SUMMARY REPORT
77 ACORN DRIVE (FORMERLY 386 ACORN DRIVE)
LAUREL BAY MILITARY HOUSING AREA
MARINE CORPS AIR STATION BEAUFORT
BEAUFORT, SC

Revision: 0
Prepared for:

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

and

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

JUNE 2021

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Prepared by:

CDM - AECOM
Multimedia Joint Venture

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

Contract Number: N62470-14-D-9016
CTO WE52
JUNE 2021

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List of Acronyms

bgs	below ground surface
BTEX	benzene, toluene, ethylbenzene, and xylenes
CTO	Contract Task Order
COPC	constituents of potential concern
ft	feet
IDIQ	Indefinite Delivery, Indefinite Quantity
IGWA	Initial Groundwater Assessment
JV	Joint Venture
LBMH	Laurel Bay Military Housing
MCAS	Marine Corps Air Station
NAVFAC Mid-Lant	Naval Facilities Engineering Command Mid-Atlantic
NFA	No Further Action
PAH	polynuclear aromatic hydrocarbon
QAPP	Quality Assurance Program Plan
RBSL	risk-based screening level
SCDHEC	South Carolina Department of Health and Environmental Control
Site	LBMH area at MCAS Beaufort, South Carolina
UST	underground storage tank
VISL	vapor intrusion screening level

1.0 INTRODUCTION

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

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

This report summarizes the results the environmental investigation activities associated with the storage of home heating oil and the potential release of petroleum constituents at the referenced property. Based on the results of the investigation, a No Further Action (NFA) determination has been made by the South Carolina Department of Health and Environmental Control (SCDHEC) for 77 Acorn Drive (Formerly 386 Acorn Drive). This NFA determination indicates that there are no unacceptable risks to human health or the environment for the petroleum constituents associated with the home heating oil USTs. The following information is included in this report:

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

1.1 Background Information

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

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

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

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

1.2 UST Removal and Assessment Process

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

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

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

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

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

2.0 SAMPLING ACTIVITIES AND RESULTS

The following section presents the sampling activities and associated results for 77 Acorn Drive (Formerly 386 Acorn Drive). Details regarding the soil investigation at this site are provided in the *SCDHEC UST Assessment Report – 386 Acorn Drive* (MCAS Beaufort, 2009). 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 – July 2013* (Resolution Consultants, 2015). The laboratory report that includes the pertinent IGWA analytical results for this site is presented in Appendix C.

2.1 UST Removal and Soil Sampling

On April 29, 2009, a single 280 gallon heating oil UST was removed from the front grassed area adjacent to the driveway at 77 Acorn Drive (Formerly 386 Acorn Drive). The former UST location is indicated on Figures 2 and 3 of the UST Assessment Report (Appendix B). The UST was removed, cleaned, and shipped offsite for recycling. There was no visual evidence (i.e.,

staining or sheen) of petroleum impact at the time of the UST removal. According to the UST Assessment Report (Appendix B), the depth to the base of the UST was 6'4" 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 77 Acorn Drive (Formerly 386 Acorn Drive) were greater than the SCDHEC RBSLs, which indicated further investigation was required. In a letter dated July 22, 2009, SCDHEC requested an IGWA for 77 Acorn Drive (Formerly 386 Acorn Drive) to determine if the groundwater was impacted by petroleum COPCs. SCDHEC's request letter is provided in Appendix D.

2.3 Groundwater Sampling

On July 16, 2013, a temporary monitoring well was installed at 77 Acorn Drive (Formerly 386 Acorn Drive), 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 – July 2013* (Resolution Consultants, 2015).

The sampling strategy for this phase of the investigation required a one-time sampling event of the temporarily installed monitoring well. Following well installation and development, groundwater samples were collected using low-flow methods and shipped to an offsite laboratory for analysis of the petroleum COPCs. Upon completion of groundwater sampling, the temporary well was abandoned in accordance with the South Carolina Well Standards and Regulations R.61-71 (SCDHEC, 2016). Field forms are provided in the *Initial Groundwater Investigation Report – July 2013* (Resolution Consultants, 2015).

2.4 Groundwater Analytical Results

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

The groundwater results collected from 77 Acorn Drive (Formerly 386 Acorn Drive) 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 77 Acorn Drive (Formerly 386 Acorn Drive). This NFA determination was obtained in a letter dated August 6, 2015. SCDHEC's NFA letter is provided in Appendix D.

4.0 REFERENCES

Marine Corps Air Station Beaufort, 2009. *South Carolina Department of Health and Environmental Control (SCDHEC) Underground Storage Tank Assessment Report – 386 Acorn Drive, Laurel Bay Military Housing Area*, June 2009.

Resolution Consultants, 2015. *Initial Groundwater Investigation Report – July 2013 for Laurel Bay Military Housing Area, Multiple Properties, Laurel Bay Military Housing Area, Marine Corps Air Station Beaufort, Beaufort, South Carolina*, June 2015.

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

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

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

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

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

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

Tables

Table 1
Laboratory Analytical Results - Soil
77 Acorn Drive (Formerly 386 Acorn Drive)
Laurel Bay Military Housing Area
Marine Corps Air Station Beaufort
Beaufort, South Carolina

Constituent	SCDHEC RBSLs [(1)]	Results Sample Collected 04/29/09
Volatile Organic Compounds Analyzed by EPA Method 8260B (mg/kg)		
Benzene	0.003	ND
Ethylbenzene	1.15	**0.00712**
Naphthalene	0.036	**0.163**
Toluene	0.627	ND
Xylenes, Total	13.01	**0.00660**
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 1.0 and 1.1 (SCDHEC, May 2001 and SCDHEC, February 2011) 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
77 Acorn Drive (Formerly 386 Acorn Drive)
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 07/16/13
Volatile Organic Compounds Analyzed by EPA Method 8260B (µg/L)			
Benzene	5	16.24	ND
Ethylbenzene	700	45.95	ND
Naphthalene	25	29.33	**3.2**
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	**0.17**
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

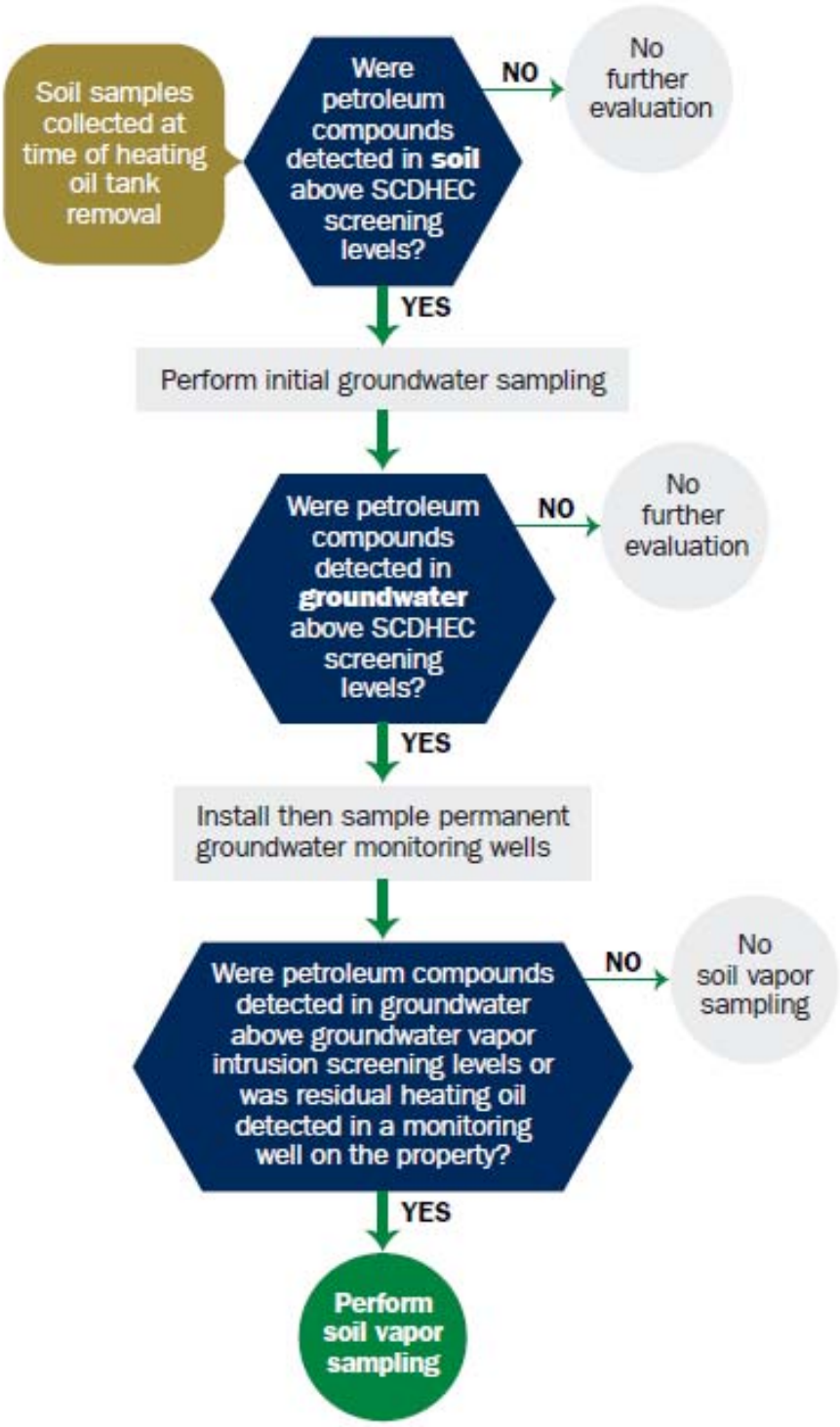
SCDHEC - South Carolina Department Of Health and Environmental Control

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

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

04235

RECEIVED
JUN 29 2009
SITE ASSESSMENT, REMEDIATION & REVITALIZATION

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

386 Acorn Dr., 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.

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).....	386Acorn				
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.....	6'4"				
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.....	4/29/09				
L.	Visible Holes Y/N.....	Yes				
		Yes				

M. Method of disposal for any USTs removed from the ground (attach disposal manifests)
UST 386Acorn was removed from the ground and disposed of at a subtitle D landfill. See Appendix "A."

N. Method of disposal for any liquid petroleum, sludges, or wastewaters removed from the USTs (attach disposal manifests)
Tank was abandoned and mostly filled with sand by others. However, it did contain some fluid which was pumped from it and disposed of by MCAS.

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

VII. PIPING INFORMATION

A. Construction Material..(ex. Steel, FRP).....	386 Acorn				
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.....	Yes				
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. The copper supply and return piping was 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 96012001

B.

Sample #	Location	Sample Type (Soil/Water)	Soil Type (Sand/Clay)	Depth*	Date/Time of Collection	Collected by	OVA #
386Acorn	Excav at fill end	Soil	Sandy	6'4"	4/29/09 1115 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.

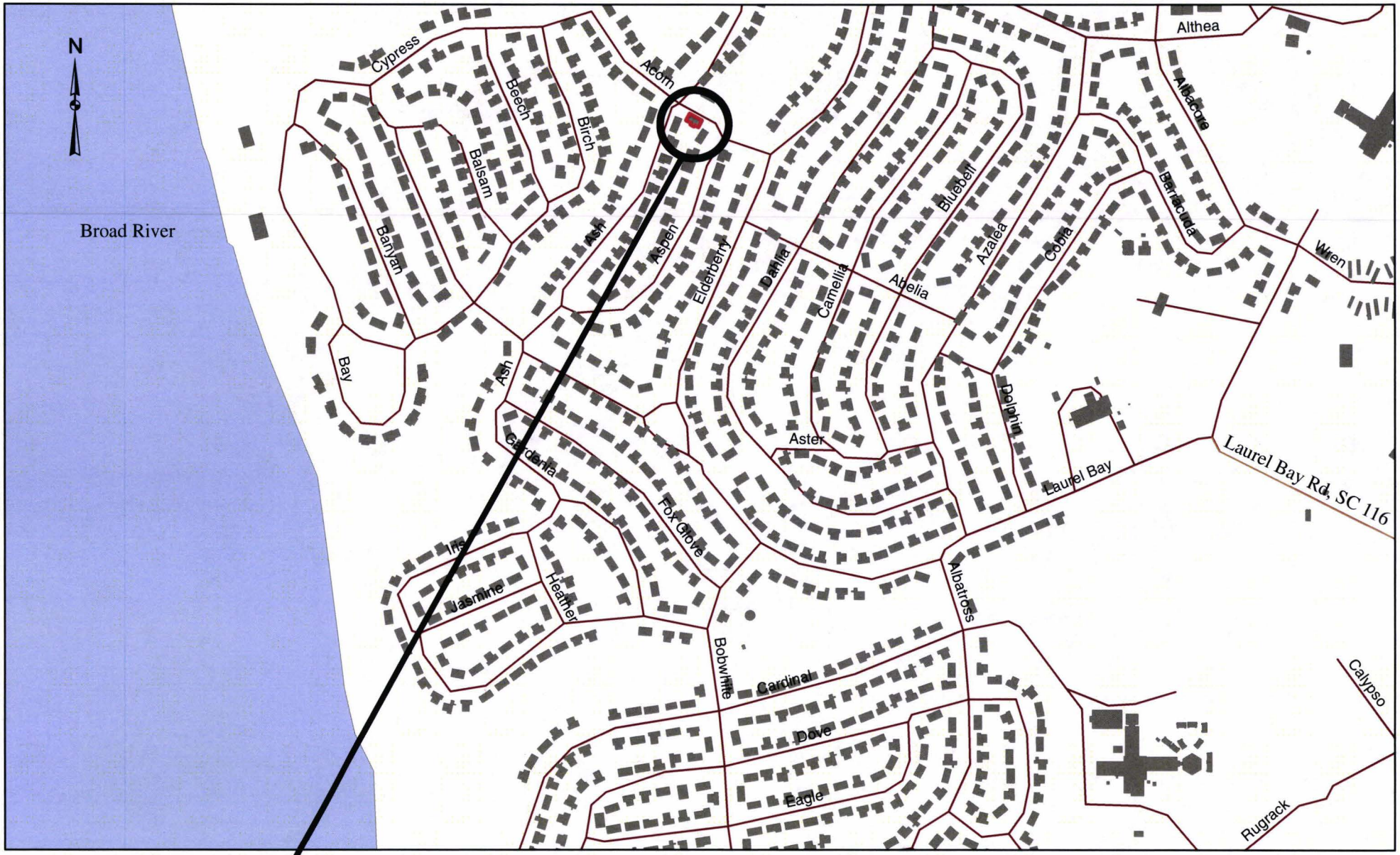
XII. RECEPTORS

		Yes	No
A.	Are there any lakes, ponds, streams, or wetlands located within 1000 feet of the UST system? 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 and water. 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)



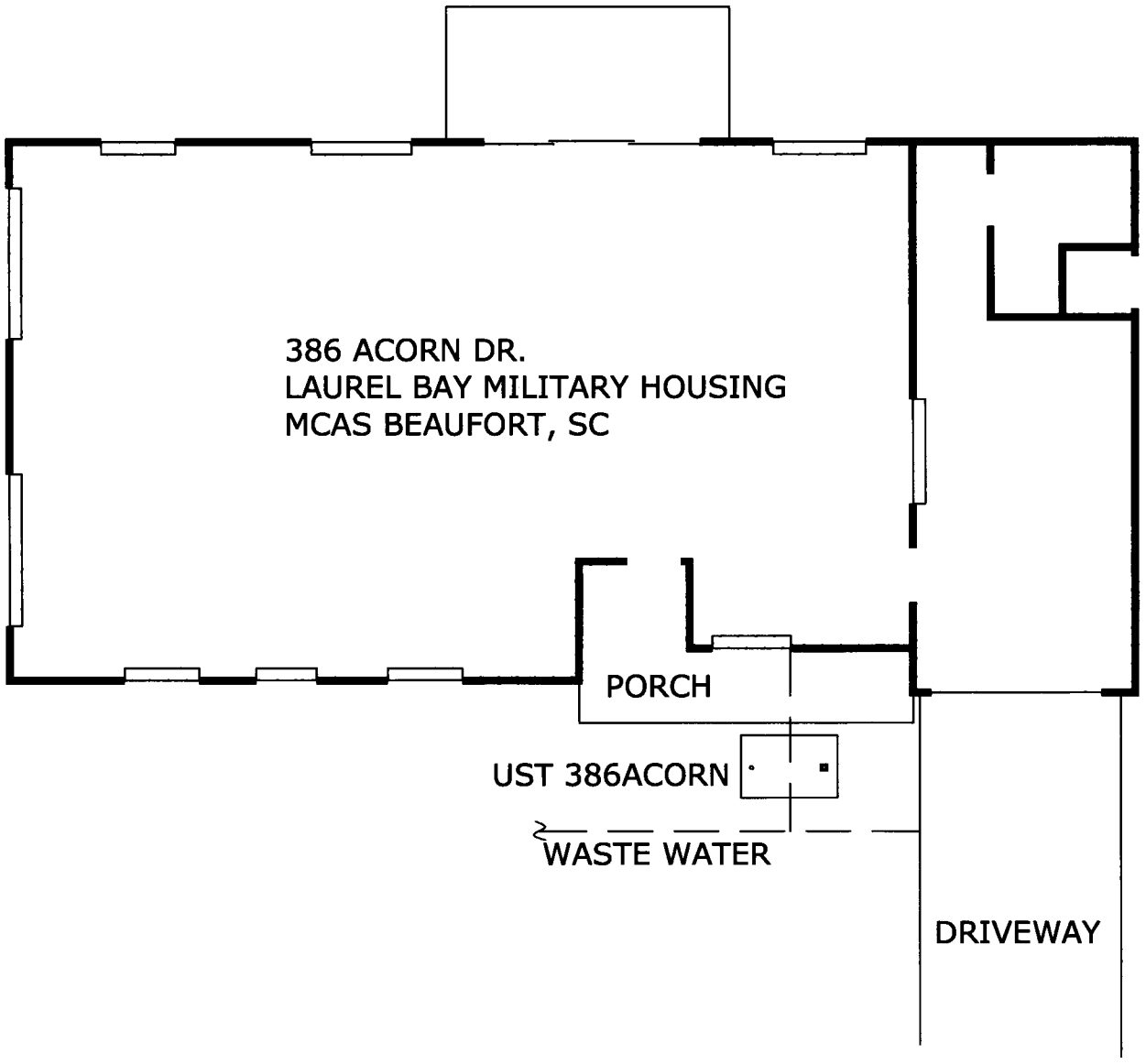
SBG-EEG, Inc.
Small Business Group, Inc.
10179 Hwy 78
Ladson, SC 29456

Ph. (843) 879-0400

Drawn By: L. DiAsio

Dwg Date: May 2009

FIGURE 1: LOCATION MAP
386 ACORN DR., LAUREL BAY
MCAS BEAUFORT SC



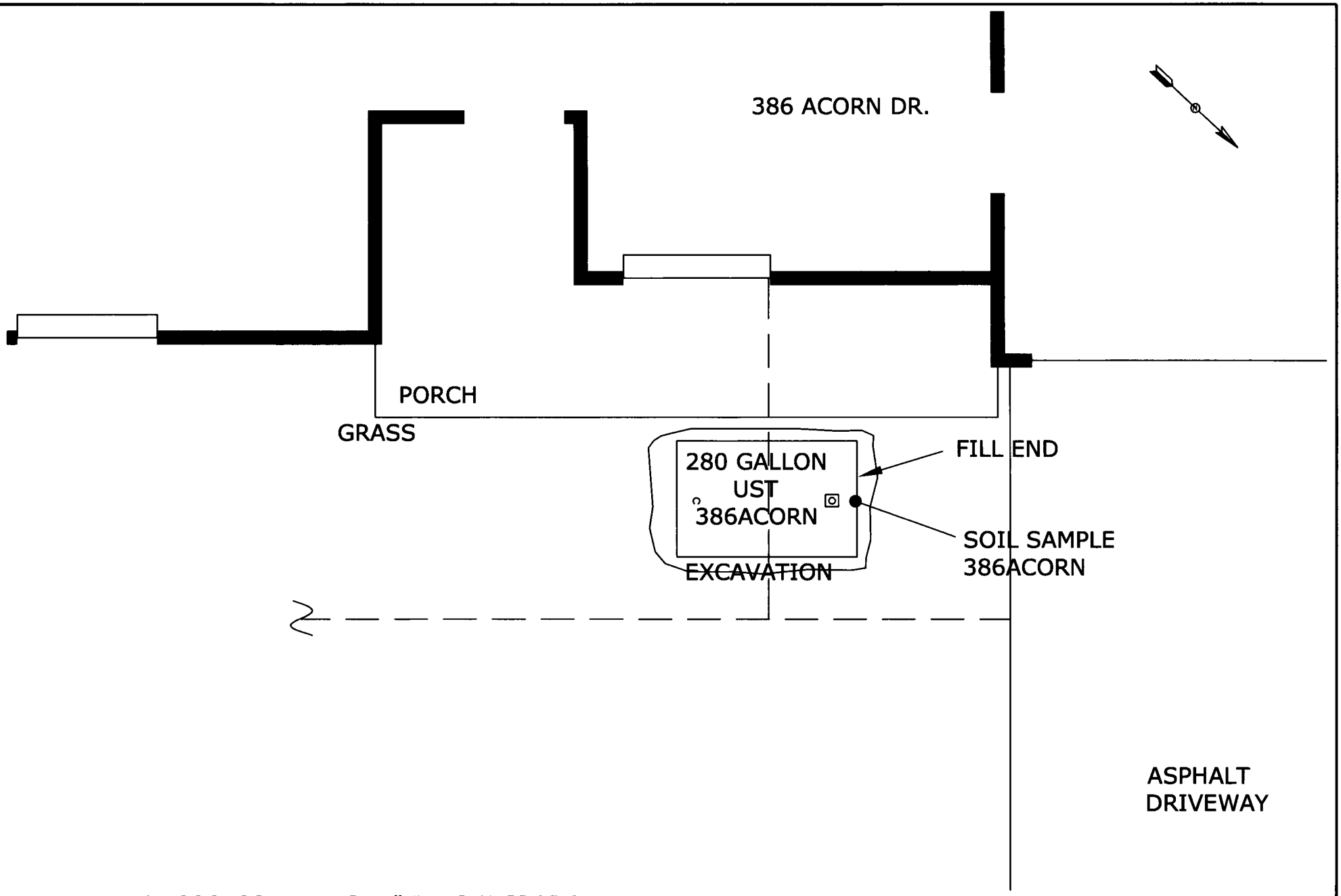
GRAPHIC SCALE

0 5' 10' 20'

SBG-EEG
10179 HWY 78
LADSON, SC 29456
ph. (843) 879-0400

FIGURE 2 SITE MAP
386 ACORN DR., LAUREL BAY
MCAS BEAUFORT SC

SCALE: GRAPHIC | DWG DATE MAY 2009



UST 386ACORN WAS LL" BELOW GRADE.

GRAPHIC SCALE

0 5'

SBG-EEG
10179 HWY 78
LADSON, SC 29456
ph. (843) 879-0400

FIGURE 3 UST SAMPLE LOCATIONS
386 ACORN DR., LAUREL BAY
MCAS BEAUFORT SC

SCALE: GRAPHIC | DWG DATE MAY 2009

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	386 Acorn						
Benzene	ND						
Toluene	ND						
Ethylbenzene	0.00712 mg/kg						
Xylenes	0.00660 mg/kg						
Naphthalene	0.163 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
2960 Foster Creighton Road Nashville, TN 37204 * 800-765-0980 * Fax 615-726-3404

May 15, 2009 1:45:00PM

Client: EEG - Env. Enterprise Group (2449)
10179 Highway 78
Ladson, SC 29456
Attn: Tom McElwee

Work Order: NSE0094
Project Name: Laurel Bay Housing Project
Project Nbr: [none]
P/O Nbr: 0829
Date Received: 05/01/09

SAMPLE IDENTIFICATION	LAB NUMBER	COLLECTION DATE AND TIME
295 Birch-1	NSE0094-01	04/27/09 10:45
295 Birch-2	NSE0094-02	04/27/09 13:00
289 Birch	NSE0094-03	04/28/09 11:30
386 Acorn	NSE0094-04	04/29/09 11:15
397 Acorn-1	NSE0094-05	04/30/09 10:30
397 Acorn-2	NSE0094-06	04/30/09 11:40

An executed copy of the chain of custody, the project quality control data, and the sample receipt form are also included as an addendum to this report. If you have any questions relating to this analytical report, please contact your Laboratory Project Manager at 1-800-765-0980. Any opinions, if expressed, are outside the scope of the Laboratory's accreditation.

The Chain(s) of Custody, 2 pages, are included and are an integral part of this report.

These results relate only to the items tested. This report shall not be reproduced except in full and with permission of the laboratory.

All solids results are reported in wet weight unless specifically stated.
Estimated uncertainty is available upon request.
This report has been electronically signed.
Report Approved By:

Ken A. Hayes

Senior Project Manager

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Client	EEG - Env. Enterprise Group (2449)	Work Order:	NSE0094
	10179 Highway 78	Project Name:	Laurel Bay Housing Project
	Ladson, SC 29456	Project Number:	[none]
Attn	Tom McElwee	Received:	05/01/09 08:00

ANALYTICAL REPORT

Analyte	Result	Flag	Units	MRL	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: NSE0094-01 (295 Birch-1 - Soil) Sampled: 04/27/09 10:45								
General Chemistry Parameters								
% Dry Solids	**81.6**		%	0.500	1	05/11/09 09:44	SW-846	9051163
Selected Volatile Organic Compounds by EPA Method 8260B								
Benzene	ND		mg/kg dry	0.00205	1	05/06/09 05:20	SW846 8260B	9050171
Ethylbenzene	**0.00317**		mg/kg dry	0.00205	1	05/06/09 05:20	SW846 8260B	9050171
Naphthalene	**0.0628**	B	mg/kg dry	0.00511	1	05/06/09 05:20	SW846 8260B	9050171
Toluene	ND	B	mg/kg dry	0.00205	1	05/06/09 05:20	SW846 8260B	9050171
Xylenes, total	ND	B	mg/kg dry	0.00511	1	05/06/09 05:20	SW846 8260B	9050171
Surr: 1,2-Dichloroethane-d4 (41-150%)	*116 %*					*05/06/09 05:20*	*SW846 8260B*	*9050171*
Surr: Dibromofluoromethane (55-139%)	*102 %*					*05/06/09 05:20*	*SW846 8260B*	*9050171*
Surr: Toluene-d8 (57-148%)	*96 %*					*05/06/09 05:20*	*SW846 8260B*	*9050171*
Surr: 4-Bromofluorobenzene (58-150%)	*107 %*					*05/06/09 05:20*	*SW846 8260B*	*9050171*
Polyaromatic Hydrocarbons by EPA 8270D								
Acenaphthene	ND		mg/kg dry	0.0800	1	05/08/09 12:51	SW846 8270D	9050227
Acenaphthylene	ND		mg/kg dry	0.0800	1	05/08/09 12:51	SW846 8270D	9050227
Anthracene	**0.0812**		mg/kg dry	0.0800	1	05/08/09 12:51	SW846 8270D	9050227
Benzo (a) anthracene	ND		mg/kg dry	0.0800	1	05/08/09 12:51	SW846 8270D	9050227
Benzo (a) pyrene	ND		mg/kg dry	0.0800	1	05/08/09 12:51	SW846 8270D	9050227
Benzo (b) fluoranthene	ND		mg/kg dry	0.0800	1	05/08/09 12:51	SW846 8270D	9050227
Benzo (g,h,i) perylene	ND		mg/kg dry	0.0800	1	05/08/09 12:51	SW846 8270D	9050227
Benzo (k) fluoranthene	ND		mg/kg dry	0.0800	1	05/08/09 12:51	SW846 8270D	9050227
Chrysene	ND		mg/kg dry	0.0800	1	05/08/09 12:51	SW846 8270D	9050227
Dibenz (a,h) anthracene	ND		mg/kg dry	0.0800	1	05/08/09 12:51	SW846 8270D	9050227
Fluoranthene	**0.139**		mg/kg dry	0.0800	1	05/08/09 12:51	SW846 8270D	9050227
Fluorene	**0.115**		mg/kg dry	0.0800	1	05/08/09 12:51	SW846 8270D	9050227
Indeno (1,2,3-cd) pyrene	ND		mg/kg dry	0.0800	1	05/08/09 12:51	SW846 8270D	9050227
Naphthalene	ND		mg/kg dry	0.0800	1	05/08/09 12:51	SW846 8270D	9050227
Phenanthrene	**0.771**		mg/kg dry	0.0800	1	05/08/09 12:51	SW846 8270D	9050227
Pyrene	ND		mg/kg dry	0.0800	1	05/08/09 12:51	SW846 8270D	9050227
1-Methylnaphthalene	ND		mg/kg dry	0.0800	1	05/08/09 12:51	SW846 8270D	9050227
2-Methylnaphthalene	ND		mg/kg dry	0.0800	1	05/08/09 12:51	SW846 8270D	9050227
Surr: Terphenyl-d14 (26-128%)	*56 %*					*05/08/09 12:51*	*SW846 8270D*	*9050227*
Surr: 2-Fluorobiphenyl (19-109%)	*50 %*					*05/08/09 12:51*	*SW846 8270D*	*9050227*
Surr: Nitrobenzene-d5 (22-104%)	*48 %*					*05/08/09 12:51*	*SW846 8270D*	*9050227*

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Client	EEG - Env. Enterprise Group (2449)	Work Order:	NSE0094
	10179 Highway 78	Project Name:	Laurel Bay Housing Project
	Ladson, SC 29456	Project Number:	[none]
Attn	Tom McElwee	Received:	05/01/09 08:00

ANALYTICAL REPORT

Analyte	Result	Flag	Units	MRL	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: NSE0094-02 (295 Birch-2 - Soil) Sampled: 04/27/09 13:00								
General Chemistry Parameters								
% Dry Solids	**74.8**		%	0.500	1	05/11/09 09:44	SW-846	9051163
Selected Volatile Organic Compounds by EPA Method 8260B								
Benzene	ND		mg/kg dry	0.00219	1	05/06/09 05:51	SW846 8260B	9050171
Ethylbenzene	ND		mg/kg dry	0.00219	1	05/06/09 05:51	SW846 8260B	9050171
Naphthalene	**0.0151**	B	mg/kg dry	0.00548	1	05/06/09 05:51	SW846 8260B	9050171
Toluene	ND	B	mg/kg dry	0.00219	1	05/06/09 05:51	SW846 8260B	9050171
Xylenes, total	ND	B	mg/kg dry	0.00548	1	05/06/09 05:51	SW846 8260B	9050171
Surr: 1,2-Dichloroethane-d4 (41-150%)	*119 %*					*05/06/09 05:51*	*SW846 8260B*	*9050171*
Surr: Dibromofluoromethane (55-139%)	*103 %*					*05/06/09 05:51*	*SW846 8260B*	*9050171*
Surr: Toluene-d8 (57-148%)	*103 %*					*05/06/09 05:51*	*SW846 8260B*	*9050171*
Surr: 4-Bromofluorobenzene (58-150%)	*113 %*					*05/06/09 05:51*	*SW846 8260B*	*9050171*
Polyaromatic Hydrocarbons by EPA 8270D								
Acenaphthene	ND		mg/kg dry	0.0888	1	05/07/09 19:29	SW846 8270D	9050227
Acenaphthylene	ND		mg/kg dry	0.0888	1	05/07/09 19:29	SW846 8270D	9050227
Anthracene	ND		mg/kg dry	0.0888	1	05/07/09 19:29	SW846 8270D	9050227
Benzo (a) anthracene	ND		mg/kg dry	0.0888	1	05/07/09 19:29	SW846 8270D	9050227
Benzo (a) pyrene	ND		mg/kg dry	0.0888	1	05/07/09 19:29	SW846 8270D	9050227
Benzo (b) fluoranthene	ND		mg/kg dry	0.0888	1	05/07/09 19:29	SW846 8270D	9050227
Benzo (g,h,i) perylene	ND		mg/kg dry	0.0888	1	05/07/09 19:29	SW846 8270D	9050227
Benzo (k) fluoranthene	ND		mg/kg dry	0.0888	1	05/07/09 19:29	SW846 8270D	9050227
Chrysene	ND		mg/kg dry	0.0888	1	05/07/09 19:29	SW846 8270D	9050227
Dibenz (a,h) anthracene	ND		mg/kg dry	0.0888	1	05/07/09 19:29	SW846 8270D	9050227
Fluoranthene	ND		mg/kg dry	0.0888	1	05/07/09 19:29	SW846 8270D	9050227
Fluorene	ND		mg/kg dry	0.0888	1	05/07/09 19:29	SW846 8270D	9050227
Indeno (1,2,3-cd) pyrene	ND		mg/kg dry	0.0888	1	05/07/09 19:29	SW846 8270D	9050227
Naphthalene	ND		mg/kg dry	0.0888	1	05/07/09 19:29	SW846 8270D	9050227
Phenanthrene	**0.207**		mg/kg dry	0.0888	1	05/07/09 19:29	SW846 8270D	9050227
Pyrene	ND		mg/kg dry	0.0888	1	05/07/09 19:29	SW846 8270D	9050227
1-Methylnaphthalene	**0.585**		mg/kg dry	0.0888	1	05/07/09 19:29	SW846 8270D	9050227
2-Methylnaphthalene	**0.0980**		mg/kg dry	0.0888	1	05/07/09 19:29	SW846 8270D	9050227
Surr: Terphenyl-d14 (26-128%)	*88 %*					*05/07/09 19:29*	*SW846 8270D*	*9050227*
Surr: 2-Fluorobiphenyl (19-109%)	*87 %*					*05/07/09 19:29*	*SW846 8270D*	*9050227*
Surr: Nitrobenzene-d5 (22-104%)	*64 %*					*05/07/09 19:29*	*SW846 8270D*	*9050227*

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Client	EEG - Env. Enterprise Group (2449)	Work Order:	NSE0094
	10179 Highway 78	Project Name:	Laurel Bay Housing Project
	Ladson, SC 29456	Project Number:	[none]
Attn	Tom McElwee	Received:	05/01/09 08:00

ANALYTICAL REPORT

Analyte	Result	Flag	Units	MRL	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: NSE0094-03 (289 Birch - Soil) Sampled: 04/28/09 11:30								
General Chemistry Parameters								
% Dry Solids	**84.8**		%	0.500	1	05/11/09 09:44	SW-846	9051163
Selected Volatile Organic Compounds by EPA Method 8260B								
Benzene	ND		mg/kg dry	0.00196	1	05/06/09 06:21	SW846 8260B	9050171
Ethylbenzene	ND		mg/kg dry	0.00196	1	05/06/09 06:21	SW846 8260B	9050171
Naphthalene	**0.00797**	B	mg/kg dry	0.00491	1	05/06/09 06:21	SW846 8260B	9050171
Toluene	ND	B	mg/kg dry	0.00196	1	05/06/09 06:21	SW846 8260B	9050171
Xylenes, total	ND	B	mg/kg dry	0.00491	1	05/06/09 06:21	SW846 8260B	9050171
Surr: 1,2-Dichloroethane-d4 (41-150%)	*115 %*					*05/06/09 06:21*	*SW846 8260B*	*9050171*
Surr: Dibromofluoromethane (55-139%)	*100 %*					*05/06/09 06:21*	*SW846 8260B*	*9050171*
Surr: Toluene-d8 (57-148%)	*102 %*					*05/06/09 06:21*	*SW846 8260B*	*9050171*
Surr: 4-Bromofluorobenzene (58-150%)	*130 %*					*05/06/09 06:21*	*SW846 8260B*	*9050171*
Polyaromatic Hydrocarbons by EPA 8270D								
Acenaphthene	ND	RL1	mg/kg dry	0.395	5	05/08/09 13:20	SW846 8270D	9050227
Acenaphthylene	ND	RL1	mg/kg dry	0.395	5	05/08/09 13:20	SW846 8270D	9050227
Anthracene	ND	RL1	mg/kg dry	0.395	5	05/08/09 13:20	SW846 8270D	9050227
Benzo (a) anthracene	ND	RL1	mg/kg dry	0.395	5	05/08/09 13:20	SW846 8270D	9050227
Benzo (a) pyrene	ND	RL1	mg/kg dry	0.395	5	05/08/09 13:20	SW846 8270D	9050227
Benzo (b) fluoranthene	ND	RL1	mg/kg dry	0.395	5	05/08/09 13:20	SW846 8270D	9050227
Benzo (g,h,i) perylene	ND	RL1	mg/kg dry	0.395	5	05/08/09 13:20	SW846 8270D	9050227
Benzo (k) fluoranthene	ND	RL1	mg/kg dry	0.395	5	05/08/09 13:20	SW846 8270D	9050227
Chrysene	ND	RL1	mg/kg dry	0.395	5	05/08/09 13:20	SW846 8270D	9050227
Dibenz (a,h) anthracene	ND	RL1	mg/kg dry	0.395	5	05/08/09 13:20	SW846 8270D	9050227
Fluoranthene	ND	RL1	mg/kg dry	0.395	5	05/08/09 13:20	SW846 8270D	9050227
Fluorene	ND	RL1	mg/kg dry	0.395	5	05/08/09 13:20	SW846 8270D	9050227
Indeno (1,2,3-cd) pyrene	ND	RL1	mg/kg dry	0.395	5	05/08/09 13:20	SW846 8270D	9050227
Naphthalene	ND	RL1	mg/kg dry	0.395	5	05/08/09 13:20	SW846 8270D	9050227
Phenanthrene	ND	RL1	mg/kg dry	0.395	5	05/08/09 13:20	SW846 8270D	9050227
Pyrene	ND	RL1	mg/kg dry	0.395	5	05/08/09 13:20	SW846 8270D	9050227
1-Methylnaphthalene	ND	RL1	mg/kg dry	0.395	5	05/08/09 13:20	SW846 8270D	9050227
2-Methylnaphthalene	ND	RL1	mg/kg dry	0.395	5	05/08/09 13:20	SW846 8270D	9050227
Surr: Terphenyl-d14 (26-128%)	*47 %*					*05/08/09 13:20*	*SW846 8270D*	*9050227*
Surr: 2-Fluorobiphenyl (19-109%)	*45 %*					*05/08/09 13:20*	*SW846 8270D*	*9050227*
Surr: Nitrobenzene-d5 (22-104%)	*44 %*					*05/08/09 13:20*	*SW846 8270D*	*9050227*

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Client	EEG - Env. Enterprise Group (2449)	Work Order:	NSE0094
	10179 Highway 78	Project Name:	Laurel Bay Housing Project
	Ladson, SC 29456	Project Number:	[none]
Attn	Tom McElwee	Received:	05/01/09 08:00

ANALYTICAL REPORT

Analyte	Result	Flag	Units	MRL	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: NSE0094-04 (386 Acorn - Soil) Sampled: 04/29/09 11:15								
General Chemistry Parameters								
% Dry Solids	**72.5**		%	0.500	1	05/11/09 09:44	SW-846	9051163
Selected Volatile Organic Compounds by EPA Method 8260B								
Benzene	ND		mg/kg dry	0.00220	1	05/06/09 06:51	SW846 8260B	9050171
Ethylbenzene	**0.00712**		mg/kg dry	0.00220	1	05/06/09 06:51	SW846 8260B	9050171
Naphthalene	**0.163**	B	mg/kg dry	0.00549	1	05/06/09 06:51	SW846 8260B	9050171
Toluene	ND	B	mg/kg dry	0.00220	1	05/06/09 06:51	SW846 8260B	9050171
Xylenes, total	**0.00660**	B	mg/kg dry	0.00549	1	05/06/09 06:51	SW846 8260B	9050171
Surr: 1,2-Dichloroethane-d4 (41-150%)	*115 %*					*05/06/09 06:51*	*SW846 8260B*	*9050171*
Surr: Dibromofluoromethane (55-139%)	*101 %*					*05/06/09 06:51*	*SW846 8260B*	*9050171*
Surr: Toluene-d8 (57-148%)	*110 %*					*05/06/09 06:51*	*SW846 8260B*	*9050171*
Surr: 4-Bromofluorobenzene (58-150%)	*142 %*					*05/06/09 06:51*	*SW846 8260B*	*9050171*
Polyaromatic Hydrocarbons by EPA 8270D								
Acenaphthene	ND		mg/kg dry	0.450	5	05/08/09 13:51	SW846 8270D	9050227
Acenaphthylene	ND		mg/kg dry	0.450	5	05/08/09 13:51	SW846 8270D	9050227
Anthracene	ND		mg/kg dry	0.450	5	05/08/09 13:51	SW846 8270D	9050227
Benzo (a) anthracene	ND		mg/kg dry	0.450	5	05/08/09 13:51	SW846 8270D	9050227
Benzo (a) pyrene	ND		mg/kg dry	0.450	5	05/08/09 13:51	SW846 8270D	9050227
Benzo (b) fluoranthene	ND		mg/kg dry	0.450	5	05/08/09 13:51	SW846 8270D	9050227
Benzo (g,h,i) perylene	ND		mg/kg dry	0.450	5	05/08/09 13:51	SW846 8270D	9050227
Benzo (k) fluoranthene	ND		mg/kg dry	0.450	5	05/08/09 13:51	SW846 8270D	9050227
Chrysene	ND		mg/kg dry	0.450	5	05/08/09 13:51	SW846 8270D	9050227
Dibenz (a,h) anthracene	ND		mg/kg dry	0.450	5	05/08/09 13:51	SW846 8270D	9050227
Fluoranthene	ND		mg/kg dry	0.450	5	05/08/09 13:51	SW846 8270D	9050227
Fluorene	ND		mg/kg dry	0.450	5	05/08/09 13:51	SW846 8270D	9050227
Indeno (1,2,3-cd) pyrene	ND		mg/kg dry	0.450	5	05/08/09 13:51	SW846 8270D	9050227
Naphthalene	ND		mg/kg dry	0.450	5	05/08/09 13:51	SW846 8270D	9050227
Phenanthrene	**0.699**		mg/kg dry	0.450	5	05/08/09 13:51	SW846 8270D	9050227
Pyrene	ND		mg/kg dry	0.450	5	05/08/09 13:51	SW846 8270D	9050227
1-Methylnaphthalene	**1.52**		mg/kg dry	0.450	5	05/08/09 13:51	SW846 8270D	9050227
2-Methylnaphthalene	**2.22**		mg/kg dry	0.450	5	05/08/09 13:51	SW846 8270D	9050227
Surr: Terphenyl-d14 (26-128%)	*59 %*					*05/08/09 13:51*	*SW846 8270D*	*9050227*
Surr: 2-Fluorobiphenyl (19-109%)	*57 %*					*05/08/09 13:51*	*SW846 8270D*	*9050227*
Surr: Nitrobenzene-d5 (22-104%)	*53 %*					*05/08/09 13:51*	*SW846 8270D*	*9050227*

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Client	EEG - Env. Enterprise Group (2449)	Work Order:	NSE0094
	10179 Highway 78	Project Name:	Laurel Bay Housing Project
	Ladson, SC 29456	Project Number:	[none]
Attn	Tom McElwee	Received:	05/01/09 08:00

ANALYTICAL REPORT

Analyte	Result	Flag	Units	MRL	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: NSE0094-05 (397 Acorn-1 - Soil) Sampled: 04/30/09 10:30								
General Chemistry Parameters								
% Dry Solids	**80.3**		%	0.500	1	05/11/09 09:44	SW-846	9051163
Selected Volatile Organic Compounds by EPA Method 8260B								
Benzene	ND		mg/kg dry	0.00217	1	05/06/09 07:21	SW846 8260B	9050171
Ethylbenzene	ND		mg/kg dry	0.00217	1	05/06/09 07:21	SW846 8260B	9050171
Naphthalene	**0.0123**	B	mg/kg dry	0.00542	1	05/06/09 07:21	SW846 8260B	9050171
Toluene	ND	B	mg/kg dry	0.00217	1	05/06/09 07:21	SW846 8260B	9050171
Xylenes, total	ND	B	mg/kg dry	0.00542	1	05/06/09 07:21	SW846 8260B	9050171
Surr: 1,2-Dichloroethane-d4 (41-150%)	*117 %*					*05/06/09 07:21*	*SW846 8260B*	*9050171*
Surr: Dibromofluoromethane (55-139%)	*102 %*					*05/06/09 07:21*	*SW846 8260B*	*9050171*
Surr: Toluene-d8 (57-148%)	*104 %*					*05/06/09 07:21*	*SW846 8260B*	*9050171*
Surr: 4-Bromofluorobenzene (58-150%)	*122 %*					*05/06/09 07:21*	*SW846 8260B*	*9050171*
Polyaromatic Hydrocarbons by EPA 8270D								
Acenaphthene	ND		mg/kg dry	0.0815	1	05/07/09 20:37	SW846 8270D	9050227
Acenaphthylene	ND		mg/kg dry	0.0815	1	05/07/09 20:37	SW846 8270D	9050227
Anthracene	ND		mg/kg dry	0.0815	1	05/07/09 20:37	SW846 8270D	9050227
Benzo (a) anthracene	ND		mg/kg dry	0.0815	1	05/07/09 20:37	SW846 8270D	9050227
Benzo (a) pyrene	ND		mg/kg dry	0.0815	1	05/07/09 20:37	SW846 8270D	9050227
Benzo (b) fluoranthene	ND		mg/kg dry	0.0815	1	05/07/09 20:37	SW846 8270D	9050227
Benzo (g,h,i) perylene	ND		mg/kg dry	0.0815	1	05/07/09 20:37	SW846 8270D	9050227
Benzo (k) fluoranthene	ND		mg/kg dry	0.0815	1	05/07/09 20:37	SW846 8270D	9050227
Chrysene	ND		mg/kg dry	0.0815	1	05/07/09 20:37	SW846 8270D	9050227
Dibenz (a,h) anthracene	ND		mg/kg dry	0.0815	1	05/07/09 20:37	SW846 8270D	9050227
Fluoranthene	ND		mg/kg dry	0.0815	1	05/07/09 20:37	SW846 8270D	9050227
Fluorene	ND		mg/kg dry	0.0815	1	05/07/09 20:37	SW846 8270D	9050227
Indeno (1,2,3-cd) pyrene	ND		mg/kg dry	0.0815	1	05/07/09 20:37	SW846 8270D	9050227
Naphthalene	ND		mg/kg dry	0.0815	1	05/07/09 20:37	SW846 8270D	9050227
Phenanthrene	ND		mg/kg dry	0.0815	1	05/07/09 20:37	SW846 8270D	9050227
Pyrene	ND		mg/kg dry	0.0815	1	05/07/09 20:37	SW846 8270D	9050227
1-Methylnaphthalene	ND		mg/kg dry	0.0815	1	05/07/09 20:37	SW846 8270D	9050227
2-Methylnaphthalene	ND		mg/kg dry	0.0815	1	05/07/09 20:37	SW846 8270D	9050227
Surr: Terphenyl-d14 (26-128%)	*62 %*					*05/07/09 20:37*	*SW846 8270D*	*9050227*
Surr: 2-Fluorobiphenyl (19-109%)	*71 %*					*05/07/09 20:37*	*SW846 8270D*	*9050227*
Surr: Nitrobenzene-d5 (22-104%)	*63 %*					*05/07/09 20:37*	*SW846 8270D*	*9050227*

2960 Foster Creighton Road Nashville, TN 37204 * 800-765-0980 * Fax 615-726-3404

Client	EEG - Env. Enterprise Group (2449)	Work Order:	NSE0094
	10179 Highway 78	Project Name:	Laurel Bay Housing Project
	Ladson, SC 29456	Project Number:	[none]
Attn	Tom McElwee	Received:	05/01/09 08:00

ANALYTICAL REPORT

Analyte	Result	Flag	Units	MRL	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: NSE0094-06 (397 Acorn-2 - Soil) Sampled: 04/30/09 11:40								
General Chemistry Parameters								
% Dry Solids	**79.3**		%	0.500	1	05/11/09 09:44	SW-846	9051163
Selected Volatile Organic Compounds by EPA Method 8260B								
Benzene	ND		mg/kg dry	0.00214	1	05/06/09 07:51	SW846 8260B	9050171
Ethylbenzene	ND		mg/kg dry	0.00214	1	05/06/09 07:51	SW846 8260B	9050171
Naphthalene	**0.00619**	B	mg/kg dry	0.00536	1	05/06/09 07:51	SW846 8260B	9050171
Toluene	ND	B	mg/kg dry	0.00214	1	05/06/09 07:51	SW846 8260B	9050171
Xylenes, total	ND	B	mg/kg dry	0.00536	1	05/06/09 07:51	SW846 8260B	9050171
Surr: 1,2-Dichloroethane-d4 (41-150%)	*115 %*					*05/06/09 07:51*	*SW846 8260B*	*9050171*
Surr: Dibromofluoromethane (55-139%)	*100 %*					*05/06/09 07:51*	*SW846 8260B*	*9050171*
Surr: Toluene-d8 (57-148%)	*102 %*					*05/06/09 07:51*	*SW846 8260B*	*9050171*
Surr: 4-Bromofluorobenzene (58-150%)	*125 %*					*05/06/09 07:51*	*SW846 8260B*	*9050171*
Polyaromatic Hydrocarbons by EPA 8270D								
Acenaphthene	ND	RL1	mg/kg dry	0.411	5	05/08/09 14:20	SW846 8270D	9050227
Acenaphthylene	ND	RL1	mg/kg dry	0.411	5	05/08/09 14:20	SW846 8270D	9050227
Anthracene	ND	RL1	mg/kg dry	0.411	5	05/08/09 14:20	SW846 8270D	9050227
Benzo (a) anthracene	ND	RL1	mg/kg dry	0.411	5	05/08/09 14:20	SW846 8270D	9050227
Benzo (a) pyrene	ND	RL1	mg/kg dry	0.411	5	05/08/09 14:20	SW846 8270D	9050227
Benzo (b) fluoranthene	ND	RL1	mg/kg dry	0.411	5	05/08/09 14:20	SW846 8270D	9050227
Benzo (g,h,i) perylene	ND	RL1	mg/kg dry	0.411	5	05/08/09 14:20	SW846 8270D	9050227
Benzo (k) fluoranthene	ND	RL1	mg/kg dry	0.411	5	05/08/09 14:20	SW846 8270D	9050227
Chrysene	ND	RL1	mg/kg dry	0.411	5	05/08/09 14:20	SW846 8270D	9050227
Dibenz (a,h) anthracene	ND	RL1	mg/kg dry	0.411	5	05/08/09 14:20	SW846 8270D	9050227
Fluoranthene	ND	RL1	mg/kg dry	0.411	5	05/08/09 14:20	SW846 8270D	9050227
Fluorene	ND	RL1	mg/kg dry	0.411	5	05/08/09 14:20	SW846 8270D	9050227
Indeno (1,2,3-cd) pyrene	ND	RL1	mg/kg dry	0.411	5	05/08/09 14:20	SW846 8270D	9050227
Naphthalene	ND	RL1	mg/kg dry	0.411	5	05/08/09 14:20	SW846 8270D	9050227
Phenanthrene	ND	RL1	mg/kg dry	0.411	5	05/08/09 14:20	SW846 8270D	9050227
Pyrene	ND	RL1	mg/kg dry	0.411	5	05/08/09 14:20	SW846 8270D	9050227
1-Methylnaphthalene	ND	RL1	mg/kg dry	0.411	5	05/08/09 14:20	SW846 8270D	9050227
2-Methylnaphthalene	ND	RL1	mg/kg dry	0.411	5	05/08/09 14:20	SW846 8270D	9050227
Surr: Terphenyl-d14 (26-128%)	*40 %*					*05/08/09 14:20*	*SW846 8270D*	*9050227*
Surr: 2-Fluorobiphenyl (19-109%)	*50 %*					*05/08/09 14:20*	*SW846 8270D*	*9050227*
Surr: Nitrobenzene-d5 (22-104%)	*45 %*					*05/08/09 14:20*	*SW846 8270D*	*9050227*

2960 Foster Creighton Road Nashville, TN 37204 * 800-765-0980 * Fax 615-726-3404

Client	EEG - Env. Enterprise Group (2449)	Work Order:	NSE0094
	10179 Highway 78	Project Name:	Laurel Bay Housing Project
	Ladson, SC 29456	Project Number:	[none]
Attn	Tom McElwee	Received:	05/01/09 08:00

SAMPLE EXTRACTION DATA

Parameter	Batch	Lab Number	Wt/Vol Extracted	Extracted Vol	Date	Analyst	Extraction Method
Polyaromatic Hydrocarbons by EPA 8270D							
SW846 8270D	9050227	NSE0094-01	30.78	1.00	05/06/09 11:20	TEM	EPA 3550B
SW846 8270D	9050227	NSE0094-02	30.27	1.00	05/06/09 11:20	TEM	EPA 3550B
SW846 8270D	9050227	NSE0094-03	30.00	1.00	05/06/09 11:20	TEM	EPA 3550B
SW846 8270D	9050227	NSE0094-03RE1	30.00	1.00	05/06/09 11:20	TEM	EPA 3550B
SW846 8270D	9050227	NSE0094-04	30.79	1.00	05/06/09 11:20	TEM	EPA 3550B
SW846 8270D	9050227	NSE0094-04RE1	30.79	1.00	05/06/09 11:20	TEM	EPA 3550B
SW846 8270D	9050227	NSE0094-05	30.72	1.00	05/06/09 11:20	TEM	EPA 3550B
SW846 8270D	9050227	NSE0094-06	30.83	1.00	05/06/09 11:20	TEM	EPA 3550B
SW846 8270D	9050227	NSE0094-06RE1	30.83	1.00	05/06/09 11:20	TEM	EPA 3550B
Selected Volatile Organic Compounds by EPA Method 8260B							
SW846 8260B	9050171	NSE0094-01	5.99	5.00	04/27/09 10:45	JRL	EPA 5035
SW846 8260B	9050171	NSE0094-02	6.10	5.00	04/27/09 13:00	JRL	EPA 5035
SW846 8260B	9050171	NSE0094-03	6.01	5.00	04/28/09 11:30	JRL	EPA 5035
SW846 8260B	9050171	NSE0094-04	6.28	5.00	04/29/09 11:15	JRL	EPA 5035
SW846 8260B	9050171	NSE0094-05	5.74	5.00	04/30/09 10:30	JRL	EPA 5035
SW846 8260B	9050171	NSE0094-06	5.88	5.00	04/30/09 11:40	JRL	EPA 5035
SW846 8260B	9050171	NSE0094-06RE1	4.57	5.00	04/30/09 11:40	JRL	EPA 5035

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Client	EEG - Env. Enterprise Group (2449)	Work Order:	NSE0094
	10179 Highway 78	Project Name:	Laurel Bay Housing Project
	Ladson, SC 29456	Project Number:	[none]
Attn	Tom McElwee	Received:	05/01/09 08:00

PROJECT QUALITY CONTROL DATA
Blank

Analyte	Blank Value	Q	Units	Q.C. Batch	Lab Number	Analyzed Date/Time
Selected Volatile Organic Compounds by EPA Method 8260B						
9050171-BLK1						
Benzene	<0.000670		mg/kg wet	9050171	9050171-BLK1	05/06/09 02:19
Ethylbenzene	<0.000670		mg/kg wet	9050171	9050171-BLK1	05/06/09 02:19
Naphthalene	0.00199	B	mg/kg wet	9050171	9050171-BLK1	05/06/09 02:19
Toluene	0.00107	B	mg/kg wet	9050171	9050171-BLK1	05/06/09 02:19
Xylenes, total	0.00284	B	mg/kg wet	9050171	9050171-BLK1	05/06/09 02:19
Surrogate: 1,2-Dichloroethane-d4	117%			9050171	9050171-BLK1	05/06/09 02:19
Surrogate: Dibromofluoromethane	102%			9050171	9050171-BLK1	05/06/09 02:19
Surrogate: Toluene-d8	95%			9050171	9050171-BLK1	05/06/09 02:19
Surrogate: 4-Bromofluorobenzene	103%			9050171	9050171-BLK1	05/06/09 02:19
Polyaromatic Hydrocarbons by EPA 8270D						
9050227-BLK1						
Acenaphthene	<0.0310		mg/kg wet	9050227	9050227-BLK1	05/06/09 18:56
Acenaphthylene	<0.0320		mg/kg wet	9050227	9050227-BLK1	05/06/09 18:56
Anthracene	<0.0330		mg/kg wet	9050227	9050227-BLK1	05/06/09 18:56
Benzo (a) anthracene	<0.0380		mg/kg wet	9050227	9050227-BLK1	05/06/09 18:56
Benzo (a) pyrene	<0.0290		mg/kg wet	9050227	9050227-BLK1	05/06/09 18:56
Benzo (b) fluoranthene	<0.0320		mg/kg wet	9050227	9050227-BLK1	05/06/09 18:56
Benzo (g,h,i) perylene	<0.0290		mg/kg wet	9050227	9050227-BLK1	05/06/09 18:56
Benzo (k) fluoranthene	<0.0290		mg/kg wet	9050227	9050227-BLK1	05/06/09 18:56
Chrysene	<0.0390		mg/kg wet	9050227	9050227-BLK1	05/06/09 18:56
Dibenz (a,h) anthracene	<0.0310		mg/kg wet	9050227	9050227-BLK1	05/06/09 18:56
Fluoranthene	<0.0340		mg/kg wet	9050227	9050227-BLK1	05/06/09 18:56
Fluorene	<0.0390		mg/kg wet	9050227	9050227-BLK1	05/06/09 18:56
Indeno (1,2,3-cd) pyrene	<0.0310		mg/kg wet	9050227	9050227-BLK1	05/06/09 18:56
Naphthalene	<0.0410		mg/kg wet	9050227	9050227-BLK1	05/06/09 18:56
Phenanthrene	<0.0340		mg/kg wet	9050227	9050227-BLK1	05/06/09 18:56
Pyrene	<0.0410		mg/kg wet	9050227	9050227-BLK1	05/06/09 18:56
1-Methylnaphthalene	<0.0320		mg/kg wet	9050227	9050227-BLK1	05/06/09 18:56
2-Methylnaphthalene	<0.0330		mg/kg wet	9050227	9050227-BLK1	05/06/09 18:56
Surrogate: Terphenyl-d14	95%			9050227	9050227-BLK1	05/06/09 18:56
Surrogate: 2-Fluorobiphenyl	72%			9050227	9050227-BLK1	05/06/09 18:56
Surrogate: Nitrobenzene-d5	69%			9050227	9050227-BLK1	05/06/09 18:56

TestAmerica
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2960 Foster Creighton Road Nashville, TN 37204 * 800-765-0980 * Fax 615-726-3404

Client	EEG - Env. Enterprise Group (2449)	Work Order:	NSE0094
	10179 Highway 78	Project Name:	Laurel Bay Housing Project
	Ladson, SC 29456	Project Number:	[none]
Attn	Tom McElwee	Received:	05/01/09 08:00

PROJECT QUALITY CONTROL DATA
Duplicate

Analyte	Orig. Val.	Duplicate	Q	Units	RPD	Limit	Batch	Sample Duplicated	% Rec.	Analyzed Date/Time
General Chemistry Parameters										
9051163-DUP1										
% Dry Solids	90.7	90.2		%	0.6	20	9051163	NSE0088-03		05/11/09 09:44

Client	EEG - Env. Enterprise Group (2449)	Work Order:	NSE0094
	10179 Highway 78	Project Name:	Laurel Bay Housing Project
	Ladson, SC 29456	Project Number:	[none]
Attn	Tom McElwee	Received:	05/01/09 08:00

PROJECT QUALITY CONTROL DATA
LCS

Analyte	Known Val.	Analyzed Val	Q	Units	% Rec.	Target Range	Batch	Analyzed Date/Time
Selected Volatile Organic Compounds by EPA Method 8260B								
9050171-BS1								
Benzene	50.0	45.4		ug/kg	91%	76 - 130	9050171	05/06/09 00:18
Ethylbenzene	50.0	39.8		ug/kg	80%	80 - 128	9050171	05/06/09 00:18
Naphthalene	50.0	53.2		ug/kg	106%	63 - 144	9050171	05/06/09 00:18
Toluene	50.0	41.0		ug/kg	82%	80 - 125	9050171	05/06/09 00:18
Xylenes, total	150	121		ug/kg	81%	79 - 130	9050171	05/06/09 00:18
Surrogate: 1,2-Dichloroethane-d4	50.0	59.5			119%	41 - 150	9050171	05/06/09 00:18
Surrogate: Dibromofluoromethane	50.0	52.5			105%	55 - 139	9050171	05/06/09 00:18
Surrogate: Toluene-d8	50.0	49.0			98%	57 - 148	9050171	05/06/09 00:18
Surrogate: 4-Bromofluorobenzene	50.0	52.3			105%	58 - 150	9050171	05/06/09 00:18
Polyaromatic Hydrocarbons by EPA 8270D								
9050227-BS1								
Acenaphthene	1.67	1.41	MNR	mg/kg wet	84%	52 - 106	9050227	05/06/09 19:19
Acenaphthylene	1.67	1.46	MNR	mg/kg wet	88%	53 - 109	9050227	05/06/09 19:19
Anthracene	1.67	1.65	MNR	mg/kg wet	99%	54 - 124	9050227	05/06/09 19:19
Benzo (a) anthracene	1.67	1.52	MNR	mg/kg wet	91%	53 - 111	9050227	05/06/09 19:19
Benzo (a) pyrene	1.67	1.48	MNR	mg/kg wet	89%	52 - 122	9050227	05/06/09 19:19
Benzo (b) fluoranthene	1.67	1.19	MNR	mg/kg wet	71%	48 - 115	9050227	05/06/09 19:19
Benzo (g,h,i) perylene	1.67	1.47	MNR	mg/kg wet	88%	46 - 114	9050227	05/06/09 19:19
Benzo (k) fluoranthene	1.67	1.36	MNR	mg/kg wet	82%	41 - 121	9050227	05/06/09 19:19
Chrysene	1.67	1.50	MNR	mg/kg wet	90%	49 - 113	9050227	05/06/09 19:19
Dibenz (a,h) anthracene	1.67	1.29	MNR	mg/kg wet	77%	47 - 117	9050227	05/06/09 19:19
Fluoranthene	1.67	1.46	MNR	mg/kg wet	87%	52 - 113	9050227	05/06/09 19:19
Fluorene	1.67	1.48	MNR	mg/kg wet	89%	54 - 107	9050227	05/06/09 19:19
Indeno (1,2,3-cd) pyrene	1.67	1.33	MNR	mg/kg wet	80%	47 - 115	9050227	05/06/09 19:19
Naphthalene	1.67	1.14	MNR	mg/kg wet	69%	34 - 107	9050227	05/06/09 19:19
Phenanthrene	1.67	1.44	MNR	mg/kg wet	86%	53 - 108	9050227	05/06/09 19:19
Pyrene	1.67	1.56	MNR	mg/kg wet	94%	54 - 113	9050227	05/06/09 19:19
1-Methylnaphthalene	1.67	1.04	MNR	mg/kg wet	63%	36 - 100	9050227	05/06/09 19:19
2-Methylnaphthalene	1.67	1.13	MNR	mg/kg wet	68%	42 - 112	9050227	05/06/09 19:19
Surrogate: Terphenyl-d14	1.67	1.52			91%	26 - 128	9050227	05/06/09 19:19
Surrogate: 2-Fluorobiphenyl	1.67	1.38			83%	19 - 109	9050227	05/06/09 19:19
Surrogate: Nitrobenzene-d5	1.67	1.11			67%	22 - 104	9050227	05/06/09 19:19

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Client	EEG - Env. Enterprise Group (2449)	Work Order:	NSE0094
	10179 Highway 78	Project Name:	Laurel Bay Housing Project
	Ladson, SC 29456	Project Number:	[none]
Attn	Tom McElwee	Received:	05/01/09 08:00

PROJECT QUALITY CONTROL DATA

LCS Dup

Analyte	Orig. Val.	Duplicate	Q	Units	Spike Conc	% Rec.	Target Range	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
Selected Volatile Organic Compounds by EPA Method 8260B												
9050171-BSD1												
Benzene		46.0		ug/kg	50.0	92%	76 - 130	1	43	9050171		05/06/09 00:48
Ethylbenzene		39.9		ug/kg	50.0	80%	80 - 128	0.3	48	9050171		05/06/09 00:48
Naphthalene		54.2		ug/kg	50.0	108%	63 - 144	2	50	9050171		05/06/09 00:48
Toluene		40.5		ug/kg	50.0	81%	80 - 125	1	44	9050171		05/06/09 00:48
Xylenes, total		122		ug/kg	150	81%	79 - 130	0.5	48	9050171		05/06/09 00:48
Surrogate: 1,2-Dichloroethane-d4		59.2		ug/kg	50.0	118%	41 - 150			9050171		05/06/09 00:48
Surrogate: Dibromofluoromethane		52.3		ug/kg	50.0	105%	55 - 139			9050171		05/06/09 00:48
Surrogate: Toluene-d8		48.3		ug/kg	50.0	97%	57 - 148			9050171		05/06/09 00:48
Surrogate: 4-Bromofluorobenzene		51.8		ug/kg	50.0	104%	58 - 150			9050171		05/06/09 00:48

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Client	EEG - Env. Enterprise Group (2449)	Work Order:	NSE0094
	10179 Highway 78	Project Name:	Laurel Bay Housing Project
	Ladson, SC 29456	Project Number:	[none]
Attn	Tom McElwee	Received:	05/01/09 08:00

PROJECT QUALITY CONTROL DATA
Matrix Spike

Analyte	Orig. Val.	MS Val	Q	Units	Spike Conc	% Rec.	Target Range	Batch	Sample Spiked	Analyzed Date/Time
Selected Volatile Organic Compounds by EPA Method 8260B										
9050171-MS1										
Benzene	ND	1.16		mg/kg dry	3.45	34%	33 - 146	9050171	NSE0094-06RE1	05/06/09 08:52
Ethylbenzene	ND	1.11		mg/kg dry	3.45	32%	16 - 160	9050171	NSE0094-06RE1	05/06/09 08:52
Naphthalene	0.179	1.35		mg/kg dry	3.45	34%	10 - 151	9050171	NSE0094-06RE1	05/06/09 08:52
Toluene	ND	1.06		mg/kg dry	3.45	31%	30 - 145	9050171	NSE0094-06RE1	05/06/09 08:52
Xylenes, total	0.197	3.37		mg/kg dry	10.3	31%	16 - 159	9050171	NSE0094-06RE1	05/06/09 08:52
Surrogate: 1,2-Dichloroethane-d4		57.0		ug/kg	50.0	114%	41 - 150	9050171	NSE0094-06RE1	05/06/09 08:52
Surrogate: Dibromofluoromethane		50.6		ug/kg	50.0	101%	55 - 139	9050171	NSE0094-06RE1	05/06/09 08:52
Surrogate: Toluene-d8		46.8		ug/kg	50.0	94%	57 - 148	9050171	NSE0094-06RE1	05/06/09 08:52
Surrogate: 4-Bromofluorobenzene		54.7		ug/kg	50.0	109%	58 - 150	9050171	NSE0094-06RE1	05/06/09 08:52

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Client	EEG - Env. Enterprise Group (2449)	Work Order:	NSE0094
	10179 Highway 78	Project Name:	Laurel Bay Housing Project
	Ladson, SC 29456	Project Number:	[none]
Attn	Tom McElwee	Received:	05/01/09 08:00

PROJECT QUALITY CONTROL DATA

Matrix Spike Dup

Analyte	Orig. Val.	Duplicate	Q	Units	Spike Conc	% Rec.	Target Range	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
Selected Volatile Organic Compounds by EPA Method 8260B												
9050171-MSD1												
Benzene	ND	0.784	M8	mg/kg dry	3.45	23%	33 - 146	38	43	9050171	NSE0094-06RE1	05/06/09 09:22
Ethylbenzene	ND	0.706		mg/kg dry	3.45	20%	16 - 160	44	48	9050171	NSE0094-06RE1	05/06/09 09:22
Naphthalene	0.179	0.966		mg/kg dry	3.45	23%	10 - 151	33	50	9050171	NSE0094-06RE1	05/06/09 09:22
Toluene	ND	0.696	M8	mg/kg dry	3.45	20%	30 - 145	41	44	9050171	NSE0094-06RE1	05/06/09 09:22
Xylenes, total	0.197	2.16		mg/kg dry	10.3	19%	16 - 159	44	48	9050171	NSE0094-06RE1	05/06/09 09:22
Surrogate: 1,2-Dichloroethane-d4		59.4		ug/kg	50.0	119%	41 - 150			9050171	NSE0094-06RE1	05/06/09 09:22
Surrogate: Dibromofluoromethane		51.2		ug/kg	50.0	102%	55 - 139			9050171	NSE0094-06RE1	05/06/09 09:22
Surrogate: Toluene-d8		46.6		ug/kg	50.0	93%	57 - 148			9050171	NSE0094-06RE1	05/06/09 09:22
Surrogate: 4-Bromofluorobenzene		54.1		ug/kg	50.0	108%	58 - 150			9050171	NSE0094-06RE1	05/06/09 09:22

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Client	EEG - Env. Enterprise Group (2449)	Work Order:	NSE0094
	10179 Highway 78	Project Name:	Laurel Bay Housing Project
	Ladson, SC 29456	Project Number:	[none]
Attn	Tom McElwee	Received:	05/01/09 08:00

CERTIFICATION SUMMARY

TestAmerica Nashville

Method	Matrix	AIHA	Nelac	South Carolina
SW846 8260B	Soil	N/A	X	X
SW846 8270D	Soil			X
SW-846	Soil			

2960 Foster Creighton Road Nashville, TN 37204 * 800-765-0980 * Fax 615-726-3404

Client	EEG - Env. Enterprise Group (2449)	Work Order:	NSE0094
	10179 Highway 78	Project Name:	Laurel Bay Housing Project
	Ladson, SC 29456	Project Number:	[none]
Attn	Tom McElwee	Received:	05/01/09 08:00

DATA QUALIFIERS AND DEFINITIONS

B	Analyte was detected in the associated Method Blank.
M8	The MS and/or MSD were below the acceptance limits. See Blank Spike (LCS).
MNR	No results were reported for the MS/MSD. The sample used for the MS/MSD required dilution due to the sample matrix. Because of this, the spike compounds were diluted below the detection limit.
RL1	Reporting limit raised due to sample matrix effects.
ND	Not detected at the reporting limit (or method detection limit if shown)

METHOD MODIFICATION NOTES

NSE0094
05/15/09 23:59

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 # 2449

Address: 10179 Highway 78

City/State/Zip: Ladson, SC 29456

Site State: SC

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

PO#: 0829

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

TA Quote #:

Sampler Name: (Print) Prath, 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	HNO3 (Red Label) Nesgal	HCl (Blue Label)	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 - 8260B	PAH - 8270C									RUSH TAT (Pre-Scheduled)
295 Birch - 1	4/27/09	1045	5	X				2					2	1					X		3	2					NSE	0094-01			
295 Birch - 2	4/27/09	1300	5	X				2					2	1					X		3	2							02		
289 Birch	4/28/09	1130	5	X				2					2	1					X		3	2							03		
386 Acorn	4/29/09	1115	5	X				2					2	1					X		3	2							04		
397 Acorn-1	4/30/09	1030	5	X				2					2	1					X		3	2							05		
397 Acorn - 2	4/30/09	1140	5	X				2					2	1					X		3	2							06		

Special Instructions:

Method of Shipment: FEDEX

Laboratory Comments:
Temperature Upon Receipt: 5.3c
VOCs Free of Headspace? Y

Relinquished by:	Date	Time	Received by:	Date	Time
	4/30/09	1800	FedEx		
Relinquished by:	**Date**	**Time**	**Received by TestAmerica:**	**Date**	**Time**
				5.1.09	0610

ATTACHMENT A

NON-HAZARDOUS MANIFEST

WASTE MANAGEMENT

CWMI

Please print or type. *(Form designed for use on elite (12-pitch) typewriter.)*

NON-HAZARDOUS MANIFEST

1. Generator's US EPA ID No. | Manifest Document No.

2. Page 1 of 1

3. Generator's Name and Mailing Address
MCAS, Beaufort
Laurel Bay Housing
Beaufort SC 29904

4. Generator's Phone 843 228-6460

A. Manifest Number WMNA 10805480

B. State Generator's ID

5. Transporter 1 Company Name: EEG, Inc.

6. US EPA ID Number

C. State Transporter's ID

D. Transporter's Phone 843 879-0411

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
ROUTE 1, BOX 121
RIDGELAND SC 29936

10. US EPA ID Number

G. State Facility's ID

H. Facility's 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	001		9.17		
b. WM Profile #					
c. WM Profile #					
d. WM Profile #					

J. Additional Descriptions for Materials Listed Above

Landfill _____ Solidification _____

Bio Remediation _____

K. Disposal Location

Cell Level

Grid

15. Special Handling Instructions and Additional Information
6 UST's
1) 263 Birch - 2
2) 295 Birch - 2
3) 386 ACORN
4) 395 ACORN - 1
5) 399 ACORN - 2
6) 397 ACORN - 1

Purchase Order #

EMERGENCY CONTACT: 6) ~~1000 Bobwhite~~ 911

16. GENERATOR'S CERTIFICATION:

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/Typed Name	Signature "On behalf of"	Month	Day	Year
Charles H. Herron	Charles H. Herron	10	15	19

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
James Baldwin	James Baldwin	10	15	19

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed 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/Typed Name	Signature	Month	Day	Year
Jan Collins		10	15	19

CWM - NHM - 1 - 5/97

#2 - GENERATOR/#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: OG17010-001
Description: BEALB386TW01WG20130716
Matrix: Aqueous
Date Sampled: 07/16/2013 1200
Date Received: 07/17/2013

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	07/20/2013 2243	RGB		25513

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	LOD	DL	Units	Run
Benzene	71-43-2	8260B	ND		0.50	0.25	0.027	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		0.50	0.25	0.17	ug/L	1
Naphthalene	91-20-3	8260B	3.2		0.50	0.25	0.12	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	0.25	0.17	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		0.50	0.25	0.17	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		95	70-120
Toluene-d8		91	85-120
Bromofluorobenzene		98	75-120
Dibromofluoromethane		96	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

Client: AECOM - Resolution Consultants
Laboratory ID: OG17010-001
Description: BEALB386TW01WG20130716
Matrix: Aqueous
Date Sampled: 07/16/2013 1200
Date Received: 07/17/2013

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	3520C	8270D	1	07/24/2013 1620	JRG	07/23/2013 1012	25626

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	LOD	DL	Units	Run
Benzo(a)anthracene	56-55-3	8270D	0.17	J	0.21	0.10	0.085	ug/L	2
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.21	0.10	0.090	ug/L	2
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.21	0.10	0.095	ug/L	2
Chrysene	218-01-9	8270D	ND		0.21	0.10	0.056	ug/L	2
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.21	0.10	0.060	ug/L	2

Surrogate	Q	Run 2 % Recovery	Acceptance Limits
2-Fluorobiphenyl		67	50-110
Nitrobenzene-d5		67	40-110
Terphenyl-d14		52	50-135

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

C. Earl Hunter, Commissioner

Promoting and protecting the health of the public and the environment.

July 22, 2009

Commanding Officer
ATTN: S-4 NREAO (Craig Ehde)
MCAS
PO Box 55001
Beaufort, SC 29904-5001

Re: MCAS – Laurel Bay Housing – 386 Acorn St.
Site ID # 04235
UST Closure Reports received June 29, 2009
Beaufort County

Dear Mr. Ehde:

The purpose of this letter is to verify a release of fuel oil at the referenced residence. According to information received by the Department, the source of the release is from past onsite use of fuel oil USTs. To date, initial activities by the facility have included tank removal and soil sampling. Based on the information contained in the closure report, a potential violation of the South Carolina Pollution Control Act has occurred in that there has been an unauthorized release of petroleum to the environment.

Additional assessment activities are required for this site. Specifically the Department requests that a groundwater sample be collected from this site. Please note, the Department approved a groundwater-sampling proposal for Laurel Bay submitted by MCAS under separate cover dated 16 June 2008.

Should you have any questions, please contact me at 803-896-4179 (office phone), 803-896-6245 (fax) or cookejt@dhec.sc.gov.

Sincerely,

Jan T. Cooke, Hydrogeologist
AST Petroleum Restoration
& Site Environmental Investigations Section
Land Revitalization Division
Bureau of Land and Waste Management
SC Dept. of Health & Environmental Control

cc: Region 8 District EQC
Tri-Command Communities; Attn: Mr. Robert Bible; 600 Laurel Bay Road Beaufort, SC 29906
Technical File

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

August 6, 2015

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

RE: Approval Response to Comments and Concurrence with Final Initial Groundwater Investigation Report-July 2013
Laurel Bay Military Housing Area Multiple Properties
Dated June 2015

Dear Mr. Drawdy,

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

Per the Department's request, groundwater samples were collected from the attached referenced addresses. The Department reviewed the groundwater data and previous investigations and it agrees with the conclusions and recommendations included in the document. To further assess the impact to groundwater, permanent wells should be installed at the 10 stated addresses. For the remaining 25 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-July 2013
Specifice Property Recommendations
Dated August 6, 2015

Draft Final Initial Groundwater Investigation Report for (35 addresses/38 tanks)

Permanent Monitoring Well Investigation recommendation (10 addresses/11 tanks)	
119 Banyan	156 Laurel Bay
128 Banyan	1033 Foxglove
132 Banyan	1055 Gardenia
135 Birch	1059 Gardenia
148 Laurel Bay	1168 Jasmine
No Further Action recommendation (25 addresses/27 tanks):	
115 Banyan	386 Acorn
116 Banyan	395 Acorn
120 Banyan	399 Acorn
124 Banyan	1021 Foxglove
125 Banyan	1027 Foxglove
136 Birch	1030 Foxglove
140 Laurel Bay	1032 Foxglove
144 Laurel Bay	1053 Gardenia
152 Laurel Bay	1058 Gardenia
160 Cypress	1061 Gardenia
263 Beech	1166 Jasmine
269 Birch	1169 Jasmine
295 Birch	