranthene	ND		0.0845	0.0177	mg/Kg		06/08/13 11:38	06/11/13 00:01	1
1-Methylnaphthalene	ND		0.0845	0.0177	mg/Kg		06/08/13 11:38	06/11/13 00:01	1
Pyrene	ND		0.0845	0.0151	mg/Kg		06/08/13 11:38	06/11/13 00:01	1
Phenanthrene	ND		0.0845	0.0114	mg/Kg		06/08/13 11:38	06/11/13 00:01	1
Chrysene	ND		0.0845	0.0114	mg/Kg		06/08/13 11:38	06/11/13 00:01	1
Dibenz(a,h)anthracene	ND		0.0845	0.00883	mg/Kg		06/08/13 11:38	06/11/13 00:01	1
Fluoranthene	ND		0.0845	0.0114	mg/Kg		06/08/13 11:38	06/11/13 00:01	1
Fluorene	ND		0.0845	0.0151	mg/Kg		06/08/13 11:38	06/11/13 00:01	1
Indeno[1,2,3-cd]pyrene	ND		0.0845	0.0126	mg/Kg		06/08/13 11:38	06/11/13 00:01	1
Naphthalene	ND		0.0845	0.0114	mg/Kg		06/08/13 11:38	06/11/13 00:01	1
2-Methylnaphthalene	ND		0.0845	0.0202	mg/Kg		06/08/13 11:38	06/11/13 00:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*33*		*29 - 120*	*06/08/13 11:38*	*06/11/13 00:01*	*1*
Terphenyl-d14 (Surr)	*35*		*13 - 120*	*06/08/13 11:38*	*06/11/13 00:01*	*1*
Nitrobenzene-d5 (Surr)	*50*		*27 - 120*	*06/08/13 11:38*	*06/11/13 00:01*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	79		0.10	0.10	%			06/07/13 10:28	1

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

Lab Sample ID: MB 490-84868/6
Matrix: Solid
Analysis Batch: 84868

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00200	0.000670	mg/Kg			06/08/13 09:05	1
Ethylbenzene	ND		0.00200	0.000670	mg/Kg			06/08/13 09:05	1
Naphthalene	ND		0.00500	0.00170	mg/Kg			06/08/13 09:05	1
Toluene	ND		0.00200	0.000740	mg/Kg			06/08/13 09:05	1
Xylenes, Total	ND		0.00500	0.000670	mg/Kg			06/08/13 09:05	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*112*		*70 - 130*		*06/08/13 09:05*	*1*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*		*06/08/13 09:05*	*1*
Dibromofluoromethane (Surr)	*109*		*70 - 130*		*06/08/13 09:05*	*1*
Toluene-d8 (Surr)	*103*		*70 - 130*		*06/08/13 09:05*	*1*

Lab Sample ID: LCS 490-84868/3
Matrix: Solid
Analysis Batch: 84868

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0500	0.05239		mg/Kg		105	75 - 127
Ethylbenzene	0.0500	0.05194		mg/Kg		104	80 - 134
Naphthalene	0.0500	0.04673		mg/Kg		93	69 - 150
Toluene	0.0500	0.05066		mg/Kg		101	80 - 132
Xylenes, Total	0.150	0.1597		mg/Kg		106	80 - 137

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*105*		*70 - 130*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*
Dibromofluoromethane (Surr)	*107*		*70 - 130*
Toluene-d8 (Surr)	*102*		*70 - 130*

Lab Sample ID: LCSD 490-84868/4
Matrix: Solid
Analysis Batch: 84868

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.0500	0.05018		mg/Kg		100	75 - 127	4	50
Ethylbenzene	0.0500	0.05056		mg/Kg		101	80 - 134	3	50
Naphthalene	0.0500	0.04490		mg/Kg		90	69 - 150	4	50
Toluene	0.0500	0.04822		mg/Kg		96	80 - 132	5	50
Xylenes, Total	0.150	0.1538		mg/Kg		103	80 - 137	4	50

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*105*		*70 - 130*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*
Dibromofluoromethane (Surr)	*106*		*70 - 130*
Toluene-d8 (Surr)	*101*		*70 - 130*

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

Lab Sample ID: MB 490-85245/8
Matrix: Solid
Analysis Batch: 85245

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.100	0.0340	mg/Kg			06/11/13 10:57	1
Ethylbenzene	ND		0.100	0.0340	mg/Kg			06/11/13 10:57	1
Naphthalene	ND		0.250	0.0850	mg/Kg			06/11/13 10:57	1
Toluene	ND		0.100	0.0370	mg/Kg			06/11/13 10:57	1
Xylenes, Total	ND		0.250	0.0340	mg/Kg			06/11/13 10:57	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*108*		*70 - 130*		*06/11/13 10:57*	*1*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*		*06/11/13 10:57*	*1*
Dibromofluoromethane (Surr)	*110*		*70 - 130*		*06/11/13 10:57*	*1*
Toluene-d8 (Surr)	*101*		*70 - 130*		*06/11/13 10:57*	*1*

Lab Sample ID: LCS 490-85245/4
Matrix: Solid
Analysis Batch: 85245

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0500	0.05217		mg/Kg		104	75 - 127
Ethylbenzene	0.0500	0.05582		mg/Kg		112	80 - 134
Naphthalene	0.0500	0.04940		mg/Kg		99	69 - 150
Toluene	0.0500	0.05264		mg/Kg		105	80 - 132
Xylenes, Total	0.150	0.1687		mg/Kg		112	80 - 137

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

Lab Sample ID: LCSD 490-85245/5
Matrix: Solid
Analysis Batch: 85245

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.0500	0.05441		mg/Kg		109	75 - 127	4	50
Ethylbenzene	0.0500	0.05448		mg/Kg		109	80 - 134	2	50
Naphthalene	0.0500	0.05180		mg/Kg		104	69 - 150	5	50
Toluene	0.0500	0.05304		mg/Kg		106	80 - 132	1	50
Xylenes, Total	0.150	0.1695		mg/Kg		113	80 - 137	0	50

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*97*		*70 - 130*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*
Dibromofluoromethane (Surr)	*105*		*70 - 130*
Toluene-d8 (Surr)	*103*		*70 - 130*

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

Lab Sample ID: MB 490-84923/1-A
Matrix: Solid
Analysis Batch: 85150

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 84923

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0670	0.0100	mg/Kg		06/08/13 11:38	06/10/13 17:19	1
Acenaphthylene	ND		0.0670	0.00900	mg/Kg		06/08/13 11:38	06/10/13 17:19	1
Anthracene	ND		0.0670	0.00900	mg/Kg		06/08/13 11:38	06/10/13 17:19	1
Benzo[a]anthracene	ND		0.0670	0.0150	mg/Kg		06/08/13 11:38	06/10/13 17:19	1
Benzo[a]pyrene	ND		0.0670	0.0120	mg/Kg		06/08/13 11:38	06/10/13 17:19	1
Benzo[b]fluoranthene	ND		0.0670	0.0120	mg/Kg		06/08/13 11:38	06/10/13 17:19	1
Benzo[g,h,i]perylene	ND		0.0670	0.00900	mg/Kg		06/08/13 11:38	06/10/13 17:19	1
Benzo[k]fluoranthene	ND		0.0670	0.0140	mg/Kg		06/08/13 11:38	06/10/13 17:19	1
1-Methylnaphthalene	ND		0.0670	0.0140	mg/Kg		06/08/13 11:38	06/10/13 17:19	1
Pyrene	ND		0.0670	0.0120	mg/Kg		06/08/13 11:38	06/10/13 17:19	1
Phenanthrene	ND		0.0670	0.00900	mg/Kg		06/08/13 11:38	06/10/13 17:19	1
Chrysene	ND		0.0670	0.00900	mg/Kg		06/08/13 11:38	06/10/13 17:19	1
Dibenz(a,h)anthracene	ND		0.0670	0.00700	mg/Kg		06/08/13 11:38	06/10/13 17:19	1
Fluoranthene	ND		0.0670	0.00900	mg/Kg		06/08/13 11:38	06/10/13 17:19	1
Fluorene	ND		0.0670	0.0120	mg/Kg		06/08/13 11:38	06/10/13 17:19	1
Indeno[1,2,3-cd]pyrene	ND		0.0670	0.0100	mg/Kg		06/08/13 11:38	06/10/13 17:19	1
Naphthalene	ND		0.0670	0.00900	mg/Kg		06/08/13 11:38	06/10/13 17:19	1
2-Methylnaphthalene	ND		0.0670	0.0160	mg/Kg		06/08/13 11:38	06/10/13 17:19	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*85*		*29 - 120*	*06/08/13 11:38*	*06/10/13 17:19*	*1*
Terphenyl-d14 (Surr)	*95*		*13 - 120*	*06/08/13 11:38*	*06/10/13 17:19*	*1*
Nitrobenzene-d5 (Surr)	*105*		*27 - 120*	*06/08/13 11:38*	*06/10/13 17:19*	*1*

Lab Sample ID: LCS 490-84923/2-A
Matrix: Solid
Analysis Batch: 85150

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 84923

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthylene	1.67	1.637		mg/Kg		98	38 - 120
Anthracene	1.67	1.665		mg/Kg		100	46 - 124
Benzo[a]anthracene	1.67	1.634		mg/Kg		98	45 - 120
Benzo[a]pyrene	1.67	1.615		mg/Kg		97	45 - 120
Benzo[b]fluoranthene	1.67	1.616		mg/Kg		97	42 - 120
Benzo[g,h,i]perylene	1.67	1.793		mg/Kg		108	38 - 120
Benzo[k]fluoranthene	1.67	1.608		mg/Kg		96	42 - 120
1-Methylnaphthalene	1.67	1.425		mg/Kg		85	32 - 120
Pyrene	1.67	1.639		mg/Kg		98	43 - 120
Phenanthrene	1.67	1.627		mg/Kg		98	45 - 120
Chrysene	1.67	1.682		mg/Kg		101	43 - 120
Dibenz(a,h)anthracene	1.67	1.772		mg/Kg		106	32 - 128
Fluoranthene	1.67	1.621		mg/Kg		97	46 - 120
Fluorene	1.67	1.631		mg/Kg		98	42 - 120
Indeno[1,2,3-cd]pyrene	1.67	1.750		mg/Kg		105	41 - 121
Naphthalene	1.67	1.385		mg/Kg		83	32 - 120
2-Methylnaphthalene	1.67	1.401		mg/Kg		84	28 - 120

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

Lab Sample ID: LCS 490-84923/2-A
Matrix: Solid
Analysis Batch: 85150

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 84923

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl (Surr)	82		29 - 120
Terphenyl-d14 (Surr)	91		13 - 120
Nitrobenzene-d5 (Surr)	89		27 - 120

Lab Sample ID: LCSD 490-84923/3-A
Matrix: Solid
Analysis Batch: 85150

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 84923

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acenaphthylene	1.67	1.731		mg/Kg		104	38 - 120	6	50
Anthracene	1.67	1.787		mg/Kg		107	46 - 124	7	49
Benzo[a]anthracene	1.67	1.774		mg/Kg		106	45 - 120	8	50
Benzo[a]pyrene	1.67	1.730		mg/Kg		104	45 - 120	7	50
Benzo[b]fluoranthene	1.67	1.814		mg/Kg		109	42 - 120	12	50
Benzo[g,h,i]perylene	1.67	1.890		mg/Kg		113	38 - 120	5	50
Benzo[k]fluoranthene	1.67	1.645		mg/Kg		99	42 - 120	2	45
1-Methylnaphthalene	1.67	1.489		mg/Kg		89	32 - 120	4	50
Pyrene	1.67	1.779		mg/Kg		107	43 - 120	8	50
Phenanthrene	1.67	1.745		mg/Kg		105	45 - 120	7	50
Chrysene	1.67	1.807		mg/Kg		108	43 - 120	7	49
Dibenz(a,h)anthracene	1.67	1.896		mg/Kg		114	32 - 128	7	50
Fluoranthene	1.67	1.729		mg/Kg		104	46 - 120	6	50
Fluorene	1.67	1.723		mg/Kg		103	42 - 120	6	50
Indeno[1,2,3-cd]pyrene	1.67	1.865		mg/Kg		112	41 - 121	6	50
Naphthalene	1.67	1.442		mg/Kg		87	32 - 120	4	50
2-Methylnaphthalene	1.67	1.460		mg/Kg		88	28 - 120	4	50

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2-Fluorobiphenyl (Surr)	88		29 - 120
Terphenyl-d14 (Surr)	98		13 - 120
Nitrobenzene-d5 (Surr)	95		27 - 120

Lab Sample ID: 490-28232-A-1-B MS
Matrix: Solid
Analysis Batch: 85150

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 84923

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthylene	ND		2.04	1.363		mg/Kg		67	25 - 120
Anthracene	ND		2.04	1.481		mg/Kg		73	28 - 125
Benzo[a]anthracene	ND		2.04	1.485		mg/Kg		73	23 - 120
Benzo[a]pyrene	ND		2.04	1.433		mg/Kg		70	15 - 128
Benzo[b]fluoranthene	ND		2.04	1.487		mg/Kg		73	12 - 133
Benzo[g,h,i]perylene	ND		2.04	1.582		mg/Kg		77	22 - 120
Benzo[k]fluoranthene	ND		2.04	1.383		mg/Kg		68	28 - 120
1-Methylnaphthalene	ND		2.04	1.080		mg/Kg		53	10 - 120
Pyrene	ND		2.04	1.481		mg/Kg		73	20 - 123
Phenanthrene	ND		2.04	1.452		mg/Kg		71	21 - 122
Chrysene	ND		2.04	1.557		mg/Kg		76	20 - 120

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

Lab Sample ID: 490-28232-A-1-B MS
Matrix: Solid
Analysis Batch: 85150

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 84923

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Dibenz(a,h)anthracene	ND		2.04	1.622		mg/Kg		79	12 - 128
Fluoranthene	ND		2.04	1.462		mg/Kg		72	10 - 143
Fluorene	ND		2.04	1.411		mg/Kg		69	20 - 120
Indeno[1,2,3-cd]pyrene	ND		2.04	1.543		mg/Kg		76	22 - 121
Naphthalene	ND		2.04	0.9207		mg/Kg		45	10 - 120
2-Methylnaphthalene	ND		2.04	1.034		mg/Kg		51	13 - 120

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*48*		*29 - 120*
Terphenyl-d14 (Surr)	*64*		*13 - 120*
Nitrobenzene-d5 (Surr)	*56*		*27 - 120*

Lab Sample ID: 490-28232-A-1-C MSD
Matrix: Solid
Analysis Batch: 85150

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 84923

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acenaphthylene	ND		2.03	1.572		mg/Kg		77	25 - 120	14	50
Anthracene	ND		2.03	1.753		mg/Kg		86	28 - 125	17	49
Benzo[a]anthracene	ND		2.03	1.771		mg/Kg		87	23 - 120	18	50
Benzo[a]pyrene	ND		2.03	1.726		mg/Kg		85	15 - 128	19	50
Benzo[b]fluoranthene	ND		2.03	1.765		mg/Kg		87	12 - 133	17	50
Benzo[g,h,i]perylene	ND		2.03	1.901		mg/Kg		94	22 - 120	18	50
Benzo[k]fluoranthene	ND		2.03	1.683		mg/Kg		83	28 - 120	20	45
1-Methylnaphthalene	ND		2.03	1.231		mg/Kg		61	10 - 120	13	50
Pyrene	ND		2.03	1.765		mg/Kg		87	20 - 123	18	50
Phenanthrene	ND		2.03	1.696		mg/Kg		83	21 - 122	15	50
Chrysene	ND		2.03	1.842		mg/Kg		91	20 - 120	17	49
Dibenz(a,h)anthracene	ND		2.03	1.952		mg/Kg		96	12 - 128	18	50
Fluoranthene	ND		2.03	1.721		mg/Kg		85	10 - 143	16	50
Fluorene	ND		2.03	1.649		mg/Kg		81	20 - 120	16	50
Indeno[1,2,3-cd]pyrene	ND		2.03	1.851		mg/Kg		91	22 - 121	18	50
Naphthalene	ND		2.03	1.091		mg/Kg		54	10 - 120	17	50
2-Methylnaphthalene	ND		2.03	1.200		mg/Kg		59	13 - 120	15	50

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*52*		*29 - 120*
Terphenyl-d14 (Surr)	*74*		*13 - 120*
Nitrobenzene-d5 (Surr)	*60*		*27 - 120*

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

TestAmerica Job ID: 490-28243-1

Method: Moisture - Percent Moisture

Lab Sample ID: 490-28243-1 DU
Matrix: Soil
Analysis Batch: 84667

Client Sample ID: 265 Beech-3
Prep Type: Total/NA

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

GC/MS VOA

Prep Batch: 84836

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-28243-1	265 Beech-3	Total/NA	Soil	5035	
490-28243-2	297 Birch	Total/NA	Soil	5035	

Prep Batch: 84841

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-28243-1	265 Beech-3	Total/NA	Soil	5035	

Analysis Batch: 84868

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-28243-1	265 Beech-3	Total/NA	Soil	8260B	84836
490-28243-2	297 Birch	Total/NA	Soil	8260B	84836
LCS 490-84868/3	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 490-84868/4	Lab Control Sample Dup	Total/NA	Solid	8260B	
MB 490-84868/6	Method Blank	Total/NA	Solid	8260B	

Analysis Batch: 85245

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-28243-1	265 Beech-3	Total/NA	Soil	8260B	84841
LCS 490-85245/4	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 490-85245/5	Lab Control Sample Dup	Total/NA	Solid	8260B	
MB 490-85245/8	Method Blank	Total/NA	Solid	8260B	

GC/MS Semi VOA

Prep Batch: 84923

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-28232-A-1-B MS	Matrix Spike	Total/NA	Solid	3550C	
490-28232-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	3550C	
490-28243-1	265 Beech-3	Total/NA	Soil	3550C	
490-28243-2	297 Birch	Total/NA	Soil	3550C	
LCS 490-84923/2-A	Lab Control Sample	Total/NA	Solid	3550C	
LCSD 490-84923/3-A	Lab Control Sample Dup	Total/NA	Solid	3550C	
MB 490-84923/1-A	Method Blank	Total/NA	Solid	3550C	

Analysis Batch: 85150

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-28232-A-1-B MS	Matrix Spike	Total/NA	Solid	8270D	84923
490-28232-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8270D	84923
490-28243-1	265 Beech-3	Total/NA	Soil	8270D	84923
490-28243-2	297 Birch	Total/NA	Soil	8270D	84923
LCS 490-84923/2-A	Lab Control Sample	Total/NA	Solid	8270D	84923
LCSD 490-84923/3-A	Lab Control Sample Dup	Total/NA	Solid	8270D	84923
MB 490-84923/1-A	Method Blank	Total/NA	Solid	8270D	84923

General Chemistry

Analysis Batch: 84667

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-28243-1	265 Beech-3	Total/NA	Soil	Moisture	
490-28243-1 DU	265 Beech-3	Total/NA	Soil	Moisture	

General Chemistry (Continued)

Analysis Batch: 84667 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-28243-2	297 Birch	Total/NA	Soil	Moisture	

Lab Chronicle

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

TestAmerica Job ID: 490-28243-1

Client Sample ID: 265 Beech-3

Lab Sample ID: 490-28243-1

Date Collected: 05/28/13 12:15
Date Received: 06/06/13 08:30

Matrix: Soil
Percent Solids: 79.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			84836	06/07/13 16:19	FE	TAL NSH
Total/NA	Analysis	8260B		1	84868	06/08/13 17:44	AF	TAL NSH
Total/NA	Prep	5035			84841	06/07/13 16:30	FE	TAL NSH
Total/NA	Analysis	8260B		1	85245	06/11/13 12:29	AF	TAL NSH
Total/NA	Prep	3550C			84923	06/08/13 11:38	JP	TAL NSH
Total/NA	Analysis	8270D		1	85150	06/10/13 23:37	KP	TAL NSH
Total/NA	Analysis	Moisture		1	84667	06/07/13 10:28	RS	TAL NSH

Client Sample ID: 297 Birch

Lab Sample ID: 490-28243-2

Date Collected: 05/30/13 15:15
Date Received: 06/06/13 08:30

Matrix: Soil
Percent Solids: 78.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			84836	06/07/13 16:19	FE	TAL NSH
Total/NA	Analysis	8260B		1	84868	06/08/13 18:14	AF	TAL NSH
Total/NA	Prep	3550C			84923	06/08/13 11:38	JP	TAL NSH
Total/NA	Analysis	8270D		1	85150	06/11/13 00:01	KP	TAL NSH
Total/NA	Analysis	Moisture		1	84667	06/07/13 10:28	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: 490-28243-1

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: 490-28243-1

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	06-14-14
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.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
Nashville, TN

COOLER RECEIPT FORM

Charleston

490-28243 Chain of Custody

Cooler Received/Opened On 6/6/2013 @ 0830

1. Tracking # 1708 (last 4 digits, FedEx)

Courier: FedEx IR Gun ID 94660220

2. Temperature of rep. sample or temp blank when opened: 2.2 *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: (3) 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 (intial) (M)

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 (intial) (M)

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 (intial) (M)

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 (intial) (M)

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

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

BIS = Broken in shipment

Loc: 490
28243

6/20/2013

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Nashville Division
2960 Foster Creighton
Nashville, TN 37204

Phone: 615-726-0177
Toll Free: 800-765-0980
Fax: 615-726-3404

To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes?

Compliance Monitoring? Yes ____ No ____

Enforcement Action? Yes ____ No ____

Client Name/Account #: EEG - SBG # 2449

Address: 10179 Highway 78

City/State/Zip: Ladson, SC 29456

Site State: SC

Project Manager: Tom McElwee email: mcelwee@eeginc.net

PO#: 1035

Telephone Number: 843.412.2097 **Fax No.:** 843-879-0401

TA Quote #:

Sampler Name: (Print) Pratt Shaw

Project ID: Laurel Bay Housing Project

Sampler Signature:

Project #:

Sample ID / Description	Date Sampled	Time Sampled	No. of Containers Shipped	Grab	Composite	Field Filtered	Preservative: Ice	HNO_3 (Red Label)	HCl (Blue Label) Sodium Bisulfate	NaOH (Orange Label)	H_2SO_4 Plastic (Yellow Label)	H_2SO_4 Glass(Yellow Label)	None (Black Label)	Other (Specify) Methanol	Matrix: Groundwater	Wastewater	Drinking Water	Sludge	Soil	Other (specify):	Analyze For: BTEX + Napth - 8260	PAH - 8270D										RUSH TAT (Pre-Schedule)	Standard TAT	Fax Results	Send QC with report
265 Beech-3	5/28/13	1215		X					2				2	1					X		X	X									-1				
297 Birch	5/30/13	1515		X					2				2	1					X		X	X									2				

Special Instructions:

Laboratory Comments:
Temperature Upon Receipt: 2.2c
VOCs Free of Headspace? Y N

Method of Shipment: FEDEX

Relinquished by:	Date	Time	Received by:	Date	Time
	6/5/13	0900	FedEx		
Relinquished by:	Date	Time	Received by TestAmerica:	Date	Time
				6/6/13	0830

Login Sample Receipt Checklist

Client: Small Business Group Inc.

Job Number: 490-28243-1

Login Number: 28243
List Number: 1
Creator: McBride, Mike

List Source: TestAmerica Nashville

Question	Answer	Comment
Radioactivity wasn't checked or is </= 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 <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ATTACHMENT A

NON-HAZARDOUS MANIFEST

WASTE MANAGEMENT

NON-HAZARDOUS MANIFEST	1. Generator's US EPA ID No.	Manifest Doc No.	2. Page 1 of 1	716395

3. Generator's Mailing Address:
MCAS BEAUFORT
LAUREL BAY HOUSING
BEAUFORT, SC 29904
4. Generator's Phone 843-879-0411

Generator's Site Address (If different than mailing):

A. Manifest Number: WMNA 01519142
B. State Generator's ID:

5. Transporter 1 Company Name
Carolina Containers
P.O. Box 1935 - Bluffton SC 29901

6. US EPA ID Number

C. State Transporter's ID:
D. Transporter's Phone (843) 521-1500

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID:
F. Transporter's Phone:

9. Designated Facility Name and Site Address
HICKORY HILL LANDFILL
2621 LOW COUNTRY DRIVE
RIDGELAND, SC 29936

10. US EPA ID Number

G. State Facility ID:
H. State Facility Phone: 843-987-4643

GENERATOR

11. Description of Waste Materials	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt./Vol.	I. Misc. Comments
a. HEATING OIL TANK FILLED WITH SAND WM Profile # 102655SC	1	20y	5.38	TON	716395
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
UST's from: 1) 1403 Eagle ✓ 2) 610 Dahlia ✓ 3) 637 Dahlia - 1 ✓ 4) 637 Dahlia - 2 ✓ 5) 265 Beech - 3 ✓ 6) 297 Birch ✓

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	Signature "On behalf of"	Month	Day	Year
Timothy Whaley	Timothy Whaley	8	14	13

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed Name	Signature	Month	Day	Year
Heath Shaw		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	Signature	Month	Day	Year
Tom Canfield		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

CDM - AECOM
Multimedia Joint Venture

Volatile Organic Compounds by GC/MS

Client: **AECOM - Resolution Consultants**
Laboratory ID: **QK13041-008**
Description: **BEALB297TW01WG20151112**
Matrix: **Aqueous**
Date Sampled: **11/12/2015 1605**
Date Received: **11/13/2015**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	11/25/2015 1418	ALL		90579

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**	**0.45**	**J**	**5.0**	0.51	**0.21**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**0.92**	**J**	**5.0**	0.96	**0.14**	**ug/L**	**1**
Toluene	108-88-3	8260B	0.48	U	5.0	0.48	0.24	ug/L	1
Xylenes (total)	1330-20-7	8260B	0.57	U	5.0	0.57	0.32	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		101	75-120
1,2-Dichloroethane-d4		97	70-120
Toluene-d8		97	85-120
Dibromofluoromethane		98	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: **QK13041-008**
Description: **BEALB297TW01WG20151112**
Matrix: **Aqueous**
Date Sampled: **11/12/2015 1605**
Date Received: **11/13/2015**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D (SIM)	1	11/25/2015 1021	RBH	11/18/2015 1236	89918

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		90	15-139
Fluoranthene-d10		114	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

CDM - AECOM
Multimedia Joint Venture

D H E C
PROMOTE PROTECT PROSPER
Catherine E. Heigel, Director
Promoting and protecting the health of the public and the environment

July 1, 2015

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

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

Dear Mr. Drawdy,

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

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

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

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

Sincerely,

Kent M. Krieg

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

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

D H E C
PROMOTE PROTECT PROSPER
Catherine E. Heigel, Director
Promoting and protecting the health of the public and the environment

Attachment to: Krieg to Drawdy
Subject: IGWA
Dated 7/1/2015

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

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

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

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

D H E C
PROMOTE PROTECT PROSPER

Catherine E. Heigel, Director

Promoting and protecting the health of the public and the environment

Division of Waste Management
Bureau of Land and Waste Management

June 8, 2016

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

RE: Approval and Concurrence with Draft Final Initial Groundwater Investigation Report-November and December 2015
Laurel Bay Military Housing Area Multiple Properties
Dated April 2015

Dear Mr. Drawdy,

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

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

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

If you have any questions, please contact me at 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-November and December 2015
Specific Property Recommendations
Dated June 8, 2016

Draft Final Initial Groundwater Investigation Report for (95 addresses)

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

No Further Action recommendation (80 addresses)	
118 Banyan Drive	644 Dahlia Drive
126 Banyan Drive	646 Dahlia Drive
127 Banyan Drive	665 Camellia Drive
141 Laurel Bay Blvd	699 Abelia Street
151 Laurel Bay Blvd	744 Blue Bell Lane
224 Cypress Street	745 Blue Bell Lane
227 Cypress Street	751 Blue Bell Lane
257 Beech Street	762 Althea Street
264 Beech Street	765 Althea Street
265 Beech Street	766 Althea Street
275 Birch Drive	767 Althea Street
277 Birch Drive	768 Althea Street
297 Birch Drive	769 Althea Street
301 Ash Street	819 Azalea Drive
306 Ash Street	840 Azalea Drive
310 Ash Street	878 Cobia Drive
313 Ash Street	891 Cobia Drive
315 Ash Street	913 Barracuda Drive
316 Ash Street	916 Barracuda Drive
319 Ash Street	923 Wren Lane
320 Ash Street	1004 Bobwhite Drive
321 Ash Street	1022 Foxglove Street
329 Ash Street	1031 Foxglove Street
332 Ash Street	1061 Gardenia Drive
333 Ash Street	1064 Gardenia Drive
341 Ash Street	1067 Gardenia Drive
347 Ash Street	1077 Heather Street
378 Aspen Street	1081 Heather Street
379 Aspen Street	1101 Iris Lane
382 Aspen Street	1105 Iris Lane
394 Acorn Street	1142 Iris Lane
400 Elderberry Drive	1146 Iris Lane
432 Elderberry Drive	1218 Cardinal Lane
436 Elderberry Drive	1240 Dove Lane
482 Laurel Bay Blvd	1266 Dove Lane
517 Laurel Bay Blvd	1292 Eagle Lane
586 Aster Street	1299 Eagle Lane
632 Dahlia Drive	1302 Eagle Lane
639 Dahlia Drive	1336 Albatross Drive
643 Dahlia Drive	1351 Cardinal Lane