SUMMARY REPORT

174 FOXGLOVE STREET (FORMERLY 1023 FOXGLOVE 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
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Prepared by:



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

Contract Number: N62470-14-D-9016

CTO WE52

JUNF 2021



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List of Acronyms

bgs below ground surface

BTEX benzene, toluene, ethylbenzene, and xylenes

CTO Contract Task Order

COPC constituents of potential concern

IDIQ Indefinite Delivery, Indefinite Quantity

IGWA Initial Groundwater Assessment

JV Joint Venture

LBMH Laurel Bay Military Housing MCAS Marine Corps Air Station

NAVFAC Mid-Lant Naval Facilities Engineering Command Mid-Atlantic

NFA No Further Action

PAH polynuclear aromatic hydrocarbon

QAPP Quality Assurance Program Plan

RBSL risk-based screening level

SCDHEC South Carolina Department of Health and Environmental Control

Site LBMH area at MCAS Beaufort, South Carolina

UST underground storage tank

VISL vapor intrusion screening level



1.0 INTRODUCTION

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

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

This report summarizes the results the environmental investigation activities associated with the storage of home heating oil and the potential release of petroleum constituents at the referenced property. Based on the results of the investigation, a No Further Action (NFA) determination has been made by the South Carolina Department of Health and Environmental Control (SCDHEC) for 174 Foxglove Street (Formerly 1023 Foxglove 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 174 Foxglove Street (Formerly 1023 Foxglove Street). Details regarding the soil investigation at this site are provided in the *SCDHEC UST Assessment Report – 1023 Foxglove Street* (MCAS Beaufort, 2009). The UST Assessment Report is provided in Appendix B.

2.1 UST Removal and Soil Sampling

On May 19, 2009, one 280 gallon heating oil UST was removed from the front landscaped area adjacent to the concrete porch at 174 Foxglove Street (Formerly 1023 Foxglove Street). The former UST location is indicated on Figures 2 and 3 of the UST Assessment Report (Appendix B). The UST was removed and properly disposed of (i.e., shipped offsite for recycling or transported to a landfill). There was no visual evidence (i.e., staining or sheen) of petroleum impact at the time of the UST removal. According to the UST Assessment Report (Appendix B), the depth to the base of the UST was 5'10" 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 174 Foxglove Street (Formerly 1023 Foxglove Street) were less than the SCDHEC RBSLs, which indicated the subsurface was not impacted by COPCs associated with the former UST at concentrations that presented a potential risk to human health and the environment.

3.0 PROPERTY STATUS

Based on the analytical results for soil, SCDHEC made the determination that NFA was required for 174 Foxglove Street (Formerly 1023 Foxglove Street). This NFA determination was obtained in a letter dated August 18, 2009. SCDHEC's NFA letter is provided in Appendix C.

4.0 REFERENCES

Marine Corps Air Station Beaufort, 2009. South Carolina Department of Health and Environmental Control (SCDHEC) Underground Storage Tank Assessment Report – 1023 Foxglove Street, Laurel Bay Military Housing Area, August 2009.

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





- South Carolina Department of Health and Environmental Control Bureau of Land and Waste Management, 2015. *Quality Assurance Program Plan for the Underground Storage Tank Management* Division, *Revision 3.0*, May 2015.
- South Carolina Department of Health and Environmental Control Bureau of Land and Waste Management, 2016. *Quality Assurance Program Plan for the Underground Storage Tank Management* Division, *Revision 3.1*, February 2016.
- South Carolina Department of Health and Environmental Control Bureau of Land and Waste Management, 2017. *R.61-92, Part 280, Underground Storage Tank Control Regulations*, March 2017.
- South Carolina Department of Health and Environmental Control Bureau of Land and Waste Management, 2018. *Underground Storage Tank Assessment Instructions for Permanent Closure and Change-In-Service*, March 2018.

Table



Table 1

Laboratory Analytical Results - Soil 174 Foxglove Street (Formerly 1023 Foxglove Street)

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

Constituent	SCDHEC RBSLs (1)	Results Sample Collected 05/19/09					
Volatile Organic Compounds Analyzed by EPA Method 8260B (mg/kg)							
Benzene	0.003	ND					
Ethylbenzene	1.15	ND					
Naphthalene	0.036	ND					
Toluene	0.627	ND					
Xylenes, Total	13.01	ND					
Semivolatile Organic Compounds Ana	lyzed by EPA Method 8270D (mg/kg)						
Benzo(a)anthracene	0.66	ND					
Benzo(b)fluoranthene	0.66	ND					
Benzo(k)fluoranthene	0.66	ND					
Chrysene	0.66	ND					
Dibenz(a,h)anthracene	0.66	ND					

Notes:

Bold font indicates the analyte was detected.

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

EPA - United States Environmental Protection Agency

mg/kg - milligram per kilogram

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

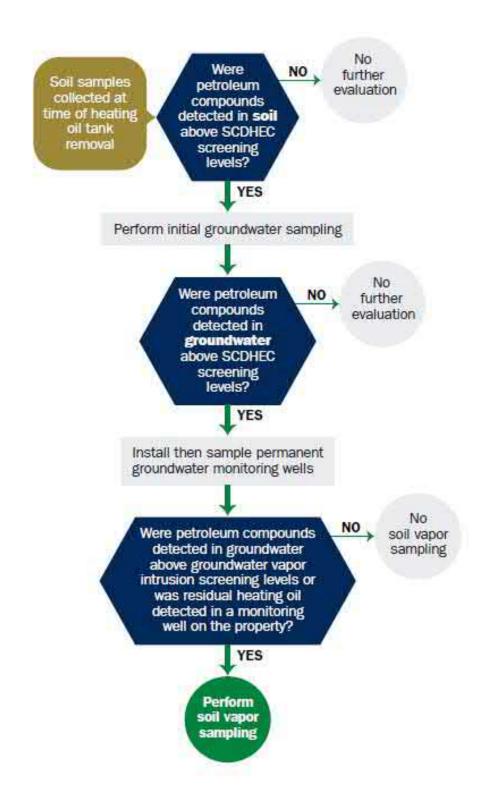
RBSL - Risk-Based Screening Level

SCDHEC - South Carolina Department Of Health and Environmental Control

⁽¹⁾ South Carolina Risk-Based Screening Levels from the Quality Assurance Program Plan for the Underground Storage Tank Management Division, Revision 1.0 and 1.1 (SCDHEC, May 2001 and SCDHEC, February 2011) and the Underground Storage Tank Assessment Guidelines (SCDHEC, February 2006).

Appendix A Multi-Media Selection Process for LBMH





Appendix A - Multi-Media Selection Process for LBMH

Appendix B UST Assessment Report

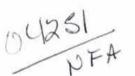


South Carolina Department of Health and Environmental Control (SCDHEC)

Underground Storage Tank (UST) Assessment Report



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





AUG 1 7 2009

SITE ASSESSMENT, REMEDIATION & REVITALIZATION

I. OWNERSHIP OF UST (S)

		(-)
MCAS Beaufort, Comma	nding Officer Attn: NRE	EAO (Craig Ehde)
Owner Name (Corporation, Inc. P.O. Box 55001	dividual, Public Agency, Other)	
Mailing Address		
Beaufort,	South Carolina	29904-5001
City	State	Zip Code
843	228-7317	Craig Ehde
Area Code	Telephone Number	Contact Person
	z oropinous r tamour	

II. SITE IDENTIFICATION AND LOCATION

Permit I.D. #	
Laurel Bay Mil	itary Housing Area, Marine Corps Air Station, Beaufort, SC
Facility Name or Comp	
1023 Foxglove	St., 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	1023Foxglove
A.	Product(ex. Gas, Kerosene)	Heating Oil
B.	Capacity(ex. 1k, 2k)	280 gal
C.	Age	Late 1950s
D.	Construction Material(ex. Steel, FRP)	Steel
E.	Month/Year of Last Use	Mid 1980s
F.	Depth (ft.) To Base of Tank	5'10"
G.	Spill Prevention Equipment Y/N	No
Н.	Overfill Prevention Equipment Y/N	No
I.	Method of Closure Removed/Filled	Removed
J.	Date Tanks Removed/Filled	5/19/09
K.	Visible Corrosion or Pitting Y/N	Yes
L.	Visible Holes Y/N	Yes
M.	Method of disposal for any USTs removed from the UST 1023Foxglove was removed from	the ground and disposed of at a
	Subtitle "D" landfill. See Attachr	ment "A."
N.	Method of disposal for any liquid petroleum, sludged disposal manifests) The tank had been previously file.	
O.	If any corrosion, pitting, or holes were observed, de Corrosion, pitting and holes were tank.	escribe the location and extent for each UST found on the entire surface of the

VII. PIPING INFORMATION

		1023Foxglove			
		Steel &			
Construction Material(ex.	Steel, FRP)	Copper			
Distance from UST to Dispe	enser	N/A			
Number of Dispensers		N/A			
Type of System Pressure or	Suction	Suction			
Was Piping Removed from t	the Ground? Y/N	Yes			
Visible Corrosion or Pitting	Y/N	Yes			
Visible Holes Y/N		No			
Age		Late 1950s			
AgeIf any corrosion, pitting, or		<u> </u>	and extent	for each p	ipin
If any corrosion, pitting, or	holes were observed	, describe the location		_	_
If any corrosion, pitting, or l	holes were observed	, describe the location	ce of t	he stee	_
If any corrosion, pitting, or l	holes were observed	, describe the location nd on the surfa	ce of t	he stee	_
If any corrosion, pitting, or l	holes were observed	, describe the location nd on the surfa	ce of t	he stee	_
If any corrosion, pitting, or l	holes were observed	, describe the location nd on the surfa	ce of t	he stee	_
If any corrosion, pitting, or lorrosion and pit pipe. The copper	holes were observed tting were fou r supply and r	, describe the location nd on the surfa	ce of t e sound	he stee	_
If any corrosion, pitting, or lorrosion and pit pipe. The copper	holes were observed tring were four supply and r	, describe the location nd on the surfacturn lines wer	ce of te sound	he stee	:1 -
If any corrosion, pitting, or local Corrosion and pit pipe. The copper	holes were observed thing were four supply and results of the supply a	, describe the location and on the surfacturn lines wer	ce of te sound	he stee	:1 -

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?		х	
If yes, indicate location on site map and describe the odor (strong, mild, etc.) C. Was water present in the UST excavation, soil borings, or trenches?		X	
If yes, how far below land surface (indicate location and depth)?		21	
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.		Х	

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#
1023 Foxglove	Excav at fill end	Soil	Sandy	5'10"	5/19/09 0955 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 <u>and</u> store the samples. Also include the preservative used for each sample. Please use the space provided below.

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

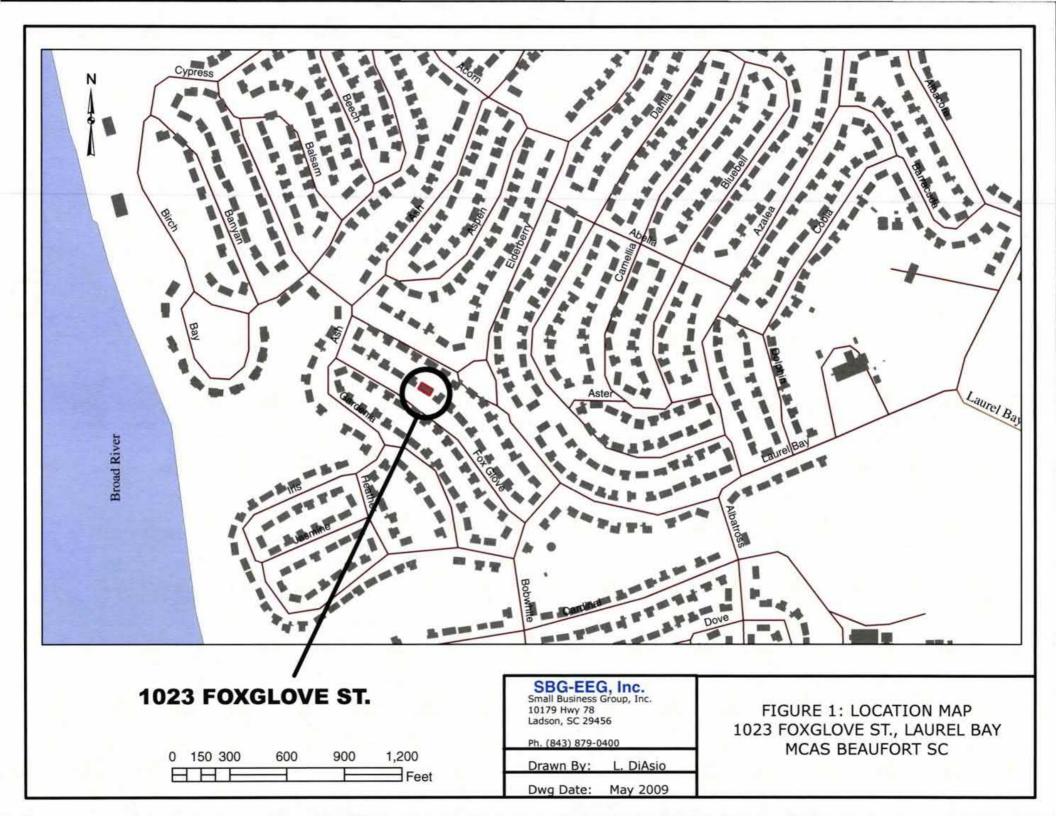
XII. RECEPTORS

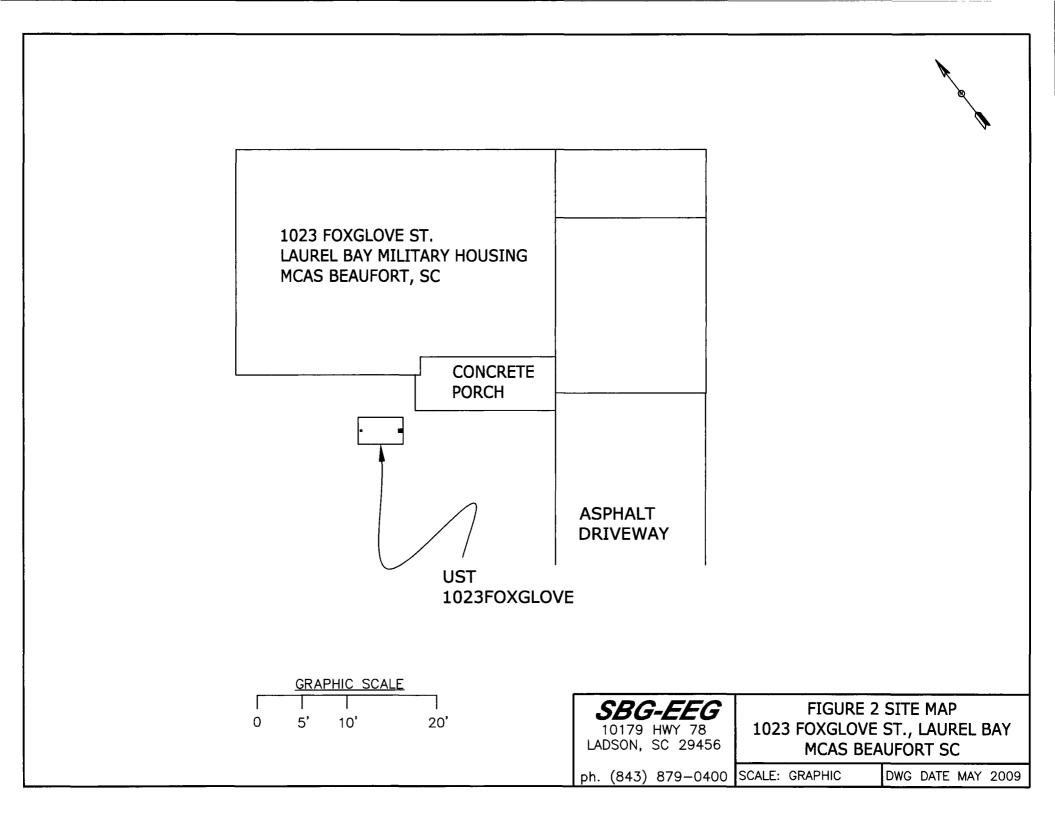
Yes No A. Are there any lakes, ponds, streams, or wetlands located within Х 1000 feet of the UST system? If yes, indicate type of receptor, distance, and direction on site map. B. Are there any public, private, or irrigation water supply wells within Х 1000 feet of the UST system? If yes, indicate type of well, distance, and direction on site map. C. Are there any underground structures (e.g., basements) Х 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 and water. 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.

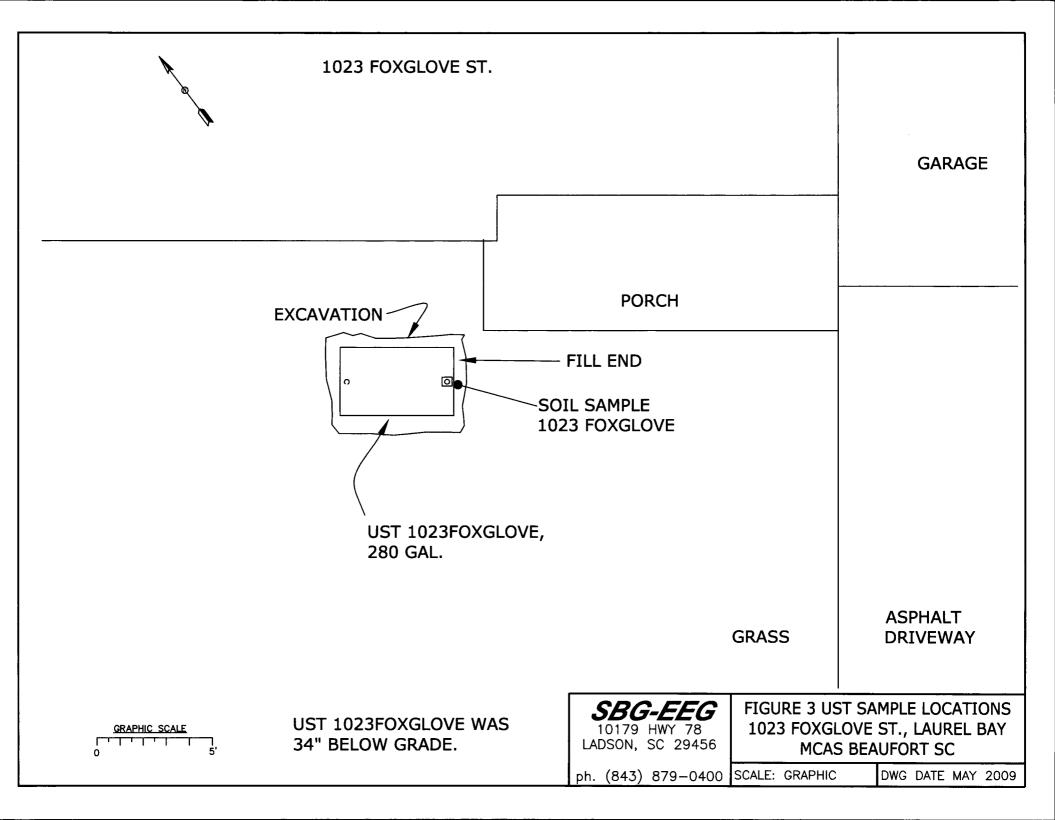
XIII. SITE MAP

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)









Picture 1: UST 1023Foxglove being removed from the ground.

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.

СоС	1023Foxglove
Benzene	ND
Toluene	ND
Ethylbenzene	ND ND
Xylenes	ND
Naphthalene	ND
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)	

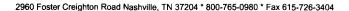
SUMMARY OF ANALYSIS RESULTS (cont'd)
Enter the ground water analytical data for each sample for all CoC in the table below. If free product is present, indicate the measured thickness to the nearest 0.01 feet.

CoC	RBSL	W-1	W-2	W -3	
	(µg/l)				W -4
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)





June 04, 2009

12:09:16PM

Client:

EEG - Small Business Group, Inc. (2449)

10179 Highway 78

Ladson, SC 29456

Attn:

Tom McElwee

Work Order:

NSE1961

Project Name:

Laurel Bay Housing Project

Project Nbr: P/O Nbr: [none] 0829

Date Received:

05/22/09

SAMPLE IDENTIFICATION

LAB NUMBER

COLLECTION DATE AND TIME 05/19/09 09:55

1023 Foxglove 1027 Foxglove 1021 Foxglove 1030 Foxglove NSE1961-01 NSE1961-02 NSE1961-03 NSE1961-04

05/19/09 13:20 05/20/09 13:50 05/21/09 10:25

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

This material is intended only for the use of the individual(s) or entity to whom it is addressed, and may contain information that is privileged and confidential. If you are not the intended recipient, or the employee or agent responsible for delivering this material to the intended recipient, you are hereby notified that any dissemination, distribution, or copying of this material is strictly prohibited. If you have received this material in error, please notify us immediately at 615-726-0177.

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

1-800-765-0980. Any opinions, if expressed, are outside the scope of the Laboratory's accreditation.

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.

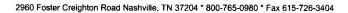
This report has been electronically signed.

Lemos a Hage

Report Approved By:

Ken A. Hayes

Senior Project Manager





10179 Highway 78 Ladson, SC 29456

Tom McElwee

Attn

Work Order:

NSE1961

Project Name:

Laurel Bay Housing Project

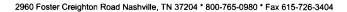
Project Number:

[none]

Received: 05/22/09 08:15

ANALYTICAL REPORT

Analyte	Result	Flag Units	MRL	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: NSE1961-01 (1023 Fox	glove - Soil) Samp	oled: 05/19/09 09:55					
General Chemistry Parameters							
% Dry Solids	81.4	%	0.500	1	06/04/09 08:23	SW-846	9060430
Selected Volatile Organic Compounds	by EPA Method 826	0B					
Benzene	ND	mg/kg dry	0.00258	1	05/29/09 03:15	SW846 8260B	9054372
Ethylbenzene	ND	mg/kg dry	0.00258	1	05/29/09 03:15	SW846 8260B	9054372
Naphthalene	ND	mg/kg dry	0.00645	1	05/29/09 03:15	SW846 8260B	9054372
Toluene	ND	mg/kg dry	0.00258	1	05/29/09 03:15	SW846 8260B	9054372
Xylenes, total	ND	mg/kg dry	0.00645	1	05/29/09 03:15	SW846 8260B	9054372
Surr: 1,2-Dichloroethane-d4 (41-150%)	100 %				05/29/09 03:15	SW846 8260B	905437.
Surr: Dibromofluoromethane (55-139%)	96 %				05/29/09 03:15	SW846 8260B	905437
Surr: Toluene-d8 (57-148%)	87 %				05/29/09 03:15	SW846 8260B	905437.
Surr: 4-Bromofluorobenzene (58-150%)	106 %				05/29/09 03:15	SW846 8260B	9054372
Polyaromatic Hydrocarbons by EPA 82	.70D						
Acenaphthene	ND	mg/kg dry	0.0800	1	05/30/09 18:40	SW846 8270D	9053860
Acenaphthylene	ND	mg/kg dry	0.0800	1	05/30/09 18:40	SW846 8270D	9053860
Anthracene	ND	mg/kg dry	0.0800	1	05/30/09 18:40	SW846 8270D	9053860
Benzo (a) anthracene	ND	mg/kg dry	0.0800	1	05/30/09 18:40	SW846 8270D	9053860
Benzo (a) pyrene	ND	mg/kg dry	0.0800	1	05/30/09 18:40	SW846 8270D	9053860
Benzo (b) fluoranthene	ND	mg/kg dry	0.0800	1	05/30/09 18:40	SW846 8270D	9053860
Benzo (g,h,i) perylene	ND	mg/kg dry	0.0800	1	05/30/09 18:40	SW846 8270D	9053860
Benzo (k) fluoranthene	ND	mg/kg dry	0.0800	1	05/30/09 18:40	SW846 8270D	9053860
Chrysene	ND	mg/kg dry	0.0800	1	05/30/09 18:40	SW846 8270D	9053860
Dibenz (a,h) anthracene	ND	mg/kg dry	0.0800	1	05/30/09 18:40	SW846 8270D	9053860
Fluoranthene	ND	mg/kg dry	0.0800	1	05/30/09 18:40	SW846 8270D	9053860
Fluorene	ND	mg/kg dry	0.0800	1	05/30/09 18:40	SW846 8270D	9053860
Indeno (1,2,3-cd) pyrene	ND	mg/kg dry	0.0800	1	05/30/09 18:40	SW846 8270D	9053860
Naphthalene	ND	mg/kg dry	0.0800	1	05/30/09 18:40	SW846 8270D	9053860
Phenanthrene	ND	mg/kg dry	0.0800	1	05/30/09 18:40	SW846 8270D	9053860
Pyrene	ND	mg/kg dry	0.0800	1	05/30/09 18:40	SW846 8270D	9053860
1-Methylnaphthalene	ND	mg/kg dry	0.0800	1	05/30/09 18:40	SW846 8270D	9053860
2-Methylnaphthalene	ND	mg/kg dry	0.0800	1	05/30/09 18:40	SW846 8270D	9053860
Surr: Terphenyl-d14 (26-128%)	79 %				05/30/09 18:40	SW846 8270D	9053860
Surr: 2-Fluorobiphenyl (19-109%)	59 %			*	05/30/09 18:40	SW846 8270D	9053860
Surr: Nitrobenzene-d5 (22-104%)	70 %				05/30/09 18:40	SW846 8270D	9053860





10179 Highway 78 Ladson, SC 29456 Tom McElwee

Attn

Work Order:

NSE1961

Project Name:

Laurel Bay Housing Project [none]

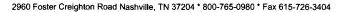
Project Number:

Received:

05/22/09 08:15

ANA	1	VT	TOA	T.	DE	'PA	DT

		ANALYTICAL REP	ORT				
Analyte	Result	Flag Units	MRL	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: NSE1961-02 (1027 Fox	xglove - Soil) Sam	pled: 05/19/09 13:20					
General Chemistry Parameters							
% Dry Solids	82.4	%	0.500	1	06/04/09 08:23	SW-846	9060430
Selected Volatile Organic Compounds	by EPA Method 826	60B					
Benzene	ND	mg/kg dry	0.00201	1	05/29/09 03:44	SW846 8260B	9054372
Ethylbenzene	0.00422	mg/kg dry	0.00201	1	05/29/09 03:44	SW846 8260B	9054372
Naphthalene	0.0596	mg/kg dry	0.00501	1	05/29/09 03:44	SW846 8260B	9054372
Toluene	ND	mg/kg dry	0.00201	1	05/29/09 03:44	SW846 8260B	9054372
Xylenes, total	ND	mg/kg dry	0.00501	1	05/29/09 03:44	SW846 8260B	9054372
Surr: 1,2-Dichloroethane-d4 (41-150%)	91 %				05/29/09 03:44	SW846 8260B	9054372
Surr: Dibromofluoromethane (55-139%)	101 %				05/29/09 03:44	SW846 8260B	9054372
Surr: Toluene-d8 (57-148%)	91 %				05/29/09 03:44	SW846 8260B	9054372
Surr: 4-Bromofluorobenzene (58-150%)	114 %				05/29/09 03:44	SW846 8260B	9054372
Polyaromatic Hydrocarbons by EPA 82	270D						
Acenaphthene	ND	mg/kg dry	0.0802	1	05/30/09 19:03	SW846 8270D	9053860
Acenaphthylene	ND	mg/kg dry	0.0802	1	05/30/09 19:03	SW846 8270D	9053860
Anthracene	ND	mg/kg dry	0.0802	1	05/30/09 19:03	SW846 8270D	9053860
Benzo (a) anthracene	0.135	mg/kg dry	0.0802	1	05/30/09 19:03	SW846 8270D	9053860
Benzo (a) pyrene	ND	mg/kg dry	0.0802	1	05/30/09 19:03	SW846 8270D	9053860
Benzo (b) fluoranthene	ND	mg/kg dry	0.0802	1	05/30/09 19:03	SW846 8270D	9053860
Benzo (g,h,i) perylene	ND	mg/kg dry	0.0802	1	05/30/09 19:03	SW846 8270D	9053860
Benzo (k) fluoranthene	ND	mg/kg dry	0.0802	1	05/30/09 19:03	SW846 8270D	9053860
Chrysene	0.113	mg/kg dry	0.0802	1	05/30/09 19:03	SW846 8270D	9053860
Dibenz (a,h) anthracene	ND	mg/kg dry	0.0802	1	05/30/09 19:03	SW846 8270D	9053860
Fluoranthene	0.413	mg/kg dry	0.0802	1	05/30/09 19:03	SW846 8270D	9053860
Fluorene	ND	mg/kg dry	0.0802	1	05/30/09 19:03	SW846 8270D	9053860
Indeno (1,2,3-cd) pyrene	ND	mg/kg dry	0.0802	1	05/30/09 19:03	SW846 8270D	9053860
Naphthalene	ND	mg/kg dry	0.0802	1	05/30/09 19:03	SW846 8270D	9053860
Phenanthrene	0.286	mg/kg dry	0.0802	1	05/30/09 19:03	SW846 8270D	9053860
Pyrene	0.394	mg/kg dry	0.0802	1	05/30/09 19:03	SW846 8270D	9053860
1-Methylnaphthalene	0.129	mg/kg dry	0.0802	1	05/30/09 19:03	SW846 8270D	9053860
2-Methylnaphthalene	0.172	mg/kg dry	0.0802	1	05/30/09 19:03	SW846 8270D	9053860
Surr: Terphenyl-d14 (26-128%)	80 %				05/30/09 19:03	SW846 8270D	9053860
Surr: 2-Fluorobiphenyl (19-109%)	62 %				05/30/09 19:03	SW846 8270D	9053860
Surr: Nitrobenzene-d5 (22-104%)	67 %				05/30/09 19:03	SW846 8270D	9053860





10179 Highway 78 Ladson, SC 29456

Tom McElwee

Attn

Work Order:

NSE1961

[none]

Project Name:

Laurel Bay Housing Project

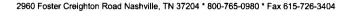
Project Number:

Received:

05/22/09 08:15

ANAL	.VT	ICAT	REP	ORT

Analyte	Result	Flag	Units	MRL	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: NSE1961-03 (1021 Fox	glove - Soil) Sa	ımpled: (05/20/09 13:50					
General Chemistry Parameters								
% Dry Solids	95.5		%	0.500	1	06/04/09 08:23	SW-846	9060430
Selected Volatile Organic Compounds	by EPA Method	8260B						
Benzene	ND		mg/kg dry	0.00218	1	05/29/09 04:14	SW846 8260B	9054372
Ethylbenzene	ND		mg/kg dry	0.00218	1	05/29/09 04:14	SW846 8260B	9054372
Naphthalene	ND		mg/kg dry	0.00545	1	05/29/09 04:14	SW846 8260B	9054372
Toluene	ND		mg/kg dry	0.00218	1	05/29/09 04:14	SW846 8260B	9054372
Xylenes, total	ND		mg/kg dry	0.00545	1	05/29/09 04:14	SW846 8260B	9054372
Surr: 1,2-Dichloroethane-d4 (41-150%)	99 %					05/29/09 04:14	SW846 8260B	9054372
Surr: Dibromofluoromethane (55-139%)	99 %					05/29/09 04:14	SW846 8260B	9054372
Surr: Toluene-d8 (57-148%)	86 %					05/29/09 04:14	SW846 8260B	9054372
Surr: 4-Bromofluorobenzene (58-150%)	108 %					05/29/09 04:14	SW846 8260B	9054372
Polyaromatic Hydrocarbons by EPA 82	270D							
Acenaphthene	ND		mg/kg dry	0.0698	1	05/30/09 19:26	SW846 8270D	9053860
Acenaphthylene	ND		mg/kg dry	0.0698	1	05/30/09 19:26	SW846 8270D	9053860
Anthracene	ND		mg/kg dry	0.0698	1	05/30/09 19:26	SW846 8270D	9053860
Benzo (a) anthracene	0.819		mg/kg dry	0.0698	1	05/30/09 19:26	SW846 8270D	9053860
Benzo (a) pyrene	0.403		mg/kg dry	0.0698	1	05/30/09 19:26	SW846 8270D	9053860
Benzo (b) fluoranthene	1.10		mg/kg dry	0.0698	1	05/30/09 19:26	SW846 8270D	9053860
Benzo (g,h,i) perylene	0.183		mg/kg dry	0.0698	1	05/30/09 19:26	SW846 8270D	9053860
Benzo (k) fluoranthene	0.466		mg/kg dry	0.0698	1	05/30/09 19:26	SW846 8270D	9053860
Chrysene	0.650		mg/kg dry	0.0698	1	05/30/09 19:26	SW846 8270D	9053860
Dibenz (a,h) anthracene	0.0914		mg/kg dry	0.0698	1	05/30/09 19:26	SW846 8270D	9053860
Fluoranthene	1.58		mg/kg dry	0.0698	1	05/30/09 19:26	SW846 8270D	9053860
Fluorene	ND		mg/kg dry	0.0698	1	05/30/09 19:26	SW846 8270D	9053860
Indeno (1,2,3-cd) pyrene	0.236		mg/kg dry	0.0698	1	05/30/09 19:26	SW846 8270D	9053860
Naphthalene	ND		mg/kg dry	0.0698	1	05/30/09 19:26	SW846 8270D	9053860
Phenanthrene	ND		mg/kg dry	0.0698	1	05/30/09 19:26	SW846 8270D	9053860
Pyrene	3.23		mg/kg dry	0.0698	1	05/30/09 19:26	SW846 8270D	9053860
1-Methylnaphthalene	ND		mg/kg dry	0.0698	1	05/30/09 19:26	SW846 8270D	9053860
2-Methylnaphthalene	ND		mg/kg dry	0.0698	1	05/30/09 19:26	SW846 8270D	9053860
Surr: Terphenyl-d14 (26-128%)	81 %					05/30/09 19:26	SW846 8270D	9053860
Surr: 2-Fluorobiphenyl (19-109%)	79 %					05/30/09 19:26	SW846 8270D	9053860
Surr: Nitrobenzene-d5 (22-104%)	79 %					05/30/09 19:26	SW846 8270D	9053860





10179 Highway 78 Ladson, SC 29456

Tom McElwee

Attn

Work Order:

NSE1961

Project Name:

Laurel Bay Housing Project

Project Number:

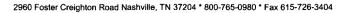
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Received:

05/22/09 08:15

ANALYTICAL REPORT

Analyte	Result	Flag	Units	MRL	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: NSE1961-04 (1030 Fo	kglove - Soil) Sa	ampled: 05	5/21/09 10:25					
General Chemistry Parameters								
% Dry Solids	75.6		%	0.500	1	06/04/09 08:23	SW-846	9060430
Selected Volatile Organic Compounds	by EPA Method	8260B						
Benzene	ND		mg/kg dry	0.00237	1	05/29/09 04:44	SW846 8260B	9054372
Ethylbenzene	0.0269		mg/kg dry	0.00237	1	05/29/09 04:44	SW846 8260B	9054372
Naphthalene	0.162		mg/kg dry	0.00592	1	05/29/09 04:44	SW846 8260B	9054372
Toluene	ND		mg/kg dry	0.00237	1	05/29/09 04:44	SW846 8260B	9054372
Xylenes, total	0.0522		mg/kg dry	0.00592	1	05/29/09 04:44	SW846 8260B	9054372
Surr: 1,2-Dichloroethane-d4 (41-150%)	105 %					05/29/09 04:44	SW846 8260B	9054372
Surr: Dibromofluoromethane (55-139%)	101 %					05/29/09 04:44	SW846 8260B	9054372
Surr: Toluene-d8 (57-148%)	96 %					05/29/09 04:44	SW846 8260B	9054372
Surr: 4-Bromofluorobenzene (58-150%)	200 %	ZX				05/29/09 04:44	SW846 8260B	9054372
Polyaromatic Hydrocarbons by EPA 83	270D							
Acenaphthene	ND		mg/kg dry	0.0872	1	05/30/09 19:49	SW846 8270D	9053860
Acenaphthylene	ND		mg/kg dry	0.0872	1	05/30/09 19:49	SW846 8270D	9053860
Anthracene	1.91		mg/kg dry	0.0872	1	05/30/09 19:49	SW846 8270D	9053860
Benzo (a) anthracene	3.67		mg/kg dry	0.0872	1	05/30/09 19:49	SW846 8270D	9053860
Benzo (a) pyrene	1.40		mg/kg dry	0.0872	1	05/30/09 19:49	SW846 8270D	9053860
Benzo (b) fluoranthene	1.69		mg/kg dry	0.0872	1	05/30/09 19:49	SW846 8270D	9053860
Benzo (g,h,i) perylene	0.425		mg/kg dry	0.0872	1	05/30/09 19:49	SW846 8270D	9053860
Benzo (k) fluoranthene	1.42		mg/kg dry	0.0872	1	05/30/09 19:49	SW846 8270D	9053860
Chrysene	2.99		mg/kg dry	0.0872	1	05/30/09 19:49	SW846 8270D	9053860
Dibenz (a,h) anthracene	0.210		mg/kg dry	0.0872	1	05/30/09 19:49	SW846 8270D	9053860
Fluoranthene	11.4		mg/kg dry	0.436	5	05/31/09 08:37	SW846 8270D	9053860
Fluorene	1.62		mg/kg dry	0.0872	1	05/30/09 19:49	SW846 8270D	9053860
Indeno (1,2,3-cd) pyrene	0.494		mg/kg dry	0.0872	1	05/30/09 19:49	SW846 8270D	9053860
Naphthalene	ND		mg/kg dry	0.0872	1	05/30/09 19:49	SW846 8270D	9053860
Phenanthrene	9.03		mg/kg dry	0.436	5	05/31/09 08:37	SW846 8270D	9053860
Pyrene	8.05		mg/kg dry	0.436	5	05/31/09 08:37	SW846 8270D	9053860
1-Methylnaphthalene	3.36		mg/kg dry	0.0872	1	05/30/09 19:49	SW846 8270D	9053860
2-Methylnaphthalene	5.27		mg/kg dry	0.436	5	05/31/09 08:37	SW846 8270D	9053860
Surr: Terphenyl-d14 (26-128%)	83 %					05/30/09 19:49	SW846 8270D	9053866
Surr: 2-Fluorobiphenyl (19-109%)	72 %					05/30/09 19:49	SW846 8270D	9053860
Surr: Nitrobenzene-d5 (22-104%)	86 %					05/30/09 19:49	SW846 8270D	9053860





10179 Highway 78 Ladson, SC 29456

Tom McElwee

Attn

Work Order:

NSE1961

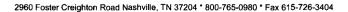
Project Name:

Laurel Bay Housing Project

Project Number: Received: [none] 05/22/09 08:15

SAMPLE EXTRACTION DATA

Parameter	Batch	Lab Number	Wt/Vol Extracted	Extracted Vol	Date	Analyst	Extraction Method
Polyaromatic Hydrocarbons by EPA 82°	70D						
SW846 8270D	9053860	NSE1961-01	30.86	1.00	05/29/09 12:40	ACB	EPA 3550B
SW846 8270D	9053860	NSE1961-02	30.42	1.00	05/29/09 12:40	ACB	EPA 3550B
SW846 8270D	9053860	NSE1961-03	30.14	1.00	05/29/09 12:40	ACB	EPA 3550B
SW846 8270D	9053860	NSE1961-04	30.50	1.00	05/29/09 12:40	ACB	EPA 3550B
SW846 8270D	9053860	NSE1961-04RE1	30.50	1.00	05/29/09 12:40	ACB	EPA 3550B
Selected Volatile Organic Compounds b	y EPA Method	8260B					
SW846 8260B	9054372	NSE1961-01	4.76	5.00	05/19/09 09:55	СНН	EPA 5035
SW846 8260B	9054372	NSE1961-02	6.05	5.00	05/19/09 13:20	СНН	EPA 5035
SW846 8260B	9054372	NSE1961-03	4.80	5.00	05/20/09 13:50	СНН	EPA 5035
SW846 8260B	9054372	NSE1961-04	5.59	5.00	05/21/09 10:25	СНН	EPA 5035





10179 Highway 78 Ladson, SC 29456

Tom McElwee

Attn

Work Order:

NSE1961

Project Name:

Laurel Bay Housing Project

Project Number:

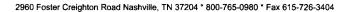
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Received: 05/22/09 08:15

PROJECT QUALITY CONTROL DATA

Blank

nalyte	Blank Value	Q	Units	Q.C. Batch	Lab Number	Analyzed Date/Time
elected Volatile Organic Compo	ounds by EPA Method	8260B				
054372-BLK1						
enzene	< 0.000670		mg/kg wet	9054372	9054372-BLK1	05/28/09 22:14
thylbenzene	< 0.000670		mg/kg wet	9054372	9054372-BLK1	05/28/09 22:14
laphthalene	< 0.00151		mg/kg wet	9054372	9054372-BLK1	05/28/09 22:14
oluene	< 0.000670		mg/kg wet	9054372	9054372-BLK1	05/28/09 22:14
Zylenes, total	< 0.00172		mg/kg wet	9054372	9054372-BLK1	05/28/09 22:14
rrogate: 1,2-Dichloroethane-d4	109%			9054372	9054372-BLK1	05/28/09 22:14
rrogate: Dibromofluoromethane	101%			9054372	9054372-BLK1	05/28/09 22:14
rrogate: Toluene-d8	102%			9054372	9054372-BLK1	05/28/09 22:14
urrogate: 4-Bromofluorobenzene	100%			9054372	9054372-BLK1	05/28/09 22:14
olyaromatic Hydrocarbons by I	EPA 8270D					
053860-BLK1						
cenaphthene	< 0.0310		mg/kg wet	9053860	9053860-BLK1	05/30/09 09:45
cenaphthylene	< 0.0320		mg/kg wet	9053860	9053860-BLK1	05/30/09 09:45
Inthracene	< 0.0330		mg/kg wet	9053860	9053860-BLK1	05/30/09 09:45
Benzo (a) anthracene	< 0.0380		mg/kg wet	9053860	9053860-BLK1	05/30/09 09:45
Benzo (a) pyrene	< 0.0290		mg/kg wet	9053860	9053860-BLK1	05/30/09 09:45
senzo (b) fluoranthene	< 0.0320		mg/kg wet	9053860	9053860-BLK1	05/30/09 09:45
Benzo (g,h,i) perylene	< 0.0290		mg/kg wet	9053860	9053860-BLK1	05/30/09 09:45
senzo (k) fluoranthene	< 0.0290		mg/kg wet	9053860	9053860-BLK1	05/30/09 09:45
Chrysene	< 0.0390		mg/kg wet	9053860	9053860-BLK1	05/30/09 09:45
Dibenz (a,h) anthracene	< 0.0310		mg/kg wet	9053860	9053860-BLK1	05/30/09 09:45
luoranthene	< 0.0340		mg/kg wet	9053860	9053860-BLK1	05/30/09 09:45
luorene	< 0.0390		mg/kg wet	9053860	9053860-BLK1	05/30/09 09:45
ndeno (1,2,3-cd) pyrene	< 0.0310		mg/kg wet	9053860	9053860-BLK1	05/30/09 09:45
laphthalene	< 0.0410		mg/kg wet	9053860	9053860-BLK1	05/30/09 09:45
henanthrene	< 0.0340		mg/kg wet	9053860	9053860-BLK1	05/30/09 09:45
yrene	< 0.0410		mg/kg wet	9053860	9053860-BLK1	05/30/09 09:45
urrogate: Terphenyl-d14	98%			9053860	9053860-BLK1	05/30/09 09:45
rrogate: 2-Fluorobiphenyl	81%			9053860	9053860-BLK1	05/30/09 09:45
rrogate: Nitrobenzene-d5	96%			9053860	9053860-BLK1	05/30/09 09:45





10179 Highway 78 Ladson, SC 29456

Tom McElwee

Attn

Work Order:

NSE1961

Project Name:

Laurel Bay Housing Project [none]

Project Number:

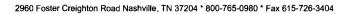
Received:

05/22/09 08:15

PROJECT QUALITY CONTROL DATA

Duplicate

Analyte	Orig. Val.	Duplicate	Q , ,	Units	RPD	Limit	Batch	Sample Duplicated	% Rec.	Analyzed Date/Time
General Chemistry Parameters										
9060430-DUP1 % Dry Solids	83.3	79.4		%	5	20	9060430	NSE1937-06		06/04/09 08:23





10179 Highway 78

Ladson, SC 29456 Tom McElwee

Attn

Work Order:

NSE1961

Project Name:

Laurel Bay Housing Project

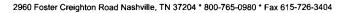
Project Number:

[none]

Received: 05/22/09 08:15

PROJECT QUALITY CONTROL DATA LCS

Analyte	Known Val.	Analyzed Val	Q	Units	% Rec.	Target Range	Batch	Analyzed Date/Time
Selected Volatile Organic Compou	nds by EPA Method 82	60B						
9054372-BS1								
Benzene	50.0	47.5		ug/kg	95%	76 - 130	9054372	05/28/09 20:1
Ethylbenzene	50.0	45.1		ug/kg	90%	80 - 128	9054372	05/28/09 20:1
Naphthalene	50.0	44.3		ug/kg	89%	63 - 144	9054372	05/28/09 20:1
Toluene	50.0	45.2		ug/kg	90%	80 - 125	9054372	05/28/09 20:1
Xylenes, total	150	132		ug/kg	88%	79 - 130	9054372	05/28/09 20:1
Surrogate: 1,2-Dichloroethane-d4	50.0	44.8			90%	41 - 150	9054372	05/28/09 20:1
Surrogate: Dibromofluoromethane	50.0	50.0			100%	55 - 139	9054372	05/28/09 20:1
Surrogate: Toluene-d8	50.0	49.7			99%	57 - 148	9054372	05/28/09 20:1
Surrogate: 4-Bromofluorobenzene	50.0	48.8			98%	58 - 150	9054372	05/28/09 20:1
Polyaromatic Hydrocarbons by EP	A 8270D							
9053860-BS1								
Acenaphthene	1.67	1.41		mg/kg wet	85%	52 - 106	9053860	05/30/09 12:1
Acenaphthylene	1.67	1.47		mg/kg wet	88%	53 - 109	9053860	05/30/09 12:1
Anthracene	1.67	1.62		mg/kg wet	97%	54 - 124	9053860	05/30/09 12:1
Benzo (a) anthracene	1.67	1.53		mg/kg wet	92%	53 - 111	9053860	05/30/09 12:1
Benzo (a) pyrene	1.67	1.53		mg/kg wet	92%	52 - 122	9053860	05/30/09 12:1
Benzo (b) fluoranthene	1.67	1.59		mg/kg wet	95%	48 - 115	9053860	05/30/09 12:1
Benzo (g,h,i) perylene	1.67	1.54		mg/kg wet	92%	46 - 114	9053860	05/30/09 12:1
Benzo (k) fluoranthene	1.67	1.34		mg/kg wet	80%	41 - 121	9053860	05/30/09 12:1
Chrysene	1.67	1,45		mg/kg wet	87%	49 - 113	9053860	05/30/09 12:1
Dibenz (a,h) anthracene	1.67	1.55		mg/kg wet	93%	47 - 117	9053860	05/30/09 12:1
Fluoranthene	1.67	1.57		mg/kg wet	94%	52 - 113	9053860	05/30/09 12:1
Fluorene	1.67	1.46		mg/kg wet	88%	54 - 107	9053860	05/30/09 12:1
Indeno (1,2,3-cd) pyrene	1.67	1.57		mg/kg wet	94%	47 - 115	9053860	05/30/09 12:1
Naphthalene	1.67	1.25		mg/kg wet	75%	34 - 107	9053860	05/30/09 12:1
Phenanthrene	1.67	1.45		mg/kg wet	87%	53 - 108	9053860	05/30/09 12:1
Pyrene	1.67	1.47		mg/kg wet	88%	54 - 113	9053860	05/30/09 12:1
Surrogate: Terphenyl-d14	1.67	1.33			80%	26 - 128	9053860	05/30/09 12:1
Surrogate: 2-Fluorobiphenyl	1.67	1.23			74%	19 - 109	9053860	05/30/09 12:1
Surrogate: Nitrobenzene-d5	1.67	1.33			80%	22 - 104	9053860	05/30/09 12:1





10179 Highway 78 Ladson, SC 29456

Tom McElwee

Attn

Work Order:

NSE1961

Project Name:

Laurel Bay Housing Project

Project Number: Received: [none] 05/22/09 08:15

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 Compoun	ds by EPA	Method 8260	В									
9054372-BSD1												
Benzene		42.4		ug/kg	50.0	85%	76 - 130	11	43	9054372		05/28/09 20:41
Ethylbenzene		42.1		ug/kg	50.0	84%	80 - 128	7	48	9054372		05/28/09 20:41
Naphthalene		39.2		ug/kg	50.0	78%	63 - 144	12	50	9054372		05/28/09 20:41
Toluene		41.6		ug/kg	50.0	83%	80 - 125	8	44	9054372		05/28/09 20:41
Xylenes, total		124		ug/kg	150	83%	79 - 130	6	48	9054372		05/28/09 20:41
Surrogate: 1,2-Dichloroethane-d4		40.6		ug/kg	50.0	81%	41 - 150			9054372		05/28/09 20:41
Surrogate: Dibromofluoromethane		49.8		ug/kg	50.0	100%	55 - 139			9054372		05/28/09 20:41
Surrogate: Toluene-d8		50.2		ug/kg	50.0	100%	57 - 148			9054372		05/28/09 20:41
Surrogate: 4-Bromofluorobenzene		48.6		ug/kg	50.0	97%	58 - 150			9054372		05/28/09 20:41



10179 Highway 78 Ladson, SC 29456

Tom McElwee

Attn

Work Order:

NSE1961

Project Name:

Laurel Bay Housing Project

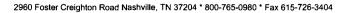
Project Number:

[none]

Received: 05/22/09 08:15

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 Compour	ids by EPA Me	thod 8260B								
9054372-MS1	-									
Benzene	ND	2.71		mg/kg wet	2.50	108%	33 - 146	9054372	NSE2194-03RE	05/29/09 07:49
Ethylbenzene	0.0696	2.37		mg/kg wet	2.50	92%	16 - 160	9054372	1 NSE2194-03RE 1	05/29/09 07:49
Naphthalene	0.0785	1.62		mg/kg wet	2.50	62%	10 - 151	9054372	NSE2194-03RE	05/29/09 07:49
Toluene	ND	2.14		mg/kg wet	2.50	85%	30 - 145	9054372	NSE2194-03RE	05/29/09 07:49
Xylenes, total	0.0874	6.38		mg/kg wet	7.50	84%	16 - 159	9054372	NSE2194-03RE	05/29/09 07:49
Surrogate: 1,2-Dichloroethane-d4		47.5		ug/kg	50.0	95%	41 - 150	9054372	NSE2194-03RE	05/29/09 07:49
Surrogate: Dibromofluoromethane		50.1		ug/kg	50.0	100%	55 - 139	9054372	NSE2194-03RE	05/29/09 07:49
Surrogate: Toluene-d8		47.1		ug/kg	50.0	94%	57 - 148	9054372	NSE2194-03RE	05/29/09 07:49
Surrogate: 4-Bromoftworobenzene		58.1		ug/kg	50.0	116%	58 - 150	9054372	NSE2194-03RE 1	05/29/09 07:49
Polyaromatic Hydrocarbons by EP	A 8270D									
9053860-MS1										
Acenaphthene	ND	1.84		mg/kg dry	2.11	87%	28 - 117	9053860	NSE1796-24	05/30/09 12:33
Acenaphthylene	ND	1.90		mg/kg dry	2.11	90%	33 - 113	9053860	NSE1796-24	05/30/09 12:33
Anthracene	ND	2.11		mg/kg dry	2.11	100%	31 - 131	9053860	NSE1796-24	05/30/09 12:33
Benzo (a) anthracene	0.336	2.03		mg/kg dry	2.11	80%	29 - 124	9053860	NSE1796-24	05/30/09 12:33
Benzo (a) pyrene	0.502	2.05		mg/kg dry	2.11	73%	30 - 127	9053860	NSE1796-24	05/30/09 12:33
Benzo (b) fluoranthene	0.519	2.06		mg/kg dry	2.11	73%	26 - 128	9053860	NSE1796-24	05/30/09 12:33
Benzo (g,h,i) perylene	0.398	2.13		mg/kg dry	2.11	82%	21 - 122	9053860	NSE1796-24	05/30/09 12:33
Benzo (k) fluoranthene	0.357	1.91		mg/kg dry	2.11	74%	20 - 130	9053860	NSE1796-24	05/30/09 12:33
Chrysene	0.373	1.96		mg/kg dry	2.11	75%	30 - 119	9053860	NSE1796-24	05/30/09 12:33
Dibenz (a,h) anthracene	0.120	2.11		mg/kg dry	2.11	94%	27 - 122	9053860	NSE1796-24	05/30/09 12:33
Fluoranthene	0.117	2.10		mg/kg dry	2.11	94%	23 - 132	9053860	NSE1796-24	05/30/09 12:33
Fluorene	ND	1.94		mg/kg dry	2.11	92%	38 - 110	9053860	NSE1796-24	05/30/09 12:33
Indeno (1,2,3-cd) pyrene	0.354	2.15		mg/kg dry	2.11	85%	24 - 122	9053860	NSE1796-24	05/30/09 12:33
Naphthalene	ND	1.54		mg/kg dry	2.11	73%	14 - 117	9053860	NSE1796-24	05/30/09 12:33
Phenanthrene	ND	1.91		mg/kg dry	2.11	91%	21 - 130	9053860	NSE1796-24	05/30/09 12:33
Pyrene	0.136	2.01		mg/kg dry	2.11	89%	24 - 133	9053860	NSE1796-24	05/30/09 12:33
Surrogate: Terphenyl-d14		1.79		mg/kg dry	2.11	85%	26 - 128	9053860	NSE1796-24	05/30/09 12:33
Surrogate: 2-Fluorobiphenyl		1.47		mg/kg dry	2.11	70%	19 - 109	9053860	NSE1796-24	05/30/09 12:33
Surrogate: Nitrobenzene-d5		1.58		mg/kg dry	2.11	75%	22 - 104	9053860	NSE1796-24	05/30/09 12:33





10179 Highway 78 Ladson, SC 29456

Tom McElwee

Attn

Work Order:

NSE1961

Project Name:

Laurel Bay Housing Project

Project Number:

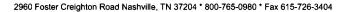
[none]

Received:

05/22/09 08:15

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 Comp	ounds by EPA	Method 82	60B									
9054372-MSD1												
Benzene	ND	2.40		mg/kg wet	2.50	96%	33 - 146	12	43	9054372	NSE2194-03RE	05/29/09 08:26
Ethylbenzene	0.0696	2.48		mg/kg wet	2.50	97%	16 - 160	5	48	9054372	1 NSE2194-03RE	05/29/09 08:26
Naphthalene	0.0785	2.80	R2	mg/kg wet	2.50	109%	10 - 151	53	50	9054372	NSE2194-03RE	05/29/09 08:26
Toluene	ND	2.01		mg/kg wet	2.50	80%	30 - 145	6	44	9054372	NSE2194-03RE	05/29/09 08:26
Xylenes, total	0.0874	6.95		mg/kg wet	7.50	91%	16 - 159	9	48	9054372	NSE2194-03RE	05/29/09 08:26
Surrogate: 1,2-Dichloroethane-d4		39.6		ug/kg	50.0	79%	41 - 150			9054372	NSE2194-03RE	05/29/09 08:26
Surrogate: Dibromofluoromethane		48.6		ug/kg	50.0	97%	55 - 139			9054372	NSE2194-03RE 1	05/29/09 08:26
Surrogate: Toluene-d8		46.7		ug/kg	50.0	93%	57 - 148			9054372	NSE2194-03RE 1	05/29/09 08:26
Surrogate: 4-Bromofluorobenzene		62.2		ug/kg	50.0	124%	58 - 150			9054372	NSE2194-03RE I	05/29/09 08:26
Polyaromatic Hydrocarbons by	EPA 8270D											
9053860-MSD1												
Acenaphthene	ND	1.77		mg/kg dry	2.15	82%	28 - 117	4	33	9053860	NSE1796-24	05/30/09 12:56
Acenaphthylene	ND	1.86		mg/kg dry	2.15	86%	33 - 113	2	38	9053860	NSE1796-24	05/30/09 12:56
Anthracene	ND	2.11		mg/kg dry	2.15	98%	31 - 131	0.2	32	9053860	NSE1796-24	05/30/09 12:56
Benzo (a) anthracene	0.336	2.29		mg/kg dry	2.15	91%	29 - 124	12	26	9053860	NSE1796-24	05/30/09 12:56
Benzo (a) pyrene	0.502	2.53		mg/kg dry	2.15	94%	30 - 127	21	31	9053860	NSE1796-24	05/30/09 12:56
Benzo (b) fluoranthene	0.519	2.73		mg/kg dry	2.15	103%	26 - 128	28	37	9053860	NSE1796-24	05/30/09 12:56
Benzo (g,h,i) perylene	0.398	2.49		mg/kg dry	2.15	97%	21 - 122	16	28	9053860	NSE1796-24	05/30/09 12:56
Benzo (k) fluoranthene	0.357	1.99		mg/kg dry	2.15	76%	20 - 130	4	35	9053860	NSE1796-24	05/30/09 12:56
Chrysene	0.373	2.24		mg/kg dry	2.15	87%	30 - 119	13	31	9053860	NSE1796-24	05/30/09 12:56
Dibenz (a,h) anthracene	0.120	2.23		mg/kg dry	2.15	98%	27 - 122	6	32	9053860	NSE1796-24	05/30/09 12:56
Fluoranthene	0.117	2.11		mg/kg dry	2.15	92%	23 - 132	0.1	36	9053860	NSE1796-24	05/30/09 12:56
Fluorene	ND	1.90		mg/kg dry	2.15	88%	38 - 110	2	35	9053860	NSE1796-24	05/30/09 12:56
Indeno (1,2,3-cd) pyrene	0.354	2.48		mg/kg dry	2.15	99%	24 - 122	14	28	9053860	NSE1796-24	05/30/09 12:56
Naphthalene	ND	1.48		mg/kg dry	2.15	69%	14 - 117	4	34	9053860	NSE1796-24	05/30/09 12:56
Phenanthrene	ND	1.92		mg/kg dry	2.15	89%	21 - 130	0.2	33	9053860	NSE1796-24	05/30/09 12:56
Pyrene	0.136	2.07		mg/kg dry	2.15	90%	24 - 133	3	36	9053860	NSE1796-24	05/30/09 12:56
Surrogate: Terphenyl-d14		1.79		mg/kg dry	2.15	83%	26 - 128			9053860	NSE1796-24	05/30/09 12:56
Surrogate: 2-Fluorobiphenyl		1.45		mg/kg dry	2.15	67%	19 - 109			9053860	NSE1796-24	05/30/09 12:56
Surrogate: Nitrobenzene-d5		1.56		mg/kg dry	2.15	72%	22 - 104			9053860	NSE1796-24	05/30/09 12:56





10179 Highway 78 Ladson, SC 29456

Tom McElwee

Work Order:

NSE1961

Project Name:

Laurel Bay Housing Project

South Carolina

X

X

Project Number:

Nelac

X

[none]

Received:

05/22/09 08:15

CERTIFICATION SUMMARY

AlHA

N/A

TestAmerica Nashville

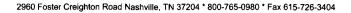
Attn

 Method
 Matrix

 SW846 8260B
 Soil

 SW846 8270D
 Soil

 SW-846
 Soil





10179 Highway 78 Ladson, SC 29456 Tom McElwee

Attn

Work Order: NSE1961

Project Name: Laurel Bay Housing Project

Project Number: [none]

Received: 05/22/09 08:15

DATA QUALIFIERS AND DEFINITIONS

R2 The RPD exceeded the acceptance limit.

ZX Due to sample matrix effects, the surrogate recovery was outside the acceptance limits.

ND Not detected at the reporting limit (or method detection limit if shown)

METHOD MODIFICATION NOTES

NSE1961

06/08/09 23:59

TestAmer		Nashville 2960 Fosi Nashville	ter Cre	ighto	n			7	Toll F	опе: ree: Fax:	800	-765	-098	0							meth	ods, is		ork be		r analyti nducted					
Client Name/Account #:	EEG # 2449																_							Comp	oliance	Monitor	ring?		Yes_		No_
Address:	10179 Highway	78															_							Enfo	orcem€	ent Actio	m?		Yes_		No
City/State/Zip:	Ladson, SC 29	456														-			Site	State	sc										
Project Manager:	Tom McElwee	email: mcelv	vee@e	eginc.r	net							·					_			PO#		0	<u> </u>	<u>.</u> १							
Telephone Number:	843.412,2097					F	ax N	o.:	X	43	<u>: -</u>	· 8	79	7 –	0	4	01		TA Q	;ote #											
Sampler Name: (Print)	PRA	H 5.	19	w													_		Pro	ect ID	Laur	el Bay	Housi	ng Proj	ect						
Sampler Signature:		7 /V	W.					_									_		Pro	ject #											
									Pres	ervat	ve	\equiv	1		М	atrix				_				Analyz	e For:						
	D.	7	ners Shipped					22 - V	(Jabel)	ellow Label)	low Label)	(F)	Mon						oth - 8260E											- 7	-Schedule)
Sample ID / Description	Date Same	Time Samp	No. of Cont	Grab	Composite	Field Fittere	<u>8</u>	HWO, Reals	HCI (Blue Lab	H,SO, Plastic	H ₂ SO ₄ Glass(None (Black L		Westewater	Drinking Wate	Sludge	Soil	Other (specify	BTEX + N.	PAH - 827(RUSH TAT (F
1023 Foxyour	5/19/09	0955	5	7			П	2	T	T	\sqcap	1	1	T	Τ	T	X		3	2		T		1	\top	1	\forall			\neg	
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1021 FOXYOUR	5/20/09	1350	5	Y				2	\top		П	2	ī	T		T	X		3	2		T		\top		\neg	3	\top	\top	\neg	
1030 FOXSLOUR	5/21/09	1025	3-	X				2	T	T	П	2	T	T	Τ	Τ	X		3	2							J				コ
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ATTACHMENT A



NON-HAZARDOUS MANIFE

Cuntil

riea	se print or type. (Form designed for use on elite (12-pitch) typewriter.) 1. Generator's US EPA ID No.	Manifest											
	NON-HAZARDOUS MANIFEST	Document No	2.	Page of 1	1								
	3. Generator's Name and Mailing Address		A.	Manifest I	Number	4 7 6							
	Leine Bay Housey Design SC 28804		B.		nerator's ID								
	4. Generator's Phone		1										
	5. Transporter 1 Company Name 6.	JS EPA ID Number			nsporter's ID er's Phone	85 0 50	K3A4 1						
		JS EPA ID Number			nsporter's ID	<u>िन १ ६३ ४ था</u>	-47105 6 H						
				F. Transporter's Phone G. State Facility's ID									
	9. Designated Facility Name and Site Address 10.	IS EPA ID Number	G	State Fac	ility's ID								
	MOSERY MILLANDALI.		Н.	Facility's f	Phone								
i	ROUTE 1, BOX 121 RIDGELAND SC 29/86				ük	3 987	46.43 <u> </u>						
	11. Description of Waste Materials	12. C	ontaine T	1	13. Total Quantity	14. Unit Wt./Vol.	l. Misc. Comments						
	effeating Oil Tank Blod with Sand												
Ģ	WM Profile #	0 6	i	, ,	8 20								
GENERATOR	ь.												
A	WM Profile #			. 1 .	1 1 1								
R	C.		\dashv	+++		+							
						[
	WM Profile #												
	d.												
	WM Profile #			1 1									
	J. Additional Descriptions for Materials Listed Above		К	. Dispos	al Location								
	Landfill Solidification			ell		Leve	el :						
	Bio Remediation												
		. 10.		rid		_							
	15. Special Handling Instructions and Additional Information	4) 017											
	\$) 1027 Fofologe	\$ 100 °C	r* 1	1/3/	04E								
		GENCY CONTACT:											
	16. GENERATOR'S CERTIFICATION:I hereby certify that the above-described materials are n	ot hazardous wastos		dofinac	l by 40 CE	D Dor	+ 061 or onv						
	applicable state law, have been fully and accurately des												
	for transportation according to applicable regulations.	·	•	Ū	•								
		ture "On behalf of"	ì				Month Day Year						
۲	- harles H. Henn	halls H.	- k-	or a service was a	-		<u>Plasade</u>						
TRAN	17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name Sign.	ature A			····		Month Day Year						
N S P	James Baldwin Q	Omeo Boles	لرب.				901210121019						
O R T	18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name Signs	ature					Month Day Year						
Ė		 -											
П	19. Certificate of Final Treatment/Disposal	` .				,							
F	I certify, on behalf of the above listed treatment facility, t												
FAC-	was managed in compliance with all applicable laws, req	gulations, permits an	d lice	enses	on the dat	es liste	ed above.						
L I T	20. Facitilty Owner or Operator: Certification of receipt of non-hazardous materials of	` 											
Y	Printed/Typed Name Signa	ature					Month Day Year						
	Constituting the Secretary of the Secret						F 91% K. DANG [4]						

Appendix C Regulatory Correspondence





C. Earl Hunter, Commissioner

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

August 18, 2009

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

Re:

MCAS - Laurel Bay Housing - 1023 Floxglove

Site ID # 04251

Soil Sampling Results received August 17, 2009

Beaufort County

Dear Mr. Ehde:

The Department has reviewed the referenced assessment report. Based upon the geotechnical data in the referenced report, the soil samples are below risk based screening levels and there is no evidence of ground water contamination on the property.

As the Department did not specifically request this data, and the work conducted at this site received no prior review by the Department, we cannot provide any comments on the completeness of the work performed or the overall environmental conditions of the site. Based on the information and analytical data submitted, there is no evidence to indicate that a violation of the Pollution Control Act has occurred. Consequently, no investigation will be required at this time. Please note, this statement pertains only to the data submitted and does not apply to other areas of the site and/or any other potential regulatory violations. Further, the Department retains the right to request further investigation if deemed necessary.

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

B. Thomas Knight, Manager

AST Petroleum Restoration & Site Environmental Investigations Section

Division of Site Assessment, Remediation & Revitalization

Bureau of Land and Waste Management

CC:

Region 8 District EQC

Tri-Command Communities; Attn: Mr. Robert Bible; 600 Laurel Bay Road Beaufort, SC 29906