SUMMARY REPORT 544 ALBATROSS DRIVE (FORMERLY 1421 ALBATROSS DRIVE) LAUREL BAY MILITARY HOUSING AREA MARINE CORPS AIR STATION BEAUFORT BEAUFORT, SC

> Revision: 0 Prepared for:

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

and



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

JUNE 2021

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Prepared by:



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



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#### List of Acronyms

bgs	below ground surface
BTEX	benzene, toluene, ethylbenzene, and xylenes
СТО	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
PPV	Public-Private Venture
QAPP	Quality Assurance Program Plan
RBSL	risk-based screening level
RSL	regional screening level
SCDHEC	South Carolina Department of Health and Environmental Control
Site	LBMH area at MCAS Beaufort, South Carolina
UFP SAP	Uniform Federal Policy Sampling and Analysis Plan
USEPA	United States Environmental Protection Agency
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 544 Albatross Drive (Formerly 1421 Albatross Drive). This NFA determination indicates that there are no unacceptable risks to human health or the environment for the petroleum constituents associated with the home heating oil USTs. The following information is included in this report:

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

#### 1.1 Background Information

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



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

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

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

In 2015, the Public-Private Venture (PPV) responsible for the management of the residential area at LBMH initiated a plan to replace outdated homes in the LBMH area. The plan includes the demolition of existing homes and subsequent construction of new homes. In discussions with the PPV it was revealed that construction of the new homes could occur on portions of the property where the USTs were formerly located. In response to this plan, MCAS Beaufort assessed subsurface soil gas concentrations in the area of the former USTs at select properties within the demolition areas. The subject property of this report is one of the properties within the planned demolition area which was selected for a soil gas evaluation. It should be noted that the house at the subject property has since been demolished and this property is an empty lot. There are no current plans for construction in this area.

#### 1.2 UST Removal and Assessment Process

During the UST removal process, a soil sample was collected from beneath the UST excavations (approximately 4 to 6 feet [ft] below ground surface [bgs]) and analyzed for a predetermined list of constituents of potential concern (COPCs) associated with the petroleum compounds found in home heating oil. These COPCs, derived from the *Quality Assurance Program Plan* 



(*QAPP*) for the Underground Storage Tank Management Division, Revision 3.1 (SCDHEC, 2016) and the Underground Storage Tank Assessment Instructions for Permanent Closure and Change-In-Service, (SCDHEC, 2018), are as follows:

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

Soil sample results were submitted by MCAS Beaufort to SCDHEC utilizing SCDHEC's UST Assessment Report form. In accordance with SCDHEC's *QAPP for the UST Management Division* (SCDHEC, 2016), the soil screening levels consists of SCDHEC risk-based screening levels (RBSLs). It should be noted that the RBSLs for select PAHs were revised in Revision 2.0 of the QAPP (SCDHEC, 2013) and were revised again in Revision 3.0 (SCDHEC, 2015). The screening levels used for evaluation at each site were those levels that were in effect at the time of reporting and review by SCDHEC.

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

In accordance with the multi-media investigation selection process (Appendix A), groundwater analytical results are typically compared to the site specific groundwater vapor intrusion screening levels (VISLs) to evaluate the potential for vapor intrusion into existing homes and the necessity for an investigation associated with this media. However, as previously stated, this property did not have an existing home and instead was among those selected for an evaluation of soil gas because of the planned demolition and construction activities.

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#### 2.0 SAMPLING ACTIVITIES AND RESULTS

The following section presents the sampling activities and associated results for 544 Albatross Drive (Formerly 1421 Albatross Drive). The sampling activities at 544 Albatross Drive (Formerly 1421 Albatross Drive) comprised a soil investigation, IGWA sampling, and a soil gas investigation. Details regarding the soil investigation at this site are provided in the *SCDHEC UST Assessment Report – 1421 Albatross Drive* (MCAS Beaufort, 2011) and the *SCDHEC UST Assessment Report – 1421 Albatross Drive* (MCAS Beaufort, 2013). The UST Assessment Reports are provided in Appendix B. Details regarding the IGWA sampling activities at this site are provided in the *Initial Groundwater Investigation Report – May and June 2015* (Resolution Consultants, 2015). The laboratory report that includes the pertinent IGWA analytical results for this site are provided in the *Vapor Intrusion Report – July 2015, January 2016, and May 2016* (Resolution Consultants, 2017). The laboratory report that includes the pertinent soil gas analytical results for this site is presented in Appendix D.

#### 2.1 UST Removal and Soil Sampling

In May 2011 and March 2013, two 280 gallon heating oil USTs were removed from the front landscaped area adjacent to the house at 544 Albatross Drive (Formerly 1421 Albatross Drive). Tank 1 was removed on May 10, 2011. Tank 2 was removed on March 5, 2013. The former UST locations are indicated on the figures of the UST Assessment Reports (Appendix B). The USTs were 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 removals. According to the UST Assessment Reports (Appendix B), the depths to the bases of the USTs were 5'0" bgs (Tank 1) and 6'3" (Tank 2) and a single soil sample was collected for each from that depth. The samples were collected from the fill port side of the former USTs to represent a worst case scenario.

Following UST removals, a soil sample was collected from the bases of the excavations 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 reports are included in the UST Assessment Reports presented in Appendix B. The laboratory analytical data reports include 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 locations (Tanks 1 and 2) 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 former UST locations (Tanks 1 and 2) at 544 Albatross Drive (Formerly 1421 Albatross Drive) were greater than the SCDHEC RBSLs, which indicated further investigation was required. In a letter dated April 7, 2015, SCDHEC requested an IGWA for 544 Albatross Drive (Formerly 1421 Albatross Drive) to determine if the groundwater was impacted by petroleum COPCs. SCDHEC's request letter is provided in Appendix E.

#### 2.3 Groundwater Sampling

On June 17, 2015, a temporary monitoring well was installed at 544 Albatross Drive (Formerly 1421 Albatross Drive), in accordance with the South Carolina Well Standards and Regulations (R.61-71.H-I, updated June 24, 2016). In order to provide data that can be used to determine whether COPCs are migrating to underlying groundwater, the monitoring well was placed in the same general location as the former heating oil USTs (Tanks 1 and 2). The former UST locations are indicated on the figures of the UST Assessment Reports (Appendix B). Further details are provided in the *Initial Groundwater Investigation Report – May and June 2015* (Resolution Consultants, 2015).

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



#### 2.4 Groundwater Analytical Results

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

The groundwater results collected from 544 Albatross Drive (Formerly 1421 Albatross Drive) were less than the SCDHEC RBSLs and the site specific groundwater VISLs (Table 2), which indicated that the groundwater was not impacted by COPCs associated with the former USTs at concentrations that present a potential risk to human health and the environment.

#### 2.5 Soil Gas Sampling

On July 27, 2015, a temporary subsurface soil gas well was installed at 544 Albatross Drive (Formerly 1421 Albatross Drive) in accordance with the SCDHEC approved *Uniform Federal Policy Sampling and Analysis Plan (UFP SAP) for Vapor Media, Revision 1* (Resolution Consultants, 2015). Soil gas sampling was conducted at this property to assess the potential risk for vapor intrusion associated with the possible construction of a new home on top of former the UST location. The soil gas well was placed in the same general location as the former heating oil USTs (Tanks 1 and 2) and the IGWA sample location. The former UST locations are indicated on the figures of the UST Assessment Reports (Appendix B). Further details are provided in the *Vapor Intrusion Report – July 2015, January 2016, and May 2016* (Resolution Consultants, 2017).

The sampling strategy for this phase of the investigation required a one-time sampling event of the soil gas well. The subsurface soil gas well at 544 Albatross Drive (Formerly 1421 Albatross Drive) was sampled on July 29, 2015. A soil gas sample was collected and shipped to an offsite laboratory for analysis of the petroleum COPCs. Upon completion of soil gas sampling, the temporary well was abandoned in accordance with the *UFP SAP for Vapor Media, Revision 1* (Resolution Consultants, 2015). Field forms are provided in the *Vapor Intrusion Report – July 2015, January 2016, and May 2016* (Resolution Consultants, 2017).

#### 2.6 Soil Gas Analytical Results

A summary of the laboratory analytical results, USEPA (United States Environmental Protection Agency) VISLs, calculated building concentrations, and USEPA regional screening levels (RSLs) for residential air are presented in Table 3. The screening levels used for evaluation were those



levels that were in effect at the time of reporting and review by SCDHEC. A copy of the laboratory analytical data report is included in Appendix D.

The soil gas results collected from 544 Albatross Drive (Formerly 1421 Albatross Drive) were above the USEPA VISLs. However, the building concentrations calculated for each COPC with an exceedance of its respective USEPA VISL from 544 Albatross Drive (Formerly 1421 Albatross Drive) were below the USEPA RSLs, which indicated that subsurface soil gas was not impacted by COPCs associated with the former USTs at concentrations that present a potential risk to human health and the environment.

#### 3.0 **PROPERTY STATUS**

The house at 544 Albatross Drive (Formerly 1421 Albatross Drive) was demolished and the property is an empty lot. There are no current plans for construction in this area. Based on the analytical results for groundwater, SCDHEC made the determination that NFA was required for 544 Albatross Drive (Formerly 1421 Albatross Drive). The NFA determination for groundwater was obtained in a letter dated February 22, 2016. Based on the analytical results for soil gas, it was determined that there was not a vapor intrusion concern at this property and a recommendation was made for no additional vapor intrusion assessment activities. SCDHEC approved the no further vapor intrusion investigation recommendation for 544 Albatross Drive (Formerly 1421 Albatross Drive) in a letter dated June 20, 2017. SCDHEC's letters are 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 – 1421 Albatross Drive, Laurel Bay Military Housing Area*, September 2011.
- Marine Corps Air Station Beaufort, 2013. *South Carolina Department of Health and Environmental Control (SCDHEC) Underground Storage Tank Assessment Report 1421 Albatross Drive, Laurel Bay Military Housing Area*, October 2013.
- Resolution Consultants, 2015. *Initial Groundwater Investigation Report May and June 2015 for Laurel Bay Military Housing Area, Multiple Properties, Laurel Bay Military Housing Area, Marine Corps Air Station Beaufort, Beaufort, South Carolina*, October 2015.



- Resolution Consultants, 2015. Uniform Federal Policy Sampling and Analysis Plan (UFP SAP) for Vapor Media, Revision 1, for Laurel Bay Military Housing Area Marine Corps Air Station Beaufort, Beaufort, South Carolina, April 2015.
- Resolution Consultants, 2017. Vapor Intrusion Report July 2015, January 2016, and May 2016 for Laurel Bay Military Housing Area, Multiple Properties, Laurel Bay Military Housing Area, Marine Corps Air Station Beaufort, Beaufort, South Carolina, May 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.
- United States Environmental Protection Agency, 2015. *Regional Screening Levels Summary Table – Resident Air,* June 2015.
- United States Environmental Protection Agency, 2015. USEPA OSWER Vapor Intrusion Assessment, Vapor Intrusion Screening Level Calculator, Version 3.4, June 2015.

Tables



#### Table 1 Laboratory Analytical Results - Soil 544 Albatross Drive (Formerly 1421 Albatross Drive) Laurel Bay Military Housing Area Marine Corps Air Station Beaufort Beaufort, South Carolina

Constituent		Results Samples Collected 05/10/11 and 03/05/13		
constituent	SCHILE RBSLS	1421 Albatross 05/10/11	1421 Albatross 03/05/13	
Volatile Organic Compounds Analyzed	i by EPA Method 8260B (mg/kg)			
Benzene	0.007	0.120	0.489	
Ethylbenzene	1.15	1.12	5.50	
Naphthalene	0.036	8.11	53.5	
Toluene	1.45	0.224	0.0602	
Xylenes, Total	14.5	5.12	17.6	
Semivolatile Organic Compounds Ana	lyzed by EPA Method 8270D (mg/kg)			
Benzo(a)anthracene	0.066	0.0463	ND	
Benzo(b)fluoranthene	0.066	ND	ND	
Benzo(k)fluoranthene	0.066	ND	ND	
Chrysene	0.066	0.0739	ND	
Dibenz(a,h)anthracene	0.066	ND	ND	

Notes:

<sup>(1)</sup> South Carolina Risk-Based Screening Levels from the Quality Assurance Program Plan for the Underground Storage Tank Management Division, Revision 1.1 (SCDHEC, February 2011).

Bold font indicates the analyte was detected.

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

EPA - United States Environmental Protection Agency

mg/kg - milligrams per kilogram

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

RBSL - Risk-Based Screening Level

SCDHEC - South Carolina Department Of Health and Environmental Control

# Table 2Laboratory Analytical Results - Groundwater544 Albatross Drive (Formerly 1421 Albatross Drive)Laurel Bay Military Housing AreaMarine Corps Air Station BeaufortBeaufort, South Carolina

Constituent	SCDHEC RBSLs <sup>(1)</sup> SCDHEC RBSLs <sup>(1)</sup> Site-Specific Groundwater VISLs (µg/L) <sup>(2)</sup>		Results Sample Collected 06/16/15
Volatile Organic Compounds Analyze	d by EPA Method 8260B (µ	ıg/L)	
Benzene	5	16.24	0.50
Ethylbenzene	700	45.95	4.0
Naphthalene	25	29.33	23
Toluene	1000	105,445	1.1
Xylenes, Total	10,000	2,133	17
Semivolatile Organic Compounds Ana	alyzed by EPA Method 827	0D (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 3.0 (SCDHEC, May 2015).

(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 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

#### Table 3 Laboratory Analytical Results - Vapor 544 Albatross Drive (Formerly 1421 Albatross Drive) Laurel Bay Military Housing Area Marine Corps Air Station Beaufort Beaufort, South Carolina

Constituent	USEPA VISL <sup>(1)</sup>	Soil Gas Results Sample Collected 07/29/15	USEPA RSL <sup>(2)</sup>	Calculated Building Concentrations <sup>(3)</sup>
Volatile Organic Compounds Analyzed by USEPA Method TO-15 (µg/m <sup>3</sup> )				
Benzene	12	14	0.36	0.0011
Toluene	17000	27	NA	NA
Ethylbenzene	37	62	1.1	0.0047
m,p-Xylenes	350	150	NA	NA
o-Xylene	350	250	NA	NA
Naphthalene	2.8	ND	NA	NA

#### Notes:

<sup>(1)</sup> United States Environmental Protection Agency Exterior Soil Gas Vapor Intrusion Screening Level (VISL) from VISL Calculator (Version 3.4, June 2015). VISLs are based on a residual exposure scenario and a target risk level of 1x10-6 and a hazard quotient of 0.1.

<sup>(2)</sup> United States Environmental Protection Agency Regional Screening Levels for Residential Air from the USEPA RSL Table (June 2015), based on a target risk level of 1x10-6 for carcinogens, a target hazard quotient of 0.1 for noncarcinogens, and exposure duration of 26 years.

(3) Building concentrations are calculated using Johnson and Ettinger Soil Gas-Advanced Model for vapor intrusion into buildings (USEPA 2004).

Bold font indicates the analyte was detected.

Bold font and shading indicates the concentration exceeds the residential VISL.

NA - not applicable

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

RSL - Regional Screening Level

 $\mu\text{g}/\text{m}^3$  - micrograms per cubic meter

USEPA - United States Environmental Protection Agency

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 Reports



Reid 9/30/11

Attachment 1

#### South Carolina Department of Health and Environmental Control (SCDHEC) Underground Storage Tank (UST) Assessment Report



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1

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

#### I. OWNERSHIP OF UST (S)

MCAS Beaufort, Commanding Officer Attn: NREAO (Craig Ehde)							
Owner Name (Corporation, Individual, Public Agency, Other)							
<u>P.O. Box 55001</u>							
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 Facility Name or Company	ry Housing Area, Site Identifier	Marine Co	orps Air	Station,	Beaufort, S	<u>C</u>
1421 Albatross Dr Street Address or State Roa	rive, Laurel Bay	Military :	Housing	Area		
Beaufort, City	Beaufort County					
l <u></u>				A 44-	ahaa aast 0	

Attachment 2

#### **III. INSURANCE INFORMATION**

#### **Insurance Statement**

The petroleum release reported to DHEC on \_\_\_\_\_\_ at Permit ID Number \_\_\_\_\_ may qualify to receive state monies to pay for appropriate site rehabilitation activities. Before participation is allowed in the State Clean-up fund, written confirmation of the existence or non-existence of an environmental insurance policy is required. <u>This section must be completed.</u>

Is there now, or has there ever been an insurance policy or other financial mechanism that covers this UST release? YES \_\_\_\_\_ NO\_\_\_\_\_ (check one)

If you answered **YES** to the above question, please complete the following information:

My policy provider is: \_\_\_\_\_\_ The policy deductible is: \_\_\_\_\_\_ The policy limit is: \_\_\_\_\_\_

If you have this type of insurance, please include a copy of the policy with this report.

#### **IV. REQUEST FOR SUPERB FUNDING**

I DO / DO NOT wish to participate in the SUPERB Program. (Circle one.)

#### V. CERTIFICATION (To be signed by the UST owner)

I certify that I have personally examined and am familiar with the information submitted in this and all attached documents; and that based on my inquiry of those individuals responsible for obtaining this information, I believe that the submitted information is true, accurate, and complete.

Name (Type or print.)

Signature

To be completed by Notary Public:

Sworn before me this \_\_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_

(Name)

Notary Public for the state of \_\_\_\_\_\_. Please affix State seal if you are commissioned outside South Carolina

#### **VI. UST INFORMATION**

		Albatross
A.	Product(ex. Gas, Kerosene)	Heating oil
B.	Capacity(ex. 1k, 2k)	280 gal
C.	Age	Late 1950s
D.	Construction Material(ex. Steel, FRP)	Steel
Е·	Month/Year of Last Use	Mid 80s
F.	Depth (ft.) To Base of Tank	5 '
G.	Spill Prevention Equipment Y/N	No
Н∙	Overfill Prevention Equipment Y/N	No
I.	Method of Closure Removed/Filled	Removed
J.	Date Tanks Removed/Filled	5/10/11
K.	Visible Corrosion or Pitting Y/N	Yes
L.	Visible Holes Y/N	Yes

1421

M. Method of disposal for any USTs removed from the ground (attach disposal manifests) UST 1421Albatross was removed from the ground and disposed

of at a Subtitle "D" landfill. See Attachment "A".

- N. Method of disposal for any liquid petroleum, sludges, or wastewaters removed from the USTs (attach disposal manifests)
   UST 1421Albatross was previously filled with sand by others.
- O. If any corrosion, pitting, or holes were observed, describe the location and extent for each UST Corrosion, pitting and holes were found throughout the tank.

#### VII. PIPING INFORMATION

		1421
		Albatross
		Steel
A.	Construction Material(ex. Steel, FRP)	& Copper
B.	Distance from UST to Dispenser	N/A
C.	Number of Dispensers	N/A
D.	Type of System Pressure or Suction	Suction
E.	Was Piping Removed from the Ground? Y/N	Yes
F.	Visible Corrosion or Pitting Y/N	Yes
G.	Visible Holes Y/N	No
H.	Age	Late 1950s
I.	If any corrosion, pitting, or holes were observed, do	escribe the location and extent for each piping run.
	Steel vent piping was corroded an	nd pitted. Copper supply and return
	piping was sound.	

#### **VIII. BRIEF SITE DESCRIPTION AND HISTORY**

The USTs at the residences are constructed of single wall steel and formerly contained fuel oil for heating. These USTs were installed in the late 1950s and last used in the mid 1980s.

	Yes	No	Unk
<ul> <li>A. Were any petroleum-stained or contaminated soils found in the UST excavation, soil borings, trenches, or monitoring wells?</li> <li>If yes, indicate depth and location on the site map.</li> </ul>		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)?		x	
D. Did contaminated soils remain stockpiled on site after closure? If yes, indicate the stockpile location on the site map. Name of DHEC representative authorizing soil removal:		х	
<ul><li>E. Was a petroleum sheen or free product detected on any excavation or boring waters?</li><li>If yes, indicate location and thickness.</li></ul>		x	

#### IX. SITE CONDITIONS

#### X. SAMPLE INFORMATION

#### A. SCDHEC Lab Certification Number 84009

В.

Sample #	Location	Sample Type (Soil/Water)	Soil Type (Sand/Clay)	Depth*	Date/Time of Collection	Collected by	OVA #
1421 Albatros	Excav at fill end	Soil	Sandy	5'	5/10/11 1045 hrs	P. Shaw	
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

\* = Depth Below the Surrounding Land Surface

#### XI. SAMPLING METHODOLOGY

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

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

#### **XII. RECEPTORS**

		Yes	No
A.	Are there any lakes, ponds, streams, or wetlands located within	*X	
	1000 feet of the UST system? *~880' to pond & ~97	5'	
	to stormwater canal If yes, indicate type of receptor, distance, and direction on site map.		
В.	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	*X	
	contamination? *Sewer, water, elec	trici	ty
	cable & fiber optic If yes, indicate the type of utility, distance, and direction on the site map.		
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?		X
	If yes, indicate the area of contaminated soil on the site map.		

#### XIII. SITE MAP

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

(Attach Site Map Here)









Picture 1: Location of UST 1421Albatross.



Picture 2: UST 1421Albatross.

#### 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	1421Albatros	55				
Benzene	0.120 mg/kg					
Toluene	0.224 mg/kg					
Ethylbenzene	1.12 mg/kg					
Xylenes	5.12 mg/kg					
Naphthalene	8.11 mg/kg					
Benzo (a) anthracene	0.0463 mg/kg	Э			-	
Benzo (b) fluoranthene	NI	)		 		
Benzo (k) fluoranthene	N	D				
Chrysene	0.0739 mg/k	9				
Dibenz (a, h) anthracene	NI					-
TPH (EPA 3550)						
			1			
CoC						
Benzene	-					
Toluene						
Ethylbenzene						
Xylenes						
Naphthalene						
Benzo (a) anthracene						
Benzo (b) fluoranthene						
Benzo (k) fluoranthene						
Chrysene						
Dibenz (a, h) anthracene						
TPH (EPA 3550)						

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

CoC	RBSL (µg/l)	W-1	W-2	W -3	W -4
Free Product Thickness	None				
Benzene	5				
Toluene	1,000				
Ethylbenzene	700				
Xylenes	10,000				
Total BTEX	N/A				
МТВЕ	40				
Naphthalene	25				r ·
Benzo (a) anthracene	10				
Benzo (b) flouranthene	10				
Benzo (k) flouranthene	10				
Chrysene	10				
Dibenz (a, h) anthracene	10				
EDB	.05				
1,2-DCA	5				
Lead	Site specific				

#### XV. ANALYTICAL RESULTS

You must submit the laboratory report and chain-of-custody form for the samples. These samples must be analyzed by a South Carolina certified laboratory.

(Attach Certified Analytical Results and Chain-of-Custody Here) (Please see Form #4)

## **TestAmerica**

THE LEADER IN ENVIRONMENTAL TESTING

### **ANALYTICAL REPORT**

#### TestAmerica Laboratories, Inc.

TestAmerica Nashville 2960 Foster Creighton Road Nashville, TN 37204 Tel: 800-765-0980

#### TestAmerica Job ID: NUE2542

Client Project/Site: [none] Client Project Description: Laurel Bay Housing Project

#### For:

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Expert

EEG - Small Business Group, Inc. (2449) 10179 Highway 78 Ladson, SC 29456

Attn: Tom McElwee

for Hay

Authorized for release by: 05/31/2011 05:16:54 PM

Ken A. Hayes Senior Project Manager ken.hayes@testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.
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# Sample Summary

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

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
NUE2542-01	1416 Albatross	Soil	05/09/11 16:00	05/14/11 09:00
NUE2542-02	1421 Albatross	Soil	05/10/11 10:45	05/14/11 09:00
NUE2542-03	1405 Eagle	Soil	05/10/11 15:15	05/14/11 09:00
NUE2542-04	1188 Bobwhite	Soil	05/12/11 12:15	05/14/11 09:00

### Definitions/Glossary

#### Qualifiers

GCMS Vola	atiles
Qualifier	Qualifier Description
J	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.
RL1	Reporting limit raised due to sample matrix effects.
Z6	Surrogate recovery was below acceptance limits.
ZX	Due to sample matrix effects, the surrogate recovery was outside the acceptance limits.
GCMS Sem	nivolatiles
Qualifier	Qualifier Description
J	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.

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

#### Glossary

ZX

Abbreviation	These commonly used abbreviations may or may not be present in this report.
<b>¤</b>	Listed under the "D" column to designate that the result is reported on a dry weight basis.
EPA	United States Environmental Protection Agency
ND	Not Detected above the reporting level.
MDL	Method Detection Limit
RL	Reporting Limit
RE, RE1 (etc.)	Indicates a Re-extraction or Reanalysis of the sample.
%R	Percent Recovery
RPD	Relative Percent Difference, a measure of the relative difference between two points.

# Client Sample ID: 1416 Albatross Lab Sample ID: NUE2542-01 Date Collected: 05/09/11 16:00 Matrix: Soil Date Received: 05/14/11 09:00 Percent Solids: 89.6 Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00255	0.00140	mg/kg dry	ō	05/09/11 16:00	05/18/11 15:05	1.00
Ethylbenzene	ND		0.00255	0.00125	mg/kg dry	\$	05/09/11 16:00	05/18/11 15:05	1.00
Toluene	ND		0.00255	0.00113	mg/kg dry	\$	05/09/11 16:00	05/18/11 15:05	1.00
Xylenes, total	ND		0.00637	0.00242	mg/kg dry	¢	05/09/11 16:00	05/18/11 15:05	1.00
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4	92		67 - 138				05/09/11 16:00	05/18/11 15:05	1.00
Dibromofluoromethane	105		75 - 125				05/09/11 16:00	05/18/11 15:05	1.00
Toluene-d8	95		76 - 129				05/09/11 16:00	05/18/11 15:05	1.00
4-Bromofluorobenzene	99		67 - 147				05/09/11 16:00	05/18/11 15:05	1.00

#### Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B - RE1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.00433	J	0.00659	0.00224	mg/kg dry	Q.	05/09/11 16:00	05/19/11 16:08	1.00
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4	89		67 - 138				05/09/11 16:00	05/19/11 16:08	1.00
Dibromofluoromethane	103		75 - 125				05/09/11 16:00	05/19/11 16:08	1.00
Toluene-d8	94		76 - 129				05/09/11 16:00	05/19/11 16:08	1.00
4-Bromofluorobenzene	93		67 - 147				05/09/11 16:00	05/19/11 16:08	1.00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0744	0.0155	mg/kg dry	\$	05/17/11 12:15	05/20/11 00:32	1.00
Acenaphthylene	ND		0.0744	0.0222	mg/kg dry	æ	05/17/11 12:15	05/20/11 00:32	1.00
Anthracene	ND		0.0744	0.0100	mg/kg dry	亞	05/17/11 12:15	05/20/11 00:32	1.00
Benzo (a) anthracene	ND		0.0744	0.0122	mg/kg dry	ø	05/17/11 12:15	05/20/11 00:32	1.00
Benzo (a) pyrene	ND		0.0744	0.00889	mg/kg dry	ø	05/17/11 12:15	05/20/11 00:32	1.00
Benzo (b) fluoranthene	ND		0.0744	0.0422	mg/kg dry	¢	05/17/11 12:15	05/20/11 00:32	1.00
Benzo (g,h,i) perylene	ND		0.0744	0.0100	mg/kg dry	æ	05/17/11 12:15	05/20/11 00:32	1.00
Benzo (k) fluoranthene	ND		0.0744	0.0411	mg/kg dry	\$	05/17/11 12:15	05/20/11 00:32	1.00
Chrysene	ND		0.0744	0.0344	mg/kg dry	¢	05/17/11 12:15	05/20/11 00:32	1.00
Dibenz (a,h) anthracene	ND		0.0744	0.0167	mg/kg dry	¢.	05/17/11 12:15	05/20/11 00:32	1.00
Fluoranthene	ND		0.0744	0.0122	mg/kg dry	¢	05/17/11 12:15	05/20/11 00:32	1.00
Fluorene	ND		0.0744	0.0222	mg/kg dry	¢	05/17/11 12:15	05/20/11 00:32	1.00
Indeno (1,2,3-cd) pyrene	ND		0.0744	0.0344	mg/kg dry	¢	05/17/11 12:15	05/20/11 00:32	1.00
Naphthalene	ND		0.0744	0.0155	mg/kg dry	ø	05/17/11 12:15	05/20/11 00:32	1.00
Phenanthrene	ND		0.0744	0.0111	mg/kg dry	\$	05/17/11 12:15	05/20/11 00:32	1.00
Pyrene	ND		0.0744	0.0255	mg/kg dry	ø	05/17/11 12:15	05/20/11 00:32	1.00
1-Methylnaphthalene	ND		0.0744	0.0133	mg/kg dry	¢	05/17/11 12:15	05/20/11 00:32	1.00
2-Methylnaphthalene	ND		0.0744	0.0233	mg/kg dry	¢	05/17/11 12:15	05/20/11 00:32	1.00
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Terphenyl-d14	94		18 - 120				05/17/11 12:15	05/20/11 00:32	1.00
2-Fluorobiphenyl	56		14 - 120				05/17/11 12:15	05/20/11 00:32	1.00
Nitrobenzene-d5	59		17 - 120				05/17/11 12:15	05/20/11 00:32	1.00
Method: SW-846 - General C	hemistry Paramete	rs							
Analyte	Beault	Qualifier	RI	MDI	Unit		Bronarad	Analyzad	Dil Eas

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Dry Solids	89.6		0.500	0.500	%		05/27/11 09:56	05/31/11 14:46	1.00

TestAmerica Job ID: NUE2542

1

Date Collected: 05/10/11 10:45	atro55						Lab Sam	pie ID: NUEZ	542-02
Data Dessived: 05/44/44 00:00								Mat	rix: Sol
Date Received: 05/14/11 09:00								Percent Soll	as: 84.
Method: SW846 8260B - Volatile	e Organic Comp	ounds by E	PA Method 8	260B					
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	0.120		0.00177	0.000975	mg/kg dry	ö	05/10/11 10:45	05/18/11 15:34	1.00
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
1,2-Dichloroethane-d4	95		67 - 138				05/10/11 10:45	05/18/11 15:34	1.0
Dibromofluoromethane	109		75 - 125				05/10/11 10:45	05/18/11 15:34	1.00
Toluene-d8	180	ZX	76 - 129				05/10/11 10:45	05/18/11 15:34	1.00
4-Bromofluorobenzene	271	zx	67 - 147				05/10/11 10:45	05/18/11 15:34	1.00
Method: SW846 8260B - Volatile	e Organic Comp	ounds by E	PA Method 8	608 - RE	2				
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prenared	Analyzed	Dil Fa
Ethylbenzene	1.12	quanter	0.0924	0.0453	ma/ka dry		05/10/11 10:45	05/19/11 15:38	50.0
Naphthalene	8.11		0.231	0.0785	ma/ka drv	¢	05/10/11 10:45	05/19/11 15:38	50.0
Toluene	0.224		0.0924	0.0411	mg/kg dry	0	05/10/11 10:45	05/19/11 15:38	50 0
Xylenes, total	5.12		0.231	0.0878	mg/kg dry	ø	05/10/11 10:45	05/19/11 15:38	50.0
Surrogate	% Recovery	Qualifier	l imits				Prenared	Analyzad	Dil Fa
1.2-Dichloroethane-d4	84		67 - 138				05/10/11 10:45	05/19/11 15:38	50.0
Dibromofluoromethane	102		75 - 125				05/10/11 10:45	05/19/11 15:38	50.0
Toluene-d8	93		76 - 129				05/10/11 10:45	05/19/11 15:38	50.0
4-Bromofluorobenzene	99		67 - 147				05/10/11 10:45	05/19/11 15:38	50.0
Analyte	omatic Hydroca Result	Qualifier	A 8270D RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	1.69		0.0782	0.0163	mg/kg dry	- <del></del>	05/17/11 12:15	05/20/11 00:53	1.00
Acenaphthylene	1.02		0.0782	0.0234	mg/kg dry	\$	05/17/11 12:15	05/20/11 00:53	1.00
Anthracene	0.505		0.0782	0.0105	mg/kg dry	\$	05/17/11 12:15	05/20/11 00:53	1.00
Benzo (a) anthracene	0.0463	J	0.0782	0.0128	mg/kg dry	0	05/17/11 12:15	05/20/11 00:53	1.00
Benzo (a) pyrene	ND		0.0782	0.00934	mg/kg dry	ø	05/17/11 12:15	05/20/11 00:53	1.00
Benzo (b) fluoranthene	ND		0.0782	0.0444	mg/kg dry	\$	05/17/11 12:15	05/20/11 00:53	1.00
Benzo (g,h,i) pervlene	ND		0.0782	0.0105	mg/kg dry	÷	05/17/11 12:15	05/20/11 00:53	1.00
Benzo (k) fluoranthene	ND		0.0782	0.0432	ma/ka dry	¢.	05/17/11 12:15	05/20/11 00:53	1.00
Chrysene	0.0739	J	0.0782	0.0362	mg/kg dry	ø	05/17/11 12:15	05/20/11 00:53	1.00
Dibenz (a, h) anthracene	ND		0.0782	0.0175	ma/ka dry	\$	05/17/11 12:15	05/20/11 00:53	1.00
Elucranthono	0.176		0.0782	0.0128	ma/ka dry	-	05/17/11 12:15	05/20/11 00:53	1.00
	0.110							05/20/11 00:53	1.00
Fluorene	2.53		0.0782	0.0234	ma/ka drv	¢	05/17/11 12:15		
Fluorene	2.53 ND		0.0782	0.0234	mg/kg dry	¢ ¢	05/17/11 12:15	05/20/11 00:53	1.00
Fluorene Indeno (1,2,3-cd) pyrene Pyrene	2.53 ND 0.378		0.0782 0.0782 0.0782	0.0234 0.0362 0.0269	mg/kg dry mg/kg dry mg/kg dry	0 0	05/17/11 12:15 05/17/11 12:15 05/17/11 12:15	05/20/11 00:53 05/20/11 00:53	1.00
Fluorene Indeno (1,2,3-cd) pyrene Pyrene Surrogate	2.53 ND 0.378 % Recovery	Qualifier	0.0782 0.0782 0.0782 Limits	0.0234 0.0362 0.0269	mg/kg dry mg/kg dry mg/kg dry	0 0 0	05/17/11 12:15 05/17/11 12:15 05/17/11 12:15 Prepared	05/20/11 00:53 05/20/11 00:53 Analyzed	1.00 1.00 Dil Fac
Fluorene Indeno (1,2,3-cd) pyrene Pyrene Surrogate Terphenyl-d14	2.53 ND 0.378 % Recovery 94	Qualifier	0.0782 0.0782 0.0782 <u>Limits</u> 18 - 120	0.0234 0.0362 0.0269	mg/kg dry mg/kg dry mg/kg dry	0 0 0	05/17/11 12:15 05/17/11 12:15 05/17/11 12:15 Prepared 05/17/11 12:15	05/20/11 00:53 05/20/11 00:53 <b>Analyzed</b> 05/20/11 00:53	1.00 1.00 Dil Fac 1.00
Fluorene Indeno (1,2,3-cd) pyrene Pyrene Surrogate Terphenyl-d14 2-Fluorobiphenyl	2.53 ND 0.378 % Recovery 94 85	Qualifier	0.0782 0.0782 0.0782 <u>Limits</u> 18 - 120 14 - 120	0.0234 0.0362 0.0269	mg/kg dry mg/kg dry mg/kg dry	0 0 0	05/17/11 12:15 05/17/11 12:15 05/17/11 12:15 <b>Prepared</b> 05/17/11 12:15 05/17/11 12:15	05/20/11 00:53 05/20/11 00:53 <b>Analyzed</b> 05/20/11 00:53 05/20/11 00:53	1.00 1.00 Dil Fac 1.00 1.00
Fluorene Indeno (1,2,3-cd) pyrene Pyrene Surrogate Terphenyl-d14 2-Fluorobiphenyl Nitrobenzene-d5	2.53 ND 0.378 <i>% Recovery</i> 94 85 30	Qualifier	0.0782 0.0782 0.0782 <u>Limits</u> 18 - 120 14 - 120 17 - 120	0.0234 0.0362 0.0269	mg/kg dry mg/kg dry mg/kg dry	000	05/17/11 12:15 05/17/11 12:15 05/17/11 12:15 <b>Prepared</b> 05/17/11 12:15 05/17/11 12:15 05/17/11 12:15	05/20/11 00:53 05/20/11 00:53 <b>Analyzed</b> 05/20/11 00:53 05/20/11 00:53 05/20/11 00:53	1.00 1.00 <i>Dil Fac</i> 1.00 1.00
Fluorene Indeno (1,2,3-cd) pyrene Pyrene Surrogate Terphenyl-d14 2-Fluorobiphenyl Nitrobenzene-d5 Method: SW846 8270D - Polyare	2.53 ND 0.378 <u>% Recovery</u> 94 85 30 comatic Hydroca	Qualifier	0.0782 0.0782 0.0782 <u>Limits</u> 18 - 120 14 - 120 17 - 120 PA 8270D - RE	0.0234 0.0362 0.0269	mg/kg dry mg/kg dry mg/kg dry	0 0	05/17/11 12:15 05/17/11 12:15 05/17/11 12:15 <b>Prepared</b> 05/17/11 12:15 05/17/11 12:15 05/17/11 12:15	05/20/11 00:53 05/20/11 00:53 <b>Analyzed</b> 05/20/11 00:53 05/20/11 00:53 05/20/11 00:53	1.00 1.00 <i>Dil Fac</i> 1.00 1.00 1.00
Fluorene Indeno (1,2,3-cd) pyrene Pyrene Surrogate Terphenyl-d14 2-Fluorobiphenyl Nitrobenzene-d5 Method: SW846 8270D - Polyard Analyte	2.53 ND 0.378 % Recovery 94 85 30 omatic Hydroca Result	Qualifier rbons by EF Qualifier	0.0782 0.0782 0.0782 <u>Limits</u> 18 - 120 14 - 120 17 - 120 PA 8270D - RE RL	0.0234 0.0362 0.0269	mg/kg dry mg/kg dry mg/kg dry Unit	0 0 0	05/17/11 12:15 05/17/11 12:15 05/17/11 12:15 <b>Prepared</b> 05/17/11 12:15 05/17/11 12:15 05/17/11 12:15	05/20/11 00:53 05/20/11 00:53 Analyzed 05/20/11 00:53 05/20/11 00:53 05/20/11 00:53	1.00 1.00 <i>Dil Fac</i> 1.00 1.00 Dil Fac
Fluorene Indeno (1,2,3-cd) pyrene Pyrene Surrogate Terphenyl-d14 2-Fluorobiphenyl Nitrobenzene-d5 Method: SW846 8270D - Polyard Analyte Naphthalene	2.53 ND 0.378 % Recovery 94 85 30 comatic Hydroca Result 10.9	Qualifier rbons by EF Qualifier	0.0782 0.0782 0.0782 <u>Limits</u> 18 - 120 14 - 120 17 - 120 PA 8270D - RE RL 0.782	0.0234 0.0362 0.0269 11 MDL 0.163	mg/kg dry mg/kg dry mg/kg dry Unit mg/kg dry	0 0 0 0 0	05/17/11 12:15 05/17/11 12:15 05/17/11 12:15 <b>Prepared</b> 05/17/11 12:15 05/17/11 12:15 05/17/11 12:15 <b>Prepared</b> 05/17/11 12:15	05/20/11 00:53 05/20/11 00:53 <b>Analyzed</b> 05/20/11 00:53 05/20/11 00:53 05/20/11 00:53 <b>Analyzed</b> 05/21/11 17:40	1.00 1.00 <i>Dil Fac</i> 1.00 1.00 1.00 1.00 1.00
Fluorene Indeno (1,2,3-cd) pyrene Pyrene Surrogate Terphenyl-d14 2-Fluorobiphenyl Nitrobenzene-d5 Method: SW846 8270D - Polyaro Analyte Naphthalene Phenanthrene	2.53 ND 0.378 % Recovery 94 85 30 comatic Hydroca Result 10.9 8.70	Qualifier	0.0782 0.0782 0.0782 <u>Limits</u> 18 - 120 14 - 120 17 - 120 PA 8270D - RE RL 0.782 0.782	0.0234 0.0362 0.0269 1 MDL 0.163 0.117	mg/kg dry mg/kg dry mg/kg dry <u>Unit</u> mg/kg dry mg/kg dry	0 0 0 0	05/17/11 12:15 05/17/11 12:15 05/17/11 12:15 05/17/11 12:15 05/17/11 12:15 05/17/11 12:15 05/17/11 12:15 05/17/11 12:15	05/20/11 00:53 05/20/11 00:53 <b>Analyzed</b> 05/20/11 00:53 05/20/11 00:53 05/20/11 00:53 05/20/11 00:53 <b>Analyzed</b> 05/21/11 17:40	1.00 1.00 <i>Dil Fac</i> 1.00 1.00 1.00 1.00 1.00 1.00 1.00 10.0
Fluorene Indeno (1,2,3-cd) pyrene Pyrene Surrogate Terphenyl-d14 2-Fluorobiphenyl Nitrobenzene-d5 Method: SW846 8270D - Polyaro Analyte Naphthalene Phenanthrene 1-Methylnaphthalene	2.53 ND 0.378 % Recovery 94 85 30 comatic Hydroca Result 10.9 8.70 27.5	Qualifier rbons by EF Qualifier	0.0782 0.0782 0.0782 <u>Limits</u> 18 - 120 14 - 120 17 - 120 PA 8270D - RE RL 0.782 0.782 0.782	0.0234 0.0362 0.0269 1 0.0269 0.0269 0.0269 0.0269 0.0269 0.0269 0.0269 0.0269 0.0269	mg/kg dry mg/kg dry mg/kg dry Unit mg/kg dry mg/kg dry mg/kg dry	0 0 0 0 0	05/17/11 12:15 05/17/11 12:15 05/17/11 12:15 05/17/11 12:15 05/17/11 12:15 05/17/11 12:15 05/17/11 12:15 05/17/11 12:15 05/17/11 12:15	05/20/11 00:53 05/20/11 00:53 Analyzed 05/20/11 00:53 05/20/11 00:53 05/20/11 00:53 Analyzed 05/21/11 17:40 05/21/11 17:40	1.00 1.01 1.01 1.00 1.00 1.00 1.00 10.0 10.0 10.0 10.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	49.9		1.56	0.490	mg/kg dry	Q.	05/17/11 12:15	05/21/11 18:00	20.0

Banky Minda

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Client Sample ID: 1421 Alba						Lab Sam	ple ID: NUE2	542-02	
Date Collected: 05/10/11 10:45							Mat	rix: Soil	
Date Received: 05/14/11 09:00								Percent Soli	ds: 84.2
Method: SW-846 - General Chen	nistry Paramete	rs							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Dry Solids	84.2		0.500	0.500	%		05/27/11 09:56	05/31/11 14:46	1.00

alyte	Result	Qualifier RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Dry Solids	84.2	0.500	0.500	%		05/27/11 09:56	05/31/11 14:46	1.00	

#### Client Sample ID: 1405 Eagle Date Collected: 05/10/11 15:15

Date Received: 05/14/11 09:00

#### Lab Sample ID: NUE2542-03 Matrix: Soil Percent Solids: 88.6

Method: SW846 8260B - Vol	atile Organic Comp	ounds by E	PA Method 82	260B					
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00255	0.00140	mg/kg dry	ø	05/10/11 15:15	05/18/11 16:04	1.00
Ethylbenzene	0.00130	J	0.00255	0.00125	mg/kg dry	¢5	05/10/11 15:15	05/18/11 16:04	1.00
Toluene	0.00176	J	0.00255	0.00114	mg/kg dry	Q	05/10/11 15:15	05/18/11 16:04	1.00
Xylenes, total	0.00761		0.00638	0.00243	mg/kg dry	Q	05/10/11 15:15	05/18/11 16:04	1.00
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4	95		67 - 138				05/10/11 15:15	05/18/11 16:04	1.00
Dibromofluoromethane	110		75 - 125				05/10/11 15:15	05/18/11 16:04	1.00
Toluene-d8	107		76 - 129				05/10/11 15:15	05/18/11 16:04	1.00
4-Bromofluorobenzene	140		67 - 147				05/10/11 15:15	05/18/11 16:04	1.00

#### Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B - RE2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND	RL1	0.294	0.0999	mg/kg dry	ţ.	05/10/11 15:15	05/19/11 14:10	50.0
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4	91		67 - 138				05/10/11 15:15	05/19/11 14:10	50.0
Dibromofluoromethane	107		75 - 125				05/10/11 15:15	05/19/11 14:10	50.0
Toluene-d8	90		76 - 129				05/10/11 15:15	05/19/11 14:10	50.0
4-Bromofluorobenzene	95		67 - 147				05/10/11 15:15	05/19/11 14:10	50.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0747	0.0156	mg/kg dry	53	05/17/11 12:15	05/20/11 01:13	1.00
Acenaphthylene	ND		0.0747	0.0223	mg/kg dry	¢,	05/17/11 12:15	05/20/11 01:13	1.00
Anthracene	ND		0.0747	0.0100	mg/kg dry	3\$F	05/17/11 12:15	05/20/11 01:13	1.00
Benzo (a) anthracene	ND		0.0747	0.0123	mg/kg dry	\$	05/17/11 12:15	05/20/11 01:13	1.00
Benzo (a) pyrene	ND		0.0747	0.00892	mg/kg dry	0	05/17/11 12:15	05/20/11 01:13	1.00
Benzo (b) fluoranthene	ND		0.0747	0.0424	mg/kg dry	ø	05/17/11 12:15	05/20/11 01:13	1.00
Benzo (g,h,i) perylene	ND		0.0747	0.0100	mg/kg dry	Ø	05/17/11 12:15	05/20/11 01:13	1.00
Benzo (k) fluoranthene	ND		0.0747	0.0413	mg/kg dry	\$	05/17/11 12:15	05/20/11 01:13	1.00
Chrysene	ND		0.0747	0.0346	mg/kg dry	ø	05/17/11 12:15	05/20/11 01:13	1.00
Dibenz (a,h) anthracene	ND		0.0747	0.0167	mg/kg dry	\$	05/17/11 12:15	05/20/11 01:13	1.00
Fluoranthene	ND		0.0747	0.0123	mg/kg dry	¢	05/17/11 12:15	05/20/11 01:13	1.00
Fluorene	ND		0.0747	0.0223	mg/kg dry	¢	05/17/11 12:15	05/20/11 01:13	1.00
Indeno (1,2,3-cd) pyrene	ND		0.0747	0.0346	mg/kg dry	ø	05/17/11 12:15	05/20/11 01:13	1.00
Naphthalene	ND		0.0747	0.0156	mg/kg dry	Ø	05/17/11 12:15	05/20/11 01:13	1.00
Phenanthrene	ND		0.0747	0.0111	mg/kg dry	ø	05/17/11 12:15	05/20/11 01:13	1.00
Pyrene	ND		0.0747	0.0256	mg/kg dry	*	05/17/11 12:15	05/20/11 01:13	1.00
1-Methylnaphthalene	ND		0.0747	0.0134	mg/kg dry	ø	05/17/11 12:15	05/20/11 01:13	1.00
2-Methylnaphthalene	ND		0.0747	0.0234	mg/kg dry	Ø	05/17/11 12:15	05/20/11 01:13	1.00
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Terphenyl-d14	138	ZX	18 - 120				05/17/11 12:15	05/20/11 01:13	1.00
2-Fluorobiphenyl	51		14 - 120				05/17/11 12:15	05/20/11 01:13	1.00
Nitrobenzene-d5	46		17 - 120				05/17/11 12:15	05/20/11 01:13	1.00

Method: Sw-846 - General	Chemistry Paramete	ers							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Dry Solids	88.6		0.500	0.500	%		05/27/11 09:56	05/31/11 14:46	1.00

# Client Sample ID: 1188 Bobwhite

# Date Collected: 05/12/11 12:15

Date Received: 05/14/11 09:00

#### Lab Sample ID: NUE2542-04 Matrix: Soil Percent Solids: 87.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00208	0.00115	mg/kg dry	\$	05/12/11 12:15	05/18/11 16:33	1.00
Ethylbenzene	ND		0.00208	0.00102	mg/kg dry	ø	05/12/11 12:15	05/18/11 16:33	1.00
Toluene	ND		0.00208	0.000927	mg/kg dry	ø	05/12/11 12:15	05/18/11 16:33	1.00
Xylenes, total	ND		0.00521	0.00198	mg/kg dry	¢	05/12/11 12:15	05/18/11 16:33	1.00
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4	91		67 - 138				05/12/11 12:15	05/18/11 16:33	1.00
Dibromofluoromethane	110		75 - 125				05/12/11 12:15	05/18/11 16:33	1.00
Toluene-d8	100		76 - 129				05/12/11 12:15	05/18/11 16:33	1.00
4-Bromofluorobenzene	128		67 147				05/12/11 12:15	05/18/11 16:33	1.00

#### Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B - RE1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.00541	0.00184	mg/kg dry	Q.	05/12/11 12:15	05/19/11 16:37	1.00
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4	92		67 - 138				05/12/11 12:15	05/19/11 16:37	1.00
Dibromofluoromethane	102		75 - 125				05/12/11 12:15	05/19/11 16:37	1.00
Toluene-d8	93		76 - 129				05/12/11 12:15	05/19/11 16:37	1.00
4-Bromofluorobenzene	98		67 - 147				05/12/11 12:15	05/19/11 16:37	1.00

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

	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0760	0.0159	mg/kg dry	Ø	05/17/11 12:15	05/20/11 01:34	1.00
Acenaphthylene	ND		0.0760	0.0227	mg/kg dry	Ð	05/17/11 12:15	05/20/11 01:34	1.00
Anthracene	ND		0.0760	0.0102	mg/kg dry	Ŷ	05/17/11 12:15	05/20/11 01:34	1.00
Benzo (a) anthracene	ND		0.0760	0.0125	mg/kg dry	ø	05/17/11 12:15	05/20/11 01:34	1.00
Benzo (a) pyrene	ND		0.0760	0.00907	mg/kg dry	\$	05/17/11 12:15	05/20/11 01:34	1.00
Benzo (b) fluoranthene	ND		0.0760	0.0431	mg/kg dry	\$	05/17/11 12:15	05/20/11 01:34	1.00
Benzo (g,h,i) perylene	ND		0.0760	0.0102	mg/kg dry	¢	05/17/11 12:15	05/20/11 01:34	1.00
Benzo (k) fluoranthene	ND		0.0760	0.0420	mg/kg dry	Ċ	05/17/11 12:15	05/20/11 01:34	1.00
Chrysene	ND		0.0760	0.0352	mg/kg dry	<sup>0</sup>	05/17/11 12:15	05/20/11 01:34	1.00
Dibenz (a,h) anthracene	ND		0.0760	0.0170	mg/kg dry	\$	05/17/11 12:15	05/20/11 01:34	1.00
Fluoranthene	ND		0.0760	0.0125	mg/kg dry	ø	05/17/11 12:15	05/20/11 01:34	1.00
Fluorene	ND		0.0760	0.0227	mg/kg dry	¢	05/17/11 12:15	05/20/11 01:34	1.00
Indeno (1,2,3-cd) pyrene	ND		0.0760	0.0352	mg/kg dry	ø	05/17/11 12:15	05/20/11 01:34	1.00
Naphthalene	ND		0.0760	0.0159	mg/kg dry	0	05/17/11 12:15	05/20/11 01:34	1.00
Phenanthrene	ND		0.0760	0.0113	mg/kg dry	0	05/17/11 12:15	05/20/11 01:34	1.00
Pyrene	ND		0.0760	0.0261	mg/kg dry	o	05/17/11 12:15	05/20/11 01:34	1.00
1-Methylnaphthalene	ND		0.0760	0.0136	mg/kg dry	0	05/17/11 12:15	05/20/11 01:34	1.00
2-Methylnaphthalene	ND		0.0760	0.0238	mg/kg dry	ø	05/17/11 12:15	05/20/11 01:34	1.00
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Terphenyl-d14	86		18 - 120				05/17/11 12:15	05/20/11 01:34	1.00
2-Fluorobiphenyl	55		14 - 120				05/17/11 12:15	05/20/11 01:34	1.00
Nitrobenzene-d5	52		17 - 120				05/17/11 12:15	05/20/11 01:34	1.00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Dry Solids	87.3		0.500	0.500	%		05/27/11 09:56	05/31/11 14:46	1.00

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

Lab Sample ID: 11E4658-BLK1 Matrix: Soil								Client	San	Pren Tyr	e: Total
Analysis Batch: 11008793										Prep Batch: 11	4658 P
Analysis Baten. 0000700	Blank	Blank								Tep Baten. Th	
Analyte	Result	Qualifier	RL	MD	. Unit		D	Prepare	d	Analyzed	Dil Fac
Benzene	ND		0.00200	0.00110	mg/kg	wet	-	05/18/11 09	:42	05/18/11 12:09	1.00
Ethylbenzene	ND		0.00200	0.000980	) mg/kg	wet		05/18/11 09	:42	05/18/11 12:09	1.00
Naphthalene	ND		0.00500	0.00170	) mg/kg	wet		05/18/11 09	9:42	05/18/11 12:09	1.00
Toluene	ND		0.00200	0.000890	) ma/ka	wet		05/18/11 09	:42	05/18/11 12:09	1.00
Xylenes, total	ND		0.00500	0.0019	) mg/kg	wet		05/18/11 09	9:42	05/18/11 12:09	1.00
	Blank	Blank									
Surrogate	% Recovery	Qualifier	Limits					Prepare	d	Analyzed	Dil Fac
1,2-Dichloroethane-d4	94		67 - 138					05/18/11 09	9:42	05/18/11 12:09	1.00
Dibromofluoromethane	107		75 - 125					05/18/11 09	9:42	05/18/11 12:09	1.00
Toluene-d8	93		76 - 129					05/18/11 09	9:42	05/18/11 12:09	1.00
4-Bromofluorobenzene	95		67 - 147					05/18/11 09	9:42	05/18/11 12:09	1.00
Lab Sample ID: 11E4658-BLK2								Client	Sar	nple ID: 11E46	58-BLK2
Matrix: Soil										Prep Typ	e: Total
Analysis Batch: U008793									F	Prep Batch: 11	E4658_P
	Blank	Blank									
Analyte	Result	Qualifier	RL	MDI	. Unit		D	Prepare	d	Analyzed	Dil Fac
Benzene	ND		0.100	0.055	) mg/kg	wet		05/18/11 09	9:42	05/18/11 12:38	50.0
Ethylbenzene	ND		0.100	0.049	) mg/kg	wet		05/18/11 09	9:42	05/18/11 12:38	50.0
Naphthalene	ND		0.250	0.085	) mg/kg	wet		05/18/11 09	9:42	05/18/11 12:38	50.0
Toluene	ND		0.100	0.044	5 mg/kg	wet		05/18/11 09	9:42	05/18/11 12:38	50.0
Xylenes, total	NE		0.250	0.095	) mg/kg	wet		05/18/11 09	9:42	05/18/11 12:38	50.0
	Blank	Blank									
Surrogate	% Recovery	Qualifier	Limits					Prepare	d	Analyzed	Dil Fac
1,2-Dichloroethane-d4	91		67 - 138					05/18/11 0	9:42	05/18/11 12:38	50.0
Dibromofluoromethane	106		75 - 125					05/18/11 0	9:42	05/18/11 12:38	50.0
Toluene-d8	92	e la	76 - 129					05/18/11 0	9:42	05/18/11 12:38	50.0
4-Bromofluorobenzene	95	F)	67 - 147					05/18/11 0	9:42	05/18/11 12:38	50.0
Lab Sample ID: 11E4658-BS1								Clier	nt Sa	ample ID: 11E4	658-BS1
Matrix: Soil										Prep Tyr	e: Tota
Analysis Batch: U008793										Prep Batch: 11	E4658 P
			Spike	LCS L	CS					% Rec.	
Analyte			Added	Result 0	ualifier	Unit		D % F	lec	Limits	
Benzene			50.0	49.6	10000	ug/kg	_		99	78 - 126	
Ethylbenzene			50.0	48.9		ug/kg			98	79 - 130	
Naphthalene			50.0	38.0		ug/kg			76	72 - 150	
Toluene			50.0	48.3		ug/kg			97	76 - 126	
Xylenes, total			150	148		ug/kg			99	80 - 130	
	LCS LC	5									
Surrogate	% Recovery Qu	alifier	Limits								
1,2-Dichloroethane-d4	90		67 - 138								
Dibromofluoromethane	110		75 - 125								
Toluene-d8	95		76 - 129								
4-Bromofluorobenzene	94		67 - 147								

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

Lab Sample ID: 11E4658-BSD1					C	lient San	nple ID: 11	E4658-	-BSD1
Matrix: Soil							Pre	p Type:	Total
Analysis Batch: U008793						F	Prep Batch	: 11E4	658_P
	Spike	LCS Dup	LCS Dup				% Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	% Rec	Limits	RPD	Limit
Benzene	50.0	50.6		ug/kg		101	78 - 126	2	50
Ethylbenzene	50.0	49.2		ug/kg		98	79 - 130	0.7	50
Naphthalene	50.0	40.0		ug/kg		80	72 - 150	5	50
Toluene	50.0	48.6		ug/kg		97	76 - 126	0.6	50
Xylenes, total	150	151		ug/kg		100	80 - 130	2	50

Surrogate	% Recovery	Qualifier	Limits
1,2-Dichloroethane-d4	88		67 - 138
Dibromofluoromethane	110		75 - 125
Toluene-d8	94		76 - 129
4-Bromofluorobenzene	95		67 - 147

#### Lab Sample ID: 11E4658-MS1 Matrix: Soil

#### Analysis Batch: U008793

Sar	ple Sample	Spike	Matrix Spike	Matrix Spil	ke			% Rec.	
Analyte Re	sult Qualifier	Added	Result	Qualifier	Unit	D	% Rec	Limits	
Benzene	ND	4.31	4.67		mg/kg wet	-	108	42 - 141	
Ethylbenzene 0	702	4.31	5.44		mg/kg wet		110	21 - 165	
Naphthalene	.18	4.31	5.11		mg/kg wet		68	10 - 160	
Toluene 0	64	4.31	5.28		mg/kg wet		107	45 - 145	
Xylenes, total	5.8	12.9	30.1		mg/kg wet		110	31 - 159	

	Matrix Spike	Matrix Spike		
Surrogate	% Recovery	Qualifier	Limits	
1,2-Dichloroethane-d4	83		67 - 138	
Dibromofluoromethane	105		75 - 125	
Toluene-d8	95		76 - 129	
4-Bromofluorobenzene	99		67 - 147	

#### Lab Sample ID: 11E4658-MSD1 Matrix: Soil

#### Analysis Batch: U008793 Sample Sample Spike Matrix Spike Dup Matrix Spike Dup % Rec. RPD Limits Analyte **Result Qualifier** Added **Result Qualifier** Unit % Rec RPD Limit D 4.31 42 - 141 50 Benzene ND 5.67 mg/kg wet 132 19 4.31 21 - 165 50 Ethylbenzene 0.702 6.16 mg/kg wet 127 13 10 - 160 Naphthalene 2.18 4.31 5.76 mg/kg wet 83 12 50 Toluene 0.664 4.31 6.16 mg/kg wet 128 45 - 145 15 50 31 - 159 2 12.9 116 50 Xylenes, total 15.8 30.8 mg/kg wet

	Matrix Spike Dup	Matrix Spike Dup			
Surrogate	% Recovery	Qualifier	Limits		
1,2-Dichloroethane-d4	82		67 - 138		
Dibromofluoromethane	101		75 - 125		
Toluene-d8	96		76 - 129		
4-Bromofluorobenzene	98		67 - 147		

# Client Sample ID: NUE2486-04RF1

#### F

ient Sample	ID.	NUE	2400-0	4RE	
		Prep	Type:	Tota	

rep	Batch:	11E4658	_P
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#### Client Sample ID: NUE2486-04RE1 Prep Type: Total

Prep Batch: 11E4658\_P

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

Lab Sample ID: 11E4988-BLK1 Matrix: Soil Analysis Batch: U008857								С	lient Sar	mple ID: 11E498 Prep Typ Prep Batch: 118	88-BLK1 be: Total E4988_P
	Bla	k Blank									
Analyte	Res	It Qualifier	r RL	MD	L Unit		D	Pre	epared	Analyzed	Dil Fac
Benzene	1	D	0.00200	0.0011	0 mg/kg	wet		05/19/	11 10:44	05/19/11 12:42	1.00
Ethylbenzene	N	D	0.00200	0.00098	0 mg/kg	wet		05/19/	11 10:44	05/19/11 12:42	1.00
Naphthalene	1	D	0.00500	0.0017	0 mg/kg	wet		05/19/	11 10:44	05/19/11 12:42	1.00
Toluene	N	D	0.00200	0.00089	0 mg/kg	wet		05/19/	11 10:44	05/19/11 12:42	1.00
Xylenes, total	N	D	0.00500	0.0019	0 mg/kg	wet		05/19/	11 10:44	05/19/11 12:42	1.00
	Bla	k Blank									
Surrogate	% Recove	ry Qualifie	r Limits					Pre	pared	Analyzed	Dil Fac
1.2-Dichloroethane-d4		00	67 - 138					05/19	/11 10:44	05/19/11 12:42	1.00
Dibromofluoromethane	1	10	75 - 125					05/19	/11 10:44	05/19/11 12:42	1.00
Toluene-d8		2	76 - 129					05/19	/11 10:44	05/19/11 12:42	1.00
4-Bromofluorobenzene		96	67 - 147					05/19	/11 10:44	05/19/11 12:42	1.00
Lab Sample ID: 11E4988-BLK2								c	lient Sa	mple ID: 11E49	88-BLK2
Matrix: Soil										Prep Typ	e: Total
Analysis Batch: U008857									3	Prep Batch: 11	E4988_P
	Bla	k Blank									
Analyte	Res	It Qualifier	r RL	MD	L Unit		D	Pre	epared	Analyzed	Dil Fac
Benzene	٨	D	0.100	0.055	0 mg/kg	wet	-	05/19	11 10:44	05/19/11 13:12	50.0
Ethylbenzene	1	D	0.100	0.049	0 mg/kg	wet		05/19	11 10:44	05/19/11 13:12	50.0
Naphthalene	h	D	0.250	0.085	0 mg/kg	wet		05/19	11 10:44	05/19/11 13:12	50.0
Toluene	N	D	0.100	0.044	5 mg/kg	wet		05/19	11 10:44	05/19/11 13:12	50.0
Xylenes, total	٢	D	0.250	0.095	0 mg/kg	wet		05/19	/11 10:44	05/19/11 13:12	50.0
	Bla	k Blank									
Surrogate	% Recove	ry Qualifie	r Limits					Pre	pared	Analyzed	Dil Fac
1.2-Dichloroethane-d4		94	67 - 138					05/19	/11 10:44	05/19/11 13:12	50.0
Dibromofluoromethane	1	08	75 - 125					05/19	/11 10:44	05/19/11 13:12	50.0
Toluene-d8		91	76 - 129					05/19	/11 10:44	05/19/11 13:12	50.0
4-Bromofluorobenzene		94	67 - 147					05/19	/11 10:44	05/19/11 13:12	50.0
Lab Sample ID: 11E4988-BS1									Client S	ample ID: 11F4	988-BS1
Matrix: Soil										Pren Tyr	e Total
Analysis Batch: 11008857										Pren Batch: 11	-4988 P
Analysis Baten. Cooloor			Spike	LCS I	CS					% Rec.	
Analyte			Added	Result	Qualifier	Unit		D	% Rec	Limits	
Benzene			50.0	53.8		ug/kg	-		108	78 - 126	
Ethylbenzene			50.0	50.0		ug/kg			102	70 130	
Nanhthalana			50.0	30.5		ug/kg			70	72 150	
Taluana			50.0	51.0		ugikg			102	76 126	
Yulanas total			150	155		ug/kg			102	80 120	
Aylenes, total			150	155		ug/kg			103	80 - 130	
	LCS L	cs									
Surrogate	% Recovery Q	ualifier	Limits								
1,2-Dichloroethane-d4	89		67 - 138								
Dibromofluoromethane	108		75 - 125								
Toluene-d8	95		76 - 129								
4-Bromofluorobenzene	96		67 - 147								

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

Lab Sample ID: 11E4988-MS1 Matrix: Soil							CI	lient San	ple ID: 1421 Alb Prep Type	atross : Total
Analysis Batch: U008857									Prep Batch: 11E4	1988_P
	Sample	Sample	Spike	Matrix Spike	Matrix Spil	ke			% Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	% Rec	Limits	
Benzene	0.124		2.97	3.27		mg/kg dry	Ø	106	42 - 141	
Ethylbenzene	1.12		2.97	4.33		mg/kg dry	Q	108	21 - 165	
Naphthalene	8.11		2.97	10.7		mg/kg dry	\$	87	10 - 160	
Toluene	0.224		2.97	3.22		mg/kg dry	¢.	101	45 - 145	
Xylenes, total	5.12		8.91	15.0		mg/kg dry	ø	110	31 - 159	

Surrogate	% Recovery	Qualifier	Limits
1,2-Dichloroethane-d4	61	Z6	67 - 138
Dibromofluoromethane	77		75 - 125
Toluene-d8	96		76 - 129
4-Bromofluorobenzene	106		67 - 147

#### Lab Sample ID: 11E4988-MSD1 Matrix: Soil

#### Analysis Batch: U008857

S	ample Sample	Spike Matr	ix Spike Dup	Matrix Spi	ke Dup			% Rec.		RPD
Analyte	Result Qualifier	Added	Result	Qualifier	Unit	D	% Rec	Limits	RPD	Limit
Benzene	0.124	2.97	3.36	_	mg/kg dry	Ō	109	42 - 141	3	50
Ethylbenzene	1.12	2.97	4.26		mg/kg dry	¢	106	21 - 165	2	50
Naphthalene	8.11	2.97	10.9		mg/kg dry	ø	94	10 - 160	2	50
Toluene	0.224	2.97	3.23		mg/kg dry	¢.	101	45 - 145	0.3	50
Xylenes, total	5.12	8.91	14.6		mg/kg dry	ø	107	31 - 159	2	50

	Matrix Spike Dup	Matrix Spike Dup			
Surrogate	% Recovery	Qualifier	Limits		
1,2-Dichloroethane-d4	81		67 - 138		
Dibromofluoromethane	100		75 - 125		
Toluene-d8	95		76 - 129		
4-Bromofluorobenzene	103		67 - 147		

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

Lab Sample ID: 11E3953-BLK1							Client Sar	nple ID: 11E395	3-BLK	
Matrix: Soil								Prep Typ	e: Tota	
Analysis Batch: 11E3953							F	Prep Batch: 11E	11E3953 F	
	Blank	Blank								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa	
Acenaphthene	ND		0.0670	0.0140	mg/kg wet		05/17/11 12:15	05/19/11 22:08	1.00	
Acenaphthylene	ND		0.0670	0.0200	mg/kg wet		05/17/11 12:15	05/19/11 22:08	1.00	
Anthracene	ND		0.0670	0.00900	mg/kg wet		05/17/11 12:15	05/19/11 22:08	1.00	
Benzo (a) anthracene	ND		0.0670	0.0110	mg/kg wet		05/17/11 12:15	05/19/11 22:08	1.00	
Benzo (a) pyrene	ND		0.0670	0.00800	mg/kg wet		05/17/11 12:15	05/19/11 22:08	1.00	
Benzo (b) fluoranthene	ND		0.0670	0.0380	mg/kg wet		05/17/11 12:15	05/19/11 22:08	1.00	
Benzo (g,h,i) perylene	ND		0.0670	0.00900	mg/kg wet		05/17/11 12:15	05/19/11 22:08	1.00	
Benzo (k) fluoranthene	ND		0.0670	0.0370	mg/kg wet		05/17/11 12:15	05/19/11 22:08	1.00	
Chrysene	ND		0.0670	0.0310	mg/kg wet		05/17/11 12:15	05/19/11 22:08	1.00	
Dibenz (a,h) anthracene	ND		0.0670	0.0150	mg/kg wet		05/17/11 12:15	05/19/11 22:08	1.00	
Fluoranthene	ND		0.0670	0.0110	mg/kg wet		05/17/11 12:15	05/19/11 22:08	1.00	
Fluorene	ND		0.0670	0.0200	mg/kg wet		05/17/11 12:15	05/19/11 22:08	1.00	
Indeno (1.2.3-cd) pyrene	ND		0.0670	0.0310	mg/kg wet		05/17/11 12:15	05/19/11 22:08	1.00	

#### TestAmerica Nashville

Client Sample ID: 1421 Albatross Prep Type: Total Prep Batch: 11E4988\_P

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

Lab Sample ID: 11E3953-BLK1							Client Sa	mple ID: 11E395	53-BLK1
Matrix: Soil								Prep Typ	e: Total
Analysis Batch: 11E3953								Prep Batch: 11E	E3953_P
	Blank	Blank							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.0670	0.0140	mg/kg wet		05/17/11 12:15	05/19/11 22:08	1.00
Phenanthrene	ND		0.0670	0.0100	mg/kg wet		05/17/11 12:15	05/19/11 22:08	1.00
Pyrene	ND		0.0670	0.0230	mg/kg wet		05/17/11 12:15	05/19/11 22:08	1.00
1-Methylnaphthalene	ND		0.0670	0.0120	mg/kg wet		05/17/11 12:15	05/19/11 22:08	1.00
2-Methylnaphthalene	ND		0.0670	0.0210	mg/kg wet		05/17/11 12:15	05/19/11 22:08	1.00
	Blank	Blank							
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Terphenyl-d14	109		18 - 120				05/17/11 12:15	05/19/11 22:08	1.00
2-Fluorobiphenyl	79		14 - 120				05/17/11 12:15	05/19/11 22:08	1.00
Nitrobenzene-d5	80		17 - 120				05/17/11 12:15	05/19/11 22:08	1.00

#### Lab Sample ID: 11E3953-BS1 Matrix: Soil

#### Analysis Batch: 11E3953

Client Sa	mple ID: 11E39	53-BS1
05/17/11 12:15	05/19/11 22:08	1.00

#### Prep Type: Total Prep Batch: 11E3953 P

	Spike	LCS	LCS				% Rec.
Analyte	Added	Result	Qualifier	Unit	D	% Rec	Limits
Acenaphthene	1.67	1.42		mg/kg wet		85	49 - 120
Acenaphthylene	1.67	1.24		mg/kg wet		74	52 - 120
Anthracene	1.67	1.54		mg/kg wet		92	58 - 120
Benzo (a) anthracene	1.67	1.56		mg/kg wet		93	57 - 120
Benzo (a) pyrene	1.67	1.54		mg/kg wet		93	55 - 120
Benzo (b) fluoranthene	1.67	1.49		mg/kg wet		89	51 - 123
Benzo (g,h,i) perylene	1.67	1.08		mg/kg wet		65	49 - 121
Benzo (k) fluoranthene	1.67	1.75		mg/kg wet		105	42 - 129
Chrysene	1.67	1.55		mg/kg wet		93	55 - 120
Dibenz (a,h) anthracene	1.67	1.38		mg/kg wet		83	50 - 123
Fluoranthene	1.67	1.52		mg/kg wet		91	58 - 120
Fluorene	1.67	1.56		mg/kg wet		94	54 - 120
Indeno (1,2,3-cd) pyrene	1.67	1.38		mg/kg wet		83	50 - 122
Naphthalene	1.67	1.25		mg/kg wet		75	28 - 120
Phenanthrene	1.67	1.60		mg/kg wet		96	56 - 120
Pyrene	1.67	1.63		mg/kg wet		98	56 - 120
1-Methylnaphthalene	1.67	1.07		mg/kg wet		64	36 - 120
2-Methylnaphthalene	1.67	1.23		mg/kg wet		74	36 - 120

	LUS	LUS	
Surrogate	% Recovery	Qualifier	Limits
Terphenyl-d14	98		18 - 120
2-Fluorobiphenyl	75		14 - 120
Nitrobenzene-d5	66		17 - 120

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#### Lab Sample ID: 11E3953-MS1 Matrix: Soil Analysis Batch: 11E3953

#### Prep Batch: 11E3953\_P % Rec. Spike Matrix Spike Matrix Spike Sample Sample Analyte **Result** Qualifier Added **Result Qualifier** Unit % Rec Limits D 42 - 120 ND 1.63 1.24 76 Acenaphthene mg/kg wet 32 - 120 Acenaphthylene ND 1.63 1.07 mg/kg wet 66 ND 10 - 200 Anthracene 1.63 1.37 mg/kg wet 84 Benzo (a) anthracene 0.0452 1.63 1.41 mg/kg wet 84 41 - 120

Client Sample ID: NUE2525-01

Prep Type: Total

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

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

Lab Sample ID: 11E3953-MS1 Matrix: Soil								Client	Sample ID: NUE2525-01 Pren Type: Tota
Analysis Batch: 11E3953									Prep Batch: 11E3953 F
	Sample	Sample	Spike	Matrix Spike	Matrix Spil	ke			% Rec.
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	% Rec	Limits
Benzo (a) pyrene	0.0442		1.63	1.35		mg/kg wet		80	33 - 121
Benzo (b) fluoranthene	0.0514		1.63	1.51		mg/kg wet		89	26 - 137
Benzo (g,h,i) perylene	ND		1.63	1.24		mg/kg wet		76	21 - 124
Benzo (k) fluoranthene	0.0409		1.63	1.30		mg/kg wet		77	14 - 140
Chrysene	0.0602		1.63	1.40		mg/kg wet		82	28 - 123
Dibenz (a,h) anthracene	ND		1.63	1.27		mg/kg wet		78	25 - 127
Fluoranthene	0.0753		1.63	1.39		mg/kg wet		80	38 - 120
Fluorene	ND		1.63	1.35		mg/kg wet		83	41 - 120
Indeno (1,2,3-cd) pyrene	ND		1.63	1.25		mg/kg wet		77	25 - 123
Naphthalene	ND		1.63	1.10		mg/kg wet		67	25 - 120
Phenanthrene	0.0468		1.63	1.46		mg/kg wet		87	37 - 120
Pyrene	0.0995		1.63	1.56		mg/kg wet		89	29 - 125
1-Methylnaphthalene	ND		1.63	0.983		mg/kg wet		60	19 - 120
2-Methylnaphthalene	ND		1.63	1.11		mg/kg wet		68	11 - 120
	Matrix Spike	Matrix Spike							

Surrogate	% Recovery	Qualifier	Limits
Terphenyl-d14	85		18 - 120
2-Fluorobiphenyl	61		14 - 120
Nitrobenzene-d5	56		17 - 120

#### Lab Sample ID: 11E3953-MSD1 Matrix: Soil Analysis Batch: 11E3953

and a second second second	Sample	Sample	Spike	Matrix Spike Dup	Matrix Spil	ke Dup			% Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	% Rec	Limits	RPD	Limit
Acenaphthene	ND		1.62	1.26		mg/kg wet		77	42 - 120	1	40
Acenaphthylene	ND		1.62	1.06		mg/kg wet		65	32 - 120	0.9	30
Anthracene	ND		1.62	1.38		mg/kg wet		85	10 - 200	0.1	50
Benzo (a) anthracene	0.0452		1.62	1.40		mg/kg wet		84	41 - 120	0.6	30
Benzo (a) pyrene	0.0442		1.62	1.37		mg/kg wet		81	33 - 121	1	33
Benzo (b) fluoranthene	0.0514		1.62	1.48		mg/kg wet		88	26 - 137	2	42
Benzo (g,h,i) perylene	ND		1.62	1.28		mg/kg wet		79	21 - 124	3	32
Benzo (k) fluoranthene	0.0409		1.62	1.45		mg/kg wet		86	14 - 140	10	39
Chrysene	0.0602		1.62	1.41		mg/kg wet		83	28 - 123	0.6	34
Dibenz (a,h) anthracene	ND		1.62	1.29		mg/kg wet		79	25 - 127	2	31
Fluoranthene	0.0753		1.62	1.38		mg/kg wet		81	38 - 120	0.3	35
Fluorene	ND		1.62	1.37		mg/kg wet		84	41 - 120	0.9	37
Indeno (1,2,3-cd) pyrene	ND		1.62	1.30		mg/kg wet		80	25 - 123	4	32
Naphthalene	ND		1.62	1.14		mg/kg wet		70	25 - 120	4	42
Phenanthrene	0.0468		1.62	1.47		mg/kg wet		87	37 - 120	0.3	32
Pyrene	0.0995		1.62	1.68		mg/kg wet		97	29 - 125	8	40
1-Methylnaphthalene	ND		1.62	0.996		mg/kg wet		61	19 - 120	1	45
2-Methylnaphthalene	ND		1.62	1.12		mg/kg wet		69	11 - 120	0.5	50

	Matrix Spike Dup	Matrix Spike	e Dup
Surrogate	% Recovery	Qualifier	Limits
Terphenyl-d14	85		18 - 120
2-Fluorobiphenyl	59		14 - 120
Nitrobenzene-d5	56		17 - 120

#### Client Sample ID: NUE2525-01 Prep Type: Total

Prep Batch: 11E3953 P

TestAmerica Nashville 05/31/2011

And Park Inc.

#### Method: SW-846 - General Chemistry Parameters

Lab Sample ID: 11E6921-DUP1 Matrix: Soil						Cli	ent Sample ID: NUE24 Prep Type:	73-06 Total
Analysis Batch: 11E6921							Prep Batch: 11E6	921_P
	Sample	Sample	Duplicate	Duplicate				RPD
Analyte	Result	Qualifier	Result	Qualifier	Unit	D	RPD	Limit
% Dry Solids	76.7		78.1		%		2	20

### **QC Association Summary**

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

#### **GCMS Volatiles**

11E4988-MSD1

1421 Albatross

#### Analysis Batch: U008793

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11E4658-BS1	11E4658-BS1	Total	Soil	SW846 8260B	11E4658_P
11E4658-BSD1	11E4658-BSD1	Total	Soil	SW846 8260B	11E4658_P
11E4658-BLK1	11E4658-BLK1	Total	Soil	SW846 8260B	11E4658_P
11E4658-BLK2	11E4658-BLK2	Total	Soil	SW846 8260B	11E4658_P
NUE2542-01	1416 Albatross	Total	Soil	SW846 8260B	11E4658_P
NUE2542-02	1421 Albatross	Total	Soil	SW846 8260B	11E4658_P
NUE2542-03	1405 Eagle	Total	Soil	SW846 8260B	11E4658_P
NUE2542-04	1188 Bobwhite	Total	Soil	SW846 8260B	11E4658_P
11E4658-MS1	NUE2486-04RE1	Total	Soil	SW846 8260B	11E4658_P
11E4658-MSD1	NUE2486-04RE1	Total	Soil	SW846 8260B	11E4658_P
Analysis Batch: U008	857				
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11E4988-BS1	11E4988-BS1	Total	Soil	SW846 8260B	11E4988_P
11E4988-BLK1	11E4988-BLK1	Total	Soil	SW846 8260B	11E4988_P
11E4988-BLK2	11E4988-BLK2	Total	Soil	SW846 8260B	11E4988_P
NUE2542-03 - RE2	1405 Eagle	Total	Soil	SW846 8260B	11E4988_P
NUE2542-02 - RE1	1421 Albatross	Total	Soil	SW846 8260B	11E4988_P
NUE2542-01 - RE1	1416 Albatross	Total	Soil	SW846 8260B	11E4988_P
NUE2542-04 - RE1	1188 Bobwhite	Total	Soil	SW846 8260B	11E4988_P
11E4988-MS1	1421 Albatross	Total	Soil	SW846 8260B	11E4988_P
11E4988-MSD1	1421 Albatross	Total	Soil	SW846 8260B	11E4988_P
Prep Batch: 11E4658_	P				
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11E4658-BS1	11E4658-BS1	Total	Soil	EPA 5035	
11E4658-BSD1	11E4658-BSD1	Total	Soil	EPA 5035	
11E4658-BLK1	11E4658-BLK1	Total	Soil	EPA 5035	
11E4658-BLK2	11E4658-BLK2	Total	Soil	EPA 5035	
NUE2542-01	1416 Albatross	Total	Soil	EPA 5035	
NUE2542-02	1421 Albatross	Total	Soil	EPA 5035	
NUE2542-03	1405 Eagle	Total	Soil	EPA 5035	
NUE2542-04	1188 Bobwhite	Total	Soil	EPA 5035	
11E4658-MS1	NUE2486-04RE1	Total	Soil	EPA 5035	
11E4658-MSD1	NUE2486-04RE1	Total	Soil	EPA 5035	
Prep Batch: 11E4988_	P				
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11E4988-BS1	11E4988-BS1	Total	Soil	EPA 5035	
11E4988-BLK1	11E4988-BLK1	Total	Soil	EPA 5035	
11E4988-BLK2	11E4988-BLK2	Total	Soil	EPA 5035	
NUE2542-03 - RE2	1405 Eagle	Total	Soil	EPA 5035	
NUE2542-02 - RE1	1421 Albatross	Total	Soil	EPA 5035	
NUE2542-01 - RE1	1416 Albatross	Total	Soil	EPA 5035	
NUE2542-04 - RE1	1188 Bobwhite	Total	Soil	EPA 5035	
11E4988-MS1	1421 Albatross	Total	Soil	EPA 5035	

EPA 5035

Total

Soil

#### **QC Association Summary**

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

#### **GCMS Semivolatiles**

Analysis Batch: 11E3953	
Lab Sample ID	Client Sample ID

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11E3953-BLK1	11E3953-BLK1	Total	Soil	SW846 8270D	11E3953_P
11E3953-BS1	11E3953-BS1	Total	Soil	SW846 8270D	11E3953_P
11E3953-MS1	NUE2525-01	Total	Soil	SW846 8270D	11E3953_P
11E3953-MSD1	NUE2525-01	Total	Soil	SW846 8270D	11E3953_P
NUE2542-01	1416 Albatross	Total	Soil	SW846 8270D	11E3953_P
NUE2542-02	1421 Albatross	Total	Soil	SW846 8270D	11E3953_P
NUE2542-03	1405 Eagle	Total	Soil	SW846 8270D	11E3953_P
NUE2542-04	1188 Bobwhite	Total	Soil	SW846 8270D	11E3953_P

#### Analysis Batch: U008904

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
NUE2542-02 - RE1	1421 Albatross	Total	Soil	SW846 8270D	11E3953_P
NUE2542-02 - RE2	1421 Albatross	Total	Soil	SW846 8270D	11E3953_P

#### Prep Batch: 11E3953\_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11E3953-BLK1	11E3953-BLK1	Total	Soil	EPA 3550C	
11E3953-BS1	11E3953-BS1	Total	Soil	EPA 3550C	
11E3953-MS1	NUE2525-01	Total	Soil	EPA 3550C	
11E3953-MSD1	NUE2525-01	Total	Soil	EPA 3550C	
NUE2542-01	1416 Albatross	Total	Soil	EPA 3550C	
NUE2542-02	1421 Albatross	Total	Soil	EPA 3550C	
NUE2542-03	1405 Eagle	Total	Soil	EPA 3550C	
NUE2542-04	1188 Bobwhite	Total	Soil	EPA 3550C	
NUE2542-02 - RE1	1421 Albatross	Total	Soil	EPA 3550C	
NUE2542-02 - RE2	1421 Albatross	Total	Soil	EPA 3550C	

#### Extractions

#### Analysis Batch: 11E6921

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11E6921-DUP1	NUE2473-06	Total	Soil	SW-846	11E6921_P
NUE2542-01	1416 Albatross	Total	Soil	SW-846	11E6921_P
NUE2542-02	1421 Albatross	Total	Soil	SW-846	11E6921_P
NUE2542-03	1405 Eagle	Total	Soil	SW-846	11E6921_P
NUE2542-04	1188 Bobwhite	Total	Soil	SW-846	11E6921_P

#### Prep Batch: 11E6921\_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11E6921-DUP1	NUE2473-06	Total	Soil	% Solids	
NUE2542-01	1416 Albatross	Total	Soil	% Solids	
NUE2542-02	1421 Albatross	Total	Soil	% Solids	
NUE2542-03	1405 Eagle	Total	Soil	% Solids	
NUE2542-04	1188 Bobwhite	Total	Soil	% Solids	

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

#### Client Sample ID: 1416 Albatross Date Collected: 05/09/11 16:00 Date Received: 05/14/11 09:00

#### Lab Sample ID: NUE2542-01 Matrix: Soil Percent Solids: 89.6

Lab Sample ID: NUE2542-02

Matrix: Soil

Percent Solids: 84.2

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	Or Analyzed	Analyst	Lab
Total	Prep	EPA 5035		1.14	11E4658_P	05/09/11 16:00	СНН	TAL NSH
Total	Analysis	SW846 8260B		1.00	U008793	05/18/11 15:05	KKK	TAL NSH
Total	Prep	EPA 5035	RE1	1.18	11E4988_P	05/09/11 16:00	СНН	TAL NSH
Total	Analysis	SW846 8260B	RE1	1.00	U008857	05/19/11 16:08	ККК	TAL NSH
Total	Prep	EPA 3550C		0.995	11E3953_P	05/17/11 12:15	JJR	TAL NSH
Total	Analysis	SW846 8270D		1.00	11E3953	05/20/11 00:32	KJP	TAL NSH
Total	Prep	% Solids		1.00	11E6921_P	05/27/11 09:56	AMS	TAL NSH
Total	Analysis	SW-846		1.00	11E6921	05/31/11 14:46	AMS	TAL NSH

#### Client Sample ID: 1421 Albatross Date Collected: 05/10/11 10:45 Date Received: 05/14/11 09:00

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	Or Analyzed	Analyst	Lab
Total	Prep	EPA 5035		0.746	11E4658_P	05/10/11 10:45	СНН	TAL NSH
Total	Analysis	SW846 8260B		1.00	U008793	05/18/11 15:34	ккк	TAL NSH
Total	Prep	EPA 5035	RE1	0.778	11E4988_P	05/10/11 10:45	СНН	TAL NSH
Total	Analysis	SW846 8260B	RE1	50.0	U008857	05/19/11 15:38	ККК	TAL NSH
Total	Prep	EPA 3550C		0.983	11E3953_P	05/17/11 12:15	JJR	TAL NSH
Total	Analysis	SW846 8270D		1.00	11E3953	05/20/11 00:53	KJP	TAL NSH
Total	Prep	EPA 3550C	RE1	0.983	11E3953_P	05/17/11 12:15	JJR	TAL NSH
Total	Analysis	SW846 8270D	RE1	10.0	U008904	05/21/11 17:40	KJP	TAL NSH
Total	Prep	EPA 3550C	RE2	0.983	11E3953_P	05/17/11 12:15	JJR	TAL NSH
Total	Analysis	SW846 8270D	RE2	20.0	U008904	05/21/11 18:00	KJP	TAL NSH
Total	Prep	% Solids		1.00	11E6921_P	05/27/11 09:56	AMS	TAL NSH
Total	Analysis	SW-846		1.00	11E6921	05/31/11 14:46	AMS	TAL NSH

#### Client Sample ID: 1405 Eagle Date Collected: 05/10/11 15:15 Date Received: 05/14/11 09:00

#### Lab Sample ID: NUE2542-03 Matrix: Soil Percent Solids: 88.6

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	Or Analyzed	Analyst	Lab
Total	Prep	EPA 5035		1.13	11E4658_P	05/10/11 15:15	СНН	TAL NSH
Total	Analysis	SW846 8260B		1.00	U008793	05/18/11 16:04	ккк	TAL NSH
Total	Prep	EPA 5035	RE2	1.04	11E4988_P	05/10/11 15:15	СНН	TAL NSH
Total	Analysis	SW846 8260B	RE2	50.0	U008857	05/19/11 14:10	ККК	TAL NSH
Total	Prep	EPA 3550C		0.988	11E3953_P	05/17/11 12:15	JJR	TAL NSH
Total	Analysis	SW846 8270D		1.00	11E3953	05/20/11 01:13	KJP	TAL NSH
Total	Prep	% Solids		1.00	11E6921_P	05/27/11 09:56	AMS	TAL NSH
Total	Analysis	SW-846		1.00	11E6921	05/31/11 14:46	AMS	TAL NSH

#### Lab Chronicle

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

#### Lab Sample ID: NUE2542-04 Matrix: Soil Percent Solids: 87.3

#### Client Sample ID: 1188 Bobwhite Date Collected: 05/12/11 12:15 Date Received: 05/14/11 09:00

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	Or Analyzed	Analyst	Lab
Total	Prep	EPA 5035		0.909	11E4658_P	05/12/11 12:15	СНН	TAL NSH
Total	Analysis	SW846 8260B		1.00	U008793	05/18/11 16:33	ККК	TAL NSH
Total	Prep	EPA 5035	RE1	0.945	11E4988_P	05/12/11 12:15	СНН	TAL NSH
Total	Analysis	SW846 8260B	RE1	1.00	U008857	05/19/11 16:37	ККК	TAL NSH
Total	Prep	EPA 3550C		0.990	11E3953_P	05/17/11 12:15	JJR	TAL NSH
Total	Analysis	SW846 8270D		1.00	11E3953	05/20/11 01:34	KJP	TAL NSH
Total	Prep	% Solids		1.00	11E6921_P	05/27/11 09:56	AMS	TAL NSH
Total	Analysis	SW-846		1.00	11E6921	05/31/11 14:46	AMS	TAL NSH

#### Laboratory References:

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

#### **Method Summary**

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

Protocol	Laboratory
	TAL NSH
	TAL NSH
	TAL NSH
	Protocol

#### **Protocol References:**

Laboratory References:

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

### **Certification Summary**

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

R

Authority	Program	EPA Region	Certification ID
	AIHA		100790
	USDA		S-48469
A2LA	ISO/IEC 17025	0	0453.07
A2LA	WY UST	0	453.07
Alabama	State Program	4	41150
Alaska	Alaska UST	10	UST-087
Arizona	State Program	9	AZ0473
Arkansas	State Program	6	88-0737
CALA	CALA	0	3744
California	NELAC	9	1168CA
Colorado	State Program	8	N/A
Connecticut	State Program	1	PH-0220
Florida	NELAC	4	E87358
Illinois	NELAC	5	200010
Iowa	State Program	7	131
Kansas	NELAC	7	E-10229
Kentucky	Kentucky UST	4	19
Kentucky	State Program	4	90038
Louisiana	NELAC	6	LA100011
Louisiana	NELAC	6	30613
Maryland	State Program	3	316
Massachusetts	State Program	1	M-TN032
Minnesota	NELAC	5	047-999-345
Mississippi	State Program	4	N/A
Montana	MT DEQ UST	8	NA
Nevada	State Program	9	TN00032
New Hampshire	NELAC	1	2963
New Jersey	NELAC	2	TN965
New York	NELAC	2	11342
North Carolina	North Carolina DENR	4	387
North Dakota	State Program	8	R-146
Ohio	OVAP	5	CL0033
Oklahoma	State Program	6	9412
Oregon	NELAC	10	TN200001
Pennsylvania	NELAC	3	68-00585
Rhode Island	State Program	1	LAO00268
South Carolina	State Program	4	84009
South Carolina	State Program	4	84009
Tennessee	State Program	4	2008
Texas	NELAC	6	T104704077-09-TX
Utah	NELAC	8	TAN
Virginia	State Program	3	00323
Washington	State Program	10	C789
West Virginia	West Virginia DEP	3	219
TTOOL THISHIG		~	
	AuthorityA2LAA2LAAlabamaAlaskaArizonaArkansasCALACaliforniaColoradoConnecticutFloridaIllinoisIowaKansasKentuckyKentuckyLouisianaLouisianaLouisianaMarylandMassachusettsMinnesotaMississippiMontanaNevadaNew HampshireNew JerseyNew YorkNorth DakotaOhioOklahomaOregonPennsylvaniaRhode IslandSouth CarolinaSouth CarolinaSouth CarolinaWashingtonWashington	AuthorityProgramAIHAUSDAA2LAISO/IEC 17025A2LAWY USTAlabamaState ProgramAlaskaAlaska USTAnizonaState ProgramArkansasState ProgramCALACALACaliforniaNELACColoradoState ProgramConnecticutState ProgramFloridaNELACIllinoisNELACIllinoisNELACIllinoisNELACIllinoisNELACIllinoisNELACIllinoisNELACIllinoisNELACIllinoisNELACIllinoisNELACIllinoisNELACIllinoisNELACIllinoisNELACIllinoisNELACIllinoisNELACIllinoisNELACIllinoisNELACMarylandState ProgramMassachusettsState ProgramMinnesotaNELACMississippiState ProgramMontanaMT DEQ USTNew daState ProgramNew HampshireNELACNorth CarolinaNorth Carolina DENRNorth DakotaState ProgramOhioOVAPOklahomaState ProgramSouth CarolinaState ProgramSouth CarolinaState ProgramSouth CarolinaState ProgramSouth CarolinaState ProgramSouth CarolinaState ProgramSouth CarolinaState Program </td <td>AuthorityProgramEPA RegionAIHA USDAA2LAUSOAA2LAUSOAAlabamaStol/EC 170250AlabamaState Program4AlaskaAlaska UST10AizonaState Program9ArkansasState Program6CaloradoState Program6CaliforniaNELAC9ColoradoState Program8ConnecticutState Program1FioridaNELAC4IlinoisNELAC4IlinoisNELAC5IowaState Program7KansasNELAC7KentuckyKentucky UST4LouisianaNELAC6LouisianaNELAC6MarylandState Program3MinnesotaNELAC5MissisippiState Program4MontanaMT DEQ UST8NevadaState Program9New JarsphireNELAC2New JarsphireNELAC2New JarsphireNELAC2New JarsphireNELAC2New JarsphireNELAC3New JarsphireNELAC3New JarsphireNetLAC3New JarsphireNetLAC3New JarsphireNetLAC3New JarsphireNetLAC3New JarsphireNetLAC3North CarolinaState Program4<tr< td=""></tr<></td>	AuthorityProgramEPA RegionAIHA USDAA2LAUSOAA2LAUSOAAlabamaStol/EC 170250AlabamaState Program4AlaskaAlaska UST10AizonaState Program9ArkansasState Program6CaloradoState Program6CaliforniaNELAC9ColoradoState Program8ConnecticutState Program1FioridaNELAC4IlinoisNELAC4IlinoisNELAC5IowaState Program7KansasNELAC7KentuckyKentucky UST4LouisianaNELAC6LouisianaNELAC6MarylandState Program3MinnesotaNELAC5MissisippiState Program4MontanaMT DEQ UST8NevadaState Program9New JarsphireNELAC2New JarsphireNELAC2New JarsphireNELAC2New JarsphireNELAC2New JarsphireNELAC3New JarsphireNELAC3New JarsphireNetLAC3New JarsphireNetLAC3New JarsphireNetLAC3New JarsphireNetLAC3New JarsphireNetLAC3North CarolinaState Program4 <tr< td=""></tr<>

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



1

#### ATTACHMENT A

	1. Generator's L	JS EPA ID No.	Ma	anifest Doc I	No.	2. Page 1	of	1		1
NUN-HAZARDOUS MANIFEST						1				
Generator's Mailing Address: MCAS, BEAUFORT		Generator's Site	tor's Site Address (If different than mailing):			A. Manife	st Number	00016010		
AUREL BAY HOUSING						VV	R State		10	
BEAUFORT, SC 29907	2					States -	B. State	Senerator s	ID	
Generator's Phone 843-2	28-6461				a service		15131	1010	1	14
. Transporter 1 Company Name		6.	US EPA I	0 Number				-	18 1 14	
EG, INC.		1				C. State T	ransporter's II	0 0 1 2 0	270 041	1
. Transporter 2 Company Name	ransporter 2 Company Name 8.			) Number		D. Transp	orter's Phone	043-0	575-041.	1
						E. State T	ransporter's II	D	To Care	5.0
	and and		17.22			F. Transpo	orter's Phone	1020616	- 12 TO	20
Designated Facility Name and Site Address			US EPA	ID Number		ALC RA				
		1. 1. 1. 1				G. State F	acility ID	042 (	07 4645	2
RIDGELAND SC 29936			E CROWNER		Contraction of the	H. State F	acility Phone	843-5	987-464:	3
			Sus Filt	A TANK ME	The lit	- Assister		State of the second	17/-24	
1. Description of Waste Materials	ALC: NO	Streen St.		12. Co	Type	13. Total Quantity	14. Unit Wt./Vol.	I. N	lisc. Commen	its
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WM Profile #	Park Contractor	- Part -	10 10	Same	1	Shake 15	10 M	The Street	125-32	
Additional Descriptions for Mater	ials Listed Above			K. Dispos	al Location					
				Cell			the state of the s	Level		-
				Grid		-	194	LEVEI	TANK L	-
5. Special Handling Instructions and	Additional Inform	ation A /ha	1	4) 14	105 Ex	15/e				
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urchase Order #	the second second	EME	ERGENCY CO	NTACT / PHO	ONE NO.:	Seven and		-	1111	-
6. GENERATOR'S CERTIFICATE:	and materials are	nat hazardaur um	stor ar dofin	od by CEP D	art 261 or 1		o stato law, h	ave been fu	llwand	
ccurately described, classified and pa	ackaged and are in	proper condition	for transpo	rtation acco	rding to ap	plicable regu	lations.	ave been tu	ily and	
ripted Name	_	Signatu	re "On beha	If of"	21	1.11111111	TO Sha	Month	Day	
Charles Alerron	of Dessint of Mat		harles	t.	ger	~		15	11	
Printed Name	or receipt of wat	Signatu	ire	Res de			1.1	Month	Dav	-
JAMES Baldw	. ~	Ge	min	Bald	him		A BAR	5	12	T
8. Transporter 2 Acknowledgement	of Receipt of Mat	erials			The second				100	
Printed Name	NY SALE	Signatu	ure	1		The second		Month	Day	
Mart States Street		A CONTRACT		15 24	1415			10,000		-
9. Certificate of Final Treatment/Dis	posal	1 12 14	5.00	ALL THE				12. 300	122	
certify, on behalf of the above listed	treatment facility	, that to the best	of my knowle	edge, the ab	ove-describ	bed waste w	as managed i	n compliant	e with all	
the second se	and licenses on the	e dates listed abo	ve.	-		100 Contra	and a literation	N Call	15 145 21	
pplicable laws, regulations, permits a	fication of receipt	of non hararde	matoriale e	avorad but th	IIC manifor					
pplicable laws, regulations, permits a 0. Facility Owner or Operator: Certi Printed Name	fication of receipt	of non-hazardou	s materials co ure	overed by th	nis manifest	0	1	Month	Day	

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Attachment 1

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South Carolina Department of Health and Environmental Control (SCDHEC) Underground Storage Tank (UST) Assessment Report

Date Received		~	
	State	se Oply	T
	13	and the second	IJ
	C	ICT 2 3 2014	3

SC DHEC - Bureau of Land & Waste Management Submit Completed Form To: UST Program SCDHEC 2600 Bull Street Columbia, South Carolina 29201 Telephone (803) 896-7957

#### I. OWNERSHIP OF UST (S)

MCAS Beaufort, Co	mmanding Officer Attn: N	REAO (Craig Ehde)
Owner Name (Corporation	n, 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 #	<u> </u>				
Laurel Bay Milita	ry Housing Area, Mar	ine Corps Air	Station,	Beaufort, SC	2
Facility Name or Company	Site Identifier				
1421 Albatross D	rive, Laurel Bay Mil:	tary Housing	Area		
Street Address or State Ro	ad (as applicable)				
Beaufort,	Beaufort				
City	County				
				1	

Attachment 2

#### **III. INSURANCE INFORMATION**

#### **Insurance Statement**

The petroleum release reported to DHEC on \_\_\_\_\_\_ at Permit ID Number \_\_\_\_\_ may qualify to receive state monies to pay for appropriate site rehabilitation activities. Before participation is allowed in the State Clean-up fund, written confirmation of the existence or non-existence of an environmental insurance policy is required. This section must be completed.

Is there now, or has there ever been an insurance policy or other financial mechanism that covers this UST release? YES\_\_\_\_ NO\_\_\_\_ (check one)

If you answered **YES** to the above question, please complete the following information:

My policy provider is:\_\_\_\_\_ The policy deductible is: \_\_\_\_\_ The policy limit is:

If you have this type of insurance, please include a copy of the policy with this report.

#### IV. REQUEST FOR SUPERB FUNDING

1 DO / DO NOT wish to participate in the SUPERB Program. (Circle one.)

#### V. CERTIFICATION (To be signed by the UST owner)

I certify that I have personally examined and am familiar with the information submitted in this and all attached documents; and that based on my inquiry of those individuals responsible for obtaining this information, I believe that the submitted information is true, accurate, and complete.

Name (Type or print.)

Signature

To be completed by Notary Public:

Sworn before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_

(Name)

Notary Public for the state of \_\_\_\_\_\_. Please affix State seal if you are commissioned outside South Carolina

### VI. UST INFORMATION

		AIDACIUSS
A.	Product(ex. Gas, Kerosene)	Heating oil
B.	Capacity(ex. 1k, 2k)	280 gal
C.	Age	Late 1950s
D.	Construction Material(ex. Steel, FRP)	Steel
Е·	Month/Year of Last Use	Mid 80s
F.	Depth (ft.) To Base of Tank	6'3"
G.	Spill Prevention Equipment Y/N	No
H	Overfill Prevention Equipment Y/N	No
I,	Method of Closure Removed/Filled	Removed
J.	Date Tanks Removed/Filled	3/5/2013
K.	Visible Corrosion or Pitting Y/N	Yes
L.	Visible Holes Y/N	Yes

1421

M. Method of disposal for any USTs removed from the ground (attach disposal manifests) UST 1421Albatross was removed from the ground, cleaned and recycled.

See Attachment "A".

N. Method of disposal for any liquid petroleum, sludges, or wastewaters removed from the USTs (attach disposal manifests)

Contaminated water was pumped from the tank and disposed by MCAS.

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

## VII. PIPING INFORMATION

		1421 Albatross
		Steel
A.	Construction Material(ex. Steel, FRP)	& Copper
B.	Distance from UST to Dispenser	N/A
C.	Number of Dispensers	N/A
D.	Type of System Pressure or Suction	Suction
E.	Was Piping Removed from the Ground? Y/N	No
F.	Visible Corrosion or Pitting Y/N	Yes
G.	Visible Holes Y/N	No
H.	Age	Late 1950s
I.	If any corrosion, pitting, or holes were observed,	describe the location and extent for each piping run.

Corrosion and pitting were found on the surface of the steel vent pipe. Copper supply and return lines were sound.

#### **VIII. BRIEF SITE DESCRIPTION AND HISTORY**

The USTs at the residences are constructed of single wall steel and formerly contained fuel oil for heating. These USTs were installed in the late 1950s and last used in the mid 1980s.

	Yes	No	Unk
A. Were any petroleum-stained or contaminated soils found in the UST excavation, soil borings, trenches, or monitoring wells?		x	
If yes, indicate depth and location on the site map.		_	
B. Were any petroleum odors detected in the excavation, soil borings, trenches, or monitoring wells?		x	
If yes, indicate location on site map and describe the odor (strong, mild, etc.)			
C. Was water present in the UST excavation, soil borings, or trenches?		х	
If yes, how far below land surface (indicate location and depth)?			
D. Did contaminated soils remain stockpiled on site after closure?		x	
If yes, indicate the stockpile location on the site map.			
Name of DHEC representative authorizing soil removal:			1
E. Was a petroleum sheen or free product detected on any excavation or boring waters?		x	
If yes, indicate location and thickness.			_

# IX. SITE CONDITIONS

# X. SAMPLE INFORMATION

# A. SCDHEC Lab Certification Number 84009

Β.

Sample #	Location	Sample Type (Soil/Water)	Soil Type (Sand/Clay)	Depth*	Date/Time of Collection	Collected by	OVA #
1421 Albatros	Excav at fill end	Soil	Sand	6'3"	3/5/13 1445 hrs	P. Shaw	
	1 44 4 4	1					
					-		<u> </u>
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\* = Depth Below the Surrounding Land Surface

#### XI. SAMPLING METHODOLOGY

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

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

# XII. RECEPTORS

		Yes	No
A.	Are there any lakes, ponds, streams, or wetlands located within 1000 feet of the UST system? *Stormwater drainage	*X canal	
	If yes, indicate type of receptor, distance, and direction on site map.		
В.	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, water, electricity	*X	
	cable, fiber optic & geother If yes, indicate the type of utility, distance, and direction on the site map.	rmal	
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)








Picture 1: Location of UST 1421Albatross.



Picture 2: UST 1421Albatross being removed from the excavation.

# XIV. SUMMARY OF ANALYSIS RESULTS

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

CoC UST	1421Albatross	
Benzene	0.489 mg/kg	1 m
Toluene	0.0602 mg/kg	
Ethylbenzene	5.50 mg/kg	
Xylenes	17.6 mg/kg	
Naphthalene	53.5 mg/kg	
Benzo (a) anthracene	ND	
Benzo (b) fluoranthene	ND	
Benzo (k) fluoranthene	ND	
Chrysene	ND	
Dibenz (a, h) anthracene	ND	
TPH (EPA 3550)		
CoC		
Benzene		
Toluene		
Ethylbenzene		
Xylenes		
Naphthalene		
Benzo (a) anthracene		
Benzo (b) fluoranthene		
Benzo (k) fluoranthene		
Chrysene		
Dibenz (a, h) anthracene		
TPH (EPA 3550)		

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

CoC	RBSL (µg/l)	W-1	W-2	W -3	W -4
Free Product Thickness	None				
Benzene	5				
Toluene	1,000		1		
Ethylbenzene	700				
Xylenes	10,000				
Total BTEX	N/A		6 1.		
МТВЕ	40				
Naphthalene	25				
Benzo (a) anthracene	10				
Benzo (b) flouranthene	10				
Benzo (k) flouranthene	10				
Chrysene	10			1000	
Dibenz (a, h) anthracene	10				
EDB	.05				
1,2-DCA	5				
Lead	Site specific				

# XV. ANALYTICAL RESULTS

You must submit the laboratory report and chain-of-custody form for the samples. These samples must be analyzed by a South Carolina certified laboratory.

(Attach Certified Analytical Results and Chain-of-Custody Here) (Please see Form #4)



THE LEADER IN ENVIRONMENTAL TESTING

# **ANALYTICAL REPORT**

TestAmerica Laboratories, Inc. TestAmerica Nashville 2960 Foster Creighton Drive Nashville, TN 37204 Tel: (615)726-0177

TestAmerica Job ID: 490-21711-1 Client Project/Site: Laurel Bay Housing Project

For: Environmental Enterprise Group 10179 Highway 78 Ladson, South Carolina 29456

Attn: Mr. Tom McElwee

Kuth Hay

Authorized for release by: 3/27/2013 10:40:14 AM

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

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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# Sample Summary

#### Client: Environmental Enterprise Group Project/Site: Laurel Bay Housing Project

#### TestAmerica Job ID: 490-21711-1

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13

ab Sample ID	Client Sample ID	Matrix	Collected	Received
90-21711-1	1375 Dove	Solid	03/05/13 13:35	03/13/13 08:10
90-21711-2	710 Bluebell	Solid	03/06/13 11:30	03/13/13 08:10
90-21711-3	643 Dahlia - a	Solid	03/07/13 14:05	03/13/13 08:10
90-21711-4	1421 Albatross	Solid	03/05/13 14:45	03/13/13 08:10
90-21711-5	715 Bluebell	Solid	03/06/13 14:30	03/13/13 08:10
90-21711-6	1256 Dove	Solid	03/07/13 15:00	03/13/13 08:10

#### Job ID: 490-21711-1

#### Laboratory: TestAmerica Nashville

Narrative

Job Narrative 490-21711-1

#### Comments

No additional comments.

#### Receipt

The samples were received on 3/13/2013 8:10 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.3° C.

#### GC/MS VOA

Method(s) 8260B: Due to sample matrix effect on the internal standard (ISTD), a dilution was required for the following sample(s): 1421 Albatross (490-21711-4).

Method(s) 8260B: Surrogate recovery for the following sample(s) was outside control limits: 1421 Albatross (490-21711-4). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method(s) 8260B: MS/MSD for batch 65345 was not reportable due to failing internal standards. See LCS/LCSD for batch precision.

Method(s) 8260B: Surrogate recovery for the following sample(s) was outside control limits: 1421 Albatross (490-21711-4). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method(s) 8260B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with batch 65720.

No other analytical or quality issues were noted.

#### GC/MS Semi VOA

Method(s) 8270D: The following sample(s) was diluted due to the nature of the sample matrix: 1421 Albatross (490-21711-4). Elevated reporting limits (RLs) are provided.

Method(s) 8270D: Due to sample matrix effect on the internal standard (ISTD)of the 1x, a dilution was required for the following sample(s): 1421 Albatross (490-21711-4).

No other analytical or quality issues were noted.

#### **Organic Prep**

No analytical or quality issues were noted.

#### VOA Prep

No analytical or quality issues were noted.

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# **Definitions/Glossary**

Client: Environmental Enterprise Group Project/Site: Laurel Bay Housing Project

#### TestAmerica Job ID: 490-21711-1

# Qualifiers

quanners		
GC/MS VO	A	
Qualifier	Qualifier Description	
x	Surrogate is outside control limits	
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.	
GC/MS Sen	emi VOA	
Qualifier	Qualifier Description	
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.	

#### Glossary

Qualifiers		
GC/MS VOA		
Qualifier	Qualifier Description	· · · ·
x	Surrogate is outside control limits	
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.	Э
GC/MS Semi	VOA	8
Qualifier	Qualifier Description	
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.	
Glossary		8
Abbreviation	These commonly used abbreviations may or may not be present in this report.	0
a	Listed under the "D" column to designate that the result is reported on a dry weight basis	-
%R	Percent Recovery	
CNF	Contains no Free Liquid	
DER	Duplicate error ratio (normalized absolute difference)	
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample	
DLC	Decision level concentration	100
MDA	Minimum detectable activity	12
EDL	Estimated Detection Limit	
MDC	Minimum detectable concentration	13
MDL	Method Detection Limit	
ML	Minimum Level (Dioxin)	
ND	Not detected at the reporting limit (or MDL or EDL if shown)	
PQL	Practical Quantitation Limit	
QC	Quality Control	
RER	Relative error ratio	
RL	Reporting Limit or Requested Limit (Radiochemistry)	
RPD	Relative Percent Difference, a measure of the relative difference between two points	
TEF	Toxicity Equivalent Factor (Dioxin)	
TEQ	Toxicity Equivalent Quotient (Dioxin)	

#### Client Sample ID: 1375 Dove

Date Collected: 03/05/13 13:35 Date Received: 03/13/13 08:10

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00232	0.000776	mg/Kg	53	03/14/13 17:05	03/15/13 17:59	1
Ethylbenzene	ND		0.00232	0.000776	mg/Kg	12	03/14/13 17:05	03/15/13 17:59	1
Naphthalene	ND		0.00579	0.00197	mg/Kg	327	03/14/13 17:05	03/15/13 17:59	1
Toluene	ND		0.00232	0.000858	mg/Kg	12	03/14/13 17:05	03/15/13 17:59	1
Xylenes, Total	ND		0.00579	0.000776	mg/Kg	13	03/14/13 17:05	03/15/13 17:59	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109		70 - 130				03/14/13 17:05	03/15/13 17:59	1
4-Bromofluorobenzene (Surr)	105		70 - 130				03/14/13 17:05	03/15/13 17:59	1
Dibromofluoromethane (Surr)	98		70 - 130				03/14/13 17:05	03/15/13 17:59	1
Toluene-d8 (Surr)	106		70 - 130				03/14/13 17:05	03/15/13 17:59	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0830	0.0124	mg/Kg	10	03/15/13 06:52	03/15/13 18:22	1
Acenaphthylene	ND		0.0830	0.0111	mg/Kg	12	03/15/13 06:52	03/15/13 18:22	1
Anthracene	ND		0.0830	0.0111	mg/Kg	12	03/15/13 06:52	03/15/13 18:22	1
Benzo[a]anthracene	ND		0.0830	0.0186	mg/Kg	102	03/15/13 06:52	03/15/13 18:22	1
Benzo[a]pyrene	ND		0.0830	0.0149	mg/Kg	63	03/15/13 06:52	03/15/13 18:22	1
Benzo[b]fluoranthene	ND		0.0830	0.0149	mg/Kg	12	03/15/13 06:52	03/15/13 18:22	1
Benzo[g,h,i]perylene	ND		0.0830	0.0111	mg/Kg	12	03/15/13 06:52	03/15/13 18:22	1
Benzo[k]fluoranthene	ND		0.0830	0.0173	mg/Kg	C2	03/15/13 06:52	03/15/13 18:22	1
1-Methylnaphthalene	ND		0.0830	0.0173	mg/Kg	12	03/15/13 06:52	03/15/13 18:22	1
Pyrene	ND		0.0830	0.0149	mg/Kg	12	03/15/13 06:52	03/15/13 18:22	1
Phenanthrene	ND		0.0830	0.0111	mg/Kg	52	03/15/13 06:52	03/15/13 18:22	1
Chrysene	ND		0.0830	0.0111	mg/Kg	¢1	03/15/13 06:52	03/15/13 18:22	1
Dibenz(a,h)anthracene	ND		0.0830	0.00867	mg/Kg	10	03/15/13 06:52	03/15/13 18:22	1
Fluoranthene	ND		0.0830	0.0111	mg/Kg	12	03/15/13 06:52	03/15/13 18:22	1
Fluorene	ND		0.0830	0.0149	mg/Kg	12	03/15/13 06:52	03/15/13 18:22	1
Indeno[1,2,3-cd]pyrene	ND		0.0830	0.0124	mg/Kg	Ω	03/15/13 06:52	03/15/13 18:22	1
Naphthalene	ND		0.0830	0.0111	mg/Kg	n	03/15/13 06:52	03/15/13 18:22	1
2-Methylnaphthalene	ND		0.0830	0.0198	mg/Kg	8 <b>7</b> .	03/15/13 06:52	03/15/13 18:22	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	51		29 - 120				03/15/13 06:52	03/15/13 18:22	1
Terphenyl-d14 (Surr)	76		13 - 120				03/15/13 06:52	03/15/13 18:22	1
Nitrobenzene-d5 (Surr)	52		27 - 120				03/15/13 06:52	03/15/13 18:22	1
General Chemistry									
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	80		0.10	0.10	%			03/15/13 08:19	1

TestAmerica Job ID: 490-21711-1

#### Lab Sample ID: 490-21711-1

Matrix: Solid Percent Solids: 80.0

TestAmerica Nashville

3

#### Client Sample ID: 710 Bluebell

Date Collected: 03/06/13 11:30 Date Received: 03/13/13 08:10

Method: 8260B - Volatile Organi	c Compounds	(GC/MS)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00276	0.000926	mg/Kg	52	03/14/13 17:05	03/15/13 18:26	1
Ethylbenzene	ND		0.00276	0.000926	mg/Kg	5,2	03/14/13 17:05	03/15/13 18:26	1
Naphthalene	ND		0.00691	0.00235	mg/Kg	25	03/14/13 17:05	03/15/13 18:26	1
Toluene	ND		0.00276	0.00102	mg/Kg	22	03/14/13 17:05	03/15/13 18:26	1
Xylenes, Total	ND		0.00691	0.000926	mg/Kg	D	03/14/13 17:05	03/15/13 18:26	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		70 - 130				03/14/13 17:05	03/15/13 18:26	1
4-Bromofluorobenzene (Surr)	105		70 - 130				03/14/13 17:05	03/15/13 18:26	1
Dibromofluoromethane (Surr)	98		70 - 130				03/14/13 17:05	03/15/13 18:26	1
Toluene-d8 (Surr)	105		70 - 130				03/14/13 17:05	03/15/13 18:26	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0796	0.0119	mg/Kg	82	03/15/13 06:52	03/15/13 18:44	1
Acenaphthylene	ND		0.0796	0.0107	mg/Kg	52	03/15/13 06:52	03/15/13 18:44	1
Anthracene	0.0153	J	0.0796	0.0107	mg/Kg	12	03/15/13 06:52	03/15/13 18:44	1
Benzo[a]anthracene	0.140		0.0796	0.0178	mg/Kg	£	03/15/13 06:52	03/15/13 18:44	1
Benzo[a]pyrene	0.136		0.0796	0.0143	mg/Kg	121	03/15/13 06:52	03/15/13 18:44	1
Benzo[b]fluoranthene	0.252		0.0796	0.0143	mg/Kg	Q	03/15/13 06:52	03/15/13 18:44	1
Benzo[g,h,i]perylene	0.109		0.0796	0.0107	mg/Kg	Ø	03/15/13 06:52	03/15/13 18:44	1
Benzo[k]fluoranthene	0.104		0.0796	0.0166	mg/Kg	12	03/15/13 06:52	03/15/13 18:44	1
1-Methylnaphthalene	ND		0.0796	0.0166	mg/Kg	Ω	03/15/13 06:52	03/15/13 18:44	1
Pyrene	0.280		0.0796	0.0143	mg/Kg	jaj	03/15/13 06:52	03/15/13 18:44	1
Phenanthrene	0.136		0.0796	0.0107	mg/Kg	22	03/15/13 06:52	03/15/13 18:44	1
Chrysene	0.225		0.0796	0.0107	mg/Kg	n	03/15/13 06:52	03/15/13 18:44	1
Dibenz(a,h)anthracene	0.0244	J	0.0796	0.00831	mg/Kg	Ð	03/15/13 06:52	03/15/13 18:44	1
Fluoranthene	0.397		0.0796	0.0107	mg/Kg	0	03/15/13 06:52	03/15/13 18:44	1
Fluorene	ND		0.0796	0.0143	mg/Kg	13	03/15/13 06:52	03/15/13 18:44	1
Indeno[1,2,3-cd]pyrene	0.0938		0.0796	0.0119	mg/Kg	A	03/15/13 06:52	03/15/13 18:44	1
Naphthalene	ND		0.0796	0.0107	mg/Kg	12	03/15/13 06:52	03/15/13 18:44	1
2-Methylnaphthalene	ND		0.0796	0.0190	mg/Kg	a	03/15/13 06:52	03/15/13 18:44	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	54		29 - 120				03/15/13 06:52	03/15/13 18:44	1
Terphenyl-d14 (Surr)	66		13 - 120				03/15/13 06:52	03/15/13 18:44	1
Nitrobenzene-d5 (Surr)	49		27 - 120				03/15/13 06:52	03/15/13 18:44	1
General Chemistry									
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	83		0.10	0.10	%			03/15/13 08:19	1

TestAmerica Job ID: 490-21711-1

## Lab Sample ID: 490-21711-2

Matrix: Solid Percent Solids: 82.7

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# **Client Sample Results**

Client: Environmental Enterprise Group Project/Site: Laurel Bay Housing Project

#### Client Sample ID: 643 Dahlia - a

Date Collected: 03/07/13 14:05 Date Received: 03/13/13 08:10

Method: 8260B - Volatile Orga	nic Compounds	(GC/MS)								-
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	5
Benzene	ND		0.00200	0.000669	mg/Kg	12	03/14/13 17:05	03/15/13 18:54	1	
Ethylbenzene	ND		0.00200	0.000669	mg/Kg	窥	03/14/13 17:05	03/15/13 18:54	1	6
Naphthalene	0.0203		0.00500	0.00170	mg/Kg	13	03/14/13 17:05	03/15/13 18:54	1	
Toluene	ND		0.00200	0.000739	mg/Kg	121	03/14/13 17:05	03/15/13 18:54	1	
Xylenes, Total	ND		0.00500	0.000669	mg/Kg	Ø	03/14/13 17:05	03/15/13 18:54	1	122
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac	- 6
1,2-Dichloroethane-d4 (Surr)	107		70 - 130				03/14/13 17:05	03/15/13 18:54	1	
4-Bromofluorobenzene (Surr)	112		70 - 130				03/14/13 17:05	03/15/13 18:54	1	
Dibromofluoromethane (Surr)	99		70 - 130				03/14/13 17:05	03/15/13 18:54	1	
Toluene-d8 (Surr)	107		70 - 130				03/14/13 17:05	03/15/13 18:54	1	
Method: 8270D - Semivolatile	Organic Compou	nds (GC/MS	5)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Acenaphthene	ND		0.0831	0.0124	mg/Kg	p	03/15/13 06:52	03/15/13 19:28	1	12
Acenaphthylene	ND		0.0831	0.0112	mg/Kg	Ø	03/15/13 06:52	03/15/13 19:28	1	-
Anthracene	0.0241	J	0.0831	0.0112	mg/Kg	Œ	03/15/13 06:52	03/15/13 19:28	1	13

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0831	0.0124	mg/Kg	Ø	03/15/13 06:52	03/15/13 19:28	1
Acenaphthylene	ND		0.0831	0.0112	mg/Kg	Ø	03/15/13 06:52	03/15/13 19:28	1
Anthracene	0.0241	J	0.0831	0.0112	mg/Kg	Ŭ.	03/15/13 06:52	03/15/13 19:28	1
Benzo[a]anthracene	ND		0.0831	0.0186	mg/Kg	11	03/15/13 06:52	03/15/13 19:28	1
Benzo[a]pyrene	ND		0.0831	0.0149	mg/Kg	2	03/15/13 06:52	03/15/13 19:28	1
Benzo[b]fluoranthene	ND		0.0831	0.0149	mg/Kg	12	03/15/13 06:52	03/15/13 19:28	1
Benzo[g,h,i]perylene	ND		0.0831	0.0112	mg/Kg	12	03/15/13 06:52	03/15/13 19:28	1
Benzo[k]fluoranthene	ND		0.0831	0.0174	mg/Kg	α.	03/15/13 06:52	03/15/13 19:28	1
1-Methylnaphthalene	0.0817	J	0.0831	0.0174	mg/Kg	Ø	03/15/13 06:52	03/15/13 19:28	1
Pyrene	0.0964		0.0831	0.0149	mg/Kg	30	03/15/13 06:52	03/15/13 19:28	1
Phenanthrene	0.108		0.0831	0.0112	mg/Kg	12	03/15/13 06:52	03/15/13 19:28	1
Chrysene	ND		0.0831	0.0112	mg/Kg	12	03/15/13 06:52	03/15/13 19:28	1
Dibenz(a,h)anthracene	ND		0.0831	0.00868	mg/Kg	Ø	03/15/13 06:52	03/15/13 19:28	1
Fluoranthene	0.144		0.0831	0.0112	mg/Kg	ø	03/15/13 06:52	03/15/13 19:28	1
Fluorene	ND		0.0831	0.0149	mg/Kg	12	03/15/13 06:52	03/15/13 19:28	1
Indeno[1,2,3-cd]pyrene	ND		0.0831	0.0124	mg/Kg	n	03/15/13 06:52	03/15/13 19:28	1
Naphthalene	ND		0.0831	0.0112	mg/Kg	30	03/15/13 06:52	03/15/13 19:28	1
2-Methylnaphthalene	0.110		0.0831	0.0198	mg/Kg	ä	03/15/13 06:52	03/15/13 19:28	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	63		29 - 120				03/15/13 06:52	03/15/13 19:28	1
Terphenyl-d14 (Surr)	74		13 - 120				03/15/13 06:52	03/15/13 19:28	1
Nitrobenzene-d5 (Surr)	60		27 - 120				03/15/13 06:52	03/15/13 19:28	1
General Chemistry									
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	79		0.10	0.10	%			03/15/13 08:19	1

TestAmerica Job ID: 490-21711-1

#### Lab Sample ID: 490-21711-3

Matrix: Solid Percent Solids: 79.2

5 6

RL

MDL Unit

D

Prepared

Client: Environmental Enterprise Group Project/Site: Laurel Bay Housing Project

### **Client Sample ID: 1421 Albatross**

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

**Result Qualifier** 

Date Collected: 03/05/13 14:45 Date Received: 03/13/13 08:10

Analyte

Eltydexame         5.90         0.128         0.0436         mg/kg         P         0.74/13 17.03         0.01/14/13 17.05<	Benzene	0.489		0.128	0.0436	mg/Kg	52	03/14/13 17:03	03/18/13 15:15	1
Naphthele         5.5         6.42         2.18         mg/kg         P         0.41413 17.03         0.31413 15.15           Xylens, Total         17.6         0.0212         0.00783         mg/kg         P         0.31413 17.03         0.31413 15.15           Stronge         StRecovery         Qualifier         Linit         P         Peparot         Anhyzet         OIF 6           1.2.Dechonomhame 4(Suri)         169         7.70         7.0	Ethylbenzene	5.50		0.128	0.0436	mg/Kg	23	03/14/13 17:03	03/18/13 15:15	1
Toluene         0.0802         0.0012         0.00783         mg/kg         Implementation         0.014/13 17.05	Naphthalene	53.5		6.42	2.18	mg/Kg	п	03/14/13 17:03	03/18/13 15:42	20
Xylenes, Total         17.6         0.321         0.436 mg/kg         0         0.1/4/13 17.03         0.01/8/13 15.15           Surrogate         Xieeovery         Qualifier         Limits         Papered         Analyzed         Diff           1.2 Dichlorosthane-d4 (Surr)         102         70.130         0.01/4/13 17.05         0.01/6/13 19.21         0.01/4/13 17.05         0.01/6/13 19.21         0.01/4/13 17.05         0.01/6/13 19.21         0.01/6/13 19.21         0.01/6/13 19.21         0.01/6/13 19.21         0.01/6/13 19.21         0.01/6/13 17.05         0.01/6/13 17.05         0.01/6/13 19.21         0.01/6/13 17.05         0.01/6/1	Toluene	0.0602		0.00212	0.000783	mg/Kg	12	03/14/13 17:05	03/15/13 19:21	1
Surrogate         XRecovery         Qualifier         Linits         Prepared         Analyzed         Diff           1.2-Definoedmane-44 (Surr)         149         X         70.130         0014/1317.08         0014/13	Xylenes, Total	17.6		0.321	0.0436	mg/Kg	27	03/14/13 17:03	03/18/13 15:15	1
1:2-Decklorowshame-d4 (Surr)       149       70 - 130       03/14/13 17:03       03/14/13	Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dickloncethane-d4 (Sunt)       102       70.130       03/4/13 (7.03       02/14/13 (7.03       03/14/13 (7	1,2-Dichloroethane-d4 (Surr)	149	x	70 - 130				03/14/13 17:05	03/15/13 19:21	1
1.2 Deficience 44 (Surr)       103       70.130       03/4/13 17.03       03/4/13 17.03       03/16/13 15.42         4 Biromofuloarbenzene (Surr)       142       70.130       03/14/13 17.03       03/16/13 15.5       03/16/13 15.5         4 Bromofuloarbenzene (Surr)       114       70.130       03/14/13 17.03       03/16/13 15.2       03/16/13 15.2         Dibromofuloarbenzene (Surr)       92       70.130       03/14/13 17.03       03/16/13 15.2       03/16/13 15.2         Dibromofuloarbenzene (Surr)       92       70.130       03/14/13 17.03       03/16/13 15.42       03/16/13 15.42         Dibromofuloarbenzene (Surr)       92       70.130       03/14/13 17.03       03/16/13 15.42       03/16/13 15.42         Dibromofuloarbenzene (Surr)       103       70.130       03/14/13 17.03       03/16/13 15.42         Dibromofuloarbenzene (Surr)       111       70.130       03/14/13 17.03       03/16/13 05.2         Analyzee       Result Qualifier       RL       MDL       Dit       Dit       03/14/13 17.03       03/16/13 05.2         Acanaphthene       3.56       0.814       0.109       03/16/13 05.2       03/16/13 05.2       03/16/13 05.2       03/16/13 05.2       03/16/13 05.2       03/16/13 19.11         Acanaphthylene       ND       0.81	1,2-Dichloroethane-d4 (Surr)	102		70 - 130				03/14/13 17:03	03/18/13 15:15	1
4-Bromofilvorobenzene (Surr)       457 2 X       70 - 130       03/14/13 77.05       03/16/13 19-21         4-Bromofilvorobenzene (Surr)       142 X       70 - 130       03/14/13 77.05       03/16/13 19-21         0-Bromofilvoromethane (Surr)       101       70 - 130       03/14/13 77.05       03/16/13 19-21         Dibromofilvoromethane (Surr)       92       70 - 130       03/14/13 77.05       03/16/13 19-21         Dibromofilvoromethane (Surr)       96       70 - 130       03/14/13 77.05       03/16/13 19-21         Dibromofilvoromethane (Surr)       96       70 - 130       03/14/13 77.05       03/16/13 19-21         Dibromofilvoromethane (Surr)       103       70 - 130       03/14/13 17.05       03/16/13 19-21         Dibromofilvoromethane (Surr)       111       70 - 130       03/14/13 17.05       03/16/13 19-21         Analyzed       Result Qualifier       RL       MDL       Unit       D       Prepared       Analyzed       DIF         Accanaphthylene       ND       0.814       0.109       mg/kg       03/15/13 06.52       03/16/13 19-11         Accanaphthylene       ND       0.814       0.109       mg/kg       03/15/13 06.52       03/16/13 19-11         Benzolghilyrene       ND       0.814       0.109	1,2-Dichloroethane-d4 (Surr)	103		70 - 130				03/14/13 17:03	03/18/13 15:42	20
4-Biomonifuscribenzene (Sum)       142       X       70.130       03/14/13 17.03       03/16/13 18.11       03/15/13 05.52       03/16/13 18.11	4-Bromofluorobenzene (Surr)	4512	x	70 - 130				03/14/13 17:05	03/15/13 19:21	1
4-Bromnbluonobenzene (Surr)         114         70.130         03/14/13 17:03         03/14/13 17:05         03/16/13 065:2         03/16/13 065:2         03/16/13 065:	4-Bromofluorobenzene (Surr)	142	x	70 - 130				03/14/13 17:03	03/18/13 15:15	1
Dibramofiluoramethane (Surr)         101         70.130         03/14/13 17.05         03/14/13 17.	4-Bromofluorobenzene (Surr)	114		70 - 130				03/14/13 17:03	03/18/13 15:42	20
Dibromofiluoromethane (Surr)         92         70.130         03/14/13 17.03         03/14/13 17.03         03/14/13 17.03         03/14/13 17.03         03/14/13 15.15           Dibromofiluoromethane (Surr)         96         70.130         03/14/13 17.03         03/14/13 17.03         03/14/13 15.42         03/14/13 17.03         03/14/13 15.42           Toluene-d8 (Surr)         103         70.130         03/14/13 17.03         03/14/13 17.03         03/14/13 15.42         03/14/13 17.03         03/14/13 15.42           Method: 8270D - Semivolatile Organic Compounds (GC/MS)         N         03/14/13 17.03         03/14/13 17.03         03/14/13 15.42         Dil F           Accanaphthene         3.56         0.814         0.122         mg/kg         0         03/15/13 06.52         03/16/13 19.11           Accanaphthylene         ND         0.814         0.192         mg/kg         0         03/15/13 06.52         03/16/13 19.11           Benzo[a]huranhene         ND         0.814         0.162         mg/kg         0         03/15/13 06.52         03/16/13 19.11           Benzo[a]huranhene         ND         0.814         0.164         mg/kg         0         03/15/13 06.52         03/16/13 19.11           Benzo[a]huranhene         ND         0.814         0.169	Dibromofluoromethane (Surr)	101		70 - 130				03/14/13 17:05	03/15/13 19:21	1
Dibrama@luoramethane (Surr)         96         70 - 130         03/14/13 17.03         03/14/13 17.05         03/14/13 17.03         03/14/13 17.03         03/14/13 17.03         03/14/13 17.03         03/14/13 17.03         03/14/13 17.03         03/14/13 17.03         03/14/13 17.03         03/14/13 17.03         03/14/13 17.03         03/14/13 17.03         03/14/13 17.03         03/14/13 17.03         03/14/13 17.03         03/14/13 17.03         03/14/13 17.	Dibromofluoromethane (Surr)	92		70 - 130				03/14/13 17:03	03/18/13 15:15	1
Toluene-d8 (Surr)         128         70-130         03/14/13 17.05         03/15/13 19.21           Toluene-d8 (Surr)         103         70-130         03/14/13 17.05         03/16/13 19.21           Method:         8270 - Semivolatile Organic Compounds (GC/MS)         03/14/13 17.05         03/16/13 19.21         03/16/13 19.21           Method:         8270 - Semivolatile Organic Compounds (GC/MS)         N         0.122         mg/kg         0.03/16/13 06.52         03/16/13 19.11           Acenaphthene         3.56         0.814         0.109         mg/kg         0.03/16/13 06.52         03/16/13 19.11           Acenaphthene         ND         0.814         0.109         mg/kg         0.03/16/13 06.52         03/16/13 19.11           Benzolglaphthene         ND         0.814         0.182         mg/kg         0.03/16/13 06.52         03/16/13 19.11           Benzolglaphthene         ND         0.814         0.169         mg/kg         0.03/16/13 06.52         03/16/13 19.11           Benzolglaphthene         ND         0.814         0.169         mg/kg         0.03/16/13 06.52         03/16/13 19.11           Benzolglaphthene         ND         0.814         0.109         mg/kg         0.03/16/13 06.52         03/16/13 19.11           Benzolglaphthe	Dibromofluoromethane (Surr)	96		70 - 130				03/14/13 17:03	03/18/13 15:42	20
Toluene-d8 (Surr)         103         70.130         03/14/13 17.03         03/14/13 17.03         03/14/13 17.03         03/14/13 15.15           Toluene-d8 (Surr)         111         70.130         03/14/13 17.03         03/14/13 15.15         03/14/13 15.15           Method: 8270D - Semivolatile Organic Compounds (GC/MS)         N	Toluene-d8 (Surr)	128		70 - 130				03/14/13 17:05	03/15/13 19:21	1
Toluene-d8 (Surr)         111         70.130         03/14/13 17.03         03/14/13 17.01         03/14/13 17.01         03/14/13 17.01         03/14/13 17.01         03/14/13 17.01         03/14/13 17.03         03/14/13 17.03         03/14/13 17.01         03/14/13 17.01         03/14/13 17.01         03/14/13 17.01         03/14/13 17.01         03/14/13 17.01         03/14/13 17.01         03/14/13 17.01         03/14/13 17.01         03/14/13 17.01         03/14/13 17.01         03/14/13 17.01	Toluene-d8 (Surr)	103		70 - 130				03/14/13 17:03	03/18/13 15:15	1
Method: 8270D - Semivolatile Organic Compounds (GC/MS)         Accasphthene         3.56         0.814         Unit         D         Prepared         Analyzed         Dil F           Accasphthene         3.56         0.814         0.122         mg/Kg         0         03/15/13 06:52         03/16/13 19:11         Accasphthylene         ND         0.814         0.109         mg/Kg         0         03/15/13 06:52         03/16/13 19:11         Accasphthylene         03/15/13 06:52         03/16/13 19:11         Accasphthylene         03/15/13 06:52         03/16/13 19:11         Benzo[a]anthracene         ND         0.814         0.182         mg/Kg         0         03/15/13 06:52         03/16/13 19:11         Benzo[a]anthracene         ND         0.814         0.146         mg/Kg         0         03/15/13 06:52         03/16/13 19:11         Benzo[b]fluoranthene         ND         0.814         0.109         mg/Kg         0         03/15/13 06:52         03/16/13 19:11         Imaxolylinus         Imaxolylinus         Imaxolylinus         03/15/13 06:52         03/16/13 19:11         Imaxolylinus         Imaxolylinus         Imaxolylinus         0         Imaxolylinus         Imaxolylinus         Imaxolylinus         Imaxolylinus         Imaxolylinus         Imaxolylinus         Imaxolylinus         Imaxolylinus         Imaxolylinus	Toluene-d8 (Surr)	111		70 - 130				03/14/13 17:03	03/18/13 15:42	20
Analyte         Result         Qualifier         RL         MDL         Unit         D         Prepared         Analyzed         Dil F           Accnaphthene         3.56         0.814         0.122         mg/Kg         0         03/15/13 06.52         03/16/13 19:11         Accnaphthylee         03/15/13 06.52         03/16/13 19:11         Benzo[a]anthracene         ND         0.814         0.182         mg/Kg         0         03/15/13 06.52         03/16/13 19:11         Benzo[a]anthracene         ND         0.814         0.109         mg/Kg         0         03/15/13 06.52         03/16/13 19:11         Benzo[a]anthracene         ND         0.814         0.109         mg/Kg         0         03/15/13 06.52         03/16/13 19:11         Benzo[a]anthracene         ND         0.814         0.109         mg/Kg         0         03/15/13 06.52         03/16/13 19:11         Imaphthylee         03/15/13 06.52         03/16/13 19:11         Imaphthylee         03/15/13 06.52         03/16/13 19:11         Imaphthylee         03/15/13 06.52         03/16/13 19:1	Method: 8270D - Semivolati	le Organic Compou	nds (GC/MS)							
Acenaphthene         3.56         0.814         0.122 mg/Kg         0 03/15/13 06:52         03/16/13 19:11           Acenaphthylene         ND         0.814         0.109 mg/Kg         0 03/15/13 06:52         03/16/13 19:11           Anthracene         1.13         0.814         0.109 mg/Kg         0 03/15/13 06:52         03/16/13 19:11           Benzolajnhracene         ND         0.814         0.182 mg/Kg         0 03/15/13 06:52         03/16/13 19:11           Benzolajpyrene         ND         0.814         0.146 mg/Kg         0 03/15/13 06:52         03/16/13 19:11           Benzolajpyrene         ND         0.814         0.146 mg/Kg         0 03/15/13 06:52         03/16/13 19:11           Benzolg/ljluoranthene         ND         0.814         0.190 mg/Kg         0 03/15/13 06:52         03/16/13 19:11           Benzolg/ljluoranthene         ND         0.814         0.109 mg/Kg         0 03/15/13 06:52         03/16/13 19:11           1-Methylnaphthalene         52.3         4.07         0.851         mg/Kg         0 03/15/13 06:52         03/16/13 19:11           1-Methylnaphthalene         52.3         4.07         0.851         mg/Kg         0 03/15/13 06:52         03/16/13 19:11           Dibenz(a).hantracene         ND         0.814	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthylene         ND         0.814         0.109         mg/Kg         B         03/15/13 06:52         03/16/13 19:11           Anthracene         1.13         0.814         0.109         mg/Kg         B         03/15/13 06:52         03/16/13 19:11           Benzolglanthracene         ND         0.814         0.182         mg/Kg         B         03/15/13 06:52         03/16/13 19:11           Benzolgluoranthene         ND         0.814         0.146         mg/Kg         B         03/15/13 06:52         03/16/13 19:11           Benzolgluoranthene         ND         0.814         0.146         mg/Kg         B         03/15/13 06:52         03/16/13 19:11           Benzolgluoranthene         ND         0.814         0.109         mg/Kg         B         03/15/13 06:52         03/16/13 19:11           Benzolgluoranthene         ND         0.814         0.109         mg/Kg         B         03/15/13 06:52         03/16/13 19:11           Heinanthrene         10.6         0.814         0.109         mg/Kg         B         03/15/13 06:52         03/16/13 19:11           Dibenzithrene         10.6         0.814         0.109         mg/Kg         B         03/15/13 06:52         03/16/13 19:11           <	Acenaphthene	3.56		0.814	0.122	mg/Kg	Kî.	03/15/13 06:52	03/16/13 19:11	10
Anthracene         1.13         0.814         0.109         mg/Kg         D         03/15/13 06:52         03/16/13 19:11           Benzo[a]anthracene         ND         0.814         0.182         mg/Kg         D         03/15/13 06:52         03/16/13 19:11           Benzo[a]aptrene         ND         0.814         0.146         mg/Kg         D         03/15/13 06:52         03/16/13 19:11           Benzo[A]aptrene         ND         0.814         0.146         mg/Kg         D         03/15/13 06:52         03/16/13 19:11           Benzo[K]fluoranthene         ND         0.814         0.109         mg/Kg         D         03/15/13 06:52         03/16/13 19:11           1-Methylnaphthalene         52.3         4.07         0.851         mg/Kg         D         03/15/13 06:52         03/16/13 19:11           1-Methylnaphthalene         52.3         4.07         0.851         mg/Kg         D         03/15/13 06:52         03/16/13 19:11           1-Methylnaphthalene         10.6         0.814         0.109         mg/Kg         D         03/15/13 06:52         03/16/13 19:11           Dibenz(a,h)anthracene         ND         0.814         0.109         mg/Kg         D         03/15/13 06:52         03/16/13 19:11	Acenaphthylene	ND		0.814	0.109	mg/Kg	12	03/15/13 06:52	03/16/13 19:11	10
Benzo[a]anthracene         ND         0.814         0.182         mg/kg         P         03/15/13 06:52         03/16/13 19:11           Benzo[a]pyrene         ND         0.814         0.146         mg/kg         0         03/15/13 06:52         03/16/13 19:11           Benzo[a]pyrene         ND         0.814         0.146         mg/kg         0         03/15/13 06:52         03/16/13 19:11           Benzo[A]purylene         ND         0.814         0.109         mg/kg         0         03/15/13 06:52         03/16/13 19:11           Benzo[A]fuoranthene         ND         0.814         0.109         mg/kg         0         03/15/13 06:52         03/16/13 19:11           1-Methylmaphthalene         52.3         4.07         0.851         mg/kg         0         03/15/13 06:52         03/16/13 19:11           1-Methylmaphthalene         10.6         0.814         0.109         mg/kg         0         03/15/13 06:52         03/16/13 19:11           Chrysene         ND         0.814         0.109         mg/kg         0         03/15/13 06:52         03/16/13 19:11           Fluoranthene         0.439         J         0.814         0.109         mg/kg         0         03/15/13 06:52         03/16/13 19:11	Anthracene	1.13		0.814	0.109	mg/Kg	p	03/15/13 06:52	03/16/13 19:11	10
Benzo[a]pyrene         ND         0.814         0.146         mg/Kg         D         03/15/13 06:52         03/16/13 19:11           Benzo[b]fluoranthene         ND         0.814         0.146         mg/Kg         03/15/13 06:52         03/16/13 19:11           Benzo[b]fluoranthene         ND         0.814         0.109         mg/Kg         03/15/13 06:52         03/16/13 19:11           Benzo[k]fluoranthene         ND         0.814         0.109         mg/Kg         03/15/13 06:52         03/16/13 19:11           Hethylnaphthalene         52.3         4.07         0.851         mg/Kg         03/15/13 06:52         03/16/13 19:11           Pyrene         ND         0.814         0.109         mg/Kg         03/15/13 06:52         03/16/13 19:11           Chysene         ND         0.814         0.109         mg/Kg         03/15/13 06:52         03/16/13 19:11           Dibenz(a,h)anthracene         ND         0.814         0.099         mg/Kg         03/15/13 06:52         03/16/13 19:11           Fluoranthene         0.439         J         0.814         0.109         mg/Kg         03/15/13 06:52         03/16/13 19:11           Indeno[1,2,3-cd]pyrene         ND         0.814         0.109         mg/Kg         03/15	Benzo[a]anthracene	ND		0.814	0.182	mg/Kg	5	03/15/13 06:52	03/16/13 19:11	10
Benzo[b]fluoranthene         ND         0.814         0.146         mg/Kg         Image: Million of Million	Benzo[a]pyrene	ND		0.814	0.146	mg/Kg	π	03/15/13 06:52	03/16/13 19:11	10
Benzolg,h.jiperylene         ND         0.814         0.109         mg/Kg         ©         03/15/13 06:52         03/16/13 19:11           Benzolk/fluoranthene         ND         0.814         0.170         mg/Kg         ©         03/15/13 06:52         03/16/13 19:11         1           1-Methylnaphthalene         52.3         4.07         0.851         mg/Kg         ©         03/15/13 06:52         03/16/13 19:11         1           Pyrene         ND         0.814         0.109         mg/Kg         ©         03/15/13 06:52         03/16/13 19:11         1           Phenanthrene         10.6         0.814         0.109         mg/Kg         ©         03/15/13 06:52         03/16/13 19:11         1           Chrysene         ND         0.814         0.109         mg/Kg         ©         03/15/13 06:52         03/16/13 19:11         1           Dibenz(a,h)anthracene         ND         0.814         0.109         mg/Kg         ©         03/15/13 06:52         03/16/13 19:11         1           Fluoranthene         0.439         J         0.814         0.109         mg/Kg         ©         03/15/13 06:52         03/16/13 19:11         1           Indeno[1,2,3-cd]pyrene         ND         0.814	Benzo[b]fluoranthene	ND		0.814	0.146	mg/Kg	Ø	03/15/13 06:52	03/16/13 19:11	10
Benzo[k]fluoranthene         ND         0.814         0.170         mg/kg         P         03/15/13 06:52         03/16/13 19:11           1-Methylnaphthalene         52.3         4.07         0.851         mg/kg         P         03/15/13 06:52         03/16/13 21:21         1           Pyrene         ND         0.814         0.16         mg/kg         P         03/15/13 06:52         03/16/13 19:11           Phenanthrene         10.6         0.814         0.109         mg/kg         03/15/13 06:52         03/16/13 19:11           Dibenz(a,h)anthracene         ND         0.814         0.109         mg/kg         03/15/13 06:52         03/16/13 19:11           Fluoranthene         0.439         J         0.814         0.09         mg/kg         03/15/13 06:52         03/16/13 19:11           Fluoranthene         0.439         J         0.814         0.109         mg/kg         03/15/13 06:52         03/16/13 19:11           Indeno(1,2,3-cd)pyrene         ND         0.814         0.109         mg/kg         03/15/13 06:52         03/16/13 19:11           Naphthalene         17.1         0.814         0.109         mg/kg         03/15/13 06:52         03/16/13 19:11           2-Hethylnaphthalene         17.1	Benzo[g,h,i]perylene	ND		0.814	0.109	mg/Kg	0	03/15/13 06:52	03/16/13 19:11	10
1-Methylnaphthalene         52.3         4.07         0.851         mg/Kg         Polynamic         03/15/13 06:52         03/16/13 21:21         1           Pyrene         ND         0.814         0.146         mg/Kg         03/15/13 06:52         03/16/13 19:11         0           Phenanthrene         10.6         0.814         0.109         mg/Kg         03/15/13 06:52         03/16/13 19:11         0           Chrysene         ND         0.814         0.109         mg/Kg         03/15/13 06:52         03/16/13 19:11         0           Dibenz(a,h)anthracene         ND         0.814         0.09         mg/Kg         03/15/13 06:52         03/16/13 19:11         0           Fluoranthene         0.439         J         0.814         0.09         mg/Kg         03/15/13 06:52         03/16/13 19:11         0           Indeno[1,2,3-cd]pyrene         ND         0.814         0.109         mg/Kg         03/15/13 06:52         03/16/13 19:11         0           Naphthalene         17.1         0.814         0.109         mg/Kg         03/15/13 06:52         03/16/13 19:11         03/15/13 06:52         03/16/13 19:11         03/15/13 06:52         03/16/13 19:11         0         03/15/13 06:52         03/16/13 19:11         0	Benzo[k]fluoranthene	ND		0.814	0.170	mg/Kg	13	03/15/13 06:52	03/16/13 19:11	10
Pyrene         ND         0.814         0.146         mg/Kg         D         03/15/13 06:52         03/16/13 19:11           Phenanthrene         10.6         0.814         0.109         mg/Kg         D         03/15/13 06:52         03/16/13 19:11           Chrysene         ND         0.814         0.109         mg/Kg         D         03/15/13 06:52         03/16/13 19:11           Dibenz(a,h)anthracene         ND         0.814         0.0851         mg/Kg         D         03/15/13 06:52         03/16/13 19:11           Fluoranthene         0.439         J         0.814         0.109         mg/Kg         D         03/15/13 06:52         03/16/13 19:11           Fluorene         5.27         0.814         0.146         mg/Kg         D         03/15/13 06:52         03/16/13 19:11           Inden0[1,2,3-cd]pyrene         ND         0.814         0.122         mg/Kg         D         03/15/13 06:52         03/16/13 19:11           Surrogate         %Recovery         Qualifier         Limits         Prepared         Analyzed         Dil F           2-Fluorobiphenyl (Surr)         83         29 - 120         03/15/13 06:52         03/16/13 19:11         D           Nitrobenzene-d5 (Surr)         101	1-Methylnaphthalene	52.3		4.07	0.851	mg/Kg	-02	03/15/13 06:52	03/16/13 21:21	50
Phenanthrene         10.6         0.814         0.109         mg/Kg         03/15/13         0.552         03/16/13         19:11           Chrysene         ND         0.814         0.109         mg/Kg         03/15/13         06:52         03/16/13         19:11         1           Dibenz(a,h)anthracene         ND         0.814         0.09         mg/Kg         03/15/13         06:52         03/16/13         19:11         1           Fluoranthene         0.439         J         0.814         0.09         mg/Kg         03/15/13         06:52         03/16/13         19:11         1           Fluorene         5.27         0.814         0.109         mg/Kg         03/15/13         06:52         03/16/13         19:11         1           Indeno[1,2,3-cd]pyrene         ND         0.814         0.122         mg/Kg         03/15/13         06:52         03/16/13         19:11         1           Naphthalene         17.1         0.814         0.109         mg/Kg         03/15/13         06:52         03/16/13         19:11         1           Surrogate         %Recovery         Qualifier         Limits         Prepared         Analyzed         Dil F         03/15/13         06:52	Pyrene	ND		0.814	0.146	mg/Kg	D	03/15/13 06:52	03/16/13 19:11	10
Chrysene         ND         0.814         0.109         mg/Kg         D         03/15/13 06:52         03/16/13 19:11           Dibenz(a,h)anthracene         ND         0.814         0.0851         mg/Kg         Dibenz(a,h)anthracene         03/15/13 06:52         03/16/13 19:11         03/15/13 06:52         03/16/	Phenanthrene	10.6		0.814	0.109	mg/Kg	0	03/15/13 06:52	03/16/13 19:11	10
Dibenz(a,h)anthracene         ND         0.814         0.0851         mg/Kg         03/15/13 06:52         03/16/13 19:11           Fluoranthene         0.439         J         0.814         0.109         mg/Kg         03/15/13 06:52         03/16/13 19:11           Fluorene         5.27         0.814         0.109         mg/Kg         03/15/13 06:52         03/16/13 19:11           Indeno[1,2,3-cd]pyrene         ND         0.814         0.122         mg/Kg         03/15/13 06:52         03/16/13 19:11           Naphthalene         17.1         0.814         0.109         mg/Kg         03/15/13 06:52         03/16/13 19:11           Surrogate         %Recovery         Qualifier         Limits         Prepared         Analyzed         Dil F           2-Fluorobiphenyl (Surr)         83         29 - 120         03/15/13 06:52         03/16/13 19:11         03/15/13 06:52         03/16/13 19:11           Kirobenzene-d5 (Surr)         101         13 - 120         03/15/13 06:52         03/16/13 19:11           General Chemistry         Result         Qualifier         RL         NL         D         Prepared         Analyzed         Dil F           Analyte         Result         Qualifier         RL         NL         D	Chrysene	ND		0.814	0.109	mg/Kg	13	03/15/13 06:52	03/16/13 19:11	10
Fluoranthene         0.439         J         0.814         0.109         mg/kg         D         03/15/13 06:52         03/16/13 19:11           Fluorene         5.27         0.814         0.146         mg/kg         D         03/15/13 06:52         03/16/13 19:11           Indeno[1,2,3-cd]pyrene         ND         0.814         0.122         mg/kg         D         03/15/13 06:52         03/16/13 19:11           Naphthalene         17.1         0.814         0.109         mg/kg         D         03/15/13 06:52         03/16/13 19:11           Surrogate         %Recovery         Qualifier         Limits         Prepared         Analyzed         Dil F           2-Fluorobiphenyl (Surr)         83         29 - 120         03/15/13 06:52         03/16/13 19:11         Dil F           Mitrobenzene-d5 (Surr)         101         13 - 120         03/15/13 06:52         03/16/13 19:11         Dil F           General Chemistry         Analyte         Result         Qualifier         RL         RL         Unit         D         Prepared         Analyzed         Dil F           O3/15/13 06:52         03/16/13 19:11         03/15/13 06:52         03/16/13 19:11         D         Dil F           O3/15/13 06:52         03/16/13 19:11 </td <td>Dibenz(a,h)anthracene</td> <td>ND</td> <td></td> <td>0.814</td> <td>0.0851</td> <td>mg/Kg</td> <td>ä</td> <td>03/15/13 06:52</td> <td>03/16/13 19:11</td> <td>10</td>	Dibenz(a,h)anthracene	ND		0.814	0.0851	mg/Kg	ä	03/15/13 06:52	03/16/13 19:11	10
Fluorene         5.27         0.814         0.146         mg/Kg         D         03/15/13         06:52         03/16/13         19:11           Indeno[1,2,3-cd]pyrene         ND         0.814         0.122         mg/Kg         D         03/15/13         06:52         03/16/13         19:11           Naphthalene         17.1         0.814         0.109         mg/Kg         D         03/15/13         06:52         03/16/13         19:11         1           2-Methylnaphthalene         84.4         4.07         0.972         mg/Kg         D         03/15/13         06:52         03/16/13         19:11         1 <t< td=""><td>Fluoranthene</td><td>0.439</td><td>J</td><td>0.814</td><td>0.109</td><td>mg/Kg</td><td>0</td><td>03/15/13 06:52</td><td>03/16/13 19:11</td><td>10</td></t<>	Fluoranthene	0.439	J	0.814	0.109	mg/Kg	0	03/15/13 06:52	03/16/13 19:11	10
Indeno[1,2,3-cd]pyrene         ND         0.814         0.122         mg/Kg         is         03/15/13         06:52         03/16/13         19:11           Naphthalene         17.1         0.814         0.109         mg/Kg         is         03/15/13         06:52         03/16/13         19:11           2-Methylnaphthalene         84.4         4.07         0.972         mg/Kg         is         03/15/13         06:52         03/16/13         19:11           Surrogate         %Recovery         Qualifier         Limits         Prepared         Analyzed         Dil F           2-Fluorobiphenyl (Surr)         83         29 - 120         03/15/13         06:52         03/16/13         19:11           Nitrobenzene-d5 (Surr)         101         13 - 120         03/15/13         06:52         03/16/13         19:11           General Chemistry         106         27 - 120         03/15/13         06:52         03/16/13         19:11           General Chemistry         Analyte         Result         Qualifier         RL         RL         Unit         D         Prepared         Analyzed         Dil F           Percent Solids         81         0.10         0.10         %         Dil %         Dil F<	Fluorene	5.27		0.814	0.146	mg/Kg	ja;	03/15/13 06:52	03/16/13 19:11	10
Naphthalene         17.1         0.814         0.109 mg/Kg         100	Indeno[1,2,3-cd]pyrene	ND		0.814	0.122	mg/Kg	30	03/15/13 06:52	03/16/13 19:11	10
2-Methylnaphthalene         84.4         4.07         0.972 mg/Kg         03/15/13 06:52         03/16/13 21:21         4           Surrogate         %Recovery         Qualifier         Limits         Prepared         Analyzed         Dil F           2-Fluorobiphenyl (Surr)         83         29 - 120         03/15/13 06:52         03/16/13 19:11         11           Terphenyl-d14 (Surr)         101         13 - 120         03/15/13 06:52         03/16/13 19:11         11           Nitrobenzene-d5 (Surr)         106         27 - 120         03/15/13 06:52         03/16/13 19:11         11           General Chemistry Analyte         Result         Qualifier         RL         RL         Unit         D         Prepared         Analyzed         Dil F           Percent Solids         81         0.10         0.10 %         03/15/13 08:19         11         12         13         14 <td>Naphthalene</td> <td>17.1</td> <td></td> <td>0.814</td> <td>0.109</td> <td>mg/Kg</td> <td>13</td> <td>03/15/13 06:52</td> <td>03/16/13 19:11</td> <td>10</td>	Naphthalene	17.1		0.814	0.109	mg/Kg	13	03/15/13 06:52	03/16/13 19:11	10
Surrogate         %Recovery         Qualifier         Limits         Prepared         Analyzed         Dil F           2-Fluorobiphenyl (Surr)         83         29 - 120         03/15/13 06:52         03/16/13 19:11         Prepared         Analyzed         Dil F           2-Fluorobiphenyl (Surr)         101         13 - 120         03/15/13 06:52         03/16/13 19:11         Prepared         Analyzed         Dil F           Nitrobenzene-d5 (Surr)         106         27 - 120         03/15/13 06:52         03/16/13 19:11         Prepared         Analyzed         Dil F           General Chemistry         Analyze         Result         Qualifier         RL         RL         Unit         D         Prepared         Analyzed         Dil F           Percent Solids         81         0.10         0.10         %         03/15/13 08:19         Dil F	2-Methylnaphthalene	84.4		4.07	0.972	mg/Kg	Ø	03/15/13 06:52	03/16/13 21:21	50
2-Fluorobiphenyl (Surr)         83         29 - 120         03/15/13 06:52         03/16/13 19:11           Terphenyl-d14 (Surr)         101         13 - 120         03/15/13 06:52         03/16/13 19:11           Nitrobenzene-d5 (Surr)         106         27 - 120         03/15/13 06:52         03/16/13 19:11           General Chemistry         Analyte         Result Qualifier         RL         RL         Unit         D         Prepared         Analyzed         Dil Fr           Percent Solids         81         0.10         0.10 %         03/15/13 08:19         03/15/13 08:19	Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Terphenyl-d14 (Surr)         101         13 - 120         03/15/13 06:52         03/16/13 19:11           Nitrobenzene-d5 (Surr)         106         27 - 120         03/15/13 06:52         03/16/13 19:11           General Chemistry Analyte         Result Qualifier         RL         RL         Unit         D         Prepared         Analyzed         Dil Fr           Percent Solids         81         0.10         0.10         %         03/15/13 08:19         03/15/13 08:19	2-Fluorobiphenyl (Surr)	83		29 - 120				03/15/13 06:52	03/16/13 19:11	10
Nitrobenzene-d5 (Surr)         106         27 - 120         03/15/13 06:52         03/16/13 19:11           General Chemistry Analyte         Result Qualifier         RL         RL         Unit         D         Prepared         Analyzed         Dil Fr           Percent Solids         81         0.10         0.10         %         03/15/13 08:19	Terphenyl-d14 (Surr)	101		13 - 120				03/15/13 06:52	03/16/13 19:11	10
General Chemistry           Analyte         Result Qualifier         RL         RL Unit         D         Prepared         Analyzed         Dil Fr           Percent Solids         81         0.10         0.10 %         03/15/13.08:19	Nitrobenzene-d5 (Surr)	106		27 - 120				03/15/13 06:52	03/16/13 19:11	10
Analyte         Result Qualifier         RL         RL         Unit         D         Prepared         Analyzed         Dil Free           Percent Solids         81         0.10         0.10 %         03/15/13.08:19	General Chemistry									
Percent Solids 81 0.10 0.10 % 03/15/13 08:19	Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Percent Solids	81		0.10	0.10	%			03/15/13 08:19	1

#### Lab Sample ID: 490-21711-4

Analyzed

Matrix: Solid Percent Solids: 80.9

Dil Fac

5

6

9

10

12

13

## **Client Sample Results**

Client: Environmental Enterprise Group Project/Site: Laurel Bay Housing Project

#### Client Sample ID: 715 Bluebell

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

Date Collected: 03/06/13 14:30 Date Received: 03/13/13 08:10

# Matrix: Solid

Percent Solids: 86.8

5 6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		0.00254	0.000852	mg/Kg	π	03/14/13 17:05	03/15/13 19:48	1	
Ethylbenzene	ND		0.00254	0.000852	mg/Kg	n	03/14/13 17:05	03/15/13 19:48	1	6
Naphthalene	ND		0.00613	0.00208	mg/Kg	α	03/14/13 17:05	03/18/13 14:21	1	
Toluene	ND		0.00254	0.000941	mg/Kg	a	03/14/13 17:05	03/15/13 19:48	1	
Xylenes, Total	0.00234	J	0.00636	0.000852	mg/Kg	12	03/14/13 17:05	03/15/13 19:48	1	100
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac	8
1,2-Dichloroethane-d4 (Surr)	106		70 - 130				03/14/13 17:05	03/15/13 19:48	1	
1,2-Dichloroethane-d4 (Surr)	106		70 - 130				03/14/13 17:05	03/18/13 14:21	1	2
4-Bromofluorobenzene (Surr)	110		70 - 130				03/14/13 17:05	03/15/13 19:48	1	100
4-Bromofluorobenzene (Surr)	108		70 - 130				03/14/13 17:05	03/18/13 14:21	1	Ľ
Dibromofluoromethane (Surr)	94		70 - 130				03/14/13 17:05	03/15/13 19:48	1	
Dibromofluoromethane (Surr)	98		70 - 130				03/14/13 17:05	03/18/13 14:21	1	
Toluene-d8 (Surr)	107		70 - 130				03/14/13 17:05	03/15/13 19:48	1	1000
Toluene-d8 (Surr)	108		70 - 130				03/14/13 17:05	03/18/13 14:21	1	12
Method: 8270D - Semivolatile	organic Compou	nds (GC/MS	i)							13
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	10
Acenaphthene	ND		0.0766	0.0114	mg/Kg	10	03/15/13 06:52	03/15/13 19:50	1	
Acenaphthylene	ND		0.0766	0.0103	mg/Kg	12	03/15/13 06:52	03/15/13 19:50	1	
Anthracene	ND		0.0766	0.0103	mg/Kg	52	03/15/13 06:52	03/15/13 19:50	1	
Benzo[a]anthracene	ND		0.0766	0.0172	mg/Kg	13	03/15/13 06:52	03/15/13 19:50	1	
Benzolalpyrene	0.0903		0.0766	0.0137	mg/Kg	p	03/15/13 06:52	03/15/13 19:50	1	
Benzo[b]fluoranthene	ND		0.0766	0.0137	mg/Kg	¤	03/15/13 06:52	03/15/13 19:50	1	
Benzo[g,h,i]perylene	ND		0.0766	0.0103	mg/Kg	α.	03/15/13 06:52	03/15/13 19:50	1	
Benzo[k]fluoranthene	ND		0.0766	0.0160	mg/Kg	12	03/15/13 06:52	03/15/13 19:50	1	
1-Methylnaphthalene	ND		0.0766	0.0160	mg/Kg	12	03/15/13 06:52	03/15/13 19:50	1	
Pyrene	ND		0.0766	0.0137	mg/Kg	n	03/15/13 06:52	03/15/13 19:50	1	
Phenanthrene	ND		0.0766	0.0103	mg/Kg	17	03/15/13 06:52	03/15/13 19:50	1	
Chrysene	ND		0.0766	0.0103	mg/Kg	22	03/15/13 06:52	03/15/13 19:50	1	
Dibenz(a,h)anthracene	ND		0.0766	0.00800	ma/Ka	ti:	03/15/13 06:52	03/15/13 19:50	1	
Fluoranthene	ND		0.0766	0.0103	ma/Ka	π	03/15/13 06:52	03/15/13 19:50	1	
Fluorene	ND		0.0766	0.0137	ma/Ka	α	03/15/13 06:52	03/15/13 19:50	1	
Indeno[1,2,3-cd]pyrene	ND		0.0766	0.0114	ma/Ka	n	03/15/13 06:52	03/15/13 19:50	1	
Naphthalene	ND		0.0766	0.0103	ma/Ka	п	03/15/13 06:52	03/15/13 19:50	1	
2-Methylnaphthalene	ND		0.0766	0.0183	mg/Kg	tπ	03/15/13 06:52	03/15/13 19:50	1	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac	
2-Fluorobiphenyl (Surr)	75		29 - 120				03/15/13 06:52	03/15/13 19:50	1	
Terphenyl-d14 (Surr)	90		13 - 120				03/15/13 06:52	03/15/13 19:50	1	
Nitrobenzene-d5 (Surr)	65		27 - 120				03/15/13 06:52	03/15/13 19:50	1	
General Chemistry										
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Percent Solids	87		0.10	0.10	%		- Williamstan	03/15/13 08:19	1	

3/27/2013

#### Client Sample ID: 1256 Dove

Date Collected: 03/07/13 15:00 Date Received: 03/13/13 08:10

# Lab Sample ID: 490-21711-6

Matrix: Solid Percent Solids: 87.9

1

1

1

1

1

1

1

1

1

6

#### Method: 8260B - Volatile Organic Compounds (GC/MS) Analyte **Result** Qualifier RL MDL Unit D Prepared Analyzed Dil Fac Benzene ND 12 03/14/13 17:05 03/15/13 20:15 0.00262 0.000878 mg/Kg Ethylbenzene ND 0.00262 17 03/15/13 20:15 0.000878 mg/Kg 03/14/13 17:05 13 0.00656 03/15/13 20:15 Naphthalene 0.00260 J 0.00223 mg/Kg 03/14/13 17:05 Toluene ND 0.00262 0.000970 mg/Kg 13 03/14/13 17:05 03/15/13 20:15 0.000878 mg/Kg 22 Xylenes, Total ND 0.00656 03/14/13 17:05 03/15/13 20:15 Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac 03/14/13 17:05 03/15/13 20:15 1,2-Dichloroethane-d4 (Surr) 106 70 - 130 110 70 - 130 03/14/13 17:05 4-Bromofluorobenzene (Surr) 03/15/13 20:15 Dibromofluoromethane (Surr) 92 70 - 130 03/14/13 17:05 03/15/13 20:15 Toluene-d8 (Surr) 107 70 - 130 03/14/13 17:05 03/15/13 20:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0746	0.0111	mg/Kg	12	03/15/13 06:52	03/15/13 20:11	1
Acenaphthylene	ND		0.0746	0.0100	mg/Kg	0	03/15/13 06:52	03/15/13 20:11	1
Anthracene	ND		0.0746	0.0100	mg/Kg	Ø	03/15/13 06:52	03/15/13 20:11	1
Benzo[a]anthracene	0.0786		0.0746	0.0167	mg/Kg	12	03/15/13 06:52	03/15/13 20:11	1
Benzo[a]pyrene	ND		0.0746	0.0134	mg/Kg	D	03/15/13 06:52	03/15/13 20:11	1
Benzo[b]fluoranthene	0.0575	J	0.0746	0.0134	mg/Kg	a	03/15/13 06:52	03/15/13 20:11	1
Benzo[g,h,i]perylene	ND		0.0746	0.0100	mg/Kg	Ø	03/15/13 06:52	03/15/13 20:11	1
Benzo[k]fluoranthene	ND		0.0746	0.0156	mg/Kg	12	03/15/13 06:52	03/15/13 20:11	1
1-Methylnaphthalene	ND		0.0746	0.0156	mg/Kg	Ø	03/15/13 06:52	03/15/13 20:11	1
Pyrene	0.116		0.0746	0.0134	mg/Kg	0	03/15/13 06:52	03/15/13 20:11	1
Phenanthrene	ND		0.0746	0.0100	mg/Kg	13	03/15/13 06:52	03/15/13 20:11	1
Chrysene	0.0742	J	0.0746	0.0100	mg/Kg	22	03/15/13 06:52	03/15/13 20:11	1
Dibenz(a,h)anthracene	ND		0.0746	0.00780	mg/Kg	23	03/15/13 06:52	03/15/13 20:11	1
Fluoranthene	0.150		0.0746	0.0100	mg/Kg	Ø	03/15/13 06:52	03/15/13 20:11	1
Fluorene	ND		0.0746	0.0134	mg/Kg	Ø	03/15/13 06:52	03/15/13 20:11	1
Indeno[1,2,3-cd]pyrene	ND		0.0746	0.0111	mg/Kg	13	03/15/13 06:52	03/15/13 20:11	1
Naphthalene	ND		0.0746	0.0100	mg/Kg	13	03/15/13 06:52	03/15/13 20:11	1
2-Methylnaphthalene	ND		0.0746	0.0178	mg/Kg	п	03/15/13 06:52	03/15/13 20:11	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	58		29 - 120				03/15/13 06:52	03/15/13 20:11	1
Terphenyl-d14 (Surr)	78		13 - 120				03/15/13 06:52	03/15/13 20:11	1
Nitrobenzene-d5 (Surr)	54		27 - 120				03/15/13 06:52	03/15/13 20:11	1
General Chemistry									
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	88		0.10	0.10	%			03/15/13 08:19	1

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

#### Lab Sample ID: MB 490-65345/7 Matrix: Solid Analysis Batch: 65345

TestAmerica	Job	ID:	490-2	217	11	1-	1

**Client Sample ID: Lab Control Sample** 

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Type: Total/NA

5

6 7

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	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00200	0.000670	mg/Kg			03/15/13 15:14	1
Ethylbenzene	ND		0.00200	0.000670	mg/Kg			03/15/13 15:14	1
Naphthalene	ND		0.00500	0.00170	mg/Kg			03/15/13 15:14	1
Toluene	ND		0.00200	0.000740	mg/Kg			03/15/13 15:14	1
Xylenes, Total	ND		0.00500	0.000670	mg/Kg			03/15/13 15:14	1
	MB	MB							
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	108		70 - 130					03/15/13 15:14	1
4-Bromofluorobenzene (Surr)	103		70 - 130					03/15/13 15:14	1
Dibromofluoromethane (Surr)	96		70 - 130					03/15/13 15:14	1
Toluene-d8 (Surr)	106		70 - 130					03/15/13 15:14	1

#### Lab Sample ID: LCS 490-65345/3 Matrix: Solid Analysis Batch: 65345

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.0500	0.04982		mg/Kg		100	75 - 127	
Ethylbenzene	0.0500	0.04964		mg/Kg		99	80 - 134	
Naphthalene	0.0500	0.05088		mg/Kg		102	69 - 150	
Toluene	0.0500	0.05137		mg/Kg		103	80 - 132	
Xylenes, Total	0.150	0.1505		mg/Kg		100	80 - 137	

	LUS	LUS	
Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	107		70 - 130
4-Bromofluorobenzene (Surr)	108		70 - 130
Dibromofluoromethane (Surr)	100		70 - 130
Toluene-d8 (Surr)	109		70 - 130

#### Lab Sample ID: LCSD 490-65345/4 Matrix: Solid

## Analysis Batch: 65345

1,2-Dichloroethane-d4 (Surr)

and the second second second			Spike	LCSD	LCSD				%Rec.		RPD
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene			0.0500	0.04974		mg/Kg		99	75 - 127	0	50
Ethylbenzene			0.0500	0.04973		mg/Kg		99	80 - 134	0	50
Naphthalene			0.0500	0.05205		mg/Kg		104	69 - 150	2	50
Toluene			0.0500	0.05198		mg/Kg		104	80 - 132	1	50
Xylenes, Total			0.150	0.1508		mg/Kg		101	80 - 137	0	50
	LCSD	LCSD									
Surrogate	%Recovery	Qualifier	Limits								

70 - 130

4-Bromofluorobenzene (Surr)	108	70 - 130		
Dibromofluoromethane (Surr)	99	70 - 130		
Toluene-d8 (Surr)	108	70 - 130		

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TestAmerica Job ID: 490-21711-1

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

MB MB

ND

ND ND

ND

ND MB MB

103

108

93

106

%Recovery

**Result Qualifier** 

Qualifier

Lab Sample ID: MB 490-65720/
Matrix: Solid
Analysis Batch: 65720

Analyte

Benzene

Ethylbenzene

Naphthalene Toluene

Xylenes, Total

Surrogate

1.2-Dichloroethane-d4 (Surr)

4-Bromofluorobenzene (Surr)

Dibromofluoromethane (Surr)

Toluene-d8 (Surr)

Client Sample ID: N	Aethod Blan	k
Prep Ty	pe: Total/N/	۵

**Client Sample ID: Method Blank** 

Prep Type: Total/NA

					Trop Type. 1	otunte	5
RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	11
0.100	0.0335	mg/Kg			03/18/13 13:26	1	12
0.100	0.0335	mg/Kg			03/18/13 13:26	1	-
0.250	0.0850	mg/Kg			03/18/13 13:26	1	1
0.100	0.0370	mg/Kg			03/18/13 13:26	1	1000
0.250	0.0335	mg/Kg			03/18/13 13:26	.1	8
Limits				Prepared	Analyzed	Dil Fac	9
70 - 130					03/18/13 13:26	1	
70 - 130					03/18/13 13:26	1	11
70 - 130					03/18/13 13:26	1	
70 - 130	÷				03/18/13 13:26	1	

#### Lab Sample ID: MB 490-65720/7 Matrix: Solid Analysis Batch: 65720

Come and a second second second	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00200	0.000670	mg/Kg			03/18/13 13:54	1
Ethylbenzene	ND		0.00200	0.000670	mg/Kg			03/18/13 13:54	1
Naphthalene	ND		0.00500	0.00170	mg/Kg			03/18/13 13:54	1
Toluene	ND		0.00200	0.000740	mg/Kg			03/18/13 13:54	1
Xylenes, Total	ND		0.00500	0.000670	mg/Kg			03/18/13 13:54	1
	MB	МВ							
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		70 - 130					03/18/13 13:54	1
4-Bromofluorobenzene (Surr)	108		70 - 130					03/18/13 13:54	1
Dibromofluoromethane (Surr)	96		70 - 130					03/18/13 13:54	1
Toluene-d8 (Surr)	103		70 - 130					03/18/13 13:54	1

#### Lab Sample ID: LCS 490-65720/3 Matrix: Solid

Analysis Batch: 65720

			Spike	LCS	LCS				%Rec.
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits
Benzene			0.0500	0.04816		mg/Kg		96	75 - 127
Ethylbenzene			0.0500	0.04890		mg/Kg		98	80 - 134
Naphthalene			0.0500	0.05301		mg/Kg		106	69 - 150
Toluene			0.0500	0.05058		mg/Kg		101	80 - 132
Xylenes, Total			0.150	0.1499		mg/Kg		100	80 - 137
	LCS	LCS							
Surrogate	%Recovery	Qualifier	Limits						
1.2-Dichloroethane-d4 (Surr)	105		70 - 130						

4-Bromofluorobenzene (Surr)	109	70 - 130		
Dibromofluoromethane (Surr)	99	70 - 130		
Toluene-d8 (Surr)	106	70 - 130		

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

**Client Sample ID: Method Blank** 

Prep Type: Total/NA

Prep Batch: 65195

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

#### Lab Sample ID: LCSD 490-65720/4 Matrix: Solid Analysis Batch: 65720

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

			Spike	LCSD	LCSD				%Rec.		RPD
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene			0.0500	0.04740		mg/Kg		95	75 - 127	2	50
Ethylbenzene			0.0500	0.04718		mg/Kg		94	80 - 134	4	50
Naphthalene			0.0500	0.05208		mg/Kg		104	69 - 150	2	50
Toluene			0.0500	0.04912		mg/Kg		98	80 - 132	3	50
Xylenes, Total			0.150	0.1435		mg/Kg		96	80 - 137	4	50
	LCSD	LCSD									
Surrogate	%Recovery	Qualifier	Limits								
1,2-Dichloroethane-d4 (Surr)	107		70 - 130								
4-Bromofluorobenzene (Surr)	109		70 - 130								
Dibromofluoromethane (Surr)	98		70 - 130								
Toluene-d8 (Surr)	105		70 - 130								

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

#### Lab Sample ID: MB 490-65195/1-A Matrix: Solid Analysis Batch: 65455

Nitrobenzene-d5 (Surr)

MB MB Analyte RI **Result** Qualifier MDL Unit D Dil Fac Prepared Analyzed ND 0.0670 Acenaphthene 0.0100 mg/Kg 03/15/13 06:52 03/15/13 15:27 1 Acenaphthylene ND 0.0670 0.00900 03/15/13 15:27 mg/Kg 03/15/13 06:52 ND 0.0670 Anthracene 0.00900 mg/Kg 03/15/13 06:52 03/15/13 15:27 1 ND 0.0150 mg/Kg Benzo[a]anthracene 0.0670 03/15/13 06:52 03/15/13 15:27 1 Benzo[a]pyrene ND 0.0670 0.0120 mg/Kg 03/15/13 06:52 03/15/13 15:27 Benzo[b]fluoranthene ND 0.0670 0.0120 mg/Kg 03/15/13 06:52 03/15/13 15:27 1 Benzo[g,h,i]perylene ND 0.0670 0.00900 mg/Kg 03/15/13 06:52 03/15/13 15:27 1 Benzo[k]fluoranthene ND 0.0670 0.0140 mg/Kg 03/15/13 06:52 03/15/13 15:27 1 1-Methylnaphthalene ND 0.0670 0.0140 mg/Kg 03/15/13 06:52 03/15/13 15:27 1 Pyrene ND 0.0670 0.0120 mg/Kg 03/15/13 15:27 03/15/13 06:52 1 ND 0.0670 0.00900 mg/Kg Phenanthrene 03/15/13 06:52 03/15/13 15:27 1 Chrysene ND 0.0670 0.00900 mg/Kg 03/15/13 06:52 03/15/13 15:27 1 Dibenz(a,h)anthracene ND 0.0670 0.00700 mg/Kg 03/15/13 06:52 03/15/13 15:27 1 Fluoranthene ND 0.0670 0.00900 mg/Kg 03/15/13 06:52 03/15/13 15:27 1 Fluorene ND 0.0670 0.0120 mg/Kg 03/15/13 06:52 03/15/13 15:27 1 Indeno[1,2,3-cd]pyrene ND 0.0670 0.0100 mg/Kg 03/15/13 06:52 03/15/13 15:27 1 Naphthalene ND 0.0670 0.00900 mg/Kg 03/15/13 06:52 03/15/13 15:27 1 2-Methylnaphthalene ND 0.0670 0.0160 mg/Kg 03/15/13 06:52 03/15/13 15:27 1 MB MB Surrogate %Recovery Qualifier Limits Dil Fac Prepared Analyzed 2-Fluorobiphenyl (Surr) 56 29 - 120 03/15/13 06:52 03/15/13 15:27 1 Terphenyl-d14 (Surr) 76 13.120 03/15/13 06:52 03/15/13 15:27 1

03/15/13 15:27

03/15/13 06:52

27 - 120

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

Lab Sample 10. LCS 450-0513512-A					Client	Sample	D: Lab Control Samp
Matrix: Solid							Prep Type: Total/N
Analysis Batch: 65455							Prep Batch: 6519
	Spike	LCS	LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Acenaphthylene	1.67	1.556		mg/Kg		93	38 - 120
Anthracene	1.67	1.528		mg/Kg		92	46 - 124
Benzo[a]anthracene	1.67	1.511		mg/Kg		91	45 - 120
Benzo[a]pyrene	1.67	1.546		mg/Kg		93	45 - 120
Benzo[b]fluoranthene	1.67	1.582		mg/Kg		95	42 - 120
Benzo[g,h,i]perylene	1.67	1.602		mg/Kg		96	38 - 120
Benzo[k]fluoranthene	1.67	1.469		mg/Kg		88	42 - 120
1-Methylnaphthalene	1.67	1.387		mg/Kg		83	32 - 120
Pyrene	1.67	1.510		mg/Kg		91	43 - 120
Phenanthrene	1.67	1.583		mg/Kg		95	45 - 120
Chrysene	1.67	1.482		mg/Kg		89	43 - 120
Dibenz(a,h)anthracene	1.67	1.626		mg/Kg		98	32 - 128
Fluoranthene	1.67	1.537		mg/Kg		92	46 - 120
Fluorene	1.67	1.534		mg/Kg		92	42 - 120
ndeno[1,2,3-cd]pyrene	1.67	1.603		mg/Kg		96	41 - 121
Naphthalene	1.67	1.391		mg/Kg		83	32 - 120
2-Methylnaphthalene	1.67	1.402		mg/Kg		84	28 - 120

LUS	LUS	
%Recovery	Qualifier	Limits
77		29 - 120
92		13 - 120
60		27 - 120
	<b>%Recovery</b> 77 92 60	%Recovery Qualifier 77 92 60

#### Lab Sample ID: 490-21695-A-4-B MS Matrix: Solid

# Analysis Batch: 65455

Analysis Batch: 65455									Prep Batch:	65195
	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Acenaphthylene	ND		1.62	1.457		mg/Kg		90	25 - 120	
Anthracene	ND		1.62	1.422		mg/Kg		88	28 - 125	
Benzo[a]anthracene	ND		1.62	1.405		mg/Kg		87	23 - 120	
Benzo[a]pyrene	ND		1.62	1.415		mg/Kg		87	15 - 128	
Benzo[b]fluoranthene	ND		1.62	1.511		mg/Kg		93	12 - 133	
Benzo[g,h,i]perylene	ND		1.62	1.392		mg/Kg		86	22 - 120	
Benzo[k]fluoranthene	ND		1.62	1.335		mg/Kg		82	28 - 120	
1-Methylnaphthalene	ND		1.62	1.304		mg/Kg		80	10 - 120	
Pyrene	ND		1.62	1.378		mg/Kg		85	20 - 123	
Phenanthrene	ND		1.62	1.487		mg/Kg		92	21 - 122	
Chrysene	ND		1.62	1.381		mg/Kg		85	20 - 120	
Dibenz(a,h)anthracene	ND		1.62	1.464		mg/Kg		90	12 - 128	
Fluoranthene	ND		1.62	1.439		mg/Kg		89	10 - 143	
Fluorene	ND		1.62	1.448		mg/Kg		89	20 - 120	
Indeno[1,2,3-cd]pyrene	ND		1.62	1.421		mg/Kg		88	22 - 121	
Naphthalene	ND		1.62	1.304		mg/Kg		80	10 - 120	
2-Methylnaphthalene	ND		1.62	1.314		mg/Kg		81	13 - 120	

TestAmerica Nashville

Client Sample ID: Matrix Spike

Prep Type: Total/NA

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

#### Lab Sample ID: 490-21695-A-4-B MS Matrix: Solid Analysis Batch: 65455

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
2-Fluorobiphenyl (Surr)	75		29 - 120
Terphenyl-d14 (Surr)	88		13 - 120
Nitrobenzene-d5 (Surr)	58		27 - 120

#### Lab Sample ID: 490-21695-A-4-C MSD Matrix: Solid

-			100	A 144 A 144 AT
Analy	reie	Rate	h.	65455
Allan	013	Date		03433

Analysis Batch: 65455									Prep	Batch:	65195
	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Acenaphthylene	ND		1.63	1.538		mg/Kg		95	25 - 120	5	50
Anthracene	ND		1.63	1.512		mg/Kg		93	28 - 125	6	49
Benzo[a]anthracene	ND		1.63	1.470		mg/Kg		90	23 - 120	5	50
Benzo[a]pyrene	ND		1.63	1.498		mg/Kg		92	15 - 128	6	50
Benzo[b]fluoranthene	ND		1.63	1.561		mg/Kg		96	12 - 133	3	50
Benzo[g,h,i]perylene	ND		1.63	1.455		mg/Kg		89	22 - 120	4	50
Benzo[k]fluoranthene	ND		1.63	1.471		mg/Kg		90	28 - 120	10	45
1-Methylnaphthalene	ND		1.63	1.368		mg/Kg		84	10 - 120	5	50
Pyrene	ND		1.63	1.435		mg/Kg		88	20 - 123	4	50
Phenanthrene	ND		1.63	1.580		mg/Kg		97	21 - 122	6	50
Chrysene	ND		1.63	1.463		mg/Kg		90	20 - 120	6	49
Dibenz(a,h)anthracene	ND		1.63	1.506		mg/Kg		93	12 - 128	3	50
Fluoranthene	ND		1.63	1.558		mg/Kg		96	10 - 143	8	50
Fluorene	ND		1.63	1.529		mg/Kg		94	20 - 120	5	50
Indeno[1,2,3-cd]pyrene	ND		1.63	1.483		mg/Kg		91	22 - 121	4	50
Naphthalene	ND		1.63	1.368		mg/Kg		84	10 - 120	5	50
2-Methylnaphthalene	ND		1.63	1.376		mg/Kg		85	13 - 120	5	50
	MSD	MSD									
Surrogate	%Recovery	Qualifier	Limits								
2-Fluorobiphenyl (Surr)	74		29 - 120								
Terphenyl-d14 (Surr)	87		13 - 120								

#### Method: Moisture - Percent Moisture

Nitrobenzene-d5 (Surr)

Lab Sample ID: 490-21711-1 DU Matrix: Solid							Client Sample ID: 1375 Prep Type: To	Dove tal/NA
Analysis Batch: 65312								
	Sample	Sample	DU	DU				RPD
Analyte	Result	Qualifier	Result	Qualifier	Unit	D	RPD	Limit
Percent Solids	80		81		%		1	20

27 - 120

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# **QC Association Summary**

Client: Environmental Enterprise Group Project/Site: Laurel Bay Housing Project TestAmerica Job ID: 490-21711-1

#### GC/MS VOA

#### Prep Batch: 65243

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-21711-4	1421 Albatross	Total/NA	Solid	5035	-
Prep Batch: 65245					
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-21711-1	1375 Dove	Total/NA	Solid	5035	
490-21711-2	710 Bluebell	Total/NA	Solid	5035	
490-21711-3	643 Dahlia - a	Total/NA	Solid	5035	
490-21711-4	1421 Albatross	Total/NA	Solid	5035	
490-21711-5	715 Bluebell	Total/NA	Solid	5035	
490-21711-5	715 Bluebell	Total/NA	Solid	5035	
490-21711-6	1256 Dove	Total/NA	Solid	5035	
Analysis Batch: 6534	5				
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-21711-1	1375 Dove	Total/NA	Solid	8260B	65245
490-21711-2	710 Bluebell	Total/NA	Solid	8260B	65245
490-21711-3	643 Dahlia - a	Total/NA	Solid	8260B	65245
490-21711-4	1421 Albatross	Total/NA	Solid	8260B	65245
490-21711-5	715 Bluebell	Total/NA	Solid	8260B	65245
490-21711-6	1256 Dove	Total/NA	Solid	8260B	65245
LCS 490-65345/3	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 490-65345/4	Lab Control Sample Dup	Total/NA	Solid	8260B	
MB 490-65345/7	Method Blank	Total/NA	Solid	8260B	
Analysis Batch: 65720	)				
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-21711-4	1421 Albatross	Total/NA	Solid	8260B	65243
490-21711-4	1421 Albatross	Total/NA	Solid	8260B	65243
490-21711-5	715 Bluebell	Total/NA	Solid	8260B	65245
LCS 490-65720/3	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 490-65720/4	Lab Control Sample Dup	Total/NA	Solid	8260B	
MB 490-65720/6	Method Blank	Total/NA	Solid	8260B	
MB 490-65720/7	Method Blank	Total/NA	Solid	8260B	

# GC/MS Semi VOA

#### Prep Batch: 65195

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-21695-A-4-B MS	Matrix Spike	Total/NA	Solid	3550C	
490-21695-A-4-C MSD	Matrix Spike Duplicate	Total/NA	Solid	3550C	
490-21711-1	1375 Dove	Total/NA	Solid	3550C	
490-21711-2	710 Bluebell	Total/NA	Solid	3550C	
490-21711-3	643 Dahlia - a	Total/NA	Solid	3550C	
490-21711-4	1421 Albatross	Total/NA	Solid	3550C	
490-21711-5	715 Bluebell	Total/NA	Solid	3550C	
490-21711-6	1256 Dove	Total/NA	Solid	3550C	
LCS 490-65195/2-A	Lab Control Sample	Total/NA	Solid	3550C	
MB 490-65195/1-A	Method Blank	Total/NA	Solid	3550C	

# **QC Association Summary**

Client: Environmental Enterprise Group Project/Site: Laurel Bay Housing Project TestAmerica Job ID: 490-21711-1

3

#### GC/MS Semi VOA (Continued)

#### Analysis Batch: 65455

GC/MS Semi VOA (	Continued)					
Analysis Batch: 65455						
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch	
490-21695-A-4-B MS	Matrix Spike	Total/NA	Solid	8270D	65195	5
490-21695-A-4-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8270D	65195	-
490-21711-1	1375 Dove	Total/NA	Solid	8270D	65195	
490-21711-2	710 Bluebell	Total/NA	Solid	8270D	65195	. ч.
490-21711-3	643 Dahlia - a	Total/NA	Solid	8270D	65195	
490-21711-5	715 Bluebell	Total/NA	Solid	8270D	65195	
490-21711-6	1256 Dove	Total/NA	Solid	8270D	65195	•
LCS 490-65195/2-A	Lab Control Sample	Total/NA	Solid	8270D	65195	8
MB 490-65195/1-A	Method Blank	Total/NA	Solid	8270D	65195	G
Analysis Batch: 65572						
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch	10
490-21711-4	1421 Albatross	Total/NA	Solid	8270D	65195	
490-21711-4	1421 Albatross	Total/NA	Solid	82700	65195	

#### **General Chemistry**

#### Analysis Batch: 65312

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-21711-1	1375 Dove	Total/NA	Solid	Moisture	
490-21711-1 DU	1375 Dove	Total/NA	Solid	Moisture	
490-21711-2	710 Bluebell	Total/NA	Solid	Moisture	
490-21711-3	643 Dahlia - a	Total/NA	Solid	Moisture	
490-21711-4	1421 Albatross	Total/NA	Solid	Moisture	
490-21711-5	715 Bluebell	Total/NA	Solid	Moisture	
490-21711-6	1256 Dove	Total/NA	Solid	Moisture	

### Client Sample ID: 1375 Dove

Date Collected: 03/05/13 13:35 Date Received: 03/13/13 08:10

TestAmerica	Job ID:	490-21711-	-1
	TestAmerica	TestAmerica Job ID:	TestAmerica Job ID: 490-21711

# The second second

Lab Sample ID: 490-21711-1 Matrix: Solid

Lab Sample ID: 490-21711-2

Lab Sample ID: 490-21711-3

Matrix: Solid

Matrix: Solid

Percent Solids: 79.2

Percent Solids: 82.7

Percent Solids: 80.0

9

Preo Type	Batch	Batch	Run	Dilution	Batch	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			65245	03/14/13 17:05	ML	TAL NSH
Total/NA	Analysis	8260B		1	65345	03/15/13 17:59	мн	TAL NSH
Total/NA	Prep	3550C			65195	03/15/13 06:52	AK	TAL NSH
Total/NA	Analysis	8270D		1	65455	03/15/13 18:22	JS	TAL NSH
Total/NA	Analysis	Moisture		1	65312	03/15/13 08:19	RS	TAL NSH

#### Client Sample ID: 710 Bluebell Date Collected: 03/06/13 11:30 Date Received: 03/13/13 08:10

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			65245	03/14/13 17:05	ML	TAL NSH
Total/NA	Analysis	8260B		1	65345	03/15/13 18:26	MH	TAL NSH
Total/NA	Prep	3550C			65195	03/15/13 06:52	AK	TAL NSH
Total/NA	Analysis	8270D		1	65455	03/15/13 18:44	JS	TAL NSH
Total/NA	Analysis	Moisture		1	65312	03/15/13 08:19	RS	TAL NSH

#### Client Sample ID: 643 Dahlia - a Date Collected: 03/07/13 14:05 Date Received: 03/13/13 08:10

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			65245	03/14/13 17:05	ML	TAL NSH
Total/NA	Analysis	8260B		1	65345	03/15/13 18:54	МН	TAL NSH
Total/NA	Prep	3550C			65195	03/15/13 06:52	AK	TAL NSH
Total/NA	Analysis	8270D		1	65455	03/15/13 19:28	JS	TAL NSH
Total/NA	Analysis	Moisture		1	65312	03/15/13 08:19	RS	TAL NSH

### Client Sample ID: 1421 Albatross

Date Collected: 03/05/13 14:45 Date Received: 03/13/13 08:10

Lab Sample ID: 490-21711-4

Matrix: Solid Percent Solids: 80.9

	Batch	Batch		Dilution	Batch	Prepared		
Ргер Туре	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			65245	03/14/13 17:05	ML	TAL NSH
Total/NA	Analysis	8260B		1	65345	03/15/13 19:21	мн	TAL NSH
Total/NA	Prep	5035			65243	03/14/13 17:03	ML	TAL NSH
Total/NA	Analysis	8260B		1	65720	03/18/13 15:15	мн	TAL NSH
Total/NA	Analysis	8260B		20	65720	03/18/13 15:42	мн	TAL NSH
Total/NA	Prep	3550C			65195	03/15/13 06:52	AK	TAL NSH
Total/NA	Analysis	8270D		10	65572	03/16/13 19:11	JS	TAL NSH
Total/NA	Analysis	8270D		50	65572	03/16/13 21:21	JS	TAL NSH
Total/NA	Analysis	Moisture		1	65312	03/15/13 08:19	RS	TAL NSH

#### Client Sample ID: 715 Bluebell Date Collected: 03/06/13 14:30

Date Received: 03/13/13 08:10

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			65245	03/14/13 17:05	ML	TAL NSH
Total/NA	Analysis	8260B		1	65345	03/15/13 19:48	МН	TAL NSH
Total/NA	Prep	5035			65245	03/14/13 17:05	ML	TAL NSH
Total/NA	Analysis	8260B		1	65720	03/18/13 14:21	МН	TAL NSH
Total/NA	Prep	3550C			65195	03/15/13 06:52	AK	TAL NSH
Total/NA	Analysis	8270D		1	65455	03/15/13 19:50	JS	TAL NSH
Total/NA	Analysis	Moisture		1	65312	03/15/13 08:19	RS	TAL NSH

#### Client Sample ID: 1256 Dove Date Collected: 03/07/13 15:00

Date Received: 03/13/13 08:10

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			65245	03/14/13 17:05	ML	TAL NSH
Total/NA	Analysis	8260B		1	65345	03/15/13 20:15	мн	TAL NSH
Total/NA	Prep	3550C			65195	03/15/13 06:52	AK	TAL NSH
Total/NA	Analysis	8270D		1	65455	03/15/13 20:11	JS	TAL NSH
Total/NA	Analysis	Moisture		1	65312	03/15/13 08:19	RS	TAL NSH

#### Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

TestAmerica Job ID: 490-21711-1

### Lab Sample ID: 490-21711-5

Matrix: Solid Percent Solids: 86.8

3

Lab Sample ID: 490-21711-6 Matrix: Solid

Percent Solids: 87.9

TestAmerica Job ID: 490-21711-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL NSH
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL NSH
Moisture	Percent Moisture	EPA	TAL NSH

#### **Protocol References:**

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

# **Certification Summary**

Client: Environmental Enterprise Group Project/Site: Laurel Bay Housing Project TestAmerica Job ID: 490-21711-1

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#### Laboratory: TestAmerica Nashville

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
	ACIL		393	10-30-13
A2LA	ISO/IEC 17025		0453.07	12-31-13
Alabama	State Program	4	41150	05-31-13
Alaska (UST)	State Program	10	UST-087	07-24-13
Arizona	State Program	9	AZ0473	05-05-13
Arkansas DEQ	State Program	6	88-0737	04-25-13
California	NELAP	9	1168CA	10-31-13
Connecticut	State Program	1	PH-0220	12-31-13
Florida	NELAP	4	E87358	06-30-13
Illinois	NELAP	5	200010	12-09-13
lowa	State Program	7	131	05-01-14
Kansas	NELAP	7	E-10229	10-31-13
Kentucky (UST)	State Program	4	19	09-15-13
Louisiana	NELAP	6	30613	06-30-13
Maryland	State Program	3	316	03-31-13
Massachusetts	State Program	1	M-TN032	06-30-13
Minnesota	NELAP	5	047-999-345	12-31-13
Mississippi	State Program	4	N/A	06-30-13
Montana (UST)	State Program	8	NA	01-01-15
Nevada	State Program	9	TN00032	07-31-13
New Hampshire	NELAP	1	2963	10-09-13
New Jersey	NELAP	2	TN965	06-30-13
New York	NELAP	2	11342	04-01-13
North Carolina DENR	State Program	4	387	12-31-13
North Dakota	State Program	8	R-146	06-30-13
Ohio VAP	State Program	5	CL0033	01-19-14
Oklahoma	State Program	6	9412	08-31-13
Oregon	NELAP	10	TN200001	04-30-13
Pennsylvania	NELAP	3	68-00585	06-30-13
Rhode Island	State Program	1	LAO00268	12-30-13
South Carolina	State Program	4	84009 (001)	03-28-14
South Carolina	State Program	4	84009 (002)	02-23-14
Tennessee	State Program	4	2008	02-23-14
Texas	NELAP	6	T104704077-09-TX	08-31-13
USDA	Federal		S-48469	11-02-13
Utah	NELAP	8	TAN	06-30-13
Virginia	NELAP	3	460152	06-14-13
Washington	State Program	10	C789	07-19-13
West Virginia DEP	State Program	3	219	02-28-14
Wisconsin	State Program	5	998020430	08-31-13
Wyoming (UST)	A2LA	8	453.07	12-31-13

THE LEADER IN ENVIRONMENTAL TESTING Nashville, TN COOLER RECEIPT FORM	
Cooler Received/Opened On 3/13/2013 @ 0810	
1. Tracking # 9674 (last 4 digits, FedEx)	490-21711 Chain o
Courier: FedEx IR Gun ID 18290455	
2. Temperature of rep. sample or temp blank when opened: 2,3 Degrees Celsius	
<ol> <li>If Item #2 temperature is 0°C or less, was the representative sample or temp blank froze</li> </ol>	TYES NO. NA
4. Were custody seals on outside of cooler?	EL.NONA
If yes, how many and where:I Front + Back	-
5. Were the seals intact, signed, and dated correctly?	TES NONA
5. Were custody papers inside cooler?	DES.NONA
certify that I opened the cooler and answered questions 1-6 (intial)	4
7. Were custody seals on containers: YES NO and Intact	YESNO.
Were these signed and dated correctly?	YESNO NA
B. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Pa	per Other None
9. Cooling process: Cice lce-pack lce (direct contact) Dry	ce Other None
10. Did all containers arrive in good condition (unbroken)?	VES.NONA
1. Were all container labels complete (#, date, signed, pres., etc)?	YES.NONA
2. Did all container labels and tags agree with custody papers?	ES.NONA
3a. Were VOA vials received?	VES .NO NA
b. Was there any observable headspace present in any VOA vial?	YES. NONA-
14. Was there a Trip Blank in this cooler? YESNO If multiple coolers, sequ	ance # NA
14. Was there a Trip Blank in this cooler? YESNO If multiple coolers, sequence certify that I unloaded the cooler and answered questions 7-14 (intial)	ence #_ <u>NA</u> F
14. Was there a Trip Blank in this cooler?       YESNO YES YESNO YES YESNO YESNO YESNO YES YESNO YESNO YES YESNO YESNO YESNO YES YES.	ence #A  17 YESNOA
<ul> <li>14. Was there a Trip Blank in this cooler? YESNO If multiple coolers, sequencertify that I unloaded the cooler and answered questions 7-14 (initial)</li> <li>15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH levence.</li> <li>b. Did the bottle labels indicate that the correct preservatives were used</li> </ul>	17 YESNONA
<ul> <li>14. Was there a Trip Blank in this cooler? YESNO If multiple coolers, sequencertify that I unloaded the cooler and answered questions 7-14 (initial)</li> <li>15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH levelow.</li> <li>b. Did the bottle labels indicate that the correct preservatives were used</li> <li>16. Was residual chlorine present?</li> </ul>	PIRE # NA I? YESNONA (ES)NONA YESNONA
<ul> <li>4. Was there a Trip Blank in this cooler? YESNO If multiple coolers, sequencertify that I unloaded the cooler and answered questions 7-14 (intial)</li> <li>5a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level</li> <li>b. Did the bottle labels indicate that the correct preservatives were used</li> <li>6. Was residual chlorine present?</li> <li>certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial)</li> </ul>	Pance # NA F 17 YESNONA (ES)NONA YESNONA
<ul> <li>4. Was there a Trip Blank in this cooler? YESNONO. If multiple coolers, sequencertify that I unloaded the cooler and answered questions 7-14 (intial)</li> <li>5a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level b. Did the bottle labels indicate that the correct preservatives were used</li> <li>6. Was residual chlorine present?</li> <li>certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial)</li> <li>7. Were custody papers properly filled out (ink, signed, etc)?</li> </ul>	PINCE # NA I? YESNONA YESNONA YESNONA YESNONA
<ul> <li>4. Was there a Trip Blank in this cooler? YESNOW If multiple coolers, sequencertify that I unloaded the cooler and answered questions 7-14 (initial)</li> <li>5a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level b. Did the bottle labels indicate that the correct preservatives were used</li> <li>6. Was residual chlorine present?</li> <li>certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (initial)</li> <li>7. Were custody papers properly filled out (ink, signed, etc)?</li> <li>8. Did you sign the custody papers in the appropriate place?</li> </ul>	Pince # <u>NA</u> 17 YESNONA YESNONA YESNONA YESNONA YESNONA
<ul> <li>14. Was there a Trip Blank in this cooler? YESNO If multiple coolers, sequencertify that I unloaded the cooler and answered questions 7-14 (initial)</li> <li>15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level b. Did the bottle labels indicate that the correct preservatives were used</li> <li>16. Was residual chlorine present?</li> <li>certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (initial)</li> <li>17. Were custody papers properly filled out (ink, signed, etc)?</li> <li>18. Did you sign the custody papers in the appropriate place?</li> <li>19. Were correct containers used for the analysis requested?</li> </ul>	PINCE # NA I? YESNONA YESNONA YESNONA YESNONA YESNONA YESNONA
<ul> <li>14. Was there a Trip Blank in this cooler? YESNO If multiple coolers, sequencertify that I unloaded the cooler and answered questions 7-14 (initial)</li> <li>15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level b. Did the bottle labels indicate that the correct preservatives were used</li> <li>16. Was residual chlorine present?</li> <li>certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (initial)</li> <li>7. Were custody papers properly filled out (ink, signed, etc)?</li> <li>8. Did you sign the custody papers in the appropriate place?</li> <li>9. Were correct containers used for the analysis requested?</li> <li>10. Was sufficient amount of sample sent in each container?</li> </ul>	PINCE # NA I? YESNONA YESNONA YESNONA YESNONA YESNONA YESNONA YESNONA
<ul> <li>4. Was there a Trip Blank in this cooler? YESNOW If multiple coolers, sequencertify that I unloaded the cooler and answered questions 7-14 (initial)</li> <li>5a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level b. Did the bottle labels indicate that the correct preservatives were used</li> <li>6. Was residual chlorine present?</li> <li>certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (initial)</li> <li>7. Were custody papers properly filled out (ink, signed, etc)?</li> <li>8. Did you sign the custody papers in the appropriate place?</li> <li>9. Were correct containers used for the analysis requested?</li> <li>10. Was sufficient amount of sample sent in each container?</li> <li>certify that I entered this project into LIMS and answered questions 17-20 (initial)</li> </ul>	ence # <u>NA</u> 17 YESNONA YESNONA YESNONA YESNONA YESNONA YESNONA YESNONA

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## Login Sample Receipt Checklist

#### Client: Environmental Enterprise Group

#### Login Number: 21711 List Number: 1 Creator: Ford, Easton

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a<br survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Job Number: 490-21711-1

List Source: TestAmerica Nashville

# ATTACHMENT A

# **UST Certificate of Disposal**

# CONTRACTOR

Small Business Group, Inc. 10179 Highway 78 Ladson, SC 29456

TEL (843) 879-0403 FAX (843) 879-0401

# TANK ID & LOCATION

UST 1421Albatross; 1421 Albatross Drive, Laurel Bay Housing Area, MCAS Beaufort, S.C.

# **DISPOSAL LOCATION**

Coastal Auto Salvage Co., Inc. 130 Laurel Bay Road Beaufort, S.C. 29906

# TYPE OF TANK SIZE (GAL)

Steel

280

# CLEANING/DISPOSAL METHOD

The tank and piping were unearthed, cut open, cleaned with a pressure washer, cut into sections, and recycled.

# DISPOSAL CERTIFICATION

I certify that the above tank, piping and equipment has been properly cleaned and disposed of.

(Name) (Date)

Appendix C Laboratory Analytical Report - Groundwater



Client: AECOM - Resolution Consultants				Laboratory ID	QF17014-0	013					
Description: BEALB1421TW01WG20150617				Matrix: Aqueous							
Date Sampled:06/16/2015 1455											
Date Received: 06/18/2015											
Run Prep Method 1 5030B	Analytical Method 8260B	Dilution 1	<b>Analys</b> 06/25/20	is Date Analyst D15 0314 PMM2	Prep	Date	<b>Batch</b> 78064				
Parameter		Nur	CAS nber	Analytical Method	Result	Q	LOQ	LOD	DL	Units	Run
Benzene		71-	43-2	8260B	0.50	J	5.0	0.45	0.21	ug/L	1
Ethylbenzene		100-	41-4	8260B	4.0	J	5.0	0.51	0.21	ug/L	1
Naphthalene		91-	20-3	8260B	23		5.0	0.96	0.14	ug/L	1
Toluene		108-	88-3	8260B	1.1	J	5.0	0.48	0.24	ug/L	1
Xylenes (total)		1330-	20-7	8260B	17		5.0	0.57	0.19	ug/L	1
Surrogate	Q %I	Run 1 Recovery	Acceptar Limit	nce Is							
Bromofluorobenzene		109	75-12	0							
1,2-Dichloroethane-d4		90	70-12	0							
Toluene-d8		96	85-12	0							
Dibromofluoromethane		89	85-11	5							

PQL = Practical quantitation limitB = Detected in the method blankE = Quantitation of compound exceeded the calibration rangeH = Out of holding timeQ = Surrogate failureND = Not detected at or above the MDLJ = Estimated result < PQL and  $\geq$  MDLP = The RPD between two GC columns exceeds 40%N = Recovery is out of criteriaL = LCS/LCSD failureWhere applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"S = MS/MSD failure

Shealy Environmental Services, Inc.106 Vantage Point DriveWest Columbia, SC 29172(803) 791-9700Fax (803) 791-9111www.shealylab.com

Description: BEALB1421TW01WG20150617

Laboratory ID: QF17014-013

Date Sampled:06/16/2015 1455

Matrix: Aqueous

#### Date Received: 06/18/2015

RunPrep Method13520C	Analytical Method E 8270D (SIM)	Dilution Analy 1 06/22/	<b>ysis Date Analyst</b> /2015 1728 RBH	<b>Prep</b> 06/19/2	<b>Date</b> 015 14:	<b>Batch</b> 30 77693		
Parameter		CAS Number	Analytical Method	Result	Q	LOQ	LOD	DL Units Run
Benzo(a)anthracene		56-55-3	8270D (SIM)	0.040	U	0.20	0.040	0.019 ug/L 1
Benzo(b)fluoranthene		205-99-2	8270D (SIM)	0.040	U	0.20	0.040	0.019 ug/L 1
Benzo(k)fluoranthene		207-08-9	8270D (SIM)	0.040	U	0.20	0.040	0.024 ug/L 1
Chrysene		218-01-9	8270D (SIM)	0.040	U	0.20	0.040	0.021 ug/L 1
Dibenzo(a,h)anthracene		53-70-3	8270D (SIM)	0.080	U	0.20	0.080	0.040 ug/L 1
Surrogate	R Q % Re	un 1 Accept covery Lin	tance nits					
2-Methylnaphthalene-d10		80 15-1	139					
Fluoranthene-d10		76 23-1	154					

PQL = Practical quantitation limitB = Detected in the method blankE = Quantitation of compound exceeded the calibration rangeH = Out of holding timeQ = Surrogate failureND = Not detected at or above the MDLJ = Estimated result < PQL and ≥ MDL</td>P = The RPD between two GC columns exceeds 40%N = Recovery is out of criteriaL = LCS/LCSD failureWhere applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"S = MS/MSD failureS = MS/MSD failure

Shealy Environmental Services, Inc.106 Vantage Point DriveWest Columbia, SC 29172(803) 791-9700Fax (803) 791-9111www.shealylab.com

Appendix D Laboratory Analytical Report - Vapor


## ALS ENVIRONMENTAL

## **RESULTS OF ANALYSIS**

Page 1 of 1

Client:	AECOM	ALS Project ID: P1503199		
Client Sample ID:	BEALB 1421 SG02 GS20150729	ALS Sample ID: P1503199-004		
Client Project ID:	: WE56-Laurel Bay Military Housing Area, MCAS Beaufort / 60342031.FI.WI			
Test Code:	EPA TO-15	Date Collected: 7/29/15		
Instrument ID.	Talman AUTOCANI/A gilant 5072in art/6800N/MS0	Data Dagainade 9/5/15		

Instrument ID:	Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9	Date Received: 8	/5/15
Analyst:	Simon Cao	Date Analyzed: 8	/11/15
Sampling Media:	6.0 L Summa Canister	Volume(s) Analyzed:	0.020 Liter(s)
Test Notes:			
Container ID:	SC01669		

Initial Pressure (psig): -1.96 Final Pressure (psig): 3.76

			Canister Dilution Factor: 1.45			
CAS #	Compound	Result	LOQ	LOD	MDL	Data
		μg/m³	µg/m³	µg/m³	µg∕m³	Qualifier
71-43-2	Benzene	14	36	33	12	J
108-88-3	Toluene	27	36	32	12	J
100-41-4	Ethylbenzene	62	36	32	12	
179601-23-1	m,p-Xylenes	150	73	62	22	
95-47-6	o-Xylene	250	36	30	11	
91-20-3	Naphthalene	32	36	32	13	U

U = Undetected at the limit of detection: The associated data value is the limit of detection, adjusted by any dilution factor used in the analysis. LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method. J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL. Appendix E Regulatory Correspondence





W. Marshall Taylor Jr., Acting Director Promoting and protecting the health of the public and the environment

April 7, 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 above 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,

that M. K.

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)



Catherine B. Templeton, Director

Promoting and protecting the health of the public and the environment

Attachment to: Krieg to Drawdy Subject: IGWA Dated 4/7/2015

Laurel Bay Underground Storage Tank Assessment Reports for: (18 addresses/19 tanks)

1186 Bobwhite	1417 Albatross	
1194 Cardinal	1420 Dove	
1354 Cardinal	1421 Albatross Tank 1	27.070
1362 Cardinal	1421 Albatross Tank 2	
1364 Cardinal Tank 1	1427 Albatross	
1403 Eagle	1429 Albatross	
1404 Eagle	1444 Dove Tank 1	
1405 Eagle	1453 Cardinal	
1408 Eagle	1455 Cardinal	
1410 Eagle		



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

February 22, 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-May and June 2015 Laurel Bay Military Housing Area Multiple Properties Dated October 2015

Dear Mr. Drawdy,

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

Per the Department's request, groundwater samples were collected from the attached referenced addresses. The Department reviewed the groundwater data and previous investigations and it agrees with the conclusions and recommendations included in the document. To further assess the impact to groundwater, permanent wells should be installed at the 52 stated addresses. For the remaining 91 addresses, there is no indication of contamination on the property and therefore no further investigation is required at this time.

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

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

Sincerely,

LICA

Laurel Petrus RCRA Federal Facilities Section

Attachment: Specific Property Recommendations

Cc: Russell Berry, EQC Region 8 (via email) Shawn Dolan, Resolution Consultants (via email) Bryan Beck, NAVFAC MIDATLANTIC (via email) Craig Ehde (via email)

Attachment to: Petrus to Drawdy Subject: Draft Final Initial Groundwater Investigation Report-May and June 2015 Specific Property Recommendations Dated February 22, 2016

## Draft Final Initial Groundwater Investigation Report for (143 addresses)

Permanent Monitoring Well Investigation recommendation (52 addresses)			
273 Birch Drive	1192 Bobwhite Drive		
325 Ash Street	1194 Bobwhite Drive		
326 Ash Street	1272 Albatross Drive		
336 Ash Street	1352 Cardinal Lane		
343 Ash Street	1356 Cardinal Lane		
353 Ash Street	1359 Cardinal Lane		
430 Elderberry Drive	1360 Cardinal Lane		
440 Elderberry Drive	1362 Cardinal Lane		
456 Elderberry Drive	1370 Cardinal Lane		
458 Elderberry Drive	1382 Dove Lane		
468 Dogwood Drive	1384 Dove lane		
518 Laurel Bay Blvd	1385 Dove Lane		
635 Dahlia Drive	1389 Dove Lane		
638 Dahlia Drive	1392 Dove Lane		
640 Dahlia Drive	1393 Dove Lane		
647 Dahlia Drive	1407 Eagle Lane		
648 Dahlia Drive	1411 Eagle Lane		
650 Dahlia Drive	1418 Albatross Drive		
652 Dahlia Drive	1420 Albatross Drive		
760 Althea Street	1426 Albatross Drive		
1102 Iris Lane	1429 Albatross Drive		
1132 Iris Lane	1434 Dove Lane		
1133 Iris Lane	1436 Dove Lane		
1144 Iris Lane	1440 Dove Lane		
1148 Iris Lane	1442 Dove Lane		
1186 Bobwhite Drive	1444 Dove Lane		
No Further Action recommendation (91 addresses):			
137 Laurel Bay Blvd	771 Althea Street		
139 Laurel Bay Blvd	927 Albacore Street		
229 Cypress Street	1015 Foxglove Street		
261 Beech Street	1046 Gardenia Drive		
276 Birch Drive	1062 Gardenia Drive		
278 Birch Drive 1070 Heather Street			
291 Birch Drive	1072 Heather Street		

300 Ash Street	1107 Iris Lane
304 Ash Street	1126 Iris Lane
314 Ash Street	1129 Iris Lane
322 Ash Street	1138 Iris Lane
323 Ash Street	1161 Jasmine Street
324 Ash Street	1167 Jasmine Street
339 Ash Street	1170 Jasmine Street
344 Ash Street	1190 Bobwhite Drive
348 Ash Street	1219 Cardinal Lane
349 Ash Street	1305 Eagle Lane
362 Asnen Street	1353 Cardinal Lane
376 Aspen Street	1354 Cardinal Lane
380 Aspen Street	1357 Cardinal Lane
383 Aspen Street	1361 Cardinal Lane
387 Acom Drive	1364 Cardinal Lane
392 Acom Drive	1368 Cardinal Lane
396 Acom Drive	1377 Dove Lane
433 Elderberry Drive	1381 Dove Lane
439 Elderberry Drive	1391 Dove Lane
442 Elderberry Drive	1403 Eagle Lane
443 Elderberry Drive	1404 Eagle Lane
444 Elderberry Drive	1405 Eagle Lane
445 Elderberry Drive	1406 Eagle Lane
446 Elderberry Drive	1408 Eagle Lane
448 Elderberry Drive	1410 Eagle Lane
449 Elderberry Drive	1412 Eagle Lane
451 Elderberry Drive	1413 Albatross Drive
453 Elderberry Drive	1414 Albatross Drive
464 Dogwood Drive	1417 Albatross Drive
466 Dogwood Drive	1421 Albatross Drive
467 Dogwood Drive	1422 Albatross Drive
469 Dogwood Drive	1425 Albatross Drive
471 Dogwood Drive	1427 Albatross Drive
475 Dogwood Drive	1430 Dove Lane
516 Laurel Bay Blvd	1432 Dove Lane
531 Laurel Bay Blvd	1438 Dove Lane
532 Laurel Bay Blvd	1453 Cardinal Lane
645 Dablia Drive	1455 Cardinal Lane
763 Althea Street	

Attachment to: Petrus to Drawdy Subject: Draft Final Initial Groundwater Investigation Report-May and June 2015 Specific Property Recommendations Dated February 22, 2016, Page 2



June 20, 2017

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

RE: Approval Response to Comments and Draft Final Revision 1 Vapor Intrusion Report July 2015, January 2016 and May 2016, Laurel Bay Military Housing Area, Multiple Properties

RE: Approval Response to Comments and Draft Final Revision 1 Letter Report - Petroleum Vapor Intrusion Investigations - June 2016 and January 2017, Multiple Properties, Laurel Bay Military Housing Area

Dear Mr. Drawdy:

The South Carolina Department of Health and Environmental Control (DHEC) received the above referenced response to comments and errata pages on May 24 and June 7, 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 response to comments and errata pages. Based on this review, DHEC did not generate any additional comments. Please note that the Department's decision is based on information provided by the Marine Corps Air Station (MCAS) to date. Any information found to be contradictory to this decision may require additional action. Furthermore, the Department retains the right to request further investigation if deemed necessary. If you have any questions, please contact me at petruslb@dhec.sc.gov or 803-898-0294.

Sincerely,

XIRto

Laurel Petrus Department of Defense Corrective Action Section

Cc: Russell Berry, EQC Region 8 Shawn Dolan, Resolution Consultants Bryan Beck, NAVFAC MIDLANT