SUMMARY REPORT
26 ASH STREET (FORMERLY 301 ASH STREET)
LAUREL BAY MILITARY HOUSING AREA
MARINE CORPS AIR STATION BEAUFORT
BEAUFORT, SC

Revision: 0 Prepared for:

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

and



Naval Facilities Engineering Command Atlantic 9324 Virginia Avenue Norfolk, Virginia 23511-3095 SUMMARY REPORT 26 ASH STREET (FORMERLY 301 ASH STREET) LAUREL BAY MILITARY HOUSING AREA MARINE CORPS AIR STATION BEAUFORT BEAUFORT, SC

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9324 Virginia Avenue Norfolk, Virginia 23511-3095

Prepared by:



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

Contract Number: N62470-14-D-9016

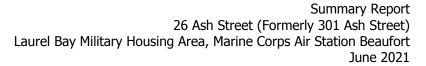
CTO WE52

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).

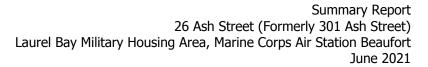
As of January 2014, the LBMH addresses were re-numbered to comply with the E-911 emergency response addressing system; however, in order to remain consistent with historical sampling and reporting for LBMH area, the residences will continue to be referenced with their original address numbers in sample 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 26 Ash Street (Formerly 301 Ash Street). 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 26 Ash Street (Formerly 301 Ash Street). Details regarding the soil investigation at this site are provided in the *SCDHEC UST Assessment Report – 301 Ash Street* (MCAS Beaufort, 2012). 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 November 16, 2011, a single 280 gallon heating oil UST was removed from the front landscaped bed area adjacent to the driveway at 26 Ash Street (Formerly 301 Ash Street). 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 5'11" bgs and a single soil sample was collected from that depth. The sample was collected from the fill port side of the former UST to represent a worst case scenario.

Following UST removal, a soil sample was collected from the base of the excavation and shipped to an offsite laboratory for analysis of the petroleum COPCs. Sampling was performed in accordance with applicable South Carolina regulation R.61-92, Part 280 (SCDHEC, 2017) and assessment 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 26 Ash Street (Formerly 301 Ash Street) were greater than the SCDHEC RBSLs, which indicated further investigation was required. In a letter dated July 1, 2015, SCDHEC requested an IGWA for 26 Ash Street (Formerly 301 Ash Street) 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 6, 2015, a temporary monitoring well was installed at 26 Ash Street (Formerly 301 Ash Street), 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 26 Ash Street (Formerly 301 Ash Street) 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.

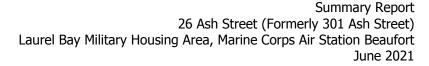
3.0 PROPERTY STATUS

Based on the analytical results for groundwater, SCDHEC made the determination that NFA was required for 26 Ash Street (Formerly 301 Ash Street). 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, 2012. South Carolina Department of Health and Environmental Control (SCDHEC) Underground Storage Tank Assessment Report – 301 Ash Street, Laurel Bay Military Housing Area, February 2012.

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 26 Ash Street (Formerly 301 Ash Street) Laurel Bay Military Housing Area Marine Corps Air Station Beaufort Beaufort, South Carolina

Constituent	SCDHEC RBSLs (1)	Results Sample Collected 11/16/11
Volatile Organic Compounds Analyz	ed by EPA Method 8260B (mg/kg)	
Benzene	0.003	ND
Ethylbenzene	1.15	0.00604
Naphthalene	0.036	ND
Toluene	0.627	0.00269
Xylenes, Total	13.01	0.00840
Semivolatile Organic Compounds Ar	alyzed by EPA Method 8270D (mg/kg)	
Benzo(a)anthracene	0.66	1.28
Benzo(b)fluoranthene	0.66	0.654
Benzo(k)fluoranthene	0.66	0.457
Chrysene	0.66	1.07
Dibenz(a,h)anthracene	0.66	0.0889

Notes:

Bold font indicates the analyte was detected.

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

EPA - United States Environmental Protection Agency

mg/kg - 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

⁽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).

Table 2 Laboratory Analytical Results - Groundwater 26 Ash Street (Formerly 301 Ash Street) 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 11/06/15
Volatile Organic Compounds Analyzed	l by EPA Method 8260B (μο	g/L)	
Benzene	5	16.24	ND
Ethylbenzene	700	45.95	1.7
Naphthalene	25	29.33	11
Toluene	1000	105,445	ND
Xylenes, Total	10,000	2,133	0.32
Semivolatile Organic Compounds Ana	lyzed by EPA Method 8270	D (μg/L)	
Benzo(a)anthracene	10	NA	ND
Benzo(b)fluoranthene	10	NA NA	ND
Benzo(k)fluoranthene	10	NA NA	ND
Chrysene	10	NA NA	ND
Dibenz(a,h)anthracene	10	NA NA	ND

Notes:

⁽²⁾ Site-specific groundwater VISLs were calculated using the EPA JE Model Spreadsheets (Version 3.1, February 2004) and conservative modeling inputs representative of a small single-story house with an 8 foot ceiling. Site-specific groundwater VISLs were developed based on a target risk level of 1x10⁻⁶, 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

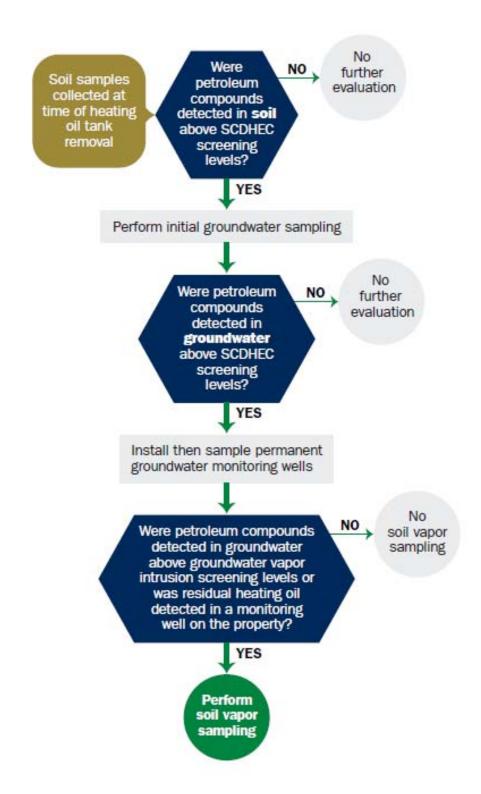
μg/L - micrograms per liter

VISL - Vapor Intrusion Screening Level

⁽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).

Appendix A Multi-Media Selection Process for LBMH





Appendix A - Multi-Media Selection Process for LBMH

Appendix B UST Assessment Report



Attachment 1

South Carolina Department of Health and Environmental Control (SCDHEC)

Underground Storage Tank (UST) Assessment Report

Date Received
State Use Only

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

I. OWNERSHIP OF UST (S)

	ommanding Officer Attn: NH n, Individual, Public Agency, Other)	REAO (Craig Ehde)
P.O. Box 55001	n, marviduai, ruone Agency, Other)	
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
301 Ash Street, Laurel Bay Military Housing Area
Street Address or State Road (as applicable)
Beaufort, Beaufort
City County

Attachment 2

III. INSURANCE INFORMATION

Insurance Statement
The petroleum release reported to DHEC on at Permit ID Number may qualify to receive state monies to pay for appropriate site rehabilitation activities. Before participation is allowed in the State Clean-up fund, written confirmation of the existence or non-existence of an environmental insurance policy is required. This section must be completed.
Is there now, or has there ever been an insurance policy or other financial mechanism that covers this UST release? YES NO (check one)
If you answered YES to the above question, please complete the following information:
My policy provider is: The policy deductible is: The policy limit is:
If you have this type of insurance, please include a copy of the policy with this report.
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)

eating oil 30 gal ate 1950s teel id 1980s '11"
30 gal ate 1950s teel id 1980s
ate 1950s teel id 1980s '11"
id 1980s '11"
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111"
emoved
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r wastewaters removed from the USTs (attacl
- -

VII. PIPING INFORMATION

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/A /A uction o			
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be the location	i and exte	int for Cac	en piping
the surfa	ace of	the st	eel v
s were sou	und.		
ION AND E	нстор	W	
			steel
		-14114	
<u>I</u>	the surface so the su	the surface of s were sound. ON AND HISTOR ructed of single heating. These U	the surface of the state were sound. ON AND HISTORY ructed of single wall heating. These USTs we 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.		Х	
B. Were any petroleum odors detected in the excavation, soil borings, trenches, or monitoring wells? If yes, indicate location on site map and describe the odor (strong, mild, etc.)		Х	
C. Was water present in the UST excavation, soil borings, or trenches? If yes, how far below land surface (indicate location and depth)?		X	
D. Did contaminated soils remain stockpiled on site after closure? If yes, indicate the stockpile location on the site map. Name of DHEC representative authorizing soil removal:		Х	
E. Was a petroleum sheen or free product detected on any excavation or boring waters?If yes, indicate location and thickness.		X	

X. SAMPLE INFORMATION

A. SCDHEC Lab Certification Number 84009

B.

· .	1			T			
Sample #	Location	Sample Type (Soil/Water)	Soil Type (Sand/Clay)	Depth*	Date/Time of Collection	Collected by	OVA#
301Ash	Excav at fill end	Soil	Sandy	5'11	11/16/11 1215 hrs	P. Shaw	
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18		and the second s					
19							
20							

^{* =} Depth Below the Surrounding Land Surface

XI. SAMPLING METHODOLOGY

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

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

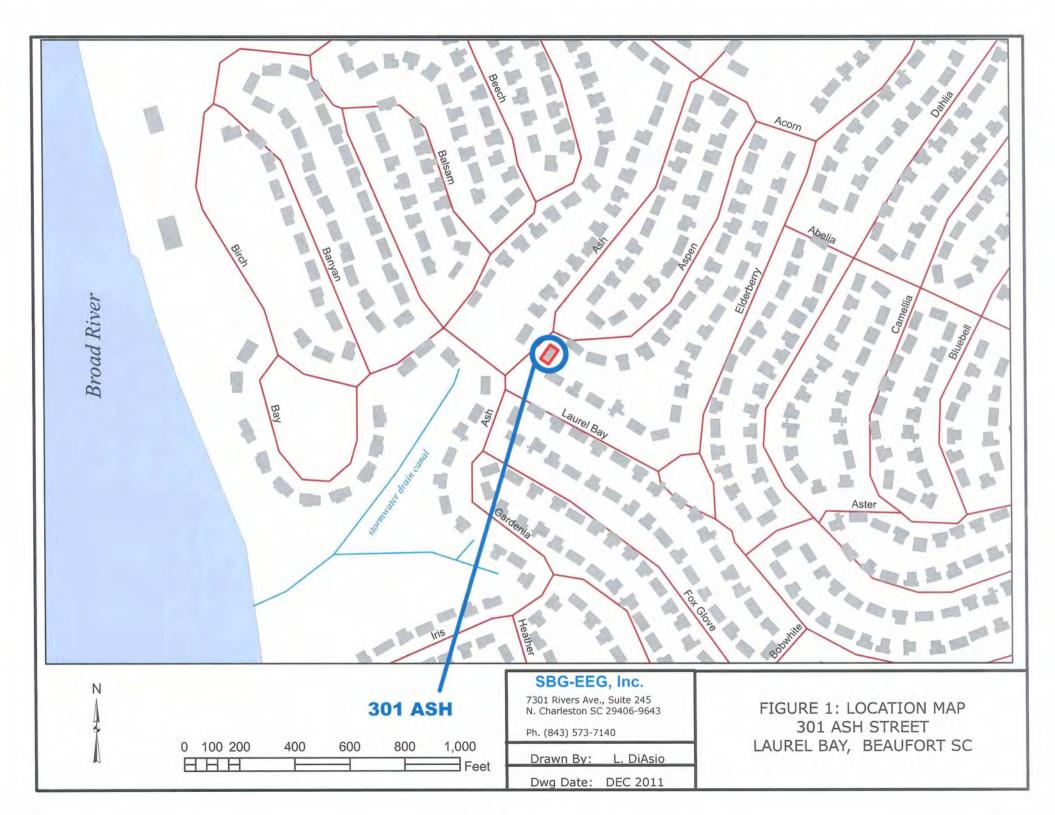
XII. RECEPTORS

No Yes A. Are there any lakes, ponds, streams, or wetlands located within *X 1000 feet of the UST system? *~280' to stormwater canal If yes, indicate type of receptor, distance, and direction on site map. B. Are there any public, private, or irrigation water supply wells within Χ 1000 feet of the UST system? If yes, indicate type of well, distance, and direction on site map. C. Are there any underground structures (e.g., basements) Χ Located within 100 feet of the UST system? If yes, indicate type of structure, distance, and direction on site map. D. Are there any underground utilities (e.g., telephone, electricity, gas, *X water, sewer, storm drain) located within 100 feet of the UST system that could potentially come in contact with the contamination? *Sewer, water, electricity, cable & fiber optic If yes, indicate the type of utility, distance, and direction on the site map. Has contaminated soil been identified at a depth less than 3 feet Х below land surface in an area that is not capped by asphalt or concrete? If yes, indicate the area of contaminated soil on the site map.

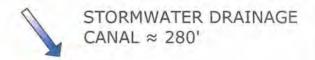
XIII. SITE MAP

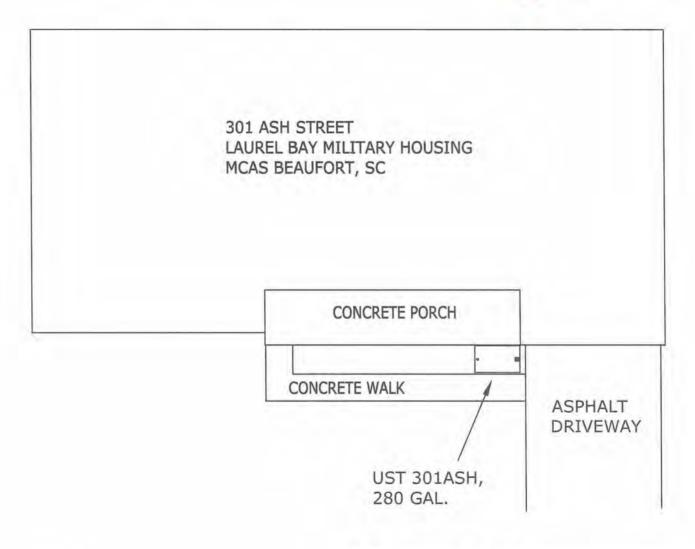
You must supply a <u>scaled</u> site map. It should include all buildings, road names, utilities, tank and dispenser island locations, labeled sample locations, extent of excavation, and any other pertinent information.

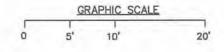
(Attach Site Map Here)









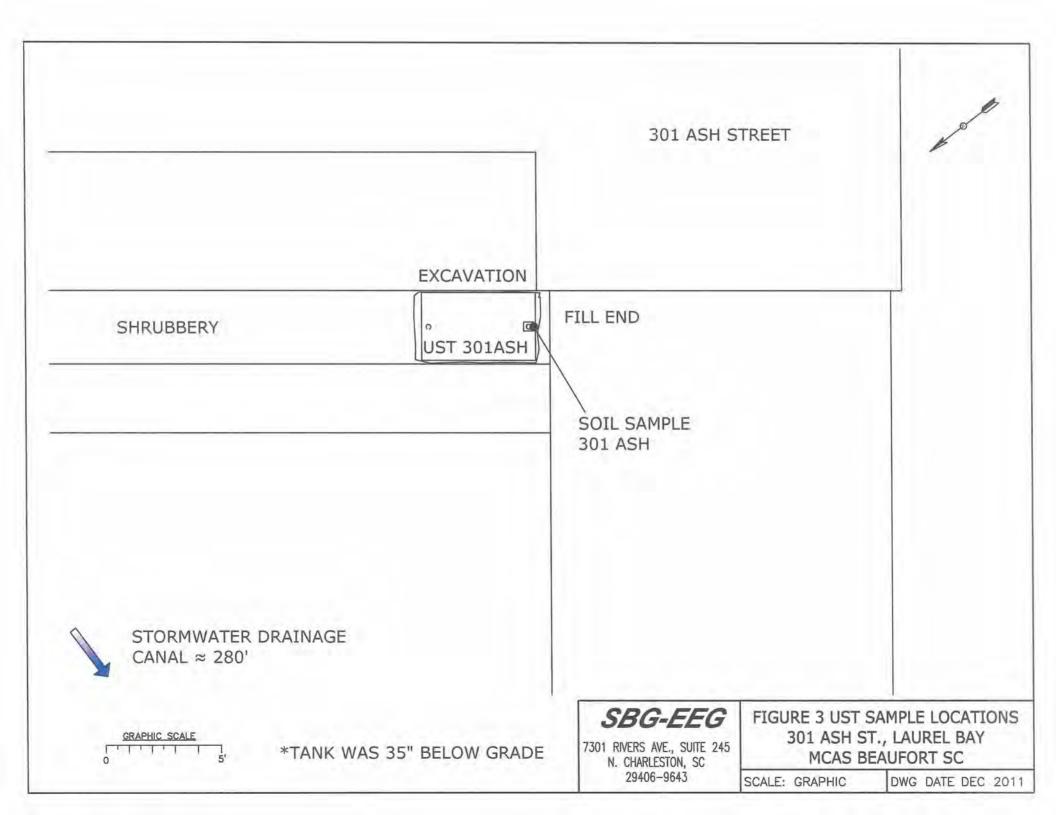


SBG-EEG

7301 RIVERS AVE., SUITE 245 N. CHARLESTON, SC 29406-9643 FIGURE 2 SITE MAP 301 ASH ST., LAUREL BAY MCAS BEAUFORT SC

SCALE: GRAPHIC

DWG DATE DEC 2011





Picture 1: Location of UST 301Ash.



Picture 2: UST 301Ash excavation pit.

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.

	The following for all 600 in the table below and on the following page
CoC UST	301Ash
Benzene	ND
Toluene	0.00269 mg/kg
Ethylbenzene	0.00604 mg/kg
Xylenes	0.00840 mg/kg
Naphthalene	ND
Benzo (a) anthracene	1.28 mg/kg
Benzo (b) fluoranthene	0.654 mg/kg
Benzo (k) fluoranthene	0.457 mg/kg
Chrysene	1.07 mg/kg
Dibenz (a, h) anthracene	0.0889 mg/kg
TPH (EPA 3550)	
СоС	
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.

is present, indicate the measured thickness to the nearest 0.01 feet.					
СоС	RBSL	W-1	W-2	W -3	W -4
	(µg/l)				
Free Product Thickness	None				
Benzene	5				
Toluene	1,000				
Ethylbenzene	700				
Xylenes	10,000				
Total BTEX	N/A				
МТВЕ	40				
Naphthalene	25				
Benzo (a) anthracene	10				
Benzo (b) flouranthene	10				
Benzo (k) flouranthene	10				
Chrysene	10				
Dibenz (a, h) anthracene	10				
EDB	.05				
1,2-DCA	5				
Lead	Site specific				

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 Road Nashville, TN 37204

Tel: 800-765-0980

TestAmerica Job ID: NUK2920

Client Project/Site: [none]

Client Project Description: Laurel Bay Housing Project

For:

EEG - Small Business Group, Inc. (2449) 10179 Highway 78

Ladson, SC 29456

Attn: Tom McElwee

Authorized for release by: 12/7/2011 12:59:52 PM

Ken A. Hayes

Senior Project Manager

ken.hayes@testamericainc.com

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: EEG - Small Business Group, Inc. (2449)

Project/Site: [none]

TestAmerica Job ID: NUK2920

		W///		
Lab Sample ID	Client Sample ID	Matrix	Collected	Received
NUK2920-01	387 Acorn	Soil	11/15/11 15:15	11/19/11 08:30
NUK2920-02	301 Ash	Soil	11/16/11 12:15	11/19/11 08:30
NUK2920-03	305 Ash	Soil	11/17/11 11:45	11/19/11 08:30

Definitions/Glossary

Project/Site: [none]

Client: EEG - Small Business Group, Inc. (2449)

TestAmerica Job ID: NUK2920

Qualifiers

GCMS Volatiles

Qualifier	Qualifier Description
ZX	Due to sample matrix effects, the surrogate recovery was outside the acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
RL1	Reporting limit raised due to sample matrix effects.

GCMS Semivolatiles

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.
Ċ.	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
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
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client: EEG - Small Business Group, Inc. (2449)

Project/Site: [none]

TestAmerica Job ID: NUK2920

Lab Sample ID: NUK2920-01

Matrix: Soil

Percent Solids: 78,3

Client Sample ID: 387 Acorn Date Collected: 11/15/11 15:15

Date Received: 11/19/11 08:30

Method: SW846 8260B - Volatil					17.4			101.00	0.1.1
Analyte		Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fa
Benzene	ND		0.00201		mg/kg dry	Q.	11/15/11 15:15	11/22/11 20:14	1.0
Ethylbenzene	0.00623		0.00201		mg/kg dry	578	11/15/11 15:15	11/22/11 20:14	1.0
Toluene	0.00119	J	0.00201		mg/kg dry	0	11/15/11 15:15	11/22/11 20:14	1,0
Xylenes, total	0.0348		0.00504	0,00252	mg/kg dry	401	11/15/11 15:15	11/22/11 20:14	1.0
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
1,2-Dichloroethane-d4	113		70 - 130				11/15/11 15:15	11/22/11 20:14	1.0
Dibromofluoromethane	115		70 - 130				11/15/11 15:15	11/22/11 20:14	1.0
Toluene-d8	148	ZX	70 - 130				11/15/11 15:15	11/22/11 20:14	1.0
4-Bromofluorobenzene	417	ZX	70 - 130				11/15/11 15:15	11/22/11 20:14	1.0
Method: SW846 8260B - Volatil	e Organic Comp	ounds by E	PA Method 82	60B - RE	1				
Analyte		Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	4.45		0.296	0.148	mg/kg dry	ō	11/15/11 15:15	11/23/11 14:38	50.0
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
1,2-Dichloroethane-d4	98		70 - 130				11/15/11 15:15	11/23/11 14:38	50.0
Dibromofluoromethane	92		70 - 130				11/15/11 15:15	11/23/11 14:38	50.0
Toluene-d8	90		70 - 130				11/15/11 15:15	11/23/11 14:38	50.0
4-Bromofluorobenzene	112		70 - 130				11/15/11 15:15	11/23/11 14:38	50.0
Method: SW846 8270D - Polyar	amatia Hudrasa	rhone by El	DA 9270D						
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0840	0.0426	mg/kg dry	3,2	11/22/11 08:34	11/22/11 20:02	1.00
Acenaphthylene	ND		0.0840	0.0426	mg/kg dry	ø	11/22/11 08:34	11/22/11 20:02	1.00
Anthracene	2,48		0.0840	0.0426	mg/kg dry	40-	11/22/11 08:34	11/22/11 20:02	1.00
Benzo (a) anthracene	3.33		0.0840	0.0426	mg/kg dry	0	11/22/11 08:34	11/22/11 20:02	1.00
Benzo (a) pyrene	1.67		0.0840	0.0426	mg/kg dry	**	11/22/11 08:34	11/22/11 20:02	1.00
Benzo (b) fluoranthene	2.28		0.0840	0.0426	mg/kg dry	-03	11/22/11 08:34	11/22/11 20:02	1.00
Benzo (g,h,i) perylene	0.507		0.0840	0.0426	mg/kg dry	-0	11/22/11 08:34	11/22/11 20:02	1.00
Benzo (k) fluoranthene	1.14		0.0840	0.0426	mg/kg dry	0	11/22/11 08:34	11/22/11 20:02	1.00
Chrysene	3.04		0.0840	0.0426	mg/kg dry	0	11/22/11 08:34	11/22/11 20:02	1.00
Dibenz (a,h) anthracene	0.336		0.0840	0.0426	mg/kg dry	0	11/22/11 08:34	11/22/11 20:02	1.00
luorene	4.21		0.0840	0.0426	mg/kg dry	4	11/22/11 08:34	11/22/11 20:02	1.00
ndeno (1,2,3-cd) pyrene	0.563		0.0840	0.0426	mg/kg dry	0	11/22/11 08:34	11/22/11 20:02	1.00
laphthalene	1.71		0.0840	0.0426	mg/kg dry	ij.	11/22/11 08:34	11/22/11 20:02	1.00
urrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
erphenyl-d14	67		18 - 120				11/22/11 08:34	11/22/11 20:02	1.00
-Fluorobiphenyl	46		14 - 120				11/22/11 08:34	11/22/11 20:02	1.00
litrobenzene-d5	116		17 - 120				11/22/11 08:34	11/22/11 20:02	1.00
Method: SW846 8270D - Polyard	matic Hydrocar	bons by FF	PA 8270D - RE1						
nalyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
luoranthene	13.8		0.840	0.426	mg/kg dry	0	11/22/11 08:34	11/23/11 23:53	10.0
henanthrene	17.8		0.840		mg/kg dry	37	11/22/11 08:34	11/23/11 23:53	10.0
yrene	11.5		0.840		mg/kg dry	D	11/22/11 08:34	11/23/11 23:53	10.0
A CONTRACTOR OF THE PARTY OF TH					The state of the s	275			
-Methylnaphthalene	14.6		0.840	0.426	mg/kg dry	45	11/22/11 08:34	11/23/11 23:53	10.0

Client: EEG - Small Business Group, Inc. (2449)

Project/Site: [none]

TestAmerica Job ID: NUK2920

Lab Sample ID: NUK2920-01

Matrix: Soil

Percent Solids: 78.3

Client Sample ID: 387 Acorn Date Collected: 11/15/11 15:15

Date Received: 11/19/11 08:30

 Method: SW-846 - General Chemistry Parameters

 Analyte
 Result
 Qualifier
 RL
 MDL
 Unit
 D
 Prepared
 Analyzed
 Dil Fac

 % Dry Solids
 78.3
 0.500
 0.500
 %
 11/22/11 15:05
 11/23/11 09:37
 1.00

Client: EEG - Small Business Group, Inc. (2449)

Project/Site: [none]

Client Sample ID: 301 Ash

Date Collected: 11/16/11 12:15 Date Received: 11/19/11 08:30 Lab Sample ID: NUK2920-02

TestAmerica Job ID: NUK2920

Matrix: Soil

Percent Solids: 79.3

lethod: SW-846 - General Cher	nistry Paramete	rs							
litrobenzene-d5	67		17 - 120				11/22/11 08:34	11/22/11 20:23	1.00
-Fluorobiphenyl	61		14 - 120				11/22/11 08:34	11/22/11 20:23	1.00
erphenyl-d14	84	200-045	18 - 120				11/22/11 08:34	11/22/11 20:23	1.00
urrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
-Methylnaphthalene	1.37		0.0827	0.0420	mg/kg dry	D	11/22/11 08:34	11/22/11 20:23	1.00
-Methylnaphthalene	0.786		0.0827	0.0420	mg/kg dry	O	11/22/11 08:34	11/22/11 20:23	1.00
yrene	3.71		0.0827	0.0420	mg/kg dry	0	11/22/11 08:34	11/22/11 20:23	1.00
henanthrene	2.27		0.0827	0.0420	mg/kg dry	D	11/22/11 08:34	11/22/11 20:23	1.00
laphthalene	ND		0.0827	0.0420	mg/kg dry	372	11/22/11 08:34	11/22/11 20:23	1.00
ndeno (1,2,3-cd) pyrene	0.137		0.0827	0.0420	mg/kg dry	0	11/22/11 08:34	11/22/11 20:23	1.0
luorene	0.885		0.0827	0.0420	mg/kg dry	0	11/22/11 08:34	11/22/11 20:23	1.0
luoranthene	3.71		0.0827	0.0420	mg/kg dry	O	11/22/11 08:34	11/22/11 20:23	1.0
libenz (a,h) anthracene	0.0889		0.0827	0.0420	mg/kg dry	27.5	11/22/11 08:34	11/22/11 20:23	1.0
chrysene	1.07		0.0827	0.0420	mg/kg dry	0	11/22/11 08:34	11/22/11 20:23	1.0
Benzo (k) fluoranthene	0.457		0.0827	0.0420	mg/kg dry	Ď.	11/22/11 08:34	11/22/11 20:23	1.0
Benzo (g,h,i) perylene	0.114		0.0827	0.0420	mg/kg dry	-0	11/22/11 08:34	11/22/11 20:23	1.0
Benzo (b) fluoranthene	0.654		0.0827	0.0420	mg/kg dry	43	11/22/11 08:34	11/22/11 20:23	1.0
Benzo (a) pyrene	0.490		0.0827	0.0420	mg/kg dry	-03	11/22/11 08:34	11/22/11 20:23	1.0
Benzo (a) anthracene	1.28		0.0827	0.0420	mg/kg dry	O	11/22/11 08:34	11/22/11 20:23	1.0
Anthracene	0.607		0.0827	0.0420	mg/kg dry	0	11/22/11 08:34	11/22/11 20:23	1,0
Acenaphthylene	ND		0.0827	0.0420	mg/kg dry	0	11/22/11 08:34	11/22/11 20:23	1.0
Acenaphthene	0.272		0.0827	0.0420	mg/kg dry	20	11/22/11 08:34	11/22/11 20:23	1.0
Method: SW846 8270D - Polyar malyte	The second secon	rbons by El Qualifier	PA 8270D RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
1-Bromofluorobenzene	103		70 - 130				11/16/11 12:15	11/23/11 14:07	50.
Toluene-d8	91		70 - 130				11/16/11 12:15	11/23/11 14:07	50
Dibromofluoromethane	95		70 - 130				11/16/11 12:15	11/23/11 14:07	50
1,2-Dichloroethane-d4	102		70 - 130				11/16/11 12:15	11/23/11 14:07	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
Naphthalene	ND	RL1	0.255	0.127	mg/kg dry	O	11/16/11 12:15	11/23/11 14:07	50
Method: SW846 8260B - Volatil Analyte	the second secon	Qualifier	PA Method 82 RL		Unit	D	Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene	416	ZX	70 - 130				11/16/11 12:15	11/22/11 20:45	1.0
Toluene-d8	111	2.1	70 - 130				11/16/11 12:15	11/22/11 20:45	1.0
Dibromofluoromethane	102		70 - 130				11/16/11 12:15	11/22/11 20:45	1.0
1,2-Dichloroethane-d4	108		70 - 130				11/16/11 12:15	11/22/11 20:45	1.
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil F
Xylenes, total	0.00840		0.00533	0.00266	mg/kg dry	0	11/16/11 12:15	11/22/11 20:45	1.
Toluene	0.00269		0.00213	0.00117	mg/kg dry	*	11/16/11 12:15	11/22/11 20:45	1.0
Ethylbenzene	0.00604		0.00213	0.00117	mg/kg dry	O	11/16/11 12:15	11/22/11 20:45	1.
mar are a second			23775315	2000	11.3 4.7		11110/11 12.10	1112231120.10	844
Benzene	ND		0.00213	0.00117	mg/kg dry	(7)	11/16/11 12:15	11/22/11 20:45	1.0

Client: EEG - Small Business Group, Inc. (2449)

Project/Site: [none]

Analyte

% Dry Solids

Lab Sample ID: NUK2920-03

TestAmerica Job ID: NUK2920

Matrix: Soil Percent Solids: 80.9

Client Sample ID: 305 Ash Date Collected: 11/17/11 11:45 Date Received: 11/19/11 08:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	ND		0.00201	0.00111	mg/kg dry	0	11/17/11 11:45	11/22/11 21:16	1.0
Ethylbenzene	ND		0.00201	0.00111	mg/kg dry	o	11/17/11 11:45	11/22/11 21:16	1.0
Naphthalene	ND		0.00503	0.00252	mg/kg dry	2	11/17/11 11:45	11/22/11 21:16	1.0
Toluene	ND		0.00201	0.00111	mg/kg dry	٥	11/17/11 11:45	11/22/11 21:16	1.0
Xylenes, total	ND		0.00503	0.00252	mg/kg dry	4	11/17/11 11:45	11/22/11 21:16	1.0
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
1,2-Dichloroethane-d4	105		70 - 130				11/17/11 11:45	11/22/11 21:16	1.0
Dibromofluoromethane	98		70 - 130				11/17/11 11:45	11/22/11 21:16	1.0
Toluene-d8	90		70 - 130				11/17/11 11:45	11/22/11 21:16	1.0
4-Bromofluorobenzene	109		70 - 130				11/17/11 11:45	11/22/11 21:16	1.00
Method: SW846 8270D - Poly	yaromatic Hydroca	rbons by El	PA 8270D						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Acenaphthene	ND		0.0807	0.0410	mg/kg dry	52	11/22/11 08:34	11/22/11 20:43	1.00
Acenaphthylene	ND		0.0807	0.0410	mg/kg dry	Ø	11/22/11 08:34	11/22/11 20:43	1.0
Anthracene	ND		0.0807	0.0410	mg/kg dry	0	11/22/11 08:34	11/22/11 20:43	1.0
Benzo (a) anthracene	ND		0.0807	0.0410	mg/kg dry	D	11/22/11 08:34	11/22/11 20:43	1.0
Benzo (a) pyrene	ND		0.0807	0.0410	mg/kg dry	Ø	11/22/11 08:34	11/22/11 20:43	1.00
Benzo (b) fluoranthene	ND		0.0807	0.0410	mg/kg dry	0	11/22/11 08:34	11/22/11 20:43	1.00
Benzo (g,h,i) perylene	ND		0.0807	0.0410	mg/kg dry	0	11/22/11 08:34	11/22/11 20:43	1.0
Benzo (k) fluoranthene	ND		0.0807	0.0410	mg/kg dry	0	11/22/11 08:34	11/22/11 20:43	1.0
Chrysene	ND		0.0807	0.0410	mg/kg dry	0	11/22/11 08:34	11/22/11 20:43	1.00
Dibenz (a,h) anthracene	ND		0.0807	0.0410	mg/kg dry	3	11/22/11 08:34	11/22/11 20:43	1.00
Fluoranthene	ND		0.0807	0.0410	mg/kg dry	0	11/22/11 08:34	11/22/11 20:43	1,00
luorene	ND		0.0807	0.0410	mg/kg dry	0	11/22/11 08:34	11/22/11 20:43	1.00
ndeno (1,2,3-cd) pyrene	ND		0.0807	0.0410	mg/kg dry	35	11/22/11 08:34	11/22/11 20:43	1.00
Naphthalene	ND		0.0807	0.0410	mg/kg dry	305	11/22/11 08:34	11/22/11 20:43	1.00
Phenanthrene	ND		0,0807	0.0410	mg/kg dry	0	11/22/11 08:34	11/22/11 20:43	1.00
Pyrene	ND		0.0807	0.0410	mg/kg dry	403	11/22/11 08:34	11/22/11 20:43	1.00
-Methylnaphthalene	0.0438	J	0.0807	0.0410	mg/kg dry	43	11/22/11 08:34	11/22/11 20:43	1.00
2-Methylnaphthalene	0.0699	J	0.0807	0.0410	mg/kg dry	-8%	11/22/11 08:34	11/22/11 20:43	1.00
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Ferphenyl-d14	59		18 - 120				11/22/11 08:34	11/22/11 20:43	1.00
2-Fluorobiphenyl	48		14 - 120				11/22/11 08:34	11/22/11 20:43	1.00
Vitrobenzene-d5	49		17 - 120				11/22/11 08:34	11/22/11 20:43	1.00

Analyzed

11/23/11 09:37

Dil Fac

1.00

RL

0.500

MDL Unit

0.500 %

Prepared

11/22/11 15:05

Result Qualifier

80.9

Client: EEG - Small Business Group, Inc. (2449) Project/Site: [none]

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B

Blank Blank

103

Dlank Blank

Blank Blank

Lab Samp	le ID:	11K50	94-BLK1
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Matrix: Soil

Analysis Batch: U020835

Client Sample ID: Method Blank Prep Type: Total Prep Batch: 11K5094 P

Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
ND		0.00200	0.00110	mg/kg wet		11/23/11 10:28	11/23/11 13:04	1.00
ND		0.00200	0.00110	mg/kg wet		11/23/11 10:28	11/23/11 13:04	1.00
ND		0.00500	0.00250	mg/kg wet		11/23/11 10:28	11/23/11 13:04	1.00
ND		0.00200	0.00110	mg/kg wet		11/23/11 10:28	11/23/11 13:04	1.00
ND		0.00500	0.00250	mg/kg wet		11/23/11 10:28	11/23/11 13:04	1,00
Blank	Blank							
%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
100		70 - 130				11/23/11 10:28	11/23/11 13:04	1.00
101		70 - 130				11/23/11 10:28	11/23/11 13:04	1.00
92		70 - 130				11/23/11 10:28	11/23/11 13:04	1.00
	ND ND ND ND ND ND 100 101	ND ND ND ND Blank Blank %Recovery Qualifier 100 101	ND 0.00200 ND 0.00200 ND 0.00500 ND 0.00500 ND 0.00500 Blank Blank %Recovery Qualifier Limits 100 70 - 130 101 70 - 130	ND 0.00200 0.00110 ND 0.00200 0.00110 ND 0.00500 0.00250 ND 0.00200 0.00110 ND 0.00500 0.00250 Blank Blank **Recovery Qualifier Limits 100 70 - 130 70 - 130	ND 0.00200 0.00110 mg/kg wet ND 0.00200 0.00110 mg/kg wet ND 0.00500 0.00250 mg/kg wet ND 0.00200 0.00110 mg/kg wet ND 0.00500 0.00250 mg/kg wet Blank Blank **Recovery Qualifier Limits 100 70 - 130 **TO - 130	ND 0.00200 0.00110 mg/kg wet ND 0.00200 0.00110 mg/kg wet ND 0.00500 0.00250 mg/kg wet ND 0.00200 0.00110 mg/kg wet ND 0.00500 0.00250 mg/kg wet Blank **Recovery Qualifier Limits 100 70 - 130 101 70 - 130	ND 0.00200 0.00110 mg/kg wet 11/23/11 10:28 ND 0.00200 0.00110 mg/kg wet 11/23/11 10:28 ND 0.00500 0.00250 mg/kg wet 11/23/11 10:28 ND 0.00200 0.00110 mg/kg wet 11/23/11 10:28 ND 0.00500 0.00250 mg/kg wet 11/23/11 10:28 Blank Blank %Recovery Qualifier Limits Prepared 100 70 - 130 11/23/11 10:28 101 70 - 130 11/23/11 10:28	ND 0.00200 0.00110 mg/kg wet 11/23/11 10:28 11/23/11 13:04 ND 0.00200 0.00110 mg/kg wet 11/23/11 10:28 11/23/11 13:04 ND 0.00500 0.00250 mg/kg wet 11/23/11 10:28 11/23/11 13:04 ND 0.00200 0.00110 mg/kg wet 11/23/11 10:28 11/23/11 13:04 ND 0.00500 0.00250 mg/kg wet 11/23/11 10:28 11/23/11 13:04 Blank %Recovery Qualifier Limits Prepared Analyzed 100 70 - 130 11/23/11 10:28 11/23/11 13:04 101 70 - 130 11/23/11 10:28 11/23/11 13:04

70 - 130

Lab Sample ID: 11K5094-BLK2

Matrix: Soil

4-Bromofluorobenzene

Analysis Batch: U020835

Client Sample ID: Method Blank Prep Type: Total

11/23/11 13:04

11/23/11 10:28

Prep Batch: 11K5094_P

	Blank	Blank							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.100	0.0550	mg/kg wet		11/23/11 10:28	11/23/11 13:36	50.0
Ethylbenzene	ND		0.100	0.0550	mg/kg wet		11/23/11 10:28	11/23/11 13:36	50.0
Naphthalene	ND		0.250	0.125	mg/kg wet		11/23/11 10:28	11/23/11 13:36	50.0
Toluene	ND		0.100	0.0550	mg/kg wet		11/23/11 10:28	11/23/11 13:36	50.0
Xylenes, total	ND		0.250	0.125	mg/kg wet		11/23/11 10:28	11/23/11 13:36	50.0

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4	101		70 - 130	11/23/11 10:28	11/23/11 13:36	50.0
Dibromofluoromethane	102		70 - 130	11/23/11 10:28	11/23/11 13:36	50.0
Toluene-d8	93		70 - 130	11/23/11 10:28	11/23/11 13:36	50.0
4-Bromofluorobenzene	101		70 - 130	11/23/11 10:28	11/23/11 13:36	50.0

Lab Sample ID: 11K5094-BS1

Matrix: Soil

Analysis Batch: U020835

Client Sample ID: Lab Control Sample Prep Type: Total

Prep Batch: 11K5094_P

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	50.0	55.0		ug/kg		110	75 - 127	
Ethylbenzene	50.0	52.0		ug/kg		104	80 - 134	
Naphthalene	50.0	48.5		ug/kg		97	69 - 150	
Toluene	50.0	46.8		ug/kg		94	80 - 132	
Xylenes, total	150	155		ug/kg		103	80 - 137	

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4	100		70 - 130
Dibromofluoromethane	103		70 - 130
Toluene-d8	91		70 - 130
4-Bromofluorobenzene	103		70 - 130

Project/Site: [none]

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B (Continued)

Lab Sample ID: 11K5094-BSD1

Matrix: Soil

Analysis Batch: U020835

Client Sample ID: Lab Control Sample Dup

Prep Type: Total

Prep Batch: 11K5094_P

	Spike	LCS Dup	LCS Dup				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	50.0	56.4		ug/kg		113	75 - 127	2	50
Ethylbenzene	50.0	51.1		ug/kg		102	80 - 134	2	50
Naphthalene	50.0	48.3		ug/kg		97	69 - 150	0.5	50
Toluene	50.0	47.3		ug/kg		95	80 - 132	1	50
Xylenes, total	150	155		ug/kg		103	80 - 137	0.2	50

LCS Dup LCS Dup Surrogate %Recovery Qualifier Limits 99 70 - 130 1,2-Dichloroethane-d4 Dibromofluoromethane 101 70 - 130 Toluene-d8 91 70 - 130 4-Bromofluorobenzene 70 - 130 102

Lab Sample ID: 11K5094-MS1

Matrix: Soil

Analysis Batch: U020835

Client Sample ID: Matrix Spike

Prep Type: Total

Prep Batch: 11K5094_P

	Sample	Sample	Spike	Matrix Spike	Matrix Spi	ke			%Rec.
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Benzene	ND		2.67	3.17		mg/kg dry	1/2	119	31 - 143
Ethylbenzene	ND		2.67	2.96		mg/kg dry	ø	111	23 - 161
Naphthalene	ND		2.67	2.46		mg/kg dry	435	92	10 - 176
Toluene	ND		2.67	2.64		mg/kg dry	0	99	30 - 155
Xylenes, total	ND		8.01	8.85		mg/kg dry	0	111	25 - 162

	Matrix Spike	Matrix Spike	
Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4	98		70 - 130
Dibromofluoromethane	99		70 - 130
Toluene-d8	90		70 - 130
4-Bromofluorobenzene	101		70 - 130

Lab Sample ID: 11K5094-MSD1

Matrix: Soil

Analysis Batch: U020835

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total

Prep Batch: 11K5094_P

	Sample	Sample	Spike	Matrix Spike Dup	Matrix Spi	ke Duj			%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	ND		2.67	3.23		mg/kg dry	2	121	31 - 143	2	50
Ethylbenzene	ND		2.67	2.77		mg/kg dry	0	104	23 - 161	7	50
Naphthalene	ND		2.67	2.50		mg/kg dry	0	94	10 - 176	2	50
Toluene	ND		2.67	2.63		mg/kg dry	0	99	30 - 155	0.5	50
Xylenes, total	ND		8.01	8.24		mg/kg dry	403	103	25 - 162	7	50

Matrix	Spike Dup	Matriy S	pike Dup
Wallix	Spike Dup	Maurx	pike Dup

%Recovery	Qualifier	Limits
98		70 - 130
102		70 - 130
91		70 - 130
101		70 - 130
	98 102 91	102 91

Project/Site: [none]

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B (Continued)

Blank Blank

ND

ND

102

Dlank Blank

Result Qualifier

Lab Sample ID: 11K6219-BLK1

Matrix: Soil

Analyte

Benzene

Ethylbenzene

Analysis Batch: U020812

Client Sample ID: Method Blank Prep Type: Total

Analyzed

11/22/11 13:28

11/22/11 13:28

Prep Batch: 11K6219 P

Dil Fac

1.00

1.00

Naphthalene	ND		0.00500	0.00250	mg/kg wet	11/22/11 10:52	11/22/11 13:28	1.00
Toluene	ND		0.00200	0.00110	mg/kg wet	11/22/11 10:52	11/22/11 13:28	1,00
Xylenes, total	ND		0.00500	0.00250	mg/kg wet	11/22/11 10:52	11/22/11 13:28	1.00
	Blank	Blank						
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4	100		70 - 130			11/22/11 10:52	11/22/11 13:28	1.00
Dibromofluoromethane	103		70 - 130			11/22/11 10:52	11/22/11 13:28	1.00
Toluene-d8	94		70 - 130			11/22/11 10:52	11/22/11 13:28	1.00

70 - 130

RL

0.00200

0.00200

MDL Unit

0.00110 mg/kg wet

0.00110 mg/kg wet

D

Prepared

11/22/11 10:52

11/22/11 10:52

11/22/11 10:52

Lab Sample ID: 11K6219-BLK2

Matrix: Soil

4-Bromofluorobenzene

Analysis Batch: U020812

Client Sample ID: Method Blank Prep Type: Total

11/22/11 13:28

Prep Batch: 11K6219_P

	DIdIK	Didik							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.100	0.0550	mg/kg wet		11/22/11 10:52	11/22/11 13:59	50.0
Ethylbenzene	ND		0.100	0.0550	mg/kg wet		11/22/11 10:52	11/22/11 13:59	50.0
Naphthalene	ND		0.250	0.125	mg/kg wet		11/22/11 10:52	11/22/11 13:59	50.0
Toluene	ND		0.100	0.0550	mg/kg wet		11/22/11 10:52	11/22/11 13:59	50.0
Xylenes, total	ND		0.250	0.125	mg/kg wet		11/22/11 10:52	11/22/11 13:59	50.0

Dil Fac
50.0
50.0
50.0
50.0

Lab Sample ID: 11K6219-BS1

Matrix: Soil

Analysis Batch: U020812

Client Sample ID: Lab Control Sample

Prep Type: Total Prep Batch: 11K6219_P

Spike LCS LCS %Rec. Analyte Added Result Qualifier Unit Limits %Rec Benzene 50.0 58.9 75 - 127 ug/kg 118 Ethylbenzene 50.0 57.2 ug/kg 114 80 - 134 Naphthalene 50.0 ug/kg 102 69 - 150 50.0 Toluene 51.7 80 - 132 ug/kg 103 Xylenes, total 150 170 ug/kg 114 80 - 137

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4	100		70 - 130
Dibromofluoromethane	103		70 - 130
Toluene-d8	92		70 - 130
4-Bromofluorobenzene	101		70 - 130

Project/Site: [none]

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B (Continued)

Lab Sample ID: 11K6219-BSD1

Matrix: Soil

Analysis Batch: 11020812

Client Sample ID: Lab Control Sample Dup

Prep Type: Total

Prep Batch: 11K6219 P

Allalysis Datch. 0020012							Tep Date	I. IIINO	213
	Spike	LCS Dup	LCS Dup				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	50,0	55.6		ug/kg		111	75 - 127	6	50
Ethylbenzene	50.0	52.5		ug/kg		105	80 - 134	9	50
Naphthalene	50.0	48.9		ug/kg		98	69 - 150	4	50
Toluene	50.0	47.9		ug/kg		96	80 - 132	8	50
Xylenes, total	150	158		ug/kg		105	80 - 137	8	50

LCS Dup LCS Dup

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4	101		70 - 130
Dibromofluoromethane	103		70 - 130
Toluene-d8	93		70 - 130
4-Bromofluorobenzene	103		70 - 130

Lab Sample ID: 11K6219-MS1

Lab Sample ID: 11K6219-MSD1

Matrix: Soil

Matrix: Soil

Analysis Batch: U020812

Client Sample ID: Matrix Spike

Prep Type: Total

Prep Batch: 11K6219_P

Sample	Sample	Spike	Matrix Spike	Matrix Spi	ke			%Rec.	
Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
ND		0.0543	0.0647		mg/kg dry	Ÿ	119	31 - 143	
ND		0.0543	0.0625		mg/kg dry	43	115	23 - 161	
ND		0.0543	0,0570		mg/kg dry	0	105	10 - 176	
ND		0.0543	0.0542		mg/kg dry	0	100	30 - 155	
ND		0.163	0,185		mg/kg dry	0	114	25 - 162	
	Result ND ND ND ND	ND ND ND	Result Qualifier Added ND 0.0543 ND 0.0543 ND 0.0543 ND 0.0543 ND 0.0543	Result Qualifier Added Result ND 0.0543 0.0647 ND 0.0543 0.0625 ND 0.0543 0.0570 ND 0.0543 0.0542	Result Qualifier Added Result Qualifier ND 0.0543 0.0647 ND 0.0543 0.0625 ND 0.0543 0.0570 ND 0.0543 0.0542	Result Qualifier Added Result Qualifier Unit ND 0.0543 0.0647 mg/kg dry ND 0.0543 0.0625 mg/kg dry ND 0.0543 0.0570 mg/kg dry ND 0.0543 0.0542 mg/kg dry	Result Qualifier Added Result Qualifier Unit D ND 0.0543 0.0647 mg/kg dry 7 ND 0.0543 0.0625 mg/kg dry 7 ND 0.0543 0.0570 mg/kg dry 7 ND 0.0543 0.0542 mg/kg dry 7	Result Qualifier Added Result Qualifier Unit D %Rec ND 0.0543 0.0647 mg/kg dry □ 119 ND 0.0543 0.0625 mg/kg dry □ 115 ND 0.0543 0.0570 mg/kg dry □ 105 ND 0.0543 0.0542 mg/kg dry □ 100	Result Qualifier Added Result Qualifier Unit D %Rec Limits ND 0.0543 0.0647 mg/kg dry 119 31 - 143 ND 0.0543 0.0625 mg/kg dry 115 23 - 161 ND 0.0543 0.0570 mg/kg dry 105 10 - 176 ND 0.0543 0.0542 mg/kg dry 100 30 - 155 ND 0.163 0.185 mg/kg dry 114 25 - 162

Matrix Spike Matrix Spike

Surrogate	%Recovery	Qualifier	Limits
Surrogate	76 Recovery	Guainter	Lillins
1,2-Dichloroethane-d4	102		70 - 130
Dibromofluoromethane	100		70 - 130
Toluene-d8	88		70 - 130
4-Bromofluorobenzene	106		70 - 130

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total

Prep Batch: 11K6219 P

Analysis Batch: U020812 Sample Sample Spike Matrix Spike Dup Matrix Spike Dup %Rec. RPD Result Qualifier Added Result Qualifier Limits Analyte D %Rec RPD Limit 572 Benzene ND 0.0543 0.0641 31 - 143 mg/kg dry 118 50 ND Ethylbenzene 0.0543 0.0616 23 114 23 - 161 50 mg/kg dry Naphthalene ND 0.0543 0.0568 105 10 - 176 50 mg/kg dry 0.3 ND Ø. Toluene 0.0543 0.0552 102 30 - 155 2 50 mg/kg dry Xylenes, total ND 0.163 0.184 25 - 162 mg/kg dry 113 0.7

Matrix Spike Dup Matrix Spike Dup

Surrogate	%Recovery	Qualifier	Limits	
1,2-Dichloroethane-d4	101		70 - 130	
Dibromofluoromethane	98		70 - 130	
Toluene-d8	91		70 - 130	
4-Bromofluorobenzene	104		70 - 130	

Project/Site: [none]

Method: SW846 8270D - Polyaromatic Hydrocarbons by EPA 8270D

Lab Sample ID: 11K5345-BLK1

Matrix: Soil

Analysis Batch: U020560

Client Sample ID: Method Blank Prep Type: Total

Prep Batch: 11K5345_P

Analysis Baten. Socoso	Blank	Blank						rep baten. Th	10040_1
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0670	0.0340	mg/kg wet		11/22/11 08:34	11/22/11 15:56	1.00
Acenaphthylene	ND		0.0670	0.0340	mg/kg wet		11/22/11 08:34	11/22/11 15:56	1.00
Anthracene	ND		0.0670	0.0340	mg/kg wet		11/22/11 08:34	11/22/11 15:56	1.00
Benzo (a) anthracene	ND		0.0670	0.0340	mg/kg wet		11/22/11 08:34	11/22/11 15:56	1.00
Benzo (a) pyrene	ND		0.0670	0.0340	mg/kg wet		11/22/11 08:34	11/22/11 15:56	1.00
Benzo (b) fluoranthene	ND		0.0670	0.0340	mg/kg wet		11/22/11 08:34	11/22/11 15:56	1.00
Benzo (g,h,i) perylene	ND		0.0670	0.0340	mg/kg wet		11/22/11 08:34	11/22/11 15:56	1.00
Benzo (k) fluoranthene	ND		0.0670	0.0340	mg/kg wet		11/22/11 08:34	11/22/11 15:56	1.00
Chrysene	ND		0.0670	0.0340	mg/kg wet		11/22/11 08:34	11/22/11 15:56	1.00
Dibenz (a,h) anthracene	ND		0.0670	0.0340	mg/kg wet		11/22/11 08:34	11/22/11 15:56	1.00
Fluoranthene	ND		0.0670	0.0340	mg/kg wet		11/22/11 08:34	11/22/11 15:56	1.00
Fluorene	ND		0.0670	0.0340	mg/kg wet		11/22/11 08:34	11/22/11 15:56	1.00
Indeno (1,2,3-cd) pyrene	ND		0.0670	0.0340	mg/kg wet		11/22/11 08:34	11/22/11 15:56	1.00
Naphthalene	ND		0.0670	0.0340	mg/kg wet		11/22/11 08:34	11/22/11 15:56	1.00
Phenanthrene	ND		0.0670	0.0340	mg/kg wet		11/22/11 08:34	11/22/11 15:56	1,00
Pyrene	ND		0.0670	0.0340	mg/kg wet		11/22/11 08:34	11/22/11 15:56	1.00
1-Methylnaphthalene	ND		0.0670	0.0340	mg/kg wet		11/22/11 08:34	11/22/11 15:56	1.00
2-Methylnaphthalene	ND		0.0670	0.0340	mg/kg wet		11/22/11 08:34	11/22/11 15:56	1.00
	Dlank	Dlauk							

Blank Blank Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac Terphenyl-d14 95 18 - 120 11/22/11 08:34 11/22/11 15:56 1.00 2-Fluorobiphenyl 74 14 - 120 11/22/11 08:34 11/22/11 15:56 1.00 Nitrobenzene-d5 17-120 78 11/22/11 08:34 11/22/11 15:56 1.00

Lab Sample ID: 11K5345-BS1

Matrix: Soil

Analysis Batch: U020560

Client Sample ID: Lab Control Sample Prep Type: Total Prep Batch: 11K5345_P

the second second second	Spike	LCS	LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Acenaphthene	1.67	1,10		mg/kg wet	-	66	36 - 120
Acenaphthylene	1.67	1.08		mg/kg wet		65	38 - 120
Anthracene	1.67	1.23		mg/kg wet		74	46 - 124
Benzo (a) anthracene	1.67	1.20		mg/kg wet		72	45 - 120
Benzo (a) pyrene	1.67	1.28		mg/kg wet		77	45 - 120
Benzo (b) fluoranthene	1.67	1.18		mg/kg wet		71	42 - 120
Benzo (g,h,i) perylene	1.67	1.32		mg/kg wet		79	38 - 120
Benzo (k) fluoranthene	1.67	1,17		mg/kg wet		70	42 - 120
Chrysene	1.67	1.20		mg/kg wet		72	43 - 120
Dibenz (a,h) anthracene	1.67	1.35		mg/kg wet		81	32 - 128
Fluoranthene	1.67	1.20		mg/kg wet		72	46 - 120
Fluorene	1,67	1.22		mg/kg wet		73	42 - 120
Indeno (1,2,3-cd) pyrene	1.67	1.32		mg/kg wet		79	41 - 121
Naphthalene	1.67	1.18		mg/kg wet		71	32 - 120
Phenanthrene	1.67	1.21		mg/kg wet		73	45 - 120
Pyrene	1.67	1.20		mg/kg wet		72	43 - 120
1-Methylnaphthalene	1.67	0.893		mg/kg wet		54	32 - 120
2-Methylnaphthalene	1.67	1.07		mg/kg wet		64	28 - 120

Project/Site: [none]

Method: SW846 8270D - Polyaromatic Hydrocarbons by EPA 8270D (Continued)

Lab Sample ID: 11K5345-BS1

Matrix: Soil

Analysis Batch: U020560

Client Sample ID: Lab Control Sample Prep Type: Total

Prep Batch: 11K5345_P

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
Terphenyl-d14	77		18 - 120
2-Fluorobiphenyl	63		14 - 120
Nitrobenzene-d5	61		17-120

Lab Sample ID: 11K5345-MS1

Matrix: Soil

Analysis Batch: U020560

Client Sample ID: Matrix Spike Prep Type: Total

Prep Batch: 11K5345_P

	Sample	Sample	Spike	Matrix Spike	Matrix Spi	ke			%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Acenaphthene	ND		1.84	1.32		mg/kg dry	105	72	19 - 120	
Acenaphthylene	ND		1.84	1.28		mg/kg dry	100	70	25 - 120	
Anthracene	ND		1.84	1.53		mg/kg dry	0	84	28 - 125	
Benzo (a) anthracene	ND		1.84	1,51		mg/kg dry	莽	82	23 - 120	
Benzo (a) pyrene	ND		1.84	1.55		mg/kg dry	Q	84	15 - 128	
Benzo (b) fluoranthene	ND		1.84	1.60		mg/kg dry	302	87	12 - 133	
Benzo (g,h,i) perylene	ND		1.84	1.60		mg/kg dry	30	87	22 - 120	
Benzo (k) fluoranthene	ND		1.84	1,27		mg/kg dry	22	69	28 - 120	
Chrysene	ND		1.84	1.49		mg/kg dry	0	81	20 - 120	
Dibenz (a,h) anthracene	ND		1.84	1.61		mg/kg dry	30	88	12 - 128	
Fluoranthene	ND		1.84	1.53		mg/kg dry	n	83	10 - 143	
Fluorene	ND		1.84	1.51		mg/kg dry	13	82	20 - 120	
Indeno (1,2,3-cd) pyrene	ND		1.84	1.60		mg/kg dry	35	87	22 - 121	
Naphthalene	0.104		1.84	1.43		mg/kg dry	()	72	10 - 120	
Phenanthrene	ND		1.84	1,51		mg/kg dry	O	82	21 - 122	
Pyrene	ND		1.84	1.45		mg/kg dry	-	79	20 - 123	
1-Methylnaphthalene	ND		1.84	1.06		mg/kg dry	0	58	10 - 120	
2-Methylnaphthalene	0.0619		1.84	1.30		mg/kg dry	*	67	13 - 120	
	Matrix Spike	Matrix Spike								

Surrogate	%Recovery	Qualifier	Limits
Terphenyl-d14	81		18 - 120
2-Fluorobiphenyl	64		14 - 120
Nitrobenzene-d5	62		17 - 120

Lab Sample ID: 11K5345-MSD1

Matrix: Soil

Analysis Batch: U020560

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total

Prep Batch: 11K5345_P

Spike Matrix Spike Dup Matrix Spike Dup Sample Sample %Rec. RPD Analyte Result Qualifier Result Qualifier %Rec Limits Limit ND 1.83 1.39 ō 19 - 120 50 mg/kg dry Acenaphthene 0 Acenaphthylene ND 1.83 1.34 mg/kg dry 73 25 - 120 4 50 ND 1.83 1.57 86 28 - 125 2 49 Anthracene mg/kg dry 交 Benzo (a) anthracene ND 1.83 1.54 mg/kg dry 23 - 120 50 Benzo (a) pyrene ND 1.83 1.61 mg/kg dry 88 15 - 128 50 Benzo (b) fluoranthene ND 1.83 1.47 mg/kg dry 80 12 - 133 9 50 Benzo (g,h,i) perylene ND 1.83 1.64 mg/kg dry 22 - 120 ND 1.83 83 28 - 120 18 45 Benzo (k) fluoranthene 1.52 mg/kg dry ND 1.83 20 - 120 Chrysene 1.53 mg/kg dry 27 2 ND 1.83 1.64 mg/kg dry 90 12 - 128 50 Dibenz (a,h) anthracene Fluoranthene ND 1.83 1.57 mg/kg dry 10 - 143 3

Project/Site: [none]

Method: SW846 8270D - Polyaromatic Hydrocarbons by EPA 8270D (Continued)

Lab Sample ID: 11K5345-MSD1

Matrix: Soil

Analysis Batch: U020560

Client Sample ID: Matrix Spike Duplicate Prep Type: Total

Prep Batch: 11K5345_P

	Sample	Sample	Spike	Natrix Spike Dup	Matrix Spi	ke Duj			%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Fluorene	ND		1.83	1,57		mg/kg dry	D	86	20 - 120	4	50
Indeno (1,2,3-cd) pyrene	ND		1.83	1.63		mg/kg dry	13:	89	22 - 121	2	50
Naphthalene	0.104		1.83	1.55		mg/kg dry	4,5	79	10 - 120	8	50
Phenanthrene	ND		1.83	1,52		mg/kg dry	-0	83	21 - 122	0.6	50
Pyrene	ND		1.83	1.47		mg/kg dry	-03	80	20 - 123	2	50
1-Methylnaphthalene	ND		1.83	1.15		mg/kg dry	0	63	10 - 120	8	50
2-Methylnaphthalene	0.0619		1.83	1.38		mg/kg dry	0	72	13 - 120	6	50

Matrix Spike Dup Matrix Spike Dup

Surrogate	%Recovery	Qualifier	Limits
Terphenyl-d14	80		18 - 120
2-Fluorobiphenyl	66		14-120
Nitrobenzene-d5	65		17-120

Method: SW-846 - General Chemistry Parameters

Lab Sample ID: 11K5666-DUP1

Matrix: Soil

Analysis Batch: 11K5666

Client Sample ID: Duplicate Prep Type: Total

Prep Batch: 11K5666_P

Sample Sample **Duplicate** Duplicate RPD Analyte Result Qualifier Result Qualifier Unit D RPD Limit % Dry Solids 84.6 84.5 % 0.2 20

Project/Site: [none]

GCMS Volatiles

Analysis Batch: U020812

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11K6219-BLK1	Method Blank	Total	Soil	SW846 8260B	11K6219_P
11K6219-BLK2	Method Blank	Total	Soil	SW846 8260B	11K6219_P
11K6219-BS1	Lab Control Sample	Total	Soil	SW846 8260B	11K6219_P
11K6219-BSD1	Lab Control Sample Dup	Total	Soil	SW846 8260B	11K6219_P
11K6219-MS1	Matrix Spike	Total	Soil	SW846 8260B	11K6219_P
11K6219-MSD1	Matrix Spike Duplicate	Total	Soil	SW846 8260B	11K6219_P
NUK2920-01	387 Acorn	Total	Soil	SW846 8260B	11K6219_P
NUK2920-02	301 Ash	Total	Soil	SW846 8260B	11K6219_P
NUK2920-03	305 Ash	Total	Soil	SW846 8260B	11K6219_P

Analysis Batch: U020835

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11K5094-BLK1	Method Blank	Total	Soil	SW846 8260B	11K5094_P
11K5094-BLK2	Method Blank	Total	Soil	SW846 8260B	11K5094_P
11K5094-BS1	Lab Control Sample	Total	Soil	SW846 8260B	11K5094_P
11K5094-BSD1	Lab Control Sample Dup	Total	Soil	SW846 8260B	11K5094_P
11K5094-MS1	Matrix Spike	Total	Soil	SW846 8260B	11K5094_P
11K5094-MSD1	Matrix Spike Duplicate	Total	Soil	SW846 8260B	11K5094_P
NUK2920-01 - RE1	387 Acorn	Total	Soil	SW846 8260B	11K5094_P
NUK2920-02 - RE1	301 Ash	Total	Soil	SW846 8260B	11K5094_P

Prep Batch: 11K5094_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11K5094-BLK1	Method Blank	Total	Soil	EPA 5035	
11K5094-BLK2	Method Blank	Total	Soil	EPA 5035	
11K5094-BS1	Lab Control Sample	Total	Soil	EPA 5035	
11K5094-BSD1	Lab Control Sample Dup	Total	Soil	EPA 5035	
11K5094-MS1	Matrix Spike	Total	Soil	EPA 5035	
11K5094-MSD1	Matrix Spike Duplicate	Total	Soil	EPA 5035	
NUK2920-01 - RE1	387 Acorn	Total	Soil	EPA 5035	
NUK2920-02 - RE1	301 Ash	Total	Soil	EPA 5035	

Prep Batch: 11K6219_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11K6219-BLK1	Method Blank	Total	Soil	EPA 5035	
11K6219-BLK2	Method Blank	Total	Soil	EPA 5035	
11K6219-BS1	Lab Control Sample	Total	Soil	EPA 5035	
11K6219-BSD1	Lab Control Sample Dup	Total	Soil	EPA 5035	
11K6219-MS1	Matrix Spike	Total	Soil	EPA 5035	
11K6219-MSD1	Matrix Spike Duplicate	Total	Soil	EPA 5035	
NUK2920-01	387 Acorn	Total	Soil	EPA 5035	
NUK2920-02	301 Ash	Total	Soil	EPA 5035	
NUK2920-03	305 Ash	Total	Soil	EPA 5035	

GCMS Semivolatiles

Analysis Batch: U020560

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11K5345-BLK1	Method Blank	Total	Soil	SW846 8270D	11K5345_P
11K5345-BS1	Lab Control Sample	Total	Soil	SW846 8270D	11K5345_P
11K5345-MS1	Matrix Spike	Total	Soil	SW846 8270D	11K5345_P
11K5345-MSD1	Matrix Spike Duplicate	Total	Soil	SW846 8270D	11K5345_P

QC Association Summary

TestAmerica Job ID: NUK2920

Client: EEG - Small Business Group, Inc. (2449) Project/Site: [none]

COLLE	Company	-451 1	C-WAT	March at 1
GUND	Semivol	atiles t	Conti	nuea)

Analysis Batch: U020560 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
NUK2920-01	387 Acorn	Total	Soil	SW846 8270D	11K5345_P
NUK2920-02	301 Ash	Total	Soil	SW846 8270D	11K5345_P
NUK2920-03	305 Ash	Total	Soil	SW846 8270D	11K5345_P

Analysis Batch: U020637

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
NUK2920-01 - RE1	387 Acorn	Total	Soil	SW846 8270D	11K5345_P

Prep Batch: 11K5345_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11K5345-BLK1	Method Blank	Total	Soil	EPA 3550B	
11K5345-BS1	Lab Control Sample	Total	Soil	EPA 3550B	
11K5345-MS1	Matrix Spike	Total	Soil	EPA 3550B	
11K5345-MSD1	Matrix Spike Duplicate	Total	Soil	EPA 3550B	
NUK2920-01	387 Acorn	Total	Soil	EPA 3550B	
NUK2920-01 - RE1	387 Acorn	Total	Soil	EPA 3550B	
NUK2920-02	301 Ash	Total	Soil	EPA 3550B	
NUK2920-03	305 Ash	Total	Soil	EPA 3550B	

Extractions

Analysis Batch: 11K5666

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11K5666-DUP1	Duplicate	Total	Soil	SW-846	11K5666_P
NUK2920-01	387 Acorn	Total	Soil	SW-846	11K5666_P
NUK2920-02	301 Ash	Total	Soil	SW-846	11K5666_P
NUK2920-03	305 Ash	Total	Soil	SW-846	11K5666_P

Prep Batch: 11K5666_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11K5666-DUP1	Duplicate	Total	Soil	% Solids	
NUK2920-01	387 Acorn	Total	Soil	% Solids	
NUK2920-02	301 Ash	Total	Soil	% Solids	
NUK2920-03	305 Ash	Total	Soil	% Solids	

TestAmerica Job ID: NUK2920

Client: EEG - Small Business Group, Inc. (2449)

Project/Site: [none]

Client Sample ID: 387 Acorn

Date Collected: 11/15/11 15:15 Date Received: 11/19/11 08:30 Lab Sample ID: NUK2920-01

Matrix: Soil

Percent Solids: 78.3

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total	Prep	EPA 5035		0.789	11K6219_P	11/15/11 15:15	AAN	TAL NSH
Total	Analysis	SW846 8260B		1.00	U020812	11/22/11 20:14	KKK H	TAL NSH
Total	Prep	EPA 5035	RE1	0.926	11K5094_P	11/15/11 15:15	AAN	TAL NSH
Total	Analysis	SW846 8260B	RE1	50.0	U020835	11/23/11 14:38	KKK H	TAL NSH
Total	Prep	EPA 3550B		0.982	11K5345_P	11/22/11 08:34	JJR	TAL NSH
Total	Analysis	SW846 8270D		1.00	U020560	11/22/11 20:02	BES	TAL NSH
Total	Prep	EPA 3550B	RE1	0,982	11K5345_P	11/22/11 08:34	JJR	TAL NSH
Total	Analysis	SW846 8270D	RE1	10.0	U020637	11/23/11 23:53	BES	TAL NSH
Total	Prep	% Solids		1.00	11K5666_P	11/22/11 15:05	MAH	TAL NSH
Total	Analysis	SW-846		1.00	11K5666	11/23/11 09:37	RRS	TAL NSH

Client Sample ID: 301 Ash

Date Collected: 11/16/11 12:15 Date Received: 11/19/11 08:30 Lab Sample ID: NUK2920-02

Matrix: Soil

Percent Solids: 79.3

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total	Prep	EPA 5035		0.845	11K6219_P	11/16/11 12:15	AAN	TAL NSH
Total	Analysis	SW846 8260B		1.00	U020812	11/22/11 20:45	KKK H	TAL NSH
Total	Prep	EPA 5035	RE1	0.808	11K5094_P	11/16/11 12:15	AAN	TAL NSH
Total	Analysis	SW846 8260B	RE1	50.0	U020835	11/23/11 14:07	KKK H	TAL NSH
Total	Prep	EPA 3550B		0.979	11K5345_P	11/22/11 08:34	JJR	TAL NSH
Total	Analysis	SW846 8270D		1.00	U020560	11/22/11 20:23	BES	TAL NSH
Total	Prep	% Solids		1,00	11K5666_P	11/22/11 15:05	MAH	TAL NSH
Total	Analysis	SW-846		1.00	11K5666	11/23/11 09:37	RRS	TAL NSH

Client Sample ID: 305 Ash

Date Collected: 11/17/11 11:45 Date Received: 11/19/11 08:30 Lab Sample ID: NUK2920-03

Matrix: Soil

Percent Solids: 80.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	EPA 5035	Kon	0.814	11K6219 P	11/17/11 11:45	AAN	TAL NSH
Total	Lieb	EFA 3033		0.014	11K0219_F	11/1/11 11.45	MAIN	IAL NOIT
Total	Analysis	SW846 8260B		1_00	U020812	11/22/11 21:16	KKK H	TAL NSH
Total	Prep	EPA 3550B		0.975	11K5345_P	11/22/11 08:34	JJR	TAL NSH
Total	Analysis	SW846 8270D		1.00	U020560	11/22/11 20:43	BES	TAL NSH
Total	Prep	% Solids		1.00	11K5666_P	11/22/11 15:05	MAH	TAL NSH
Total	Analysis	SW-846		1.00	11K5666	11/23/11 09:37	RRS	TAL NSH

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Road, Nashville, TN 37204, TEL 800-765-0980

Method Summary

Client: EEG - Small Business Group, Inc. (2449)

Project/Site: [none]

TestAmerica Job ID: NUK2920

Method	Method Description	Protocol	Laboratory
SW-846	General Chemistry Parameters		TAL NSH
SW846 8260B	Volatile Organic Compounds by EPA Method 8260B		TAL NSH
SW846 8270D	Polyaromatic Hydrocarbons by EPA 8270D		TAL NSH

Protocol References:

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Road, Nashville, TN 37204, TEL 800-765-0980

Project/Site: [none]

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Nashville		ACIL		393
TestAmerica Nashville	A2LA	ISO/IEC 17025		0453.07
TestAmerica Nashville	A2LA	WY UST		453.07
TestAmerica Nashville	AIHA - LAP	IHLAP		100790
TestAmerica Nashville	Alabama	State Program	4	41150
TestAmerica Nashville	Alaska	Alaska UST	10	UST-087
TestAmerica Nashville	Arizona	State Program	9	AZ0473
TestAmerica Nashville	Arkansas	State Program	6	88-0737
TestAmerica Nashville	California	NELAC	9	1168CA
TestAmerica Nashville	Canada (CALA)	Canada (CALA)		3744
TestAmerica Nashville	Colorado	State Program	8	N/A
TestAmerica Nashville	Connecticut	State Program	1	PH-0220
TestAmerica Nashville	Florida	NELAC	4	E87358
TestAmerica Nashville	Illinois	NELAC	5	200010
TestAmerica Nashville	Iowa	State Program	7	131
TestAmerica Nashville	Kansas	NELAC	7	E-10229
TestAmerica Nashville	Kentucky	Kentucky UST	4	19
TestAmerica Nashville	Kentucky	State Program	4	90038
TestAmerica Nashville	Louisiana	NELAC	6	30613
TestAmerica Nashville	Louisiana	NELAC	6	LA100011
FestAmerica Nashville	Maryland	State Program	3	316
TestAmerica Nashville	Massachusetts	State Program	1	M-TN032
FestAmerica Nashville	Minnesota	NELAC	5	047-999-345
FestAmerica Nashville	Mississippi	State Program	4	N/A
FestAmerica Nashville	Montana	MT DEQ UST	8	NA
FestAmerica Nashville	New Hampshire	NELAC	1	2963
TestAmerica Nashville	New Jersey	NELAC	2	TN965
TestAmerica Nashville	New York	NELAC	2	11342
FestAmerica Nashville	North Carolina	North Carolina DENR	4	387
TestAmerica Nashville	North Dakota	State Program	8	R-146
TestAmerica Nashville	Ohio	OVAP	5	CL0033
TestAmerica Nashville	Oklahoma	State Program	6	9412
TestAmerica Nashville	Oregon	NELAC	10	TN200001
TestAmerica Nashville	Pennsylvania	NELAC	3	68-00585
TestAmerica Nashville	Rhode Island	State Program	1	LAO00268
TestAmerica Nashville	South Carolina	State Program	4	84009
TestAmerica Nashville	South Carolina	State Program	4	84009
TestAmerica Nashville	Tennessee	State Program	4	2008
TestAmerica Nashville	Texas	NELAC	6	T104704077-09-TX
FestAmerica Nashville	USDA	USDA		S-48469
FestAmerica Nashville	Utah	NELAC	8	TAN
TestAmerica Nashville	Virginia	NELAC Secondary AB	3	460152
TestAmerica Nashville	Virginia	State Program	3	00323
TestAmerica Nashville	Washington	State Program	10	C789
TestAmerica Nashville	West Virginia	West Virginia DEP	3	219
TestAmerica Nashville	Wisconsin	State Program	5	998020430

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

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ATTACHMENT A



Pink- FACILITY USE ONLY

NON-HAZARDOUS MANIFEST

	1. Generator's	US EPA ID No.	Manifest Doc	No.	2. Page 1	of				
NON-HAZARDOUS MANIFEST						1				
3. Generator's Mailing Address:		Generator's Site Address	If different than m	nailing):	A. Manifest Number		7550			
MCAS, BEAUFORT					W	MNA	00316822			
LAUREL BAY HOUSING							Generator'			
BEAUFORT, SC 29907						5,5,0,0	111111111			
4. Generator's Phone 843-22	28-6461									
5. Transporter 1 Company Name	-3/-	6. US EPA	ID Number		ALC: NO			11 - 0		
EEG, INC.		1,500			C. State Transporter's ID D. Transporter's Phone 843-879-0411 E. State Transporter's ID					
Marie Control of the										
7. Transporter 2 Company Name		8. US EPA	ID Number							
The state of the s										
9. Designated Facility Name and Site	Address	10. US EP	A ID Number		F. Transp	orter's Phone	ESTRECT OF	ALC: NO	and the	
HICKORY HILL LANDFILL	Address	10. 05 11.	A ID INGINIDEI		G. State F	acility ID			and a	
2621 LOW COUNTRY ROAD						acility Phone	843-987-4643			
RIDGELAND, SC 29936		AND LONG OF THE LO	ROTHER TO		n. State i	acility Phone	045-	367-404	13	
-0.1										
11. Description of Waste Materials				ntainers	13. Total	14. Unit	1. 1	Misc. Comme	ents	
	DIANS LITINA		No.	Туре	Quantity	Wt./Vol.				
a. HEATING OIL TANKS FILLED	WITH SAND			14.14		(V2) /				
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J. Additional Descriptions for Materia	als Listed Above		K. Dispos	al Location				10,10		
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Purchase Order #	1000	EMERGENCY CO	ONTACT / PHO	ONE NO.:						
16. GENERATOR'S CERTIFICATE:										
I hereby certify that the above-describe							ve been fu	lly and		
accurately described, classified and pace	kaged and are in	Signature "On beha		ding to app	iicabie regu	lations.	Month	Day	Year	
2.0	asheld.	Signature on bein	6	100			10	7	11	
17. Transporter 1 Acknowledgement o	f Receipt of Mate	erials					13		1	
Printed Name		Signature	- 1			NATE OF	Month	Day	Year	
James Baldwi	N	James	Rald	14			1	4	12	
18. Transporter 2 Acknowledgement o	f Receipt of Mate	rials	~					Y		
Printed Name		Signature					Month	Day	Year	
19. Certificate of Final Treatment/Disp	osal									
I certify, on behalf of the above listed to		that to the best of my know	ledge, the abo	ove-describe	ed waste wa	as managed in	complianc	e with all		
applicable laws, regulations, permits an										
20. Facility Owner or Operator: Certific	cation of receipt of	of non-hazardous materials of	covered by thi	is manifest.						
Printed Name	1	Signature		1	9		Month	Day	Year	
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White-TREATMENT, STORAGE, DISPOS	AL FACILITY COPY	Blue- GENERATOR	#2 COPY		Yel	low- GENERAT	OR #1 COF	Y		

Gold-TRANSPORTER #1 COPY

Appendix C Laboratory Analytical Report - Groundwater



Volatile Organic Compounds by GC/MS

Client: AECOM - Resolution Consultants

Description: BEALB301TW01WG20151106

Prep Date

Laboratory ID: QK05015-019

Matrix: Aqueous

Date Sampled: 11/06/2015 1530

5030B

Run Prep Method

Date Received: 11/07/2015

Analytical Method Dilution Analysis Date Analyst

Batch 89321

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	LOD	DL	Units F	Run
Benzene	71-43-2	8260B	0.45	U	5.0	0.45	0.21	ug/L	1
Ethylbenzene	100-41-4	8260B	1.7	J	5.0	0.51	0.21	ug/L	1
Naphthalene	91-20-3	8260B	11		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	0.32	J	5.0	0.57	0.32	ug/L	1

11/11/2015 1743 ALL

Surrogate	Run 1 A	cceptance Limits	
Bromofluorobenzene	95	75-120	
1,2-Dichloroethane-d4	96	70-120	
Toluene-d8	97	85-120	
Dibromofluoromethane	100	85-115	

PQL = Practical quantitation limit ND = Not detected at or above the MDL B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range P = The RPD between two GC columns exceeds 40%

H = Out of holding time

Q = Surrogate failure L = LCS/LCSD failure

J = Estimated result < PQL and ≥ MDL Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W" N = Recovery is out of criteria

S = MS/MSD failure

Semivolatile Organic Compounds by GC/MS (SIM)

Client: AECOM - Resolution Consultants

Laboratory ID: QK05015-019

Description: BEALB301TW01WG20151106

Matrix: Aqueous

Date Sampled: 11/06/2015 1530 Date Received: 11/07/2015

Run Prep Method Analytical Method Dilution Analysis Date Analyst **Prep Date** Batch 3520C 8270D (SIM) 11/18/2015 0051 RBH 11/10/2015 1444 89221

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		77	15-139
Fluoranthene-d10		79	23-154

PQL = Practical quantitation limit ND = Not detected at or above the MDL B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

H = Out of holding time

Q = Surrogate failure L = LCS/LCSD failure

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

J = Estimated result < PQL and ≥ MDL

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

S = MS/MSD failure

Shealy Environmental Services, Inc.

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

Appendix D Regulatory Correspondence





Catherine E. Heigel, Director Promoting and protecting the health of the public and the environment

July 1, 2015

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

RE: IGWA

Laurel Bay Underground Storage Tank Assessment Reports for:

See attached sheet

Dear Mr. Drawdy,

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

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

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

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

Sincerely,

Kent Krieg

Department of Defense Corrective Action Section

Bureau of Land and Waste Management

South Carolina Department of Health and Environmental Control

Cc: Russell Berry (via email)

Craig Ehde (via email) Bryan Beck (via email)



Catherine E. Heigel, Director

Promoting and protecting the health of the public and the environment

Krieg to Drawdy **Attachment to:**

Subject: IGWA Dated 7/1/2015

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

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



Catherine E. Heigel, Director

Promoting and protecting the health of the public and the environment

Division of Waste Management Bureau of Land and Waste Management

June 8, 2016

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

RE: Approval and Concurrence with Draft Final Initial Groundwater Investigation Report-November and December 2015

Laurel Bay Military Housing Area Multiple Properties

Dated April 2015

Dear Mr. Drawdy,

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

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

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

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

Sincerely,

Laurel Petrus

NETS

RCRA Federal Facilities Section

Attachment: Specific Property Recommendations

Cc: Russell Berry, EQC Region 8 (via email)

Shawn Dolan, Resolution Consultants (via email) Bryan Beck, NAVFAC MIDATLANTIC (via email)

Craig Ehde (via email)

Attachment to: Petrus to Drawdy

Subject: Draft Final Initial Groundwater Investigation Report-November and December 2015

Specific Property Recommendations

Dated June 8, 2016

Draft Final Initial Groundwater Investigation Report for (95 addresses)

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

118 Banyan Drive	644 Dahlia Drive	
126 Banyan Drive	646 Dahlia Drive	
127 Banyan Drive	665 Camellia Drive	
141 Laurel Bay Blvd	699 Abelia Street	
151 Laurel Bay Blvd	744 Blue Bell Lane	
224 Cypress Street	745 Blue Bell Lane	
227 Cypress Street	751 Blue Bell Lane	
257 Beech Street	762 Althea Street	
264 Beech Street	765 Althea Street	
265 Beech Street	766 Althea Street	
275 Birch Drive	767 Althea Street	
277 Birch Drive	768 Althea Street	
297 Birch Drive	769 Althea Street	
301 Ash Street	819 Azalea Drive	
306 Ash Street	840 Azalea Drive	
310 Ash Street	878 Cobia Drive	
313 Ash Street	891 Cobia Drive	
315 Ash Street	913 Barracuda Drive	-
316 Ash Street	916 Barracuda Drive	
319 Ash Street	923 Wren Lane	
320 Ash Street	1004 Bobwhite Drive	
321 Ash Street	1022 Foxglove Street	
329 Ash Street	1031 Foxglove Street	
332 Ash Street	1061 Gardenia Drive	
333 Ash Street	1064 Gardenia Drive	
341 Ash Street	1067 Gardenia Drive	
347 Ash Street	1077 Heather Street	
378 Aspen Street	1081 Heather Street	
379 Aspen Street	1101 Iris Lane	
382 Aspen Street	1105 Iris Lane	
394 Acorn Street	1142 Iris Lane	
400 Elderberry Drive	1146 Iris Lane	
432 Elderberry Drive	1218 Cardinal Lane	
436 Elderberry Drive	1240 Dove Lane	
482 Laurel Bay Blvd	1266 Dove Lane	
517 Laurel Bay Blvd	1292 Eagle Lane	
586 Aster Street	1299 Eagle Lane	
632 Dahlia Drive	1302 Eagle Lane	
639 Dahlia Drive	1336 Albatross Drive	
643 Dahlia Drive	1351 Cardinal Lane	

Attachment to: Petrus to Drawdy
Subject: Draft Final Initial Groundwater Investigation Report-November and December 2015
Specific Property Recommendations
Dated June 8, 2016, Page 2