SUMMARY REPORT
244 WEST ALTHEA STREET (FORMERLY 775 WEST ALTHEA 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
244 WEST ALTHEA STREET (FORMERLY 775 WEST ALTHEA 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

Prepared by:



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

Contract Number: N62470-14-D-9016

CTO WE52

**JUNE 2021** 



## **Table of Contents**

1.0	INTRODUCTION
1.1 1.2	Background Information
2.0	SAMPLING ACTIVITIES AND RESULTS
2.1 2.2 2.3 2.4 2.5 2.6	UST REMOVAL AND SOIL SAMPLING
3.0	PROPERTY STATUS
4.0	REFERENCES
Table Table Table	2 Laboratory Analytical Results - Initial Groundwater
	Appendices
Appen Appen Appen Appen Appen	dix B UST Assessment Report dix C Laboratory Analytical Report - Initial Groundwater dix D Laboratory Analytical Report - Permanent Well Groundwater



#### **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 244 West Althea Street (Formerly 775 West Althea 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 heating oil 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, February 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, February 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, April 2013) and were revised again in Revision 3.0 (SCDHEC, May 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 IGWA sampling process utilizes temporary groundwater sampling points that are typically installed and sampled within the same day. The intent of the sampling point is to determine the presence or absence of the aforementioned COPCs in groundwater and identify whether former UST locations may require additional delineation of COPCs in groundwater. These sampling points are not subjected to the same installation standards as permanent monitoring wells and, as such; the data obtained from the IGWA wells can sometimes be biased high and is considered preliminary data. In order to confirm the presence of any impact to groundwater, a permanent well is installed where IGWA sampling has indicated the presence of COPCs is in excess of the SCDHEC RBSLs for groundwater. If COPCs are found to be present in the permanent well, additional permanent wells are installed to delineate the extent of impact to groundwater and a sampling program is established. Groundwater analytical results from permanent wells 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 244 West Althea Street (Formerly 775 West Althea Street). The sampling activities at 244 West Althea Street (Formerly 775 West Althea Street) comprised a soil investigation, IGWA sampling and installation and sampling of a permanent well. Details regarding the soil investigation at this site are provided in the SCDHEC UST Assessment Report – 775 Althea Street (MCAS Beaufort, 2011). The UST Assessment Report is provided in Appendix B. Details regarding the IGWA sampling activities at this site are provided in the Initial Groundwater Investigation Report – November and December 2015 (Resolution Consultants, 2016). The laboratory report that includes the pertinent IGWA analytical results for this site is presented in Appendix C. Details



regarding the permanent well installation and sampling activities at this site are provided in the *Groundwater Assessment Report – March and April 2017* (Resolution Consultants, 2017). The laboratory report that includes the pertinent groundwater analytical results for this site is presented in Appendix D.

#### 2.1 UST Removal and Soil Sampling

On October 20, 2010, a single 280 gallon heating oil UST was removed from the front landscaped bed area adjacent to the driveway at 244 West Althea Street (Formerly 775 West Althea 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 244 West Althea Street (Formerly 775 West Althea Street) were greater than the SCDHEC RBSLs, which indicated further investigation was required. In a letter dated July 1, 2015, SCDHEC requested an IGWA for 244 West Althea Street (Formerly 775 West Althea Street) to determine



if the groundwater was impacted by petroleum COPCs. SCDHEC's request letter is provided in Appendix E.

#### 2.3 Initial Groundwater Sampling

On November 17, 2015, a temporary monitoring well was installed at 244 West Althea Street (Formerly 775 West Althea Street), in accordance with the South Carolina Well Standards and Regulations (R.61-71.H-I, updated June 24, 2016). In order to provide data that can be used to determine whether COPCs are migrating to underlying groundwater, the monitoring well was placed in the same general location as the former heating oil UST. The former UST location is indicated on Figures 2 and 3 of the UST Assessment Report (Appendix B). Further details are provided in the *Initial Groundwater Investigation Report – November and December 2015* (Resolution Consultants, 2016).

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

#### 2.4 Initial 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 244 West Althea Street (Formerly 775 West Althea Street) were greater than the SCDHEC RBSLs and the site specific groundwater VISLs (Table 2), which indicated further investigation was required. In a letter dated June 8, 2016, SCDHEC requested a permanent well be installed for 244 West Althea Street (Formerly 775 West Althea Street) to confirm the impact to groundwater detected in the temporary well sample. SCDHEC's request letter is provided in Appendix E.



#### 2.5 Permanent Well Groundwater Sampling

On March 14, 2017, a permanent monitoring well was installed at 244 West Althea Street (Formerly 775 West Althea Street), in accordance with the South Carolina Well Standards and Regulations (R.61-71.H-I, updated June 24, 2016). In order to provide data that can be used to determine whether COPCs are migrating to underlying groundwater, the monitoring well was placed in the same general location as the former heating oil UST and the IGWA sample location. The former UST location is indicated on Figures 2 and 3 of the UST Assessment Report (Appendix B). Further details are provided in the *Groundwater Assessment Report – March and April 2017* (Resolution Consultants, 2017).

The sampling strategy for this phase of the investigation required a one-time sampling event of the permanent 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. Field forms are provided in the *Groundwater Assessment Report – March and April 2017* (Resolution Consultants, 2017).

#### 2.6 Permanent Well Groundwater Analytical Results

A summary of the laboratory analytical results and SCDHEC RBSLs is presented in Table 3. A copy of the laboratory analytical data report is included in Appendix D.

The groundwater results collected from 244 West Althea Street (Formerly 775 West Althea Street) were less than the SCDHEC RBSLs and the site specific groundwater VISLs (Table 3), 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 collected from the permanent monitoring well, SCDHEC made the determination that NFA was required for 244 West Althea Street (Formerly 775 West Althea Street). This NFA determination was obtained in a letter dated December 11, 2017. SCDHEC's NFA letter is provided in Appendix E.



#### 4.0 REFERENCES

- Marine Corps Air Station Beaufort, 2011. South Carolina Department of Health and Environmental Control (SCDHEC) Underground Storage Tank Assessment Report 775

  Althea Street, Laurel Bay Military Housing Area, February 2011.
- Resolution Consultants, 2016. *Initial Groundwater Investigation Report November and December 2015 for Laurel Bay Military Housing Area, Multiple Properties, Marine Corps Air Station Beaufort, Beaufort, South Carolina*, April 2016.
- Resolution Consultants, 2017. *Groundwater Assessment Report March and April 2017 for Laurel Bay Military Housing Area, Multiple Properties, Marine Corps Air Station Beaufort, Beaufort, South Carolina*, August 2017.
- 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 244 West Althea Street (Formerly 775 West Althea Street) Laurel Bay Military Housing Area Marine Corps Air Station Beaufort Beaufort, South Carolina

Constituent	SCDHEC RBSLs (1)	Results Sample Collected 10/20/10					
Volatile Organic Compounds Analyze	d by EPA Method 8260B (mg/kg)						
Benzene	Benzene 0.003 ND						
Ethylbenzene	1.15	4.42					
Naphthalene	0.036	28.1					
Toluene	0.627	ND ND					
Xylenes, Total	13.01	2.85					
Semivolatile Organic Compounds Ana	alyzed by EPA Method 8270D (mg/kg)						
Benzo(a)anthracene	0.066	0.279					
Benzo(b)fluoranthene	0.066	0.140					
Benzo(k)fluoranthene	0.066	0.0600					
Chrysene	0.066	0.183					
Dibenz(a,h)anthracene	0.066	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 - 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

<sup>(1)</sup> South Carolina Risk-Based Screening Levels from the Quality Assurance Program Plan for the Underground Storage Tank Management Division, Revision 1.0 (SCDHEC, May 2001).

#### Table 2

#### Laboratory Analytical Results - Initial Groundwater 244 West Althea Street (Formerly 775 West Althea Street) Laurel Bay Military Housing Area

Marine Corps Air Station Beaufort Beaufort, South Carolina

Constituent	SCDHEC RBSLs (1)	Site-Specific Groundwater VISLs (µg/L) <sup>(2)</sup>	Results Sample Collected 11/18/15
<b>Volatile Organic Compounds Analyze</b>	d by EPA Method 8260B	(μg/L)	
Benzene	5	16.24	ND
Ethylbenzene	700	45.95	6.9
Naphthalene	25	29.33	40
Toluene	1000	105,445	ND
Xylenes, Total	10,000	2,133	3.1
Semivolatile Organic Compounds And	alyzed by EPA Method 8	270D (μg/L)	
Benzo(a)anthracene	10	NA	ND
Benzo(b)fluoranthene	10	NA	ND
Benzo(k)fluoranthene	10	NA	ND
Chrysene	10	NA	ND
Dibenz(a,h)anthracene	10	NA	ND

#### Notes:

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

<sup>(1)</sup> South Carolina Risk-Based Screening Levels from the Quality Assurance Program Plan for the Underground Storage Tank Management Division, Revision 3.0 (SCDHEC, May 2015).

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

#### Table 3

# Laboratory Analytical Results - Permanent Well Groundwater 244 West Althea Street (Formerly 775 West Althea Street) Laurel Bay Military Housing Area Marine Corps Air Station Beaufort Beaufort, South Carolina

Constituent	SCDHEC RBSLs (1)	Site-Specific Groundwater VISLs (µg/L) <sup>(2)</sup>	Results Sample Collected 03/23/17
<b>Volatile Organic Compounds Analyze</b>	ed by EPA Method 8260B	(μg/L)	
Benzene	5	16.24	ND
Ethylbenzene	700	45.95	6.2
Naphthalene	25	29.33	23
Toluene	1000	105,445	ND
Xylenes, Total	10,000	2,133	ND
Semivolatile Organic Compounds An	alyzed by EPA Method 8	270D (μg/L)	
Benzo(a)anthracene	10	NA	ND
Benzo(b)fluoranthene	10	NA	ND
Benzo(k)fluoranthene	10	NA	ND
Chrysene	10	NA	ND
Dibenz(a,h)anthracene	10	NA	ND

#### Notes:

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

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

Bold font indicates the analyte was detected.

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

EPA - United States Environmental Protection Agency

JE - Johnson & Ettinger

NA - not applicable

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

RBSL - Risk-Based Screening Level

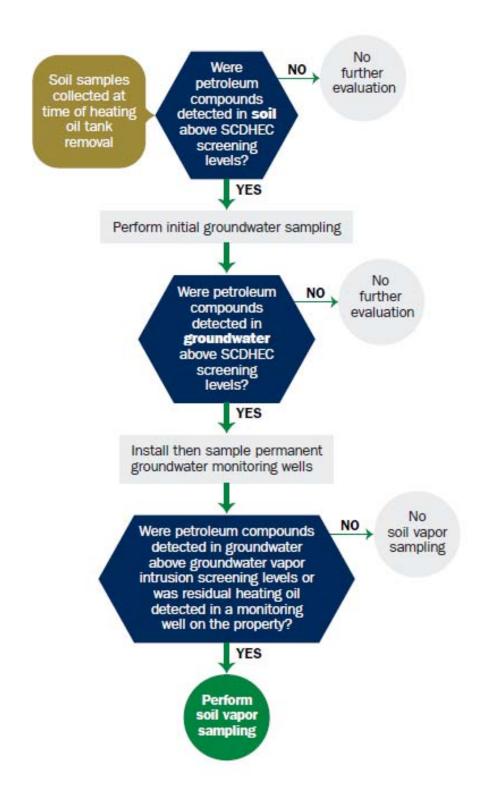
SCDHEC - South Carolina Department Of Health and Environmental Control

μg/L - micrograms per liter

VISL - Vapor Intrusion Screening Level

## Appendix A Multi-Media Selection Process for LBMH





**Appendix A - Multi-Media Selection Process for LBMH** 

## Appendix B UST Assessment Report



## South Carolina Department of Health and Environmental Control (SCDHEC)

## Underground Storage Tank (UST) Assessment Report

Date Received		
	State Use Only	

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

I. OWNERSHIP OF UST (S)

	nmanding Officer Attn: NI	REAO (Craig Ehde)
	, 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 Milita	ry Housing Area, Mari	ne Corps Air	Station, Beaufort,	SC
Laurel Bay Military Housing Area, Marine Corps Air Station, Beaufort, S Facility Name or Company Site Identifier				
775 Althea Stree	, Laurel Bay Militar	Housing Are	a	
Street Address or State Roa	d (as applicable)			
Beaufort,	Beaufort			
City	County			

Attachment 2

#### III. INSURANCE INFORMATION

Insurance	ee Statement
qualify to receive state monies to pay for appropriate si	on of the existence or non-existence of an environmental
Is there now, or has there ever been an insurance UST release? YES NO (check one	ce policy or other financial mechanism that covers this e)
If you answered YES to the above quest	tion, please complete the following information:
My policy provider is:	
The policy deductible is:	
The policy limit is:	
A CONTRACTOR OF THE CONTRACTOR	
If you have this type of insurance, please include	de a copy of the policy with this report.
IV. REQUEST I	FOR SUPERB FUNDING
I DO / DO NOT wish to participate in the SU	UPERB Program. (Circle one.)
V. CERTIFICATION	(To be signed by the UST owner)
I certify that I have personally examined and am fattached documents; and that based on my inquirinformation, I believe that the submitted information	familiar with the information submitted in this and all ry of those individuals responsible for obtaining this on 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	South Carolina

775Althea  Heating oil  280 gal  Late 1950s	
280 gal	
Late 1950s	
Steel	
Mid 1980s	
5'10"	
No	
No	
Removed	
10/20/10	
Yes	
Yes	
	. W.G. 1-
e ground and disposed of in	a "Sub
es or wastewaters removed from the US	Ts (attach
filled with sand by others	3.
2	5'10"  No  No  Removed  10/20/10  Yes

## VII. PIPING INFORMATION

	775Althea
	Steel
Construction Material(ex. Steel, FRP)	& Copper
Distance from UST to Dispenser	N/A
Number of Dispensers	N/A
Type of System Pressure or Suction	Suction
Was Piping Removed from the Ground? Y/N	Yes
Visible Corrosion or Pitting Y/N	Yes
Visible Holes Y/N	No
Age	Late 1950s
f any corrosion, pitting, or holes were observed,	describe the location and extent for each pipi
Corrosion and pitting were foun	d on the surface of the steel
pipe. Copper supply and return	lines were sound.
VIII. BRIEF SITE DESC	하게 하면 되면 가는 것이 없는 사람들이 가득하는 것이 없다면 하면 되었다.
	constructed of single wall stee
The USTs at the residences are	constructed of single wall stee for heating. These USTs were
The USTs at the residences are and formerly contained fuel oil	constructed of single wall stee for heating. These USTs were
The USTs at the residences are and formerly contained fuel oil	constructed of single wall stee for heating. These USTs were
The USTs at the residences are and formerly contained fuel oil	constructed of single wall stee for heating. These USTs were

## 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.	r	Х	
<ul> <li>B. Were any petroleum odors detected in the excavation, soil borings, trenches, or monitoring wells?</li> <li>If yes, indicate location on site map and describe the odor (strong, mild, etc.)</li> </ul>		х	
C. Was water present in the UST excavation, soil borings, or trenches?  If yes, how far below land surface (indicate location and depth)?		х	
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 84009001

B.

Sample #	Location	Sample Type (Soil/Water)	Soil Type (Sand/Clay)	Depth*	Date/Time of Collection	Collected by	OVA#
775 Althea	Excav at fill end	Soil	Sandy	5'10"	10/20/10 1545 hrs	P. Shaw	
			7				
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19						=======================================	
20							

<sup>\* =</sup> 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.
<u>.</u>
<del></del>

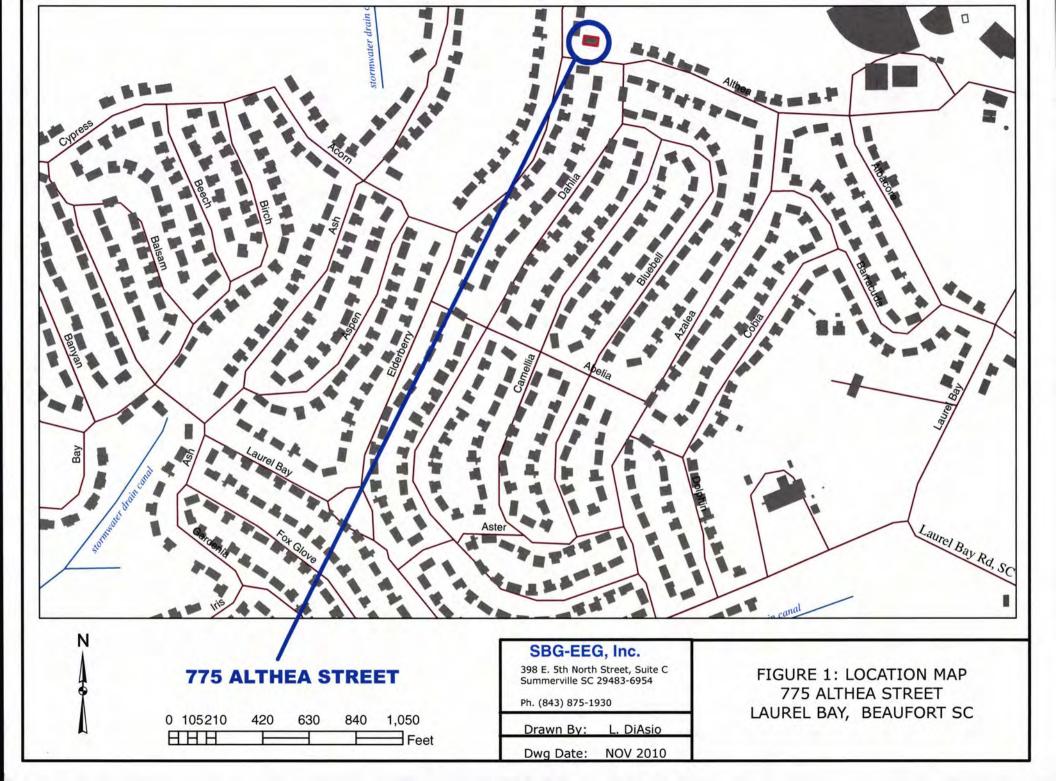
## XII. RECEPTORS

		Yes	No
A.	Are there any lakes, ponds, streams, or wetlands located within 1000 feet of the UST system?		Х
	If yes, indicate type of receptor, distance, and direction on site map.		
B.	Are there any public, private, or irrigation water supply wells within 1000 feet of the UST system?		х
	If yes, indicate type of well, distance, and direction on site map.		
C.	Are there any underground structures (e.g., basements) Located within 100 feet of the UST system?		Х
	If yes, indicate type of structure, distance, and direction on site map.		
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	*X	
	If yes, indicate the type of utility, distance, and direction on the site map.		143
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?		х
	If yes, indicate the area of contaminated soil on the site map.		

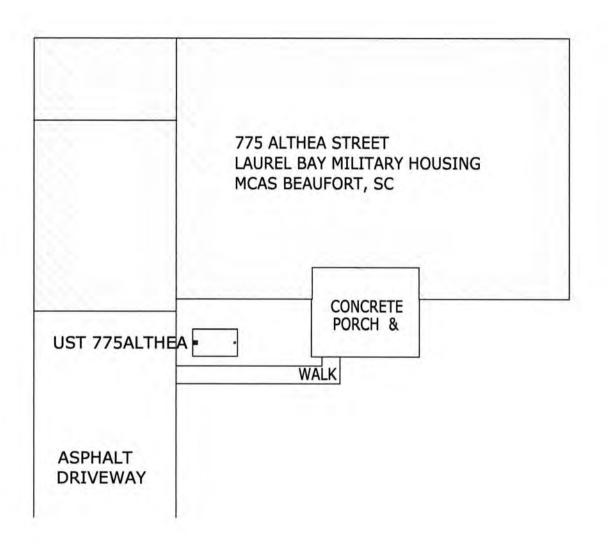
## XIII. SITE MAP

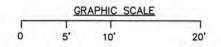
You must supply a <u>scaled</u> site map. It should include all buildings, road names, utilities, tank and dispenser island locations, labeled sample locations, extent of excavation, and any other pertinent information.

(Attach Site Map Here)







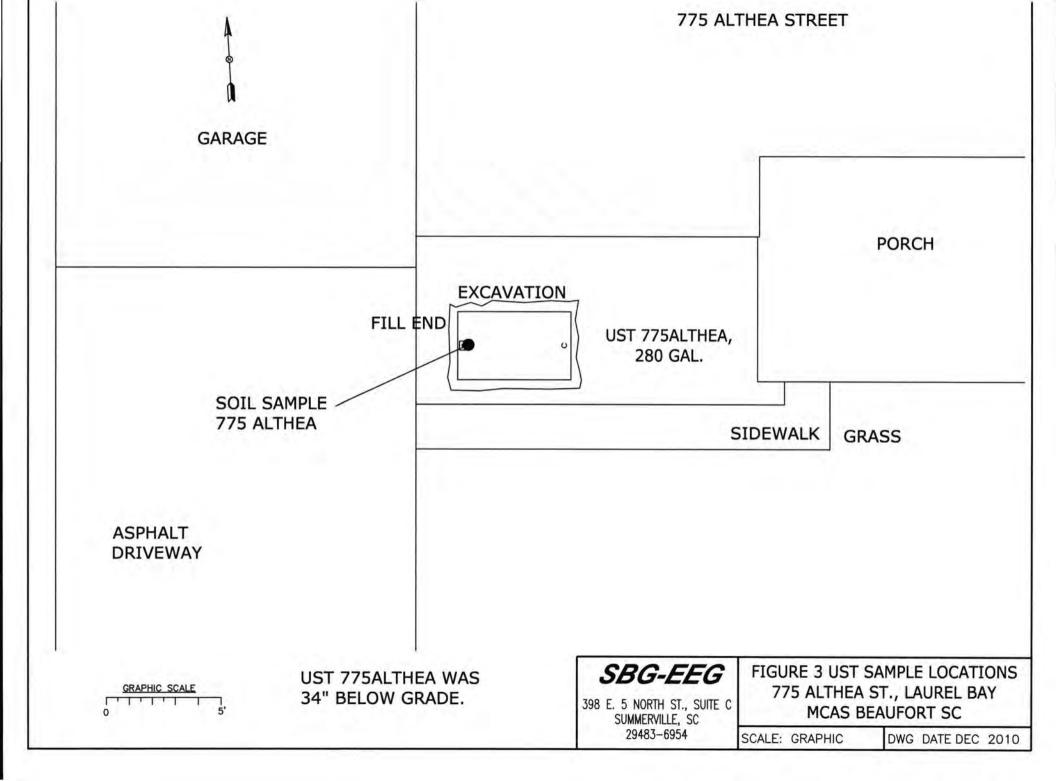


SBG-EEG

398 E. 5 NORTH ST., SUITE C SUMMERVILLE, SC 29483-6954 FIGURE 2 SITE MAP 775 ALTHEA ST., LAUREL BAY MCAS BEAUFORT SC

SCALE: GRAPHIC

DWG DATE DEC 2010





Picture 1: Location of UST 775Althea.



Picture 2: UST 775Althea.

## XIV. SUMMARY OF ANALYSIS RESULTS

Enter the soil analytical data for each soil boring for all COC in the table below and on the following page.

CoC UST	775Althea			
Benzene	ND			
Toluene	ND			
Ethylbenzene	4.42 mg/kg			
Xylenes	2.85 mg/kg			
Naphthalene	28.1 mg/kg			
Benzo (a) anthracene	0.279 mg/kg			
Benzo (b) fluoranthene	0.140 mg/kg			
Benzo (k) fluoranthene	0.0600 mg/k	3		
Chrysene	0.183 mg/kg		= []	
Dibenz (a, h) anthracene	ND			
TPH (EPA 3550)				
CoC				
Benzene				
Toluene				
Ethylbenzene				
Xylenes				
Naphthalene				
Benzo (a) anthracene				
Benzo (b) fluoranthene			4	
Benzo (k) fluoranthene			41	
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		5		
Total BTEX	N/A				
МТВЕ	40			r= r	
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			1	

## 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)

[none]



November 09, 2010

12:58:56PM

Client:

EEG - Small Business Group, Inc. (2449)

10179 Highway 78

Ladson, SC 29456

Tom McElwee Attn:

NTJ2921 Work Order:

Project Name:

Laurel Bay Housing Project

Project Nbr:

P/O Nbr:	1005
Date Received:	10/22/10

SAMPLE IDENTIFICATION	LAB NUMBER	COLLECTION DATE AND TIME
767 Althea-1	NTJ2921-01	10/18/10 11:30
767 Althea-2	NTJ2921-02	10/18/10 15:00
768 Althea-1	NTJ2921-03	10/19/10 10:30
768 Althea-2	NTJ2921-04	10/19/10 13:45
768 Althea-3	NTJ2921-05	10/19/10 16:00
772 Althea	NTJ2921-06	10/20/10 11:45
775 Althea	NTJ2921-07	10/20/10 15:45
776 Laurel Bay Blvd.	NTJ2921-08	10/21/10 11:15
774 Althea	NTJ2921-09	10/21/10 16:45

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.

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.

South Carolina Certification Number: 84009

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.

Em fa Hap

Report Approved By:

Ken A. Hayes

Senior Project Manager



EEG - Small Business Group, Inc. (2449)

10179 Highway 78

Ladson, SC 29456 Tom McElwee

Client

Attn

Work Order: NTJ2921

Project Name: Laurel Bay Housing Project

Project Number: [none]

Received: 10/22/10 08:10

#### ANALYTICAL REPORT

			ANALY	TICAL REP	OKI					-
Analyte	Result	Flag	Units	MDL	MRL	Dilution Factor	Analysis Date/Time	Method	Analyst	Batch
maryte	Kesun	riag	Cinto	MDL	3.7.66	Tacion	Date/Time	Wichiou	Amaryst	Date
ample ID: NTJ2921-01 (767 Alt General Chemistry Parameters	hea-1 - Soil) S	ampled:	10/18/10	11:30						
Dry Solids	83.7		%	0.500	0,500	1	10/29/10 09:22	SW-846	HLB	10J550
olatile Organic Compounds by EPA	Method 8260B									
enzene	0.154		mg/kg dry	0.00118	0.00214	Y	10/28/10 07:16	SW846 8260B	млн/н	10J421
hylbenzene	6.28		mg/kg dry	0.0525	0.107	50	10/28/10 19:55	SW846 8260B	МЈН/Н	103589
aphthalene	88.0		mg/kg dry	1.82	5.36	1000	10/28/10 20:24	SW846.8260B	MJH/H	10J589
bluenc	ND		mg/kg dry	0.000954	0.00214	1	10/28/10 07:16	SW846 8260B	MJH/H	10J421
vlenes, total	0.376		mg/kg dry	0.00204	0.00536	1	10/28/10 07:16	SW846 8260B	MJH/H	10J4214
rr: 1,2-Dichloroethune-d4 (67-138%)	100 %					1	10/28/10 07:16	SW846 8260B	MJH/H	10,142
rr: 1,2-Dichloroethane-d4 (67-138%)	95 %					50	10/28/10 19:55	SW846.8260B	мЈН/Н	103589
rr: 1,2-Dichloroethane-d4 (67-138%)	95 %					1000	10/28/10 20:24	SW846 8260B	MJH/H	10,1589
rr: Dibromofluoromethane (75-125%)	105 %					1	10/28/10 07:16	SW846 8260B	MJH/H	10.1421
rr: Dibromofluoromethane (75-125%)	93 %					50	10/28/10 19:55	SW846 8260B	MJH/H	10,1589
rr: Dibromofluoromethane (75-125%)	94 %					1000	10/28/10 20:24	SW846-8260B	MJH/H	10,1585
rr. Toluene-d8 (76-129%)	1260 %	Z	C			1	10/28/10 07:16	SW846 8260B	MJH/H	10,142
rr: Toluene-d8 (76-129%)	121%					50	10/28/10 19:55	SW846 8260B	MJH/H	10,1589
rr: Toluene-d8 (76-129%)	103 %					1000	10/28/10/20:24	SW846 8260B	MJH/H	10,1589
rr: 4-Bromofluorobenzene (67-147%)	1780 %	Z				1	10/28/10 07:16	SW846 8260B	MJH/H	10,142
rr: 4-Bromofluorobenzene (67-147%)	136%					50	10/28/10 19:55	SW846 8260B	MJH/H	10.1589
rr: 4-Bromafluorobenzene (67-147%)	110 %					1000	10/28/10 20:24	SW846 8260B	MJH/H	10,1589
olyaromatic Hydrocarbons by EPA										
cenaphthene	5.36		mg/kg dry	0.162	0.776	10	10/29/10 14:00	SW846 8270D	BES	10J4632
cenaphthylene	2.66		mg/kg dry	0.232	0.776	10	10/29/10 14:00	SW846 8270D	BES	10J4632
nthracene	0.741	1	mg/kg dry	0.104	0.776	10	10/29/10 14:00	SW846 8270D	BES	10J4632
enzo (a) anthracene	1.22		mg/kg dry	0.127	0.776	10	10/29/10 14:00	SW846 8270D	BES	10J4632
enzo (a) pyrene	0.428	J	mg/kg dry	0.0926	0.776	10	10/29/10 14:00	SW846 8270D	BES	10J4632
enzo (b) fluoranthene	0.718	1.	mg/kg dry	0.440	0.776	10	10/29/10 14:00	SW846 8270D	BES	10J4632
enzo (g,h,i) perylene	ND		mg/kg dry	0.104	0.776	10	10/29/10 14:00	SW846.8270D	BES	10J4632
enzo (k) fluoranthene	ND		mg/kg dry	0.428	0.776	10	10/29/10 14:00	SW846 8270D	BES	10J4632
nrysene	1.11		mg/kg dry	0.359	0.776	10	10/29/10 14:00	SW846 8270D	BES	10J4632
benz (a,h) anthracene	ND		mg/kg dry	0.174	0.776	10	10/29/10 14:00	SW846 8270D	BES	10J4632
uoranthene	3.05		mg/kg dry	0.127	0.776	10	10/29/10 14:00	SW846 8270D	BES	10J4632
uorene	8.29		mg/kg dry	0.232	0.776	10	10/29/10 14:00	SW846 8270D	BES	10J4632
leno (1,2,3-cd) pyrene	ND		mg/kg dry	0.359	0.776	10	10/29/10 14:00	SW846 8270D	BES	10J4632
phthalene	28.1		mg/kg dry	0.162	0.776	10	10/29/10 14:00	SW846 8270D	BES	10J4632
enanthrene	17.9		mg/kg dry	0.116	0.776	10	10/29/10 14:00	SW846 8270D	BES	10J4632
rene	2.92		mg/kg dry	0.266	0.776	10	10/29/10 14:00	SW846 8270D	BES	10J4632
Methylnaphthalene	108		mg/kg dry	1.39	7.76	100	10/30/10 21:11	SW846 8270D	BES	10J4632
Methylnaphthalene	178		mg/kg dry	2.43	7.76	100	10/30/10 21:11	SW846 8270D	BES	10J4632
rr: Terphenyl-d14 (18-120%)	42 %					10	10/29/10 14:00	SW846 8270D	BES	10.1463



10179 Highway 78 Ladson, SC 29456

Tom McElwee

Attn

Work Order: NTJ

NTJ2921

Project Name: Laurel Bay Housing Project

Project Number: [none]

Received: 10/22/10 08:10

knalyte	Result	Flag	Units	MDL	MRL	Dilution Factor	Analysis Date/Time	Method	Analyst	Batch
ample ID: NTJ2921-01 (767 Al	thea-1 - Soil) -	cont. Sa	mpled: 10	/18/10 11:30						
olyaromatic Hydrocarbons by EPA	8270D - cont.									
rr: 2-Fluorobiphenyl (14-120%)	68 %					10	10/29/10 14:00	SW846 8270D	BES	10J4632
rr: Nitrobenzene-d5 (17-120%)	155 %	Z	5.0			10	10/29/10 14:00	SW846 8270D	BES	10.14632
ample ID: NTJ2921-02 (767 Al	thea-2 - Soil) S	ampled:	10/18/10	15:00						
ieneral Chemistry Parameters										
Dry Solids	80.1		%	0.500	0.500	Ť	10/29/10 09:22	SW-846	HLB	1035505
olatile Organic Compounds by EP.	A Method 8260E	3								
enzene	0.00111	3	mg/kg dry	0.00106	0.00193	1	10/29/10 20:46	SW846 8260B	млн/н	10J3703
hylbenzene	0.00601		mg/kg dry	0.000947	0.00193	1	10/29/10 20:46	SW846 8260B	МЈН/Н	10J3703
aphthalene	0.0347		mg/kg dry	0.00164	0.00483	1	10/29/10 20:46	SW846 8260B	MJH/H	10J3703
bluene	0.00111	1	mg/kg dry	0.000860	0.00193	1	10/29/10 20:46	SW846 8260B	MJH/H	10J3703
ylenes, total	ND	-	mg/kg dry	0.00184	0.00483	r	10/29/10 20:46	SW846 8260B	MJH/H	10J3703
rr: 1,2-Dichloroethane-d4 (67-138%)	96%			and the same	111117 TOS	1	10/29/10 20:46	SW846 8260B	MJH/H	10.13703
rr: Dibromofluoromethane (75-125%)	196 %					4	10/29/10 20:46	SW846.8260B	MJH/H	10,13703
rr: Toluene-d8 (76-129%)	102 %					,	10/29/10 20:46	SW846 8260B	MJH/H	10J3703
rr: 4-Bromofluorobenzene (67-147%)	107 %					1	10/29/10 20:46	SW846 8260B	MJH/H	10.13703
olyaromatic Hydrocarbons by EPA	8270D									
cenaphthene	ND		mg/kg dry	0.0173	0.0827	ì	10/28/10 19:27	SW846 8270D	BES	10J4632
cenaphthylene	ND		mg/kg dry	0.0247	0.0827	1	10/28/10 19:27	SW846 8270D	BES	10J4632
nthracene	ND		mg/kg dry	0.0111	0.0827	1	10/28/10 19:27	SW846 8270D	BES	10J4632
enzo (a) anthracene	ND		mg/kg dry	0.0136	0.0827	1	10/28/10 19:27	SW846 8270D	BES	10J4632
enzo (a) pyrene	ND		mg/kg dry	0.00987	0.0827	1	10/28/10 19:27	SW846 8270D	BES	10J4632
enzo (b) fluoranthene	ND		mg/kg dry	0,0469	0.0827	1	10/28/10 19:27	SW846 8270D	BES	10J4632
enzo (g,h,i) perylene	ND		mg/kg dry	0.0111	0.0827	1	10/28/10 19:27	SW846 8270D	BES	10J4632
enzo (k) fluoranthene	ND		mg/kg dry	0.0457	0.0827	1	10/28/10 19:27	SW846 8270D	BES	10J4632
nrysene	ND		mg/kg dry	0.0383	0.0827	1	10/28/10 19:27	SW846 8270D	BES	10J4632
benz (a,h) anthracene	ND		mg/kg dry	0.0185	0.0827	1	10/28/10 19:27	SW846 8270D	BES	10J4632
uoranthene	0.0765	3	mg/kg dry	0.0136	0.0827	1	10/28/10 19:27	SW846 8270D	BES	10J4632
uorene	0.175		mg/kg dry	0.0247	0.0827	1	10/28/10 19:27	SW846 8270D	BES	10J4632
deno (1,2,3-cd) pyrene	ND		mg/kg dry	0.0383	0.0827	6	10/28/10 19:27	SW846 8270D	BES	10J4632
aphthalenc	0.0621	3	mg/kg dry	0.0173	0.0827	i i	10/28/10 19:27	SW846 8270D	BES	10J4632
enanthrene	0.480		mg/kg dry	0.0123	0.0827	1	10/28/10 19:27	SW846 8270D	BES	10J4632
renc	0.0872		mg/kg dry	0.0284	0.0827	1	10/28/10 19:27	SW846 8270D	BES	10J4632
Methylnaphthalene	0.432		mg/kg dry	0.0148	0.0827	4	10/28/10 19:27	SW846 8270D	BES	10J4632
Methylnaphthalene	0.593		mg/kg dry	0.0259	0.0827	10	10/28/10 19:27	SW846 8270D	BES	10J4632
rr: Terphenyl-d14 (18-120%)	67%			Model 2	V.VV.27	1	10/28/10 19:27	SW846 8270D	BES	10,14632
rr: 2-Fluorobiphenyl (14-120%)	56%					7	10/28/10 19:27	SW846 8270D	BES	10,14632
rr: Nitrobenzene-d5 (17-120%)	51%					1	10/28/10 19:27	SW846 8270D	BES	10,14632
							- devis vices		-	7-2-2-2



10179 Highway 78 Ladson, SC 29456

Tom McElwee

Client

Attn

Work Order: NTJ2921

Laurel Bay Housing Project Project Name:

Project Number: [none] 10/22/10 08:10 Received:

ANALYTICAL REPORT												
Analyte	Result	Flag	Units	MDL	MRL	Dilution Factor	Analysis Date/Time	Method	Analyst	Batch		
ample ID: NTJ2921-03 (768 A	lthea-1 - Soil) S	ampled:	10/19/10	10:30								
General Chemistry Parameters												
Dry Solids	84.9		%	0.500	0.500	1	10/29/10 09:22	SW-846	HLB	10J5505		
olatile Organic Compounds by EP	A Method 8260B	3										
enzene	ND		mg/kg dry	0.000942	0.00171	1	10/29/10 21:15	SW846 8260B	МЈН/Н	10J3703		
thylbenzene	0.0128		mg/kg dry	0.000839	0.00171	1	10/29/10 21:15	SW846 8260B	MJH/H	10J3703		
aphthalene	0.0783		mg/kg dry	0.00146	0.00428	1	10/29/10 21:15	SW846 8260B	MJH/H	10J3703		
oluene	0.000993	1	mg/kg dry	0.000762	0.00171	1	10/29/10 21:15	SW846 8260B	MJH/H	10J3703		
ylenes, total	0.0460		mg/kg dry	0.00163	0.00428	i i	10/29/10 21:15	SW846 8260B	MJH/H	10J3703		
urr: 1,2-Dichloroethane-d4 (67-138%)	100 %					1	10/29/10 21:15	SW846 8260B	MJH/H	103370		
rr: Dibromofluoromethane (75-125%)	104 %					7	10/29/10 21:15	SW846 8260B	MJH/H	10,1370		
rr: Toluene-d8 (76-129%)	105 %					1	10/29/10 21:15	SW846 8260B	MJH/H	10,1370.		
rr: 4-Bromofluorohenzene (67-147%)	104%					I	10/29/10 21:15	SW846 8260B	MJH/H	10,7370		
olyaromatic Hydrocarbons by EPA	8270D											
cenaphthene	ND		mg/kg dry	0.0163	0.0780	4	10/28/10 19:48	SW846 8270D	BES	10J4632		
cenaphthylene	ND		mg/kg dry	0.0233	0.0780	4	10/28/10 19:48	SW846 8270D	BES	10J4632		
nthracene	ND		mg/kg dry	0.0105	0.0780	1	10/28/10 19:48	SW846 8270D	BES	10J4632		
enzo (a) anthracene	ND		mg/kg dry	0.0128	0.0780	1	10/28/10 19:48	SW846 8270D	BES	10J4632		
enzo (a) pyrene	ND		mg/kg dry	0.00931	0.0780	1	10/28/10 19:48	SW846 8270D	BES	10J4632		
enzo (b) fluoranthene	ND		mg/kg dry	0.0442	0.0780	1	10/28/10 19:48	SW846 8270D	BES	10J4632		
enzo (g,h,i) perylene	ND		mg/kg dry	0.0105	0.0780	.1	10/28/10 19:48	SW846 8270D	BES	10J4632		
enzo (k) fluoranthene	ND		mg/kg dry	0.0431	0.0780	Ť	10/28/10 19:48	SW846 8270D	BES	10J4632		
hrysene	ND		mg/kg dry	0.0361	0.0780	1	10/28/10 19:48	SW846 8270D	BES	10J4632		
benz (a,h) anthracene	ND		mg/kg dry	0.0175	0.0780	1	10/28/10 19:48	SW846 8270D	BES	10J4632		
uoranthene	ND		mg/kg dry	0.0128	0.0780	1	10/28/10 19:48	SW846 8270D	BES	10J4632		
uorene	ND		mg/kg dry	0.0233	0.0780	1	10/28/10 19:48	SW846 8270D	BES	10J4632		
deno (1,2,3-cd) pyrene	ND		mg/kg dry	0.0361	0.0780	1	10/28/10 19:48	SW846.8270D	BES	10J4632		
aphthalene	ND		mg/kg dry	0.0163	0.0780	1	10/28/10 19:48	SW846 8270D	BES	10J4632		
enanthrene	ND		mg/kg dry	0.0116	0.0780	)	10/28/10 19:48	SW846 8270D	BES	10J4632		
rene	ND		mg/kg dry	0.0268	0.0780	Y	10/28/10 19:48	SW846 8270D	BES	10J4632		
Methylnaphthalene	0.0450	1	mg/kg dry	0.0140	0.0780	1	10/28/10 19:48	SW846 8270D	BES	10J4632		
Methylnaphthalene	0.0702	1	mg/kg dry	0.0244	0.0780	1	10/28/10 19:48	SW846 8270D	BES	10J4632		
rr: Terphenyl-d14 (18-120%)	59 %					1	10/28/10 19:48	SW846 8270D	BES	10,14632		
rr: 2-Fluorobiphenyl (14-120%)	46 %					X.	10/28/10 19:48	SW846 8270D	BES	10,14632		
rr: Nitrobenzene-d5 (17-120%)	40 %					1	10/28/10 19:48	SW846 8270D	BES	10.14632		



Ladson, SC 29456

Tom McElwee

Client

Attn

10179 Highway 78

Work Order:

NTJ2921

Project Name:

Laurel Bay Housing Project

Project Number: Received:

[none] 10/22/10 08:10

•			ANALI	TICAL KEP	OKI					_
Analyte	Result	Flag	Units	MDL	MRL	Dilution Factor	Analysis Date/Time	Method	Analyst	Batch
						3,000	2010 1000		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Date
ample ID: NTJ2921-04 (768 Al Jeneral Chemistry Parameters	thea-2 - Soil) S	ampled:	10/19/10	13:45						
Dry Solids	81.8		%	0.500	0,500	1	10/29/10 09:22	SW-846	HLB	10J5505
olatile Organic Compounds by EP.	A Method 8260E	3								
enzene	ND		mg/kg dry	0.00124	0.00226	Î	10/28/10 08:44	SW846 8260B	МЛН/Н	10J4214
thylbenzene	0.947		mg/kg dry	0.0554	0.113	50	10/28/10 19:25	SW846 8260B	млн/н	10J5890
aphthalene	4.47		mg/kg dry	0.0960	0.282	50	10/28/10 19:25	SW846 8260B	мун/н	10J5890
oluene	0.00136	J	mg/kg dry	0.00101	0.00226	T.	10/28/10 08:44	SW846 8260B	МЈН/Н	10J4214
ylenes, total	0.385		mg/kg dry	0.00215	0.00565	i	10/28/10 08:44	SW846 8260B	млн/н	1034214
urr: 1,2-Dichloroethane-d4 (67-138%)	94 %			2000-20		T	10/28/10 08:44	SW846 8260B	MJH/H	10,1421
nr: 1,2-Dichloroethane-d4 (67-138%)	91%					50	10/28/10 19:25	SW846 8260B	MJH/H	10,1589
rr: Dibromofluoromethane (75-125%)	92 %					1	10/28/10 08:44	SW846 8260B	MJH/H	10,1421
rr: Dibromofluoromethane (75-125%)	90 %					50	10/28/10 19:25	SW846 8260B	MJH/H	10,1589
rr: Toluene-d8 (76-129%)	138 %	Z	(			1	10/28/10 08:44	SW846 8260B	MJH/H	10,1421
rr: Toluene-d8 (76-129%)	106 %					50	10/28/10 19:25	SW846 8260B	MJH/H	10,1589
rr: 4-Bromofluorobenzene (67-147%)	291 %	Z.	(-)			1	10/28/10 08:44	SW846 8260B	MJH/H	10,1421
rr: 4-Bromofluorobenzene (67-147%)	103 %					50	10/28/10 19:25	SW846 8260B	MJH/H	10,1589
olyaromatic Hydrocarbons by EPA	8270D									
cenaphthene	0.632		mg/kg dry	0.0169	0.0810	1	10/28/10 20:11	SW846 8270D	BES	10J4632
cenaphthylene	ND		mg/kg dry	0.0242	0.0810	1	10/28/10 20:11	SW846 8270D	BES	10J4632
nthracene	0.453		mg/kg dry	0.0109	0.0810	T	10/28/10 20:11	SW846 8270D	BES	10J4632
enzo (a) anthracene	1.26		mg/kg dry	0.0133	0,0810	1	10/28/10 20:11	SW846 8270D	BES	10J4632
enzo (a) pyrene	0.539		mg/kg dry	0.00967	0.0810	1.	10/28/10 20:11	SW846 8270D	BES	10J4632
enzo (b) fluoranthene	0.903		mg/kg dry	0.0459	0.0810	T	10/28/10 20:11	SW846 8270D	BES	10J4632
enzo (g,h,i) perylene	0.139		mg/kg dry	0.0109	0.0810	1	10/28/10 20:11	SW846 8270D	BES	10J4632
enzo (k) fluoranthene	0.272		mg/kg dry	0.0447	0.0810	1	10/28/10 20:11	SW846 8270D	BES	10J4632
hrysene	1.12		mg/kg dry	0.0375	0.0810	1	10/28/10 20:11	SW846 8270D	BES	10J4632
ibenz (a,h) anthracene	ND		mg/kg dry	0.0181	0.0810	1	10/28/10 20:11	SW846 8270D	BES	10J4632
uoranthene	2.88		mg/kg dry	0.0133	0.0810	Y	10/28/10 20:11	SW846 8270D	BES	1014632
uorene	1.34		mg/kg dry	0.0242	0,0810	11	10/28/10 20:11	SW846 8270D	BES	10J4632
deno (1,2,3-cd) pyrene	ND		mg/kg dry	0.0375	0.0810	1	10/28/10 20:11	SW846 8270D	BES	10J4632
aphthalene	2.59		mg/kg dry	0.0169	0.0810	3.	10/28/10/20:11	SW846 8270D	BES	10J4632
nenanthrene	3.77		mg/kg dry	0.0121	0.0810	1	10/28/10 20:11	SW846 8270D	BES	10J4632
rene	2.54		mg/kg dry	0.0278	0.0810	1	10/28/10 20:11	SW846 8270D	BES	10J4632
Methylnaphthalene	10.2		mg/kg dry	0.0580	0.324	4	10/29/10 12:55	SW846 8270D	BES	10J4632
Methylnaphthalene	15.3		mg/kg dry	0.101	0.324	4	10/29/10 12:55	SW846 8270D	BES	10J4632
rr: Terphenyl-d14 (18-120%)	62 %					1	10/28/10 20:11	SW846 8270D	BES	10,1463
rr: 2-Fluorobiphenyl (14-120%)	58%					7	10/28/10 20:11	SW846 8270D	BES	10,1463
ur: Nitrobenzene-d5 (17-120%)	102 %					1	10/28/10 20:11	SW846 8270D	BES	10.1463



10179 Highway 78 Ladson, SC 29456

Tom McElwee

Attn

Work Order:

NTJ2921

Project Name:

Laurel Bay Housing Project

Project Number: Received:

[none] 10/22/10 08:10

			ANALI	TICAL REP	JKI					_
Analyte	Result	Flag	Units	MDL	MRL	Dilution Factor	Analysis Date/Time	Method	Analyst	Batcl
					0.305	1 27 100	200703000	Tricking.		D.,,
ample ID: NTJ2921-05 (768 Al Jeneral Chemistry Parameters	thea-3 - Soil) S	ampled:	10/19/10	16:00						
Dry Solids	82.0		9/9	0.500	0.500	1	10/29/10 09:22	SW-846	HLB	10J5505
olatile Organic Compounds by EP	A Method 8260E	3								
enzene	0.00194	1	mg/kg dry	0.00115	0.00210	9	10/28/10 09:13	SW846 8260B	MJH/H	10J4214
hylbenzene	0.421		mg/kg dry	0.0514	0.105	50	10/28/10 20:53	SW846-8260B	млн/н	10J5890
aphthalene	2.59		mg/kg dry	0.0892	0.262	50	10/28/10 20:53	SW846 8260B	млн/н	1035890
luenc	0.00176	1	mg/kg dry	0.000934	0.00210	1	10/28/10 09:13	SW846 8260B	МЈН/Н	10J4214
/lenes, total	0.647	0	mg/kg dry	0.0997	0.262	50	10/28/10 20:53	SW846 8260B	MJH/H	10J5890
rr: 1,2-Dichloroethane-d4 (67-138%)	101%			1992.0		Ĭ	10/28/10 09:13	SW846 8260B	MJH/H	10,1421
rr: 1,2-Dichloroethane-d4 (67-138%)	94 %					50	10/28/10 20:53	SW846 8260B	MJH/H	10,1589
rr: Dibromofluoromethane (75-125%)	103 %					1	10/28/10 09:13	SW846 8260B	MJH/H	10.1421
rr; Dibromofluoromethane (75-125%)	96 %					50	10/28/10 20:53	SW846 8260B	м/н/н	10.1589
rr: Toluene-d8 (76-129%)	1050 %	Z	r			i	10/28/10 09:13	SW846-8260B	млн/н	10,1421
er: Toluene-d8 (76-129%)	103 %					50	10/28/10 20:53	SW846 8260B	MJH/H	10.1589
rr: 4-Bromofluorobenzene (67-147%)	2200 %	2	C.			1	10/28/10 09:13	SW846 8260B	MJH/H	10,1421
rr: 4-Bromofluorobenzene (67-147%)	103 %					50	10/28/10 20:53	SW846-8260B	MJH/H	10,1589
olyaromatic Hydrocarbons by EPA	8270D									
cenaphthene	ND		mg/kg dry	0.0166	0.0794	1	10/28/10 20:33	SW846 8270D	BES	10J4632
cenaphthylene	ND		mg/kg dry	0.0237	0.0794	J.	10/28/10 20:33	SW846 8270D	BES	10J4632
nthracene	0.853		mg/kg dry	0.0107	0.0794	1	10/28/10 20:33	SW846 8270D	BES	10J4632
enzo (a) anthracene	0.449		mg/kg dry	0.0130	0.0794	1	10/28/10 20:33	SW846 8270D	BES	10J4632
enzo (a) pyrene	0.165		mg/kg dry	0.00948	0.0794	10	10/28/10 20:33	SW846 8270D	BES	10J4632
enzo (b) fluoranthene	0.256		mg/kg dry	0.0451	0.0794	1	10/28/10 20:33	SW846 8270D	BES	10J4632
enzo (g,h,i) perylene	0.0435	j	mg/kg dry	0.0107	0.0794	1	10/28/10 20:33	SW846 8270D	BES	10J4632
enzo (k) fluoranthene	0.110		mg/kg dry	0.0439	0.0794	1	10/28/10 20:33	SW846 8270D	BES	10J4632
rysene	0.408		mg/kg dry	0.0368	0.0794	3	10/28/10 20:33	SW846 8270D	BES	10J4632
benz (a,h) anthracene	ND		mg/kg dry	0.0178	0.0794	1	10/28/10 20:33	SW846 8270D	BES	10J4632
uoranthene	1.66		mg/kg dry	0.0130	0.0794	1	10/28/10 20:33	SW846 8270D	BES	10J4632
uorene	ND		mg/kg dry	0.0237	0.0794	1	10/28/10 20:33	SW846 8270D	BES	10J4632
deno (1,2,3-cd) pyrene	ND		mg/kg dry	0.0368	0.0794	1	10/28/10 20:33	SW846 8270D	BES	10J4632
phthalene	6.45		mg/kg dry	0.0664	0.318	4	10/29/10 13:16	SW846 8270D	BES	10J4632
enanthrene	9.10		mg/kg dry	0.0474	0.318	4	10/29/10 13:16	SW846 8270D	BES	10J4632
rene	1.17		mg/kg dry	0.0273	0.0794	1	10/28/10 20:33	SW846 8270D	BES	10J4632
Methylnaphthalene	25.4		mg/kg dry	0.285	1.59	20	10/29/10 14:57	SW846 8270D	BES	10J4632
Methylnaphthalene	39,1		mg/kg dry	0.498	1.59	20	10/29/10 14:57	SW846 8270D	BES	10J4632
rr: Terphenyl-d14 (18-120%)	59 %					1	10/28/10 20:33	SW846 8270D	BES	10,1463
rr: 2-Fluorobiphenyl (14-120%)	48 %					1	10/28/10 20:33	SW846 8270D	BES	10,1463
rr: Nitrobenzene-d5 (17-120%)	158 %	Z	Ċ			1	10/28/10 20:33	SW846 8270D	BES	10.1463



10179 Highway 78 Ladson, SC 29456

Tom McElwee

Client

Attn

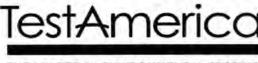
Work Order: Project Name: NTJ2921

Laurel Bay Housing Project

[none] Project Number:

10/22/10 08:10 Received:

			TAISTALL I	TICHE ME	ou.					
				214	- C.E.S.	Dilution	Analysis	(2)-24		
Analyte	Result	Flag	Units	MDL	MRL	Factor	Date/Time	Method	Analyst	Batc
ample ID: NTJ2921-06 (772 Alt General Chemistry Parameters	hea - Soil) Sai	mpled:	10/20/10 11	:45						
Dry Solids	75.5		%	0,500	0.500	Ť	10/29/10 09:22	SW-846	HLB	10J5505
olatile Organic Compounds by EPA	Method 8260B									
enzene	ND		mg/kg dry	0.00141	0.00256	Ĭ	11/03/10 16:37	SW846 8260B	MJH/H	1034481
hylbenzene	ND		mg/kg dry	0.00125	0.00256	1	11/03/10 16:37	SW846 8260B	MJH/H	10J4481
aphthalene	ND	L.	mg/kg dry	0.00217	0.00639	î	11/03/10 16:37	SW846 8260B	МЈН/Н	10J4481
bluene	ND		mg/kg dry	0.00114	0.00256	4	11/03/10 16:37	SW846 8260B	MJH/H	1034481
ylenes, total	ND		mg/kg dry	0.00243	0.00639	T	11/03/10 16:37	SW846 8260B	МЈН/Н	10J4481
rr: 1,2-Dichloroethane-d4 (67-138%)	91 %					1	11/03/10 16:37	SW846 8260B	MJH/H	10,1448
rr: Dibromofluoromethane (75-125%)	87 %					i	11/03/10 16:37	SW846 8260B	MJH/H	10,1448
rr: Toluene-d8 (76-129%)	117 %					1	11/03/10 16:37	SW846 8260B	MJH/H	10,1448
r: 4-Bromofluorohenzene (67-147%)	102 %					1	11/03/10 16:37	SW846 8260B	MJH/H	10.1448
olyaromatic Hydrocarbons by EPA	8270D									
enaphthene	ND		mg/kg dry	0.0182	0.0873	1	10/28/10 20:54	SW846 8270D	BES	10J4632
enaphthylene	ND		mg/kg dry	0.0261	0.0873	1	10/28/10 20:54	SW846 8270D	BES	10J4632
nthracene	ND		mg/kg dry	0.0117	0.0873	Ti I	10/28/10 20:54	SW846 8270D	BES	10J4632
enzo (a) anthracene	ND		mg/kg dry	0.0143	0.0873	Y	10/28/10 20:54	SW846 8270D	BES	10J4632
nzo (a) pyrene	ND		mg/kg dry	0.0104	0.0873	1	10/28/10 20:54	SW846 8270D	BES	10J4632
nzo (b) fluoranthene	ND		mg/kg dry	0.0495	0.0873	1	10/28/10 20:54	SW846 8270D	BES	10J4632
nzo (g,h,i) perylene	ND		mg/kg dry	0.0117	0.0873	1	10/28/10 20:54	SW846 8270D	BES	10J4632
nzo (k) fluoranthene	ND		mg/kg dry	0.0482	0.0873	Y	10/28/10 20:54	SW846 8270D	BES	10J4632
nrysene	ND		mg/kg dry	0.0404	0.0873	1	10/28/10 20:54	SW846 8270D	BES	10J4632
benz (a,h) anthracene	ND		mg/kg dry	0.0195	0.0873	1	10/28/10 20:54	SW846 8270D	BES	10J4632
ioranthene	ND		mg/kg dry	0.0143	0.0873	ĭ	10/28/10 20:54	SW846 8270D	BES	10J4632
norene	ND		mg/kg dry	0.0261	0.0873	1	10/28/10 20:54	SW846 8270D	BES	10J4632
leno (1,2,3-cd) pyrene	ND		mg/kg dry	0.0404	0.0873	1	10/28/10 20:54	SW846 8270D	BES	10J4632
phthalene	ND		mg/kg dry	0.0182	0.0873	I	10/28/10 20:54	SW846 8270D	BES	10J4632
enanthrene	ND		mg/kg dry	0.0130	0,0873	1	10/28/10 20:54	SW846 8270D	BES	10J4632
rene	ND		mg/kg dry	0.0300	0.0873	1	10/28/10 20:54	SW846 8270D	BES	1034632
Methylnaphthalene	ND		mg/kg dry	0.0156	0.0873	1	10/28/10 20:54	SW846 8270D	BES	10J4632
Methylnaphthalene	ND		mg/kg dry	0.0274	0.0873	1	10/28/10 20:54	SW846 8270D	BES	1014632
r: Terphenyl-d14 (18-120%)	60 %					1	10/28/10 20:54	SW846 8270D	BES	10,1463.
r; 2-Fluorobiphenyl (14-120%)	52 %					1	10/28/10 20:54	SW846 8270D	BES	103463
rr: Nitrobenzene-d5 (17-120%)	45 %					1	10/28/10 20:54	SW846 8270D	BES	10.1463



THE LEADER IN ENVIRONMENTAL TESTING

EEG - Small Business Group, Inc. (2449)

10179 Highway 78 Ladson, SC 29456

Tom McElwee

Client

Attn

Work Order: NTJ2921

Project Name: Laurel Bay Housing Project

Project Number: [none]

Received: 10/22/10 08:10

Analyte	Result	Flag	Units	MDL	MRL	Dilution Factor	Analysis Date/Time	Method	Analyst	Batch
ample ID: NTJ2921-07 (775 Al	thea - Soil) Sa	mpled:	10/20/10 15	:45						
General Chemistry Parameters										
Dry Solids	81.3		0/6	0.500	0,500	7	10/29/10 09:22	SW-846	HLB	10J5505
olatile Organic Compounds by EP.	A Method 8260	В								
enzene	ND		mg/kg dry	0.00129	0.00235	T	11/01/10 16:37	SW846 8260B	MJH/H	10J4689
hylbenzene	4.42	M2	mg/kg dry	0.0549	0.112	50	11/03/10 20:11	SW846 8260B	MJH/H	10J4481
aphthalene	28.1	.,,_	mg/kg dry	1.90	5.60	1000	11/03/10 22:49	SW846.8260B	млн н	10K0998
bluene	ND		mg/kg dry	0.00104	0.00235	1	11/01/10 16:37	SW846 8260B	МЈН/Н	10J4689
vlenes, total	2.85	B, M2	mg/kg dry	0.106	0,280	50	11/03/10 20:11	SW846 8260B	млн/н	10J4481
rr: 1,2-Dichloroethune-d4 (67-138%)	102 %	D, INL	77.5	0.100	0,230	1	11/01/10 16:37	SW846 8260B	MJH/H	10,1468
rr: 1,2-Dichloroethane-d4 (67-138%)	93 %					50	11/03/10 20:11	SW846 8260B	MJH/H	10,1448
rr: 1,2-Dichloroethane-d4 (67-138%)	83 %					1000	11/03/10 22:49	SW846 8260B	MJH H	10K099
rr: Dibromofluoromethane (75-125%)	105 %					1	11/01/10 16:37	SW846.8260B	MJH/H	1004689
rr: Dibromofluoromethane (75-125%)	91 %					50	11/03/10 20:11	SW846 8260B	млн/н	103448
rr: Dibromofluoromethane (75-125%)	91%					1000	11/03/10 22:49	SW846 8260B	MJH H	10K099
rr: Toluene-d8 (76-129%)	137%		ZY			1	11/01/10 16:37	SWR46.R260B	MJH/H	10,1468
rr: Toluene-d8 (76-129%)	115 %					50	11/03/10/20:11	SW846 8260B	MJH/H	10,1448
rr: Toluene-d8 (76-129%)	103 %					1000	11/03/10 22:49	SW846 8260B	MJH H	10K099
rr: 4-Bromofluorobenzene (67-147%)	408 %		ZY			1	11/01/10 16:37	SW846 8260B	MJH/H	10.1468
rr: 4-Bromofluorobenzene (67-147%)	119 %					50	11/03/10 20:11	SW846 8260B	MJH/H	10.1448
rr: 4-Bromofluorobenzene (67-147%)	106 %					1000	11/03/10 22:49	SW846 8260B	MJH H	10K099
olyaromatic Hydrocarbons by EPA	8270D									
cenaphthene	ND		mg/kg dry	0.0168	0.0804	1	10/28/10 21:16	SW846 8270D	BES	10J4632
cenaphthylene	ND		mg/kg dry	0,0240	0.0804	1	10/28/10 21:16	SW846 8270D	BES	10J4632
nthracene	0.761		mg/kg dry	0.0108	0.0804	1	10/28/10 21:16	SW846 8270D	BES	10J4632
enzo (a) anthracene	0.279		mg/kg dry	0.0132	0.0804	1	10/28/10 21:16	SW846 8270D	BES	10J4632
enzo (a) pyrene	0.0928		mg/kg dry	0.00960	0.0804	1	10/28/10 21:16	SW846 8270D	BES	10J4632
enzo (b) fluoranthene	0.140		mg/kg dry	0.0456	0.0804	1	10/28/10 21:16	SW846 8270D	BES	10J4632
enzo (g,h,i) perylene	ND		mg/kg dry	0.0108	0.0804	1	10/28/10 21:16	SW846 8270D	BES	10J4632
enzo (k) fluoranthene	0.0600	j	mg/kg dry	0.0444	0.0804	3	10/28/10 21:16	SW846 8270D	BES	10J4632
nrysene	0.183		mg/kg dry	0.0372	0.0804	1	10/28/10 21:16	SW846 8270D	BES	10J4632
ibenz (a,h) anthracene	ND		mg/kg dry	0.0180	0.0804	1	10/28/10 21:16	SW846 8270D	BES	10J4632
uoranthene	1.01		mg/kg dry	0.0132	0.0804	1	10/28/10 21:16	SW846 8270D	BES	10J4632
uorene	2.78		mg/kg dry	0.0240	0.0804	1	10/28/10 21:16	SW846 8270D	BES	10J4632
deno (1,2,3-cd) pyrene	ND		mg/kg dry	0.0372	0.0804	1	10/28/10 21:16	SW846 8270D	BES	10J4632
aphthalene	9,59		mg/kg dry	0.0672	0.321	4	10/29/10 13:38	SW846 8270D	BES	10J4632
enanthrene	9.34		mg/kg dry	0.0480	0.321	4	10/29/10 13:38	SW846 8270D	BES	10J4632
rene	1.07		mg/kg dry	0.0276	0.0804	1	10/28/10 21:16	SW846 8270D	BES	10J4632
Methylnaphthalene	31.3		mg/kg dry	0.288	1.61	20	10/29/10 15:19	SW846 8270D	BES	10J4632
Methylnaphthalene	49.0		mg/kg dry	0.504	1.61	20	10/29/10 15:19	SW846 8270D	BES	10J4632
rr: Terphenyl-d14 (18-120%)	62 %			ACCOUNTY.	1.41	1	10/28/10 21:16	SW846 8270D	BES	10J4632
The state of the second	J. 11					T	1.002.0021.10	JIII UTU DZ/IID	DEAL	13664057



10179 Highway 78 Ladson, SC 29456

Client

Attn

0179 Highway 78

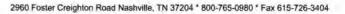
Ladson, SC 29456 Tom McElwee Work Order: NTJ2921

Project Name: Laurel Bay Housing Project

Project Number: [none]

Received: 10/22/10 08:10

Analyte	Result	Flag	Units	MDL	MRL	Dilution Factor	Analysis Date/Time	Method	Analyst	Batch
ample ID: NTJ2921-07 (775 Alt	hea - Soil) - co	ont. Sam	pled: 10/2	0/10 15:45						
olyaromatic Hydrocarbons by EPA	8270D - cont.									
rr: 2-Fluorobiphenyl (14-120%)	63 %					1	10/28/10 21:16	SW846.8270D	BES	10,1463
rr: Nitrobenzene-d5 (17-120%)	86 %					1	10/28/10 21:16	SW846 8270D	BES	10,1463
ample ID: NTJ2921-08 (776 Lau General Chemistry Parameters	urel Bay Blvd	Soil) S	Sampled: 1	10/21/10 11:1	5					
Dry Solids	95.2		1/0	0.500	0.500	1	10/29/10 09:22	SW-846	HLB	10J5505
olatile Organic Compounds by EPA	Method 8260E	6								
enzene	ND		mg/kg dry	0.00125	0.00227	ï	11/03/10 17:06	SW846 8260B	MJH/H	1034481
hylbenzene	ND		mg/kg dry	0.00111	0.00227	1	11/03/10 17:06	SW846 8260B	МЈН/Н	10J4481
aphthalene	ND	L	mg/kg dry	0.00193	0.00568	1	11/03/10 17:06	SW846 8260B	MJH/H	10J4481
bluene	ND		mg/kg dry	0.00101	0.00227	4	11/03/10 17:06	SW846 8260B	MJH/H	10J4481
ylenes, total	ND		mg/kg dry	0.00216	0,00568	T	11/03/10 17:06	SW846 8260B	МЈН/Н	10J4481
rr: 1,2-Dichloroethane-d4 (67-138%)	87 %					1	11/03/10 17:06	SW846 8260B	MJH/H	10,1448
rr: Dibromofluoromethane (75-125%)	87 %					1	11/03/10 17:06	SW846 8260B	MJH/H	10,1448
rr: Toluene-d8 (76-129%)	103 %					1	11/03/10 17:06	SW846 8260B	MJH/H	103448
rr: 4-Bromofluorobenzene (67-147%)	112 %					. 1	11/03/10 17:06	SW846 8260B	MJH/H	10,1448
olyaromatic Hydrocarbons by EPA	8270D									
cenaphthene	ND		mg/kg dry	0.0147	0.0703	î	10/28/10 21:38	SW846 8270D	BES	10J4632
cenaphthylene	ND		mg/kg dry	0,0210	0.0703	- i	10/28/10 21:38	SW846.8270D	BES	10J4632
nthracene	ND		mg/kg dry	0.00944	0.0703	1	10/28/10 21:38	SW846 8270D	BES	10J4632
enzo (a) anthracene	ND		mg/kg dry	0.0115	0.0703	á	10/28/10 21:38	SW846 8270D	BES	10J4632
enzo (a) pyrene	ND		mg/kg dry	0.00839	0.0703	1	10/28/10 21:38	SW846.8270D	BES	10J4632
enzo (b) fluoranthene	ND		mg/kg dry	0.0399	0.0703	4	10/28/10 21:38	SW846 8270D	BES	10J4632
enzo (g,h,i) perylene	ND		mg/kg dry	0.00944	0.0703	ì	10/28/10 21:38	SW846 8270D	BES	10J4632
enzo (k) fluoranthene	ND		mg/kg dry	0.0388	0.0703	1	10/28/10 21:38	SW846 8270D	BES	10J4632
nrysene	ND		mg/kg dry	0.0325	0.0703	1	10/28/10 21:38	SW846 8270D	BES	10J4632
benz (a,h) anthracene	ND		mg/kg dry	0.0157	0.0703	1	10/28/10 21:38	SW846 8270D	BES	10J4632
uoranthene	ND		mg/kg dry	0.0115	0.0703	1	10/28/10 21:38	SW846 8270D	BES	10J4632
uorene	ND		mg/kg dry	0.0210	0.0703	T	10/28/10 21:38	SW846 8270D	BES	10J4632
deno (1,2,3-ed) pyrene	ND		mg/kg dry	0.0325	0.0703	1	10/28/10 21:38	SW846 8270D	BES	10J4632
aphthalene	ND		mg/kg dry	0.0147	0.0703	1	10/28/10 21:38	SW846 8270D	BES	10J4632
enanthrene	ND		mg/kg dry	0.0105	0.0703	T	10/28/10 21:38	SW846 8270D	BES	10J4632
rene	ND		mg/kg dry	0.0241	0.0703	1	10/28/10 21:38	SW846 8270D	BES	10J4632
Methylnaphthalene	0.0402	Ú.	mg/kg dry	0.0126	0.0703	ì	10/28/10 21:38	SW846 8270D	BES	10J4632
Methylnaphthalene	0.0643	1	mg/kg dry	0.0220	0.0703	T	10/28/10 21:38	SW846 8270D	BES	10J4632
rr: Terphenyl-d14 (18-120%)	63 %					1	10/28/10 21:38	SW846.8270D	BES	10,1463
rr: 2-Fhiorobiphenyl (14-120%)	50 %					1	10/28/10 21:38	SW846 8270D	BES	10,1463.
rr: Nitrobenzene-d5 (17-120%)	43 %					1	10/28/10 21:38	SW846 8270D	BES	10.1463





10179 Highway 78

Ladson, SC 29456 Tom McElwee

Client

Attn

Work Order:

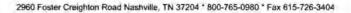
NTJ2921

Project Name:

Laurel Bay Housing Project

Project Number: Received: [none] 10/22/10 08:10

			ANALY	TICAL REPO	ORI					
Analyte	Result	Flag	Units	MDL	MRL	Dilution Factor	Analysis Date/Time	Method	Analyst	Batch
ample ID: NTJ2921-09 (774 Al	thea - Soil) Sar	npled:	10/21/10 16	:45						
General Chemistry Parameters										
Dry Solids	86.2		%	0.500	0.500	1	10/29/10 09:22	SW-846	HLB	10J5505
olatile Organic Compounds by EP.	A Method 8260B	į.								
enzene	ND		mg/kg dry	0.00113	0.00205	1	11/01/10 17:35	SW846 8260B	MJH/H	10J4689
hylbenzene	0.00487		mg/kg dry	0.00100	0.00205	1	11/01/10 17:35	SW846 8260B	MJH/H	1014689
aphthalene	0.0365		mg/kg dry	0.00174	0.00513	Ĭ	11/01/10 17:35	SW846 8260B	MJH/H	10J4689
oluene	ND		mg/kg dry	0.000912	0.00205	ĵ	11/01/10 17:35	SW846.8260B	МЛН/Н	10J4689
ylenes, total	0.0156		mg/kg dry	0.00195	0.00513	1	11/01/10 17:35	SW846 8260B	МЛН/Н	10J4689
rr: 1,2-Dichloroethane-d4 (67-138%)	102 %					1	11/01/10 17:35	SW846 8260B	MJH/H	10,1468
rr: Dibromofluoromethane (75-125%)	100 %					1	11/01/10 17:35	SWR46 8260B	MJH/H	10,7468
rr: Toluene-d8 (76-129%)	103 %					1	11/01/10 17:35	SW846 8260B	MJH/H	10,1468
rr: 4-Bromofluorobenzene (67-147%)	114%					1	11/01/10 17:35	SW846 8260B	MJH/H	10,1468
olyaromatic Hydrocarbons by EPA	8270D									
cenaphthene	ND		mg/kg dry	0.0159	0.0759	1	10/28/10 22:00	SW846.8270D	BES	10J4632
cenaphthylene	ND		mg/kg dry	0.0227	0.0759	1	10/28/10 22:00	SW846 8270D	BES	10J4632
nthracene	ND		mg/kg dry	0.0102	0.0759	1	10/28/10 22:00	SW846 8270D	BES	10J4632
enzo (a) anthracene	ND		mg/kg dry	0.0125	0.0759	1	10/28/10 22:00	SW846 8270D	BES	10J4632
enzo (a) pyrene	ND		mg/kg dry	0.00907	0.0759	Ī	10/28/10 22:00	SW846 8270D	BES	10J4632
enzo (b) fluoranthene	ND		mg/kg dry	0.0431	0.0759	1	10/28/10 22:00	SW846 8270D	BES	10J4632
enzo (g,h,i) perylene	ND		mg/kg dry	0.0102	0.0759	Î	10/28/10 22:00	SW846 8270D	BES	10J4632
enzo (k) fluoranthene	ND		mg/kg dry	0.0419	0.0759	1	10/28/10 22:00	SW846 8270D	BES	10J4632
nrysene	ND		mg/kg dry	0.0351	0,0759	1	10/28/10 22:00	SW846 8270D	BES	10J4632
benz (a,h) anthracene	ND		mg/kg dry	0.0170	0.0759	t	10/28/10 22:00	SW846 8270D	BES	10J4632
uoranthene	ND		mg/kg dry	0.0125	0.0759	1	10/28/10 22:00	SW846 8270D	BES	10J4632
uorene	ND		mg/kg dry	0.0227	0.0759	1	10/28/10 22:00	SW846 8270D	BES	10J4632
deno (1,2,3-cd) pyrene	ND		mg/kg dry	0.0351	0.0759	1	10/28/10 22:00	SW846 8270D	BES	10J4632
aphthalene	ND		mg/kg dry	0.0159	0.0759	1	10/28/10 22:00	SW846 8270D	BES	10J4632
enanthrene	ND		mg/kg dry	0.0113	0.0759	1	10/28/10 22:00	SW846 8270D	BES	10J4632
rene	ND		mg/kg dry	0.0261	0.0759	1	10/28/10 22:00	SW846 8270D	BES	10J4632
Methylnaphthalene	ND		mg/kg dry	0.0136	0.0759	T.	10/28/10 22:00	SW846 8270D	BES	10J4632
Methylnaphthalene	ND		mg/kg dry	0.0238	0.0759	0.	10/28/10 22:00	SW846 8270D	BES	10J4632
rr: Terphenyl-d14 (18-120%)	59 %					1	10/28/10 22:00	SW846 8270D	BES	10,1463.
rr: 2-Fluorobiphenyl (14-120%)	49 %					1	10/28/10 22:00	SW846 8270D	BES	103463.
rr; Nitrobenzene-d5 (17-120%)	42 %					I	10/28/10 22:00	SW846 8270D	BES	10.1463.





10179 Highway 78

Ladson, SC 29456

Tom McElwee

Attn

Work Order: NTJ2921

Project Name: Laurel Bay Housing Project

Project Number: [none]

Received: 10/22/10 08:10

#### SAMPLE EXTRACTION DATA

		SAMI EE EA	TRACTION	DATA			
control of the second	m dia		Wt/Vol Extracted	Extracted Vol	Date		Extraction Method
irameter	Batch	Lab Number	Extracted	Extracted voi	Date	Analysi	Method
olyaromatic Hydrocarbons by		GREEK.	40.00		- Table 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	(200)	
SW846 8270D	10J4632	NTJ2921-01	30.94	1.00	10/26/10 11:05	SAS	EPA 3550C
SW846 8270D	10J4632	NTJ2921-01RE1	30.94	1.00	10/26/10 11:05	SAS	EPA 3550C
SW846 8270D	10J4632	NTJ2921-01RE2	30.94	1.00	10/26/10 11:05	SAS	EPA 3550C
SW846 8270D	10J4632	NTJ2921-01RE3	30,94	1.00	10/26/10 11:05	SAS	EPA 3550C
SW846 8270D	10J4632	NTJ2921-02	30.35	1.00	10/26/10 11:05	SAS	EPA 3550C
SW846 8270D	10J4632	NTJ2921-03	30.38	1.00	10/26/10 11:05	SAS	EPA 3550C
SW846 8270D	10J4632	NTJ2921-04	30.35	1.00	10/26/10 11:05	SAS	EPA 3550C
SW846 8270D	10J4632	NTJ2921-04RE1	30,35	1.00	10/26/10 11:05	SAS	EPA 3550C
SW846 8270D	10J4632	NTJ2921-05	30.86	1.00	10/26/10 11:05	SAS	EPA 3550C
SW846 8270D	10J4632	NTJ2921-05RE1	30.86	1.00	10/26/10 11:05	SAS	EPA 3550C
SW846 8270D	10J4632	NTJ2921-05RE2	30.86	1.00	10/26/10 11:05	SAS	EPA 3550C
SW846 8270D	10J4632	NTJ2921-06	30.49	1.00	10/26/10 11:05	SAS	EPA 3550C
SW846 8270D	10J4632	NTJ2921-07	30,77	1.00	10/26/10 11:05	SAS	EPA 3550C
SW846 8270D	10J4632	NTJ2921-07RE1	30.77	1.00	10/26/10 11:05	SAS	EPA 3550C
SW846 8270D	10J4632	NTJ2921-07RE2	30.77	1.00	10/26/10 11:05	SAS	EPA 3550C
SW846 8270D	10J4632	NTJ2921-08	30.05	1.00	10/26/10 11:05	SAS	EPA 3550C
SW846 8270D	10J4632	NTJ2921-09	30.71	1.00	10/26/10 11:05	SAS	EPA 3550C
olatile Organic Compounds	by EPA Method 8260B						
SW846 8260B	10J4214	NTJ2921-01	5.57	5.00	10/18/10 11:30	JRL	EPA 5035
SW846 8260B	10J5890	NTJ2921-01RE1	5,57	5.00	10/18/10 11:30	JRL	EPA 5035
SW846 8260B	10J5890	NTJ2921-01RE2	5,57	5.00	10/18/10 11:30	JRL	EPA 5035
SW846 8260B	10J4214	NTJ2921-02	6.46	5.00	10/18/10 15:00	JRL	EPA 5035
SW846 8260B	10J3703	NTJ2921-02RE1	6.46	5.00	10/18/10 15:00	JRL	EPA 5035
SW846 8260B	10J4214	NTJ2921-03	6.88	5.00	10/19/10 10:30	JRL	EPA 5035
SW846 8260B	10J3703	NTJ2921-03RE1	6.88	5.00	10/19/10 10:30	JRL	EPA 5035
SW846 8260B	10J4214	NTJ2921-04	5,41	5.00	10/19/10 13:45	JRL	EPA 5035
SW846 8260B	10J5890	NTJ2921-04RE1	5.41	5.00	10/19/10 13:45	JRL	EPA 5035
SW846 8260B	10J4214	NTJ2921-05	5.81	5.00	10/19/10 16:00	JRL	EPA 5035
SW846 8260B	10J5890	NTJ2921-05RE1	5.81	5.00	10/19/10 16:00	JRL	EPA 5035
SW846 8260B	10J4689	NTJ2921-06	5.06	5.00	10/20/10 11:45	JRL	EPA 5035
SW846 8260B	10J4481	NTJ2921-06RE1	5.18	5.00	10/20/10 11:45	JRL	EPA 5035
SW846 8260B	10J4689	NTJ2921-07	5.24	5.00	10/20/10 15:45	JRL	EPA 5035
SW846 8260B	10J4481	NTJ2921-07RE1	5.49	5.00	10/20/10 15:45	JRL	EPA 5035
SW846 8260B	10K0998	NTJ2921-07RE2	5.49	5.00	10/20/10 15:45	JRL.	EPA 5035
SW846 8260B	10J4689	NTJ2921-08	4.83	5.00	10/21/10 11:15	JRL	EPA 5035
SW846 8260B	10J4481	NTJ2921-08RE1	4.62	5.00	10/21/10 11:15	JRL	EPA 5035
SW846 8260B	10J4689	NTJ2921-09	5.66	5.00	10/21/10 16:45	JRL	EPA 5035
	1,743,743	S. 1155-21-46	7.11.5		Acces on amore		



10179 Highway 78 Ladson, SC 29456

Tom McElwee

Client

Attn

NTJ2921 Work Order:

Laurel Bay Housing Project Project Name:

Project Number: [none]

10/22/10 08:10 Received:

#### PROJECT QUALITY CONTROL DATA Blank

ialyte	Blank Value	Q	Units	Q.C. Batch	Lab Number	Analyzed Date/Time	
olatile Organic Compounds by	EPA Method 8260B						
)J4214-BLK1							
enzene	<0.00110		mg/kg wet	10J4214	10J4214-BLK1	10/28/10 05:20	
thylbenzene	<0.000980		mg/kg wet	10J4214	10J4214-BLK1	10/28/10 05:20	
laphthalene	< 0.00170		mg/kg wet	10J4214	10J4214-BLK1	10/28/10 05:20	
oluene	< 0.000890		mg/kg wet	10J4214	10J4214-BLK1	10/28/10 05:20	
lylenes, total	< 0.00190		mg/kg wet	10J4214	10J4214-BLK1	10/28/10 05:20	
rrogate: 1,2-Dichloroethane-d4	98%			10J4214	10J4214-BLK1	10/28/10 05:20	
rrogate: Dibromofluoromethane	102%			10J4214	10J4214-BLK1	10/28/10 05:20	
arragate: Toluene-d8	98%			10J4214	10J4214-BLK1	10/28/10 05:20	
rrogate: 4-Bromofluorobenzene	104%			10J4214	10J4214-BLK1	10/28/10 05:20	
)J4481-BLK1							
enzene	< 0.00110		mg/kg wet	10J4481	10J4481-BLK1	11/03/10 15:38	
thylbenzene	< 0.000980		mg/kg wet	10J4481	10J4481-BLK1	11/03/10 15:38	
laphthalene	< 0.00170		mg/kg wet	10J4481	10J4481-BLK1	11/03/10 15:38	
oluene	<0,000890		mg/kg wet	10J4481	10J4481-BLK1	11/03/10 15:38	
lylenes, total	0.00192	1	mg/kg wet	10J4481	10J4481-BLK1	11/03/10 15:38	
grogate: 1,2-Dichloraethane-d4	106%			10J4481	10J4481-BLK1	11/03/10 15:38	
rrogate: Dibromofluoromethane	101%			10J4481	10J4481-BLK1	11/03/10 15:38	
rrogate: Toluene-d8	109%			1034481	10J4481-BLK1	11/03/10 15:38	
rrogate: 4-Bromofluorobenzene	106%			10J4481	10J4481-BLK1	11/03/10 15:38	
)J4689-BLK1							
enzene	< 0.00110		mg/kg wet	10J4689	10J4689-BLK1	11/01/10 13:01	
thylbenzene	< 0.000980		mg/kg wet	10J4689	10J4689-BLK1	11/01/10 13:01	
laphthalene	< 0.00170		mg/kg wet	10J4689	10J4689-BLK1	11/01/10 13:01	
oluene	< 0.000890		mg/kg wet	10J4689	10J4689-BLK1	11/01/10 13:01	
ylenes, total	< 0.00190		mg/kg wet	1014689	10J4689-BLK1	11/01/10 13:01	
rrogate: 1,2-Dichloroethane-d4	96%			10J4689	10J4689-BLK1	11/01/10 13:01	
rrogate: Dibromofluoromethane	102%			10J4689	10J4689-BLK1	11/01/10 13:01	
rrogate: Toluene-d8	99%			10J4689	10J4689-BLK1	11/01/10 13:01	
rrogate: 4-Bromofluorobenzene	103%			10J4689	10J4689-BLK1	11/01/10 13:01	
J5890-BLK1							
enzene	< 0.00110		mg/kg wet	10J5890	10J5890-BLK1	10/28/10 15:28	
thylbenzene	< 0.000980		mg/kg wet	10J5890	10J5890-BLK1	10/28/10 15:28	
aphthalene	< 0.00170		mg/kg wet	10J5890	10J5890-BLK1	10/28/10 15:28	
oluene	< 0.000890		mg/kg wet	10J5890	10J5890-BLK1	10/28/10 15:28	
ylenes, total	< 0.00190		mg/kg wet	10J5890	10J5890-BLK1	10/28/10 15:28	
rrogate: 1,2-Dichloroethane-d4	96%			10J5890	10J5890-BLK1	10/28/10 15:28	
rrogate: Dibromofluoromethane	95%			10J5890	10J5890-BLK1	10/28/10 15:28	
rrogate: Toluene-d8	102%			10J5890	10J5890-BLK1	10/28/10 15:28	
rrogate: 4-Bromofluorobenzene	105%			10J5890	10J5890-BLK1	10/28/10 15:28	



10179 Highway 78

Client

Attn

alyte

Blank Value

Q

Ladson, SC 29456 Tom McElwee

NTJ2921 Work Order:

Laurel Bay Housing Project Project Name:

Lab Number

Analyzed Date/Time

[none] Project Number:

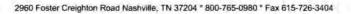
Q.C. Batch

10/22/10 08:10 Received:

#### PROJECT QUALITY CONTROL DATA Blank - Cont.

Units

any ne	Diana Final	*	Cinic	Q.C. Datell	Lan Hamber		
olatile Organic Compounds by I	EPA Method 8260B						
)J5890-BLK2							
lenzene	< 0.0550		mg/kg wet	10J5890	10J5890-BLK2	10/28/10 15:59	
thylbenzene	< 0.0490		mg/kg wet	10J5890	10J5890-BLK2	10/28/10 15:59	
laphthalene	< 0.0850		mg/kg wet	10J5890	10J5890-BLK2	10/28/10 15:59	
oluene	< 0.0445		mg/kg wet	10J5890	10J5890-BLK2	10/28/10 15:59	
tylenes, total	< 0.0950		mg/kg wet	10J5890	10J5890-BLK2	10/28/10 15:59	
rrogate: 1,2-Dichloroethane-d4	99%			10J5890	10J5890-BLK2	10/28/10 15:59	
errogate: Dibromofluoromethane	96%			10J5890	10J5890-BLK2	10/28/10 15:59	
errogate: Toluene-d8	100%			10J5890	10J5890-BLK2	10/28/10 15:59	
arrogate: 4-Bromofluorobenzene	100%			10J5890	10J5890-BLK2	10/28/10 15:59	
0K0998-BLK1							
lenzene	< 0.00110		mg/kg wet	10K0998	10K0998-BLK1	11/03/10 18:35	
thylbenzene	< 0.000980		mg/kg wet	10K0998	10K0998-BLK1	11/03/10 18:35	
laphthalene	< 0.00170		mg/kg wet	10K0998	10K0998-BLK1	11/03/10 18:35	
oluene	< 0.000890		mg/kg wet	10K0998	10K0998-BLK1	11/03/10 18:35	
Lylenes, total	< 0.00190		mg/kg wet	10K0998	10K0998-BLK1	11/03/10 18:35	
progate: 1,2-Dichloroethane-d4	92%			10K0998	10K0998-BLK1	11/03/10 18:35	
urrogate: Dibromofluoromethane	94%			10K0998	10K0998-BLK1	11/03/10 18:35	
vrrogate: Toluene-d8	102%			10K0998	10K0998-BLK1	11/03/10 18:35	
urrogate: 4-Bromofluorobenzene	108%			10K0998	10K0998-BLK1	11/03/10 18:35	
0K0998-BLK2							
enzene	< 0.0550		mg/kg wet	10K0998	10K0998-BLK2	11/03/10 19:06	
thylbenzene	< 0.0490		mg/kg wet	10K0998	10K0998-BLK2	11/03/10 19:06	
laphthalene	< 0.0850		mg/kg wet	10K0998	10K0998-BLK2	11/03/10 19:06	
oluene	<0.0445		mg/kg wet	10K0998	10K0998-BLK2	11/03/10 19:06	
(ylenes, total	< 0.0950		mg/kg wet	10K0998	10K0998-BLK2	11/03/10 19:06	
rrogate: 1,2-Dichloroethane-d4	86%			10K0998	10K0998-BLK2	11/03/10 19:06	
rrogate: Dibromofluoromethane	91%			10K0998	10K0998-BLK2	11/03/10 19:06	
rrogate: Toluene-d8	101%			10K0998	10K0998-BLK2	11/03/10 19:06	
rrogate: 4-Bromofluorobenzene	105%			10K0998	10K0998-BLK2	11/03/10 19:06	
olyaromatic Hydrocarbons by E	PA 8270D						
DJ4632-BLK1							
cenaphthene	<0.0140		mg/kg wet	10J4632	10J4632-BLK1	10/28/10 15:46	
cenaphthylene	<0.0200		mg/kg wet	10J4632	10J4632-BLK1	10/28/10 15:46	
inthracene	<0.00900		mg/kg wet	10J4632	10J4632-BLK1	10/28/10 15:46	
lenzo (a) anthracene	< 0.0110		mg/kg wet	10J4632	10J4632-BLK1	10/28/10 15:46	
senzo (a) pyrene	<0.00800		mg/kg wet	10J4632	10J4632-BLK1	10/28/10 15:46	
senzo (b) fluoranthene	< 0.0380		mg/kg wet	10J4632	10J4632-BLK1	10/28/10 15:46	
senzo (g,h,i) perylene	<0.00900		mg/kg wet	10J4632	10J4632-BLK1	10/28/10 15:46	





10179 Highway 78 Ladson, SC 29456

Ladson, SC 29456 Tom McElwee

Attn

Work Order: NTJ2921

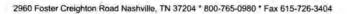
Project Name: Laurel Bay Housing Project

Project Number: [none]

Received: 10/22/10 08:10

#### PROJECT QUALITY CONTROL DATA Blank - Cont.

nalyte	Blank Value	Q	Units	Q.C. Batch	Lab Number	Analyzed Date/Time
olyaromatic Hydrocarbons b	y EPA 8270D					
)J4632-BLK1						
enzo (k) fluoranthene	< 0.0370		mg/kg wet	10J4632	10J4632-BLK1	10/28/10 15:46
hrysene	< 0.0310		mg/kg wet	10J4632	10J4632-BLK1	10/28/10 15:46
ibenz (a,h) anthracene	< 0.0150		mg/kg wet	10J4632	10J4632-BLK1	10/28/10 15:46
luoranthene	< 0.0110		mg/kg wet	10J4632	10J4632-BLK1	10/28/10 15:46
luorene	< 0.0200		mg/kg wet	10J4632	10J4632-BLK1	10/28/10 15:46
ndeno (1,2,3-cd) pyrene	< 0.0310		mg/kg wet	10J4632	10J4632-BLK1	10/28/10 15:46
laphthalene	< 0.0140		mg/kg wet	10J4632	10J4632-BLK1	10/28/10 15:46
henanthrene	< 0.0100		mg/kg wet	10J4632	10J4632-BLK1	10/28/10 15:46
yrene'	< 0.0230		mg/kg wet	10J4632	10J4632-BLK1	10/28/10 15:46
-Methylnaphthalene	< 0.0120		mg/kg wet	10J4632	10J4632-BLK1	10/28/10 15:46
-Methylnaphthalene	< 0.0210		mg/kg wet	10J4632	10J4632-BLK1	10/28/10 15:46
rrogate: Terphenyl-d14	74%			10J4632	10J4632-BLK1	10/28/10 15:46
rrogate: 2-Fluorobiphenyl	70%			10J4632	10J4632-BLK1	10/28/10 15:46
arrogate: Nitrobenzene-d5	63%			10J4632	10J4632-BLK1	10/28/10 15:46





10179 Highway 78 Ladson, SC 29456

Tom McElwee

Attn

Work Order: NTJ2921

Project Name: Laurel Bay Housing Project

Project Number: [none]

Received: 10/22/10 08:10

### PROJECT QUALITY CONTROL DATA

#### Duplicate

3								Sample		Analyzed	
nalyte	Orig, Val.	Duplicate	Q	Units	RPD	Limit	Batch	Duplicated	% Rec.	Date/Time	
eneral Chemistry Parameters											
)J5505-DUP1											
Dry Solids	83.7	84.0		96	0.3	20	10J5505	NTJ2921-01		10/29/10 09:22	



10179 Highway 78 Ladson, SC 29456

Tom McElwee

Client

Attn

Work Order: NTJ2921

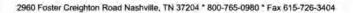
Project Name: Laurel Bay Housing Project

Project Number: [none]

Received: 10/22/10 08:10

# PROJECT QUALITY CONTROL DATA LCS

nalyte	Known Val.	Analyzed Val	Q	Units	% Rec.	Target Range	Batch	Analyzed Date/Time
olatile Organic Compounds by EF	A Method 8260B							
J4214-BS1								
enzene	50.0	46.0		ug/kg	92%	78 - 126	10J4214	10/28/10 04:21
hylbenzene	50.0	47.7		ug/kg	95%	79 - 130	10J4214	10/28/10 04:21
aphthalene	50.0	39.6		ug/kg	79%	72 - 150	1034214	10/28/10 04:21
bluene	50.0	47.4		ug/kg	95%	76 - 126	10J4214	10/28/10 04:21
vlenes, total	150	142		ug/kg	94%	80 - 130	10J4214	10/28/10 04:21
rrogate: 1,2-Dichloroethane-d4	50.0	47.7			95%	67 - 138	1034214	10/28/10 04:21
rrogate: Dibromofluoromethane	50.0	50.4			101%	75 - 125	10J4214	10/28/10 04:21
rrogate: Toluene-d8	50.0	50.2			100%	76 - 129	10J4214	10/28/10 04:21
urrogate: 4-Bromofluorobenzene	50.0	50.6			101%	67 - 147	[0J4214	10/28/10 04:21
J4481-BS1								
enzene	50.0	53.0		ug/kg	106%	78 - 126	10J4481	11/03/10 12:47
hylbenzene	50.0	54.5		ug/kg	109%	79 - 130	10J4481	11/03/10 12:47
aphthalene	50.0	122	L	ng/kg	244%	72 - 150	10J4481	11/03/10 12:47
bluene	50.0	54.4		ng/kg	109%	76 - 126	10J4481	11/03/10 12:47
ylenes, total	150	169	В	ug/kg	112%	80 - 130	10J4481	11/03/10 12:47
rrogate: 1,2-Dichloroethane-d4	50.0	51.0			102%	67 - 138	10J4481	11/03/10 12:47
rrogate; Dibromofluoromethane	50.0	50.5			101%	75 - 125	10J4481	11/03/10 12:47
rrogate: Toluene-d8	50.0	51.8			104%	76 - 129	10J4481	11/03/10 12:47
rrogate: 4-Bromofluorobenzene	50.0	51.8			104%	67 - 147	10J4481	11/03/10 12:47
J4689-BS1								
enzene	50.0	48.0		ug/kg	96%	78 - 126	10J4689	11/01/10 10:06
hylbenzene	50.0	53.1		ug/kg	106%	79 - 130	10J4689	11/01/10 10:06
aphthalene	50.0	48.3		ug/kg	97%	72 - 150	10J4689	11/01/10 10:06
luene	50.0	50.0		ug/kg	100%	76 - 126	10J4689	11/01/10 10:06
vlenes, total	150	160		ug/kg	106%	80 - 130	10J4689	11/01/10 10:06
rrogate: 1,2-Dichloroethane-d4	50.0	48.7			97%	67 - 138	10J4689	11/01/10 10:06
rrogate: Dibromofluoromethane	50.0	53.1			106%	75 - 125	10J4689	11/0)/10 10:06
rrogate: Toluene-d8	50.0	50.4			101%	76 - 129	10J4689	11/01/10 10:06
rrogate: 4-Bromofluorobenzene	50.0	52.5			105%	67 - 147	10J4689	11/01/10 10:06
J5890-BS1								
enzene	50.0	48.9		ug/kg	98%	78 - 126	10J5890	10/28/10 13:58
hylbenzene	50.0	50.2		ug/kg	100%	79 - 130	10J5890	10/28/10 13:58
phthalene	50.0	47.8		ug/kg	96%	72 - 150	10J5890	10/28/10 13:58
luene	50.0	47.8		ug/kg	96%	76 - 126	10J5890	10/28/10 13:58
ylenes, total	150	146		ug/kg	97%	80 - 130	10J5890	10/28/10 13:58
rrogate: 1,2-Dichloroethane-d4	50.0	52.4			105%	67 - 138	1035890	10/28/10 13:58
rrogate: Dibromofluoromethane	.50.0	54.7			109%	75 - 125	10J5890	10/28/10 13:58
rrogate: Toluene-d8	50.0	51,1			102%	76 - 129	10J5890	10/28/10 13:58
arrogate: 4-Bromofluorobenzene	50.0	54.2			108%	67 - 147	1035890	10/28/10 13:58





10179 Highway 78

Client

Attn

Ladson, SC 29456 Tom McElwee

Work Order: NTJ2921

Laurel Bay Housing Project Project Name:

Project Number: [none]

10/22/10 08:10 Received:

#### PROJECT QUALITY CONTROL DATA LCS - Cont.

nalyte	Known Val.	Analyzed Val	Q	Units	% Rec.	Target Range	Batch	Analyzed Date/Time
olatile Organic Compounds by El	PA Method 8260B		6					
DK0998-BS1	3.2	1411		-	TAKEN.	Call Code	2002020	V. 164114 - 14444
enzene	50.0	47.4		ug/kg	95%	78 - 126	10K0998	11/03/10 17:03
thylbenzene	50.0	56.5		ug/kg	113%	79 - 130	10K0998	11/03/10 17:03
aphthalene	50.0	56.3		ug/kg	113%	72 - 150	10K0998	11/03/10 17:03
oluene	50.0	51.4		ug/kg	103%	76 - 126	10K0998	11/03/10 17:03
ylenes, total	150	164		ug/kg	109%	80 - 130	10K0998	11/03/10 17:03
arrogate: 1,2-Dichloroethane-d4	50.0	45.2			90%	67 - 138	10K0998	11/03/10 17:03
urrogate: Dibromofluoromethane	50.0	47.5			95%	75 - 125	10K0998	11/03/10 17:03
urrogate: Toluene-d8	50.0	49.5			99%	76 - 129	10K0998	11/03/10 17:03
urrogate: 4-Bromofluorobenzene	50.0	53.6			107%	67 - 147	10K0998	11/03/10 17:03
olyaromatic Hydrocarbons by EP	A 8270D							
J4632-BS1								
cenaphthene	1.67	1.14		mg/kg wet	68%	49 - 120	10J4632	10/28/10 16:08
cenaphthylene	1.67	1.15		mg/kg wet	69%	52 - 120	10J4632	10/28/10 16:08
nthracene	1.67	1.23		mg/kg wet	74%	58 - 120	1034632	10/28/10 16:01
enzo (a) anthracene	1.67	1.13		mg/kg wet	68%	57 - 120	10J4632	10/28/10 16:01
enzo (a) pyrene	1.67	1.25		mg/kg wet	75%	55 - 120	10J4632	10/28/10 16:08
enzo (b) fluoranthene	1.67	1.21		mg/kg wet	72%	51 - 123	10J4632	10/28/10 16:08
enzo (g,h,i) perylene	1.67	1.16		mg/kg wet	70%	49 - 121	10J4632	10/28/10 16:08
enzo (k) fluoranthene	1.67	1.16		mg/kg wet	69%	42 - 129	1034632	10/28/10 16:08
hrysene	1.67	1.10		mg/kg wet	66%	55 - 120	10J4632	10/28/10 16:08
ibenz (a,h) anthracene	1.67	1.17		mg/kg wet	70%	50 - 123	10J4632	10/28/10 16:08
uoranthene	1.67	1.14		mg/kg wet	68%	58 - 120	10J4632	10/28/10 16:08
uorene	1.67	1.13		mg/kg wet	68%	54 - 120	1034632	10/28/10 16:08
deno (1,2,3-cd) pyrene	1.67	1.20		mg/kg wet	72%	50 - 122	10J4632	10/28/10 16:08
aphthalene	1.67	0.943		mg/kg wet	57%	28 - 120	10J4632	10/28/10 16:08
nenanthrene	1.67	1.16		mg/kg wet	70%	56 - 120	10J4632	10/28/10 16:08
rene	1.67	1.19		mg/kg wet	71%	56 - 120	10J4632	10/28/10 16:08
Methylnaphthalene	1.67	0,909		mg/kg wet	55%	36 - 120	10J4632	10/28/10 16:08
Methylnaphthalene	1.67	0.980		mg/kg wet	59%	36 - 120	10J4632	10/28/10 16:08
arrogate: Terphenyl-d14	1.67	1.02		2.5	61%	18 - 120	10J4632	10/28/10 16:08
errogate: 2-Fluorobiphenyl	1.67	0.964			58%	14 - 120	10J4632	10/28/10 16:08
urrogate: Nitrobenzene-d5	1.67	0.886			53%	17 - 120	10J4632	10/28/10 16:08



10179 Highway 78

Client

Attn

Ladson, SC 29456 Tom McElwee

NTJ2921 Work Order:

Laurel Bay Housing Project Project Name:

Project Number: [none]

10/22/10 08:10 Received:

#### PROJECT QUALITY CONTROL DATA LCS Dup

nalyte	Orig. Val.	Duplicate	Q	Units	Spike Conc	% Rec.	Target Range	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time	
olatile Organic Compounds by	EPA Method 8	260B											
)J4481-BSD1													
tenzene		50.3		ug/kg	50.0	101%	78 - 126	5	50	10J4481		11/03/10 13:52	
thylbenzene		54.1		ug/kg	50,0	108%	79 - 130	0.8	50	10J4481		11/03/10 13:52	
laphthalene		114	L	ug/kg	50.0	229%	72 - 150	6	50	10J4481		11/03/10 13:52	
oluene		52.9		ug/kg	50.0	106%	76 - 126	3	50	10J4481		11/03/10 13:52	
Cylenes, total		170	В	ug/kg	150	113%	80 - 130	0.6	50	10J4481		11/03/10 13:52	
urrogate: 1,2-Dichloroethane-d4		48.2		ug/kg	50.0	96%	67 - 138			10J4481		11/03/10 13:52	
errogate: Dibromofluoromethane		48.6		ug/kg	50.0	97%	75 - 125			10J4481		11/03/10 13:52	
rrogate: Toluene-d8		51.6		ug/kg	50.0	103%	76 - 129			10J4481		11/03/10 13:52	
urrogate: 4-Bromofluorobenzene		52,1		ug/kg	50.0	104%	67 - 147			10J4481		11/03/10 13:52	
0J4689-BSD1													
lenzene		51.0		ug/kg	50.0	102%	78 - 126	6	50	10J4689		11/01/10 10:35	
thylbenzene		53,3		ug/kg	50.0	107%	79 - 130	0.4	50	10J4689		11/01/10 10:35	
laphthalene		47.8		ug/kg	50.0	96%	72 - 150	1	50	10J4689		11/01/10 10:35	
oluene		50.2		ug/kg	50.0	100%	76 - 126	0.5	50	10J4689		11/01/10 10:35	
Cylenes, total		158		ug/kg	150	105%	80 - 130	1	50	10J4689		11/01/10 10:35	
arrogate: 1,2-Dichloroethane-d4		51.1		ug/kg	50.0	102%	67 - 138			10J4689		11/01/10 10:35	
rrogate: Dibromofluoromethane		55,8		ug/kg	50.0	112%	75 - 125			10J4689		11/01/10 10:35	
urrogate: Toluene-d8		50.0		ug/kg	50.0	100%	76 - 129			10J4689		11/01/10 10:35	
irrogate: 4-Bromofluorobenzene		51.8		ug/kg	50.0	104%	67 - 147			10J4689		11/01/10 10:35	
DK0998-BSD1													
enzene		47.6		ug/kg	50.0	95%	78 - 126	0.4	50	10K0998		11/03/10 17;34	
thylbenzene		55.9		ug/kg	50.0	112%	79 - 130	t	50	10K0998		11/03/10 17:34	
laphthalene		55.0		ug/kg	50.0	110%	72 - 150	2	50	10K0998		11/03/10 17:34	
oluene		50.9		ug/kg	50,0	102%	76 - 126	I	50	10K0998		11/03/10 17:34	
Cylenes, total		162		ug/kg	150	108%	80 - 130	1	50	10K0998		11/03/10 17:34	
rrogate: 1,2-Dichloroethane-d4		45.5		ug/kg	50.0	91%	67 - 138			10K0998		11/03/10 17:34	
rrogate; Dibromofluoromethane		48.2		ug/kg	50.0	96%	75 - 125			10K0998		11/03/10 17:34	
rrogate: Toluene-d8		49.3		ug/kg	50.0	99%	76 - 129			10K0998		11/03/10 17:34	
rrogate: 4-Bromofluorobenzene		53,6		ug/kg	50.0	107%	67 - 147			10K0998		11/03/10 17:34	



10179 Highway 78 Ladson, SC 29456 Tom McElwee

Client

Attn

Work Order: NTJ2921

Project Name: Laurel Bay Housing Project

Project Number: [none]

Received: 10/22/10 08:10

#### PROJECT QUALITY CONTROL DATA Matrix Spike

nalyte	Orig, Val.	MS Val	Q	Units	Spike Conc	% Rec.	Target Range	Batch	Sample Spiked	Analyzed Date/Time
olatile Organic Compounds by	EPA Method 826	ОВ								
)J3703-MS1		7.70								
enzene	ND	48.5		mg/kg wet	50.0	97%	42 - 141	10J3703	NTJ2470-07RE	10/29/10 19:48
thylbenzene	9.50	64.1		mg/kg wet	50,0	109%	21 - 165	10J3703	NTJ2470-07RE	10/29/10 19:48
Japhthalene	25.3	52,2		mg/kg wet	50.0	54%	10 - 160	10J3703	NTJ2470-07RE	10/29/10 19:48
oluene	1.67	71.5		mg/kg wet	50.0	140%	45 - 145	10J3703	NTJ2470-07RE	10/29/10 19:48
(ylenes, total	66.8	211		mg/kg wet	150	96%	31 - 159	10J3703	NTJ2470-07RE 3	10/29/10, 19:48
urrogate: 1,2-Dichloroethane-d4		48.9		ug/kg	50.0	98%	67 - 138	10J3703	NTJ2470-07RE	10/29/10 19:48
urrogate: Dibromofluoromethane		54.8		ug/kg	50.0	110%	75 - 125	10J3703	NTJ2470-07RE	10/29/10 19:48
urrogate: Toluene-d8		51.4		ug/kg	50.0	103%	76 - 129	10J3703	NTJ2470-07RE	10/29/10 19:48
urrogate: 4-Bromofluorobenzene		52.6		ug/kg	50.0	105%	67-147	10J3703	NTJ2470-07RE 3	10/29/10 19:48
J4214-MS1										
enzene	0.00229	0.0562		mg/kg dry	0.0615	88%	42 - 141	1034214	NTJ2676-03	10/29/10 18:49
thylbenzene	0.00148	0.0628		mg/kg dry	0.0615	100%	21 - 165	10J4214	NTJ2676-03	10/29/10 18:49
aphthalene	0.00639	0.0284		mg/kg dry	0.0615	36%	10 - 160	1034214	NTJ2676-03	10/29/10 18:49
oluene	0.00319	0.0634		mg/kg dry	0.0615	98%	45 - 145	10J4214	NTJ2676-03	10/29/10 18:49
ylenes, total	0.00373	0.183		mg/kg dry	0.185	97%	31 - 159	10J4214	NTJ2676-03	10/29/10 18:49
urrogate: 1,2-Dichloroethane-d4		50.1		ug/kg	50.0	100%	67 - 138	10J4214	NTJ2676-03	10/29/10 18:49
urrogate: Dibromofluoromethane		55.1		ug/kg	50.0	110%	75 - 125	10J4214	NTJ2676-03	10/29/10 18:49
urrogate: Toluene-d8		54.4		ug/kg	50.0	109%	76 - 129	10J4214	NTJ2676-03	10/29/10 18:49
urragate: 4-Bromofluorobenzene		63.8		ug/kg	50.0	128%	67 - 147	10J4214	NTJ2676-03	10/29/10 18:49
J4481-MS1										
enzene	ND	67.8		ug/kg	50,0	136%	42 - 141	10J4481	NTJ2921-07RE	11/03/10 20:40
thylbenzene	3950	158	M2	ug/kg	50.0	-7580%	21 - 165	10J4481	NTJ2921-07RE	11/03/10 20:40
aphthalene	40600	931	M2	ug/kg	50.0	-79300%	10 - 160	10J4481	NTJ2921-07RE	11/03/10 20:40
oluene	23,5	66.6		ug/kg	50.0	86%	45 - 145	10J4481	NTJ2921-07RE	11/03/10 20:40
ylenes, total	2540	270	M2, B	ug/kg	150	-1510%	31 - 159	10J4481	NTJ2921-07RE	11/03/10 20:40
urrogate; 1,2-Dichloroethane-d4		44.2		ug/kg	50.0	88%	67 - 138	10J4481	NTJ2921-07RE	11/03/10 20:40
urrogate: Dibromofluoromethane		47.0		ug/kg	50.0	94%	75 - 125	10J4481	NTJ2921-07RE	11/03/10 20:40



10179 Highway 78 Ladson, SC 29456

Tom McElwee

Client

Attn

Work Order:

NTJ2921

Project Name:

Laurel Bay Housing Project

Project Number: Received: [none] 10/22/10 08:10

#### PROJECT QUALITY CONTROL DATA Matrix Spike - Cont.

ialyle	Orig, Val.	MS Val	Q	Units	Spike Conc	% Rec.	Target Range	Batch	Sample Spiked	Analyzed Date/Time
olatile Organic Compounds by F	EPA Method 826	0B								
J4481-MS1										
urrogate: Toluene-d8		57.4		ug/kg	50.0	115%	76 - 129	1034481	NTJ2921-07RE	11/03/10 20:40
urrogate: 4-Bromofluorobenzene		64.2		ug/kg	50.0	128%	67 - 147	10J4481	NTJ2921-07RE 1	11/03/10 20:40
J5890-MS1										
enzene	ND	49.8		mg/kg wet	51.3	97%	42 - 141	10J5890	NTJ2470-07RE 2	10/29/10 19:48
thylbenzene	7.80	65.8		mg/kg wet	51.3	113%	21 - 165	10J5890	NTJ2470-07RE 2	10/29/10 19:48
aphthalene	20.5	53.6		mg/kg wet	51.3	65%	10 - 160	10J5890	NTJ2470-07RE 2	10/29/10 19:48
oluene	1.43	73,4		mg/kg wet	51.3	140%	45 - 145	10J5890	NTJ2470-07RE	10/29/10 19:48
ylenes, total	53.9	217		mg/kg wet	154	106%	31 - 159	10J5890	NTJ2470-07RE	10/29/10 19:48
urrogate: 1,2-Dichloroethane-d4		48.9		ug/kg	50.0	98%	67 - 138	10J5890	NTJ2470-07RE 2	10/29/10 19:48
urrogate: Dibromofluoromethane		54.8		ug/kg	50.0	110%	75 - 125	10J5890	NTJ2470-07RE	10/29/10 19:48
urrogate: Toluene-d8		51.4		ug/kg	50.0	103%	76 - 129	10J5890	NTJ2470-07RE	10/29/10 19:48
urrogate: 4-Bromofluorobenzene		52.6		ug/kg	50.0	105%	67 - 147	10J5890	NTJ2470-07RE 2	10/29/10 19:48
K0998-MS1										
enzene	ND	53.3		mg/kg dry	56.0	95%	42 - 141	10K0998	NTJ2921-07RE 2	11/04/10 02:55
thylbenzene	5.05	66.1		mg/kg dry	56.0	109%	21 - 165	10K0998	NTJ2921-07RE 2	11/04/10 02:55
aphthalene	28,1	80.6		mg/kg dry	56,0	94%	10 - 160	10K0998	NTJ2921-07RE 2	11/04/10 02:55
oluene	ND	57.8		mg/kg dry	56.0	103%	45 - 145	10K0998	NTJ2921-07RE	11/04/10 02:55
ylenes, total	4.31	183		mg/kg dry	168	106%	31 - 159	10K0998	NTJ2921-07RE 2	11/04/10 02:55
urrogate: 1,2-Dichloroethane-d4		43.2		ug/kg	50,0	86%	67 - 138	10K0998	NTJ2921-07RE 2	11/04/10 02:55
urrogate: Dibromofluoromethane		47.2		ug/kg	50.0	94%	75 - 125	10K0998	NTJ2921-07RE	11/04/10 02:55
urrogate: Toluene-d8		50,4		ug/kg	50.0	101%	76 - 129	10K0998	NTJ2921-07RE	11/04/10 02:55
urrogate: 4-Bromofluorobenzene		54.5		ug/kg	50.0	109%	67 - 147	10K0998	NTJ2921-07RE 2	11/04/10 02:55
olyaromatic Hydrocarbons by El	PA 8270D									
J4632-MS1										
cenaphthene	ND	0.824		mg/kg wet	1.66	50%	42 - 120	1034632	NTJ2810-01	10/28/10 16:30



10179 Highway 78 Ladson, SC 29456

Ladson, SC 29456 Tom McElwee

Client

Attn

Work Order: NTJ2921

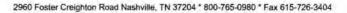
Project Name: Laurel Bay Housing Project

Project Number: [none]

Received: 10/22/10 08:10

#### PROJECT QUALITY CONTROL DATA Matrix Spike - Cont.

				The opinion						
nalyte	Orig. Val.	MS Val	Q	Units	Spike Conc	% Rec.	Target Range	Batch	Sample Spiked	Analyzed Date/Time
olyaromatic Hydrocarbons by	EPA 8270D									
J4632-MS1										
cenaphthylene	ND	0.883		mg/kg wet	1,66	53%	32 - 120	10J4632	NTJ2810-01	10/28/10 16:30
nthracene	ND	0.968		mg/kg wet	1.66	58%	10 - 200	10J4632	NTJ2810-01	10/28/10 16:30
enzo (a) anthracene	ND	0.914		mg/kg wet	1.66	55%	41 - 120	10J4632	NTJ2810-01	10/28/10 16:30
enzo (a) pyrene	ND	0.965		mg/kg wet	1.66	58%	33 - 121	10J4632	NTJ2810-01	10/28/10 16:30
enzo (b) fluoranthene	ND	0.958		mg/kg wet	1,66	58%	26 - 137	10J4632	NTJ2810-01	10/28/10 16:30
enzo (g,h,i) perylene	ND	0.865		mg/kg wet	1,66	52%	21 - 124	10J4632	NTJ2810-01	10/28/10 16:30
enzo (k) fluoranthene	ND	0.877		mg/kg wet	1.66	53%	14 - 140	10J4632	NTJ2810-01	10/28/10 16:30
hrysene	ND	0.862		mg/kg wet	1,66	52%	28 - 123	10J4632	NTJ2810-01	10/28/10 16:30
ibenz (a,h) anthracene	ND	0.886		mg/kg wet	1.66	53%	25 - 127	10J4632	NTJ2810-01	10/28/10 16:30
uoranthene	ND	0.915		mg/kg wet	1.66	55%	38 - 120	10J4632	NTJ2810-01	10/28/10 16:30
uorene	ND	0.878		mg/kg wet	1.66	53%	41 - 120	10J4632	NTJ2810-01	10/28/10 16:30
deno (1,2,3-cd) pyrene	ND	0.889		mg/kg wet	1.66	53%	25 - 123	10J4632	NTJ2810-01	10/28/10 16:30
aphthalene	ND	0.692		mg/kg wet	1.66	42%	25 - 120	10J4632	NTJ2810-01	10/28/10 16:30
nenanthrene	ND	0.923		mg/kg wet	1.66	56%	37 - 120	10J4632	NTJ2810-01	10/28/10 16:30
yrene	ND	0.939		mg/kg wet	1.66	56%	29 - 125	10J4632	NTJ2810-01	10/28/10 16:30
Methylnaphthalene	ND	0.695		mg/kg wet	1.66	42%	19 - 120	10J4632	NTJ2810-01	10/28/10 16:30
Methylnaphthalene	ND	0.747		mg/kg wet	1.66	45%	11 - 120	10J4632	NTJ2810-01	10/28/10 16:30
rrogate: Terphenyl-d14		0.895		mg/kg wet	1.66	54%	18 - 120	10J4632	NTJ2810-01	10/28/10 16:30
rrogate: 2-Fluorobiphenyl		0.796		mg/kg wet	1.66	48%	14 - 120	10J4632	NTJ2810-01	10/28/10 16:30
urrogate: Nitrobenzene-d5		0.678		mg/kg wet	1,66	41%	17 - 120	10J4632	NTJ2810-01	10/28/10 16:30





10179 Highway 78 Ladson, SC 29456 Tom McElwee

Client

Attn

Work Order: NTJ2921

Project Name: Laurel Bay Housing Project

Project Number: [none]
Received: 10/22/10 08:10

### PROJECT QUALITY CONTROL DATA Matrix Spike Dup

nalyte	Orig. Val.	Duplicate	Q	Units	Spike Conc	% Rec.	Target Range	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
olatile Organic Compounds by	EPA Method 8	3260B										
)J3703-MSD1												
enzene	ND	55.8		mg/kg wet	50.0	112%	42 - 141	14	50	10J3703	NTJ2470-07RE	10/29/10 20:17
thylbenzene	9.50	72,5		mg/kg wet	50.0	126%	21 - 165	12	50	10J3703	3 NTJ2470-07RE	10/29/10 20:17
aphthalene	25.3	63.4		mg/kg wet	50.0	76%	10 - 160	19	50	10J3703	NTJ2470-07RE	10/29/10 20:17
oluene	1.67	82.8	MI	mg/kg wel	50.0	162%	45 - 145	15	50	10J3703	NTJ2470-07RE	10/29/10 20:17
ylenes, total	66.8	246		mg/kg wet	150	120%	31 - 159	15	50	10J3703	NTJ2470-07RE	10/29/10 20:17
rrogate: 1,2-Dichloroethane-d4		48.2		ug/kg	50.0	96%	67 - 138			10J3703	NTJ2470-07RE	10/29/10 20:17
nrogate: Dibromofluoromethane		53.1		ug/kg	50.0	106%	75 - 125			10J3703	NTJ2470-07RE	10/29/10 20:17
urrogate: Toluene-d8		49.0		ug/kg	50.0	98%	76 - 129			10J3703	NTJ2470-07RE	10/29/10 20:17
urrogate: 4-Bromofluorobenzene		52.0		ug/kg	50.0	104%	67 - 147			10J3703	NTJ2470-07RE 3	10/29/10 20:17
J4214-MSD1												
enzene	0.00229	0.0274	M8, R2	mg/kg dry	0.0643	39%	42 - 141	69	50	10J4214	NTJ2676-03	10/29/10 19:18
thylbenzene	0.00148	0.0214	R2	mg/kg dry	0.0643	31%	21 - 165	98	50	10J4214	NTJ2676-03	10/29/10 19:18
aphthalene	0.00639	0.0152	R2	mg/kg dry	0.0643	14%	10 - 160	61	50	10J4214	NTJ2676-03	10/29/10 19:18
oluene	0.00319	0.0245	M8, R2	mg/kg dry	0.0643	33%	45 - 145	89	50	10J4214	NTJ2676-03	10/29/10 19:18
ylenes, total	0.00373	0.0565	M8, R2	mg/kg dry	0.193	27%	31 - 159	106	50	10J4214	NTJ2676-03	10/29/10 19:18
rrogate: 1,2-Dichloroethane-d4		52.2		ug/kg	50.0	104%	67 - 138			10J4214	NTJ2676-03	10/29/10 19:18
rrogate: Dibromofluoromethane		55,4		ug/kg	50.0	111%	75 - 125			10J4214	NTJ2676-03	10/29/10 19:18
rrogate; Toluene-d8		51.8		ug/kg	50.0	104%	76 - 129			10J4214	NTJ2676-03	10/29/10 19:18
rrogate: 4-Bromofluorobenzene		59.2		ug/kg	50.0	118%	67 - 147			1034214	NTJ2676-03	10/29/10 19:18
)J4481-MSD1												
enzene	ND	61.0		ug/kg	50.0	122%	42 - 141	10	50	10J4481	NTJ2921-07RE	11/03/10 21:09
thylbenzene	3950	137	M2	ug/kg	50.0	-7620%	21 - 165	14	50	10J4481	NTJ2921-07RE	11/03/10 21:09
aphthalene	40600	797	M2	ug/kg	50,0	-79500%	10 - 160	15	50	10J4481	NTJ2921-07RE	11/03/10 21:09
oluene	23.5	59.6		ug/kg	50,0	72%	45 - 145	11	50	10J4481	NTJ2921-07RE	11/03/10 21:09
ylenes, total	2540	238	M2, B	ug/kg	150	-1540%	31 - 159	12	50	10J4481	NTJ2921-07RE	11/03/10 21:09
rrogate: 1,2-Dichloroethane-d4		45.0		ug/kg	50.0	90%	67 - 138			10J4481	NTJ2921-07RE	11/03/10 21:09
rrogate: Dibromofluoromethane		48.9		ug/kg	50.0	98%	75 - 125			10J4481	NTJ2921-07RE	11/03/10 21:09
rrogate: Toluene-d8		57.2		ug/kg	50.0	114%	76 - 129			10J4481	NTJ2921-07RE	11/03/10 21:09
rrogate: 4-Bromofluorobenzene		65.4		ug/kg	50,0	131%	67 - 147			10J4481	NTJ2921-07RE 1	11/03/10 21:09



Ladson, SC 29456

Client

Attn

10179 Highway 78

Tom McElwee

Work Order:

NTJ2921

Target

Project Name:

Laurel Bay Housing Project

Sample

Analyzed

Project Number: Received:

[none] 10/22/10 08:10

#### PROJECT QUALITY CONTROL DATA Matrix Spike Dup - Cont.

Spike

nalyte	Orig. Val.	Duplicate	Q	Units	Conc	% Rec.	Range	RPD	Limit	Batch	Duplicated	Date/Time	
olatile Organic Compounds by	EPA Method 8	3260B											
0J5890-MSD1 fenzene	ND	57.3		mg/kg wet	51.3	112%	42 - 141	14	50	10J5890	NTJ2470-07RE	10/29/10 20:17	
Ithylbenzene	7.80	74.4		mg/kg wet	51.3	130%	21 + 165	12	50	10J5890	2 NTJ2470-07RE	10/29/10 20:17	
laphthalene	20.5	65.1		mg/kg wet	51.3	87%	10 - 160	19	50	10J5890	2 NTJ2470-07RE	10/29/10 20:17	
oluene	1.43	85.0	M7	mg/kg wet	51.3	163%	45 - 145	15	50	10J5890	2 NTJ2470-07RE	10/29/10 20:17	
Cylenes, total	53.9	253		mg/kg wet	154	129%	31 - 159	15	50	10J5890	NTJ2470-07RE	10/29/10 20:17	
urrogate: 1,2-Dichloroethane-d4		48.2		ug/kg	50.0	96%	67 - 138			10J5890	NTJ2470-07RE	10/29/10 20:17	
urrogate: Dibromofluoromethane		53.1		ug/kg	50.0	106%	75 - 125			10J5890	NTJ2470-07RE	10/29/10 20:17	
irrogate: Toluene-d8		49.0		ug/kg	50,0	98%	76 - 129			10J5890	NTJ2470-07RE	10/29/10 20:17	
rrogate: 4-Bromofluorobenzene		52.0		ug/kg	50.0	104%	67 - 147			10J5890	NTJ2470-07RE 2	10/29/10 20:17	
0K0998-MSD1													
lenzene	ND	48.3		mg/kg dry	56.0	86%	42 - 141	10	50	10K0998	NTJ2921-07RE	11/04/10 03:26	
thylbenzene	5.05	60.5		mg/kg dry	56.0	99%	21 - 165	9	50	10K0998	NTJ2921-07RE	11/04/10 03:26	
laphthalene	28.1	73.3		mg/kg dry	56.0	81%	10 - 160	9	50	10K0998	NTJ2921-07RE	11/04/10 03:26	
oluene	ND	52.9		mg/kg dry	56.0	94%	45 - 145	9	50	10K0998	NTJ2921-07RE	11/04/10 03:26	
lylenes, total	4.31	167		mg/kg dry	168	97%	31 - 159	9	50	10K0998	NTJ2921-07RE	11/04/10 03:26	
rrogate: 1,2-Dichloroethane-d4		41,9		ug/kg	50.0	84%	67 - 138			10K0998	NTJ2921-07RE	11/04/10 03:26	
rrogate: Dibromofluoromethane		46,5		ug/kg	50.0	93%	75 - 125			10K0998	NTJ2921-07RE	11/04/10 03:26	
rrogate: Toluene-d8		50.0		ug/kg	50.0	100%	76 - 129			10K0998	NTJ2921-07RE	11/04/10 03:26	
rrogate, 4-Bromofluorobenzene		53.9		ug/kg	50.0	108%	67 - 147			10K0998	NTJ2921-07RE 2	11/04/10 03:26	
olyaromatic Hydrocarbons by I	EPA 8270D												
DJ4632-MSD1													
cenaphthene	ND	0.851		mg/kg wet	L64	52%	42 - 120	3	40	10J4632	NTJ2810-01	10/28/10 16:52	
cenaphthylene	ND	0.895		mg/kg wet	1.64	55%	32 - 120	1	30	10J4632	NTJ2810-01	10/28/10 16:52	
inthracene	ND	1.05		mg/kg wet	1.64	64%	10 - 200	8	50	10J4632	NTJ2810-01	10/28/10 16:52	
enzo (a) anthracene	ND	0.993		mg/kg wet	1,64	61%	41 - 120	8	30	10J4632	NTJ2810-01	10/28/10 16:52	
lenzo (a) pyrene	ND	1.06		mg/kg wet	1.64	65%	33 - 121	10	33	10J4632	NTJ2810-01	10/28/10 16:52	
lenzo (b) fluoranthene	ND	1.03		mg/kg wet	1.64	63%	26 - 137	8	42	10J4632	NTJ2810-01	10/28/10 16:52	
lenzo (g,h,i) perylene	ND	0.954		mg/kg wet	1.64	58%	21 - 124	10	32	10J4632	NTJ2810-01	10/28/10 16:52	
4													



10179 Highway 78 Ladson, SC 29456

Tom McElwee

Client

Attn

Work Order: NTJ2921

Project Name: Laur

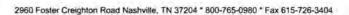
Laurel Bay Housing Project

Project Number: [none]

Received: 10/22/10 08:10

### PROJECT QUALITY CONTROL DATA Matrix Spike Dup - Cont.

N. Ph.					Spike		Target				Sample	Analyzed	
nalyte	Orig. Val.	Duplicate	Q	Units	Conc	% Rec.	Range	RPD	Limit	Batch	Duplicated	Date/Time	
olyaromatic Hydrocarbons by	y EPA 8270D												
0J4632-MSD1													
Benzo (k) fluoranthene	ND	0.993		mg/kg wet	1.64	61%	14 - 140	12	39	10J4632	NTJ2810-01	10/28/10 16:52	
Thrysene	ND	0.935		mg/kg wet	1.64	57%	28 - 123	8	34	10J4632	NTJ2810-01	10/28/10 16:52	
Dibenz (a,h) anthracene	ND	0,999		mg/kg wet	1.64	61%	25 - 127	12	31	10J4632	NTJ2810-01	10/28/10 16:52	
luoranthene	ND	0.968		mg/kg wet	1.64	59%	38 - 120	6	35	10J4632	NTJ2810-01	10/28/10 16:52	
Juorene	ND	0.940		mg/kg wet	1.64	57%	41 - 120	7	37	10J4632	NTJ2810-01	10/28/10 16:52	
ndeno (1,2,3-cd) pyrene	ND	0.999		mg/kg wet	1:64	61%	25 - 123	12	32	10J4632	NTJ2810-01	10/28/10 16:52	
Vaphthalene	ND	0.615		mg/kg wet	1.64	38%	25 - 120	12	42	10J4632	NTJ2810-01	10/28/10 16:52	
henanthrene	ND	0.989		mg/kg wet	1.64	60%	37 - 120	7	32	10J4632	NTJ2810-01	10/28/10 16:52	
fyrene	ND	1.03		mg/kg wet	1.64	63%	29 - 125	10	40	10J4632	NTJ2810-01	10/28/10 16:52	
-Methylnaphthalene	ND	0.681		mg/kg wet	1.64	42%	19 - 120	2	45	10J4632	NTJ2810-01	10/28/10 16:52	
-Methylnaphthalene	ND	0.715		mg/kg wet	1.64	44%	11-120	4	50	10J4632	NTJ2810-01	10/28/10 16:52	
arrogate: Terphenyl-d14		0.767		mg/kg wet	1.64	47%	18 - 120			10J4632	NTJ2810-01	10/28/10 16:52	
urrogate: 2-Fluorobiphenyl		0.610		mg/kg wet	1.64	37%	14 - 120			10J4632	NTJ2810-01	10/28/10 16:52	
arrogate: Nitrobenzene-d5		0.452		mg/kg wet	1.64	28%	17 - 120			10J4632	NTJ2810-01	10/28/10 16:52	





10179 Highway 78 Ladson, SC 29456

Tom McElwee

Work Order: NTJ2921

Project Name: Laurel Bay Housing Project

Project Number: [none]

Received: 10/22/10 08:10

#### CERTIFICATION SUMMARY

#### 'estAmerica Nashville

Client

Attn

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





10179 Highway 78 Ladson, SC 29456

Tom McElwee

Client

Attn

В

M1 M2

**M7** 

M8

R2

**Z**3

ZX

ND

Work Order: NTJ2921

Project Name:

Laurel Bay Housing Project

Project Number: Received:

10/22/10 08:10

[none]

#### DATA QUALIFIERS AND DEFINITIONS

Analyte was detected in the associated Method Blank.

Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL).

Concentrations within this range are estimated.

Laboratory Control Sample and/or Laboratory Control Sample Duplicate recovery was above the acceptance limits. Analyte not

detected, data not impacted.

The MS and/or MSD were above the acceptance limits due to sample matrix interference. See Blank Spike (LCS).

The MS and/or MSD were below the acceptance limits due to sample matrix interference. See Blank Spike (LCS).

The MS and/or MSD were above the acceptance limits. See Blank Spike (LCS).

The MS and/or MSD were below the acceptance limits. See Blank Spike (LCS).

The RPD exceeded the acceptance limit.

The sample required a dilution due to the nature of the sample matrix. Because of this dilution, the surrogate spike concentration

in the sample was reduced to a level where the recovery calculation does not provide useful information.

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

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

#### METHOD MODIFICATION NOTES

# NTJ2921

lestAmer	A STATE OF THE STA	Nashville 2960 Fost	er Cre	ighto	n			-	Toll F	Free	: 800	0-765	-09	80			-					method	ls, is t	his wo	rk bein		analytica aucteu ii		-		
Client Name/Account #:		Nashville,	IN 37	204						Fax	: 61:	5-726	-34	04								regulat	ory pu			ance N	Monitorii	na?	Yes		No
	10179 Highway	78															-										t Action		Yes		No
	Ladson, SC 294																3		Si	te St	ate:	sc									
Project Manager:	Tom McElwee e	mail: mcelw	ee@ee	ginc.i	net				•=							7					0#:		10	00	5						
Telephone Number:	843,412.2097					F	ax N	0.	84	(3)	-8	79	-6	; 4	0	1			TA	Quo	e #:										
Sampler Name: (Print)	PRA	+4,5	ho	W					1	,									Pr	ojec	t ID:	Laurel	Вау Н	ousing	Proje	ct					
Sampler Signature:	101	25/															3		P	roje	ct #:										
	100								Pres	serva	tive		31			Matr	ix		I				_	Α	nalyze	For:					1
Sample ID / Description	Date Sampled	Time Sampled	No. of Containers Shipped	Grab	Composite	Field Filtered	Ice	Label)	MOH (Charles about	H-SO, Plastic (Yellow Label)	H <sub>2</sub> SO, Glass(Yellow Label)	Black Label	Other (Specify) Methon.	Groundwater	Wastewater	Drinking Water	Sludge	Other (specify)		BIEX + Naptn - 8260t	PAH - 8270C										RUSH TAT (Pre-Schedule)
767 Althen -1	10/18/10	1130	5	X			П	1	2			2	1				17	1	X		X					)					
967 Hithey -2		1500	5	X		) 1			3	1	1	2	11	1			1	V -	Y		×					1		11.			CL
71-8 Althen -1	10/19/10		5	¥					2	1		হ	i		7	1	1)		X		X					13		LT			111
26×Althen-2	10/19/10	1345	5	7					2			1	1					x	X		X				116	14					
760 Althon-3	10/19/10	1600	5	X	Ť.				2			1	1		-1		X		X	1	X	1 14				15		1			
772 AITHOR	10/20/10		5	Y				1	2			3	1				1	1	ĺν	. 1	(					la					
777 Althan	10/20/10		5	×					2		10	7	1				15	X	Íý	1	7					15				Sec.	
776 LAUREL BAJBlod.	10/2/1/10	1115	.5	X					2			12	1				1	1	X	1	•	111			1	8					.01
774 Althreis	10/21/10	1645	5	X					3			2	u				1	X	ĺχ	ľ	X	- 11				9		1 7			
									+	$\pm$	1	$\pm \pm$	1	1		1	+	$\pm$						-	-		+-				
Special Instructions:																						Labora				н					
111		4					Met	hod	of St	hipm	ent:						F	EDE	X							dspace					Y
Relinquished by	10/21	10	19		1		-		1							Date	e		Ti	me						Congo					
Relinquished by	Date		Tir	пе	Rece	eived t	by Te	stAm	erica		_	_			ig	Dat スト	1	1	180	me											
							1	/							1																

# ATTACHMENT A



# **NON-HAZARDOUS MANIFEST**

WASTE MANAGEMENT	A				25,54,54		5-7		
NON-HAZARDOUS MANIFEST	1. Generator's US El	PA ID No. Ma	nifest Doc	No.	2. Page 1				
3. Generator's Mailing Address: MCAS, BEAUFORT LAUREL BAY HOUSING	Ge	nerator's Site Address (If di	WMNA			00316			
BEAUFORT, SC 29907 4. Generator's Phone 843-2	28-6461					D. State	denerators	,,,	
5. Transporter 1 Company Name		6. US EPA ID	Number		C. State T	ransporter's I	D		
EEG, INC.  7. Transporter 2 Company Name		8. US EPA ID	Number		D. Transp	orter's Phone	843-8	879-041	1
7. Hansporter 2 company wante		U. USEIAID	Munici			ransporter's I			
9. Designated Facility Name and Site	Address	10. US EPA I	D Number		r. Transpo	orter's Priorie			
HICKORY HILL LANDFILL					G. State F		Tally II	DET SUT.	
RIDGELAND, SC 29936				_	H. State F	acility Phone	843-9	987-464	3
11. Description of Waste Materials			12, Cc	Type	13. Total Quantity	14, Unit Wt./Vol.	1.N	Aisc Commen	nts
a. HEATING OIL TANKS FILLED	WITH SAND		No.	Туре	Quantity	Wilyson			
WM Pro	file # 102655SC						-		
b.									
WM Profile #			-						_
c.									
WM Profile #									
d.									
WM Profile #									
J. Additional Descriptions for Mate	rials Listed Above		K. Dispos	sal Location					
			Cell				Level		
15. Special Handling Instructions and	Additional Information 763 A	1+NEA B)	ALCOHOLD VICTOR	A 14h		6)7	75 A	14/00	19
Purchase Order #  16. GENERATOR'S CERTIFICATE:		EMERGENCY COM	NTACT / PH	ONE NO.:					
I hereby certify that the above-descr accurately described, classified and p							ave been fu	lly and	
Printed Name		Signature "On behal					Month	Day	Year
17. Transporter 1 Acknowledgement	of Receipt of Material	s		_					
Printed Name	15 J.J	Signature	TIP.				Month	Day	Year
18. Transporter 2 Acknowledgement	of Receipt of Material	s		Apell	-		112	30-1	
Printed Name		Signature					Month	Day	Year
19. Certificate of Final Treatment/Di I certify, on behalf of the above listed applicable laws, regulations, permits	treatment facility, that and licenses on the da	tes listed above.		7 000		as managed i	n compliant	ce with all	
20. Facility Owner or Operator: Cert	ification of receipt of n		vered by the	nis manifest			Lve		
Printed Name		Signature					Month	Day	Year
White TREATMENT STORAGE DISP	DEAL FACILITY CODY	Blue- GENERATOR	17 CODY		Val	low- GENERA	TOP #1 CO	nv	

# Appendix C Laboratory Analytical Report - Initial Groundwater



# **Volatile Organic Compounds by GC/MS**

Client: AECOM - Resolution Consultants

Description: BEALB775TW01WG20151118

Laboratory ID: QK18003-012

Matrix: Aqueous

Date Sampled:11/18/2015 0940
Date Received: 11/19/2015

 Run
 Prep Method
 Analytical Method
 Dilution
 Analysis Date
 Analyst
 Prep Date
 Batch

 1
 5030B
 8260B
 1
 11/23/2015 1647
 JM1
 90375

	CAS	Analytical							
Parameter	Number	Method	Result	Q	LOQ	LOD	DL	Units F	≀un
Benzene	71-43-2	8260B	0.45	U	5.0	0.45	0.21	ug/L	1
Ethylbenzene	100-41-4	8260B	6.9		5.0	0.51	0.21	ug/L	1
Naphthalene	91-20-3	8260B	40	В	5.0	0.96	0.14	ug/L	1
Toluene	108-88-3	8260B	0.48	U	5.0	0.48	0.24	ug/L	1
Xylenes (total)	1330-20-7	8260B	3.1	J	5.0	0.57	0.32	ug/L	1

Surrogate		Acceptance Limits
Bromofluorobenzene	102	75-120
1,2-Dichloroethane-d4	107	70-120
Toluene-d8	92	85-120
Dibromofluoromethane	90	85-115

PQL = Practical quantitation limit
ND = Not detected at or above the MDL

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

H = Out of holding time

Q = Surrogate failure L = LCS/LCSD failure

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

J = Estimated result < PQL and ≥ MDL

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

S = MS/MSD failure

Shealy Environmental Services, Inc.

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

# Semivolatile Organic Compounds by GC/MS (SIM)

Client: AECOM - Resolution Consultants

Description: BEALB775TW01WG20151118

Laboratory ID: QK18003-012

Matrix: Aqueous

Date Sampled: 11/18/2015 0940 Date Received: 11/19/2015

Run	Prep Method	Analytical Method	Dilution	Analysis Date Analyst	Prep Date B	atch
1	3520C	8270D (SIM)	1	12/03/2015 1758 RBH	11/24/2015 1615 9	0443

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

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Methylnaphthalene-d10		54	15-139
Fluoranthene-d10		67	23-154

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

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

H = Out of holding time

Q = Surrogate failure 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"

 $J = Estimated result < PQL and <math>\geq MDL$ 

S = MS/MSD failure

# Appendix D Laboratory Analytical Report - Permanent Well Groundwater



# **Volatile Organic Compounds by GC/MS**

Client: AECOM - Resolution Consultants

Description: BEALB775MW01WG20170323

Laboratory ID: SC25010-003

Date Sampled: 03/23/2017 1050

Matrix: Aqueous

Date Received: 03/25/2017

Run	Prep Method	Analytical Method	Dilution	Analysis Date Analyst	Prep Date	Batch
1	5030B	8260B	1	03/28/2017 1514 TML		38220

	CAS	Analytical							
Parameter	Number	Method	Result	Q	LOQ	LOD	DL	Units R	un
Benzene	71-43-2	8260B	0.80	U	1.0	0.80	0.40	ug/L ′	1
Ethylbenzene	100-41-4	8260B	6.2		1.0	0.80	0.40	ug/L ′	1
Naphthalene	91-20-3	8260B	23		1.0	0.80	0.40	ug/L ′	1
Toluene	108-88-3	8260B	0.80	US	1.0	0.80	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260B	0.80	U	1.0	0.80	0.40	ug/L	1

Surrogate	Run 1 Acceptance Q % Recovery Limits
Bromofluorobenzene	105 85-114
Dibromofluoromethane	106 80-119
1,2-Dichloroethane-d4	103 81-118
Toluene-d8	106 89-112

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

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

H = Out of holding time

Q = Surrogate failure

 $J = Estimated result < PQL and <math>\geq MDL$ Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W" N = Recovery is out of criteria L = LCS/LCSD failure

S = MS/MSD failure Page: 9 of 67

# Semivolatile Organic Compounds by GC/MS

Client: AECOM - Resolution Consultants

Description: BEALB775MW01WG20170323

Laboratory ID: SC25010-003

Matrix: Aqueous

Date Sampled: 03/23/2017 1050

1

Date Received: 03/25/2017 Run Prep Method Analytical Method Dilution Analysis Date Analyst **Prep Date Batch** 3520C 8270D 04/04/2017 1315 RBH 03/30/2017 1010 38407

	CAS	Analytical					
Parameter	Number	Method	Result Q	LOQ	LOD	DL	Units Run
Benzo(a)anthracene	56-55-3	8270D	0.10 U	0.20	0.10	0.040	ug/L 1
Benzo(b)fluoranthene	205-99-2	8270D	0.10 U	0.20	0.10	0.040	ug/L 1
Benzo(k)fluoranthene	207-08-9	8270D	0.10 U	0.20	0.10	0.040	ug/L 1
Chrysene	218-01-9	8270D	0.10 U	0.20	0.10	0.040	ug/L 1
Dibenzo(a,h)anthracene	53-70-3	8270D	0.10 U	0.20	0.10	0.040	ug/L 1

Surrogate	Q	% Recovery	Limits
Nitrobenzene-d5		46	44-120
2-Fluorobiphenyl		59	44-119
Terphenyl-d14		61	50-134

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

E = Quantitation of compound exceeded the calibration range

H = Out of holding time

Q = Surrogate failure N = Recovery is out of criteria L = LCS/LCSD failure

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

P = The RPD between two GC columns exceeds 40%

S = MS/MSD failure

# Appendix E Regulatory Correspondence





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

July 1, 2015

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

RE: IGWA

Laurel Bay Underground Storage Tank Assessment Reports for:

See attached sheet

Dear Mr. Drawdy,

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

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

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

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

Sincerely,

Kent Krieg

Department of Defense Corrective Action Section

Bureau of Land and Waste Management

South Carolina Department of Health and Environmental Control

Cc: Russell Berry (via email)

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



#### Catherine E. Heigel, Director

Promoting and protecting the health of the public and the environment

Krieg to Drawdy **Attachment to:** 

Subject: IGWA Dated 7/1/2015

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

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

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

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



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

Division of Waste Management Bureau of Land and Waste Management

June 8, 2016

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

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

Laurel Bay Military Housing Area Multiple Properties

Dated April 2015

Dear Mr. Drawdy,

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

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

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

If you have any questions, please contact me at <a href="mailto:petruslb@dhec.sc.gov">petruslb@dhec.sc.gov</a> or 803-898-0294.

Sincerely,

Laurel Petrus

NETS

RCRA Federal Facilities Section

Attachment: Specific Property Recommendations

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

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

Craig Ehde (via email)

Attachment to: Petrus to Drawdy

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

Specific Property Recommendations

Dated June 8, 2016

# **Draft Final Initial Groundwater Investigation Report for (95 addresses)**

Permanent Monitoring Well Investigation recommendation (15 addresses)	
130 Banyan Drive	473 Dogwood Drive
256 Beech Street	747 Blue Bell Lane
285 Birch Drive	749 Blue Bell Lane
292 Birch Drive	775 Althea Street
330 Ash Street	1034 Foxglove Street
331 Ash Street	1104 Iris Lane
335 Ash Street	1124 Iris Lane
342 Ash Street	
100	

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

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



December 11, 2017

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

RE: Approved Response to Comments

Draft Final Revision 1 Groundwater Assessment Report March and April 2017

Laurel Bay Military Housing Area

Dear Mr. Drawdy:

The South Carolina Department of Health and Environmental Control (DHEC) received the above referenced report on November 2, 2017. 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).

DHEC has reviewed the report. Based on this review, DHEC has not generated any additional comments.

Please note that DHEC'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, DHEC 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

LIRK

Department of Defense Corrective Action Section

Cc:

**EQC Region 8** 

Shawn Dolan, Resolution Consultants Bryan Beck, NAVFAC MIDLANT