SUMMARY REPORT 151 WEST DOVE LANE (FORMERLY 1242 WEST DOVE LANE) LAUREL BAY MILITARY HOUSING AREA MARINE CORPS AIR STATION BEAUFORT BEAUFORT, SC

> Revision: 0 Prepared for:

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

and



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

JUNE 2021

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Prepared by:



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

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



Table of Contents

1.0	INTRODUCTION	. 1
1.1 1.2	Background Information UST Removal and Assessment Process	.1 .2
2.0	SAMPLING ACTIVITIES AND RESULTS	. 3
2.1 2.2	UST REMOVAL AND SOIL SAMPLING Soil Analytical Results	. 3 . 4
3.0	PROPERTY STATUS	. 4
4.0	REFERENCES	. 4

Table

Tahle 1	Laboratory	Analytical	Results -	. Soil
	Laboratory	7 mary ticar	Results	501

Appendices

- Appendix A Multi-Media Selection Process for LBMH
- Appendix B UST Assesment Report
- Appendix C Regulatory Correspondence



List of Acronyms

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



1.0 INTRODUCTION

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

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

This report summarizes the results the environmental investigation activities associated with the storage of home heating oil and the potential release of petroleum constituents at the referenced property. Based on the results of the investigation, a No Further Action (NFA) determination has been made by the South Carolina Department of Health and Environmental Control (SCDHEC) for 151 West Dove Lane (Formerly 1242 West Dove Lane). This NFA determination indicates that there are no unacceptable risks to human health or the environment for the petroleum constituents associated with the home heating oil USTs. The following information is included in this report:

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

1.1 Background Information

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



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

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

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

1.2 UST Removal and Assessment Process

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

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

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



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

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

2.0 SAMPLING ACTIVITIES AND RESULTS

The following section presents the sampling activities and associated results for 151 West Dove Lane (Formerly 1242 West Dove Lane). Details regarding the soil investigation at this site are provided in the *SCDHEC UST Assessment Report – 151 West Dove Lane* (MCAS Beaufort, 2013). The UST Assessment Report is provided in Appendix B.

2.1 UST Removal and Soil Sampling

On November 26, 2012, a single 280 gallon heating oil UST was removed from the front yard under the porch area at 151 West Dove Lane (Formerly 1242 West Dove Lane). The former UST location is indicated on Figures 2 and 3 of the UST Assessment Report (Appendix B). The UST was removed and properly disposed of (i.e., shipped offsite for recycling or transported to a landfill). There was no visual evidence (i.e., staining or sheen) of petroleum impact at the time of the UST removal. According to the UST Assessment Report (Appendix B), the depth to the



base of the UST was 6'7" bgs and a single soil sample was collected from that depth. The sample was collected from the fill port side of the former UST to represent a worst case scenario.

Following UST removal, a soil sample was collected from the base of the excavation and shipped to an offsite laboratory for analysis of the petroleum COPCs. Sampling was performed in accordance with applicable South Carolina regulation R.61-92, Part 280 (SCDHEC, 2017) and assessment guidelines.

2.2 Soil Analytical Results

A summary of the laboratory analytical results and SCDHEC RBSLs is presented in Table 1. A copy of the laboratory analytical data report is included in the UST Assessment Report presented in Appendix B. The laboratory analytical data report includes the soil results for the additional PAHs that were analyzed, but do not have associated RBSLs.

The soil sample results were submitted by MCAS Beaufort to SCDHEC utilizing SCDHEC's UST Assessment Report form (Appendix B). The results of the soil sampling at the former UST location were used by MCAS Beaufort, in consultation with SCDHEC, to determine a path forward (i.e., additional sampling or NFA) for the property. The soil results collected from 151 West Dove Lane (Formerly 1242 West Dove Lane) were less than the SCDHEC RBSLs, which indicated the subsurface was not impacted by COPCs associated with the former UST at concentrations that presented a potential risk to human health and the environment.

3.0 PROPERTY STATUS

Based on the analytical results for soil, SCDHEC made the determination that NFA was required for 151 West Dove Lane (Formerly 1242 West Dove Lane). This NFA determination was obtained in a letter dated May 15, 2014. SCDHEC's NFA letter is provided in Appendix C.

4.0 REFERENCES

- Marine Corps Air Station Beaufort, 2013. South Carolina Department of Health and Environmental Control (SCDHEC) Underground Storage Tank Assessment Report – 1242 West Dove Lane, Laurel Bay Military Housing Area, April 2013.
- South Carolina Department of Health and Environmental Control Bureau of Land and Waste Management, 2013. *Quality Assurance Program Plan for the Underground Storage Tank Management* Division, *Revision 2.0*, April 2013.



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

Table



Table 1Laboratory Analytical Results - Soil151 West Dove Lane (Formerly 1242 West Dove Lane)Laurel Bay Military Housing AreaMarine Corps Air Station BeaufortBeaufort, South Carolina

Constituent	SCDHEC RBSLs ⁽¹⁾	Results Sample Collected 11/26/12					
olatile Organic Compounds Analyzed by EPA Method 8260B (mg/kg)							
Benzene	0.003	ND					
Ethylbenzene	1.15	ND					
Naphthalene	0.036	ND					
Toluene	0.627	ND					
Xylenes, Total	13.01	ND					
Semivolatile Organic Compounds Anal	yzed by EPA Method 8270D (mg/kg)						
Benzo(a)anthracene	0.66	ND					
Benzo(b)fluoranthene	0.66	ND					
Benzo(k)fluoranthene	0.66	ND					
Chrysene	0.66	ND					
Dibenz(a,h)anthracene	0.66	ND					

Notes:

⁽¹⁾ South Carolina Risk-Based Screening Levels from the Quality Assurance Program Plan for the Underground Storage Tank Management Division, Revision 2.0 (SCDHEC, April 2013).

Bold font indicates the analyte was detected.

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

EPA - United States Environmental Protection Agency

mg/kg - milligram per kilogram

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

RBSL - Risk-Based Screening Level

SCDHEC - South Carolina Department Of Health and Environmental Control

Appendix A Multi-Media Selection Process for LBMH





Appendix A - Multi-Media Selection Process for LBMH

Appendix B UST Assessment Report



Attachment 1

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

Date Received		
	State Use Only	

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

I. OWNERSHIP OF UST (S)

MCAS Beaufort, Commanding Officer Attn: NREAO (Craig Ehde) Owner Name (Corporation, Individual, Public Agency, Other)							
P.O. Box 55001 Mailing Address							
Beaufort,	South Carolina	29904-5001					
City	State	Zip Code					
843	228-7317	Craig Ehde					
Area Code	Telephone Number	Contact Person					

II. SITE IDENTIFICATION AND LOCATION

Permit I.D. # Laurel Bay Military Ho Facility Name or Company Site Id	using Area, entifier	Marine	Corps	Air	Station,	Beaufort,	SC
1242 Dove Lane, Laurel Street Address or State Road (as ap	Bay Milita Oplicable)	ry Hous	ing Ar	ea			
Beaufort, City	Beaufort County						
					12 (10) C		

Attachment 2

III. INSURANCE INFORMATION

Insurance Statement

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

Is there now, or has there ever been an insurance policy or other financial mechanism that covers this UST release? **YES____ NO____** (check one)

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

My policy provider is: ______ The policy deductible is: ______ The policy limit is:

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

IV. REQUEST FOR SUPERB FUNDING

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

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

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

Name (Type or print.)

Signature

To be completed by Notary Public:

Sworn before me this _____ day of _____, 20____

(Name)

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

VI. **UST INFORMATION**

		1242Dove
A٠	Product(ex. Gas, Kerosene)	Heating oil
B.	Capacity(ex. 1k, 2k)	280 gal
C.	Age	Late 1950s
D.	Construction Material(ex. Steel, FRP)	Steel
E٠	Month/Year of Last Use	Mid 1980s
F.	Depth (ft.) To Base of Tank	6'7"
G.	Spill Prevention Equipment Y/N	No
Н·	Overfill Prevention Equipment Y/N	No
ŀ	Method of Closure Removed/Filled	Removed
J.	Date Tanks Removed/Filled	11/26/2012
K.	Visible Corrosion or Pitting Y/N	Yes
L.	Visible Holes Y/N	Yes
31.0123		

Method of disposal for any USTs removed from the ground (attach disposal manifests) M. UST 1242Dove was removed from the ground and disposed at a Subtitle "D" landfill. See Attachment "A."

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

UST 1242Dove had been previously filled with sand by others.

If any corrosion, pitting, or holes were observed, describe the location and extent for each UST 0. Corrosion, pitting and holes were found throughout the tank.

VII. PIPING INFORMATION

		1242Dove
		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, de	scribe the location and extent for each piping run.
	Corrosion and pitting were found	on the surface of the steel vent

pipe. The copper supply and return 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? If yes, indicate depth and location on the site map. 		x	
 B. Were any petroleum odors detected in the excavation, soil borings, trenches, or monitoring wells? If yes, indicate location on site map and describe the odor (strong, mild, etc.) 		х	
C. Was water present in the UST excavation, soil borings, or trenches? If yes, how far below land surface (indicate location and depth)?		х	
 D. Did contaminated soils remain stockpiled on site after closure? If yes, indicate the stockpile location on the site map. Name of DHEC representative authorizing soil removal: 		х	
E. Was a petroleum sheen or free product detected on any excavation or boring waters?If yes, indicate location and thickness.		x	

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 #
1242 Dove	Excav at fill end	Soil	Sandy	6'7"	11/26/12 1500 hrs	P. Shaw	
	10 M						
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 1000 feet of the UST system? *stormwater canal	*Х	
	If yes, indicate type of receptor, distance, and direction on site map.		
B.	Are there any public, private, or irrigation water supply wells within 1000 feet of the UST system?		Х
	If yes, indicate type of well, distance, and direction on site map.		
C.	Are there any underground structures (e.g., basements) Located within 100 feet of the UST system?		х
	If yes, indicate type of structure, distance, and direction on site map.		
D.	Are there any underground utilities (e.g., telephone, electricity, gas, water, sewer, storm drain) located within 100 feet of the UST system that could potentially come in contact with the contamination? *Sewer, water, electricity cable, fiber optic & geot	*X cy, cherm	al
	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 1242Dove.



Picture 2: UST 1242Dove 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.

		 1		1	
CoC UST	1242Dove				
Benzene	ND				
Toluene	ND				
Ethylbenzene	ND				
Xylenes	ND				
Naphthalene	ND				
Benzo (a) anthracene	ND				
Benzo (b) fluoranthene	ND				
Benzo (k) fluoranthene	ND				
Chrysene	ND				
Dibenz (a, h) anthracene	ND				
TPH (EPA 3550)					
			L.		
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		1. P		
МТВЕ	40				
Naphthalene	25				
Benzo (a) anthracene	10				
Benzo (b) flouranthene	10				
Benzo (k) flouranthene	10				
Chrysene	10				
Dibenz (a, h) anthracene	10				
EDB	.05				
1,2-DCA	5				
Lead	Site specific				

XV. ANALYTICAL RESULTS

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

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

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

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

TestAmerica Job ID: 490-13293-1

TestAmerica Sample Delivery Group: 1063 Client Project/Site: Laurel Bay Housing Project

For:

LINKS

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Visit us at:

he

Expert

Environmental Enterprise Group 10179 Highway 78 Ladson, South Carolina 29456

Attn: Mr. Tom McElwee

Kuth Hay

Authorized for release by: 12/11/2012 11:12:36 AM

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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Table of Contents

Cover Page		l
Table of Contents		2
Sample Summary		3
Case Narrative	······	4
Definitions		5
Client Sample Results		3
QC Sample Results		10
QC Association		14
Chronicle		15
Method Summary		16
Certification Summary		17
Chain of Custody		18
Receipt Checklists		20

Sample Summary

Client: Environmental Enterprise Group Project/Site: Laurel Bay Housing Project TestAmerica Job ID: 490-13293-1 SDG: 1063

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
490-13293-1	1242 Dove	Solid	11/26/12 15:00	12/04/12 08:15
490-13293-2	1460 Cardinal	Solid	11/27/12 14:00	12/04/12 08:15
490-13293-3	1443 Dove	Solid	11/28/12 14:45	12/04/12 08:15
490-13293-4	1316 Albatross	Solid	11/29/12 15:45	12/04/12 08:15

Case Narrative

Client: Environmental Enterprise Group Project/Site: Laurel Bay Housing Project TestAmerica Job ID: 490-13293-1 SDG: 1063

3

2

Job ID: 490-13293-1

Laboratory: TestAmerica Nashville

Narrative

Job Narrative 490-13293-1

Comments

No additional comments.

Receipt

The samples were received on 12/4/2012 8:15 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.6° C.

GC/MS VOA

Method(s) 8260B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with batch 41199. See LCS/LCSD

No other analytical or quality issues were noted.

GC/MS Semi VOA No analytical or quality issues were noted.

Organic Prep

No analytical or quality issues were noted.

VOA Prep

No analytical or quality issues were noted.

Definitions/Glossary

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

g.

1

Qualifiers

GC/MS VOA

Quali	fier
J	

Qualifier Description Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
ġ.	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, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDA	Minimum detectable activity
MDC	Minimum detectable concentration
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)

TestAmerica Nashville

Client Sample ID: 1242 Dove

Date Collected: 11/26/12 15:00 Date Received: 12/04/12 08:15

Lab Sample ID: 490-13293-1

Matrix: Solid

R

1

Percent	Solids:	84.4

(GC/WS)						Sec. August	DILE
Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	0.00242	0.000810	mg/Kg	¢	12/05/12 10:12	12/05/12 17:28	1
1	0.00242	0.000810	mg/Kg	\$	12/05/12 10:12	12/05/12 17:28	1
1	0.00604	0.00206	mg/Kg	¢.	12/05/12 10:12	12/05/12 17:28	1
	0.00242	0.000895	mg/Kg	ø	12/05/12 10:12	12/05/12 17:28	1
)	0.00604	0.000810	mg/Kg	\$	12/05/12 10:12	12/05/12 17:28	1
Qualifier	Limits				Prepared	Analyzed	Dil Fac
1	70 - 130				12/05/12 10:12	12/05/12 17:28	1
	70 - 130				12/05/12 10:12	12/05/12 17:28	1
9	70 - 130				12/05/12 10:12	12/05/12 17:28	1
1	70 - 130				12/05/12 10:12	12/05/12 17:28	1
	y Qualifier 4 9 4	Qualifier RL 0 0.00242 0 0.00242 0 0.00604 0 0.00242 0 0.00604 0 0.00604 0 0.00604 0 0.00604 0 0.00604 0 0.00604 0 0.00604 0 0.00604 0 0.00604 0 0.00604 0 0.00604 0 70 - 130 0 70 - 130 4 70 - 130 4 70 - 130	Qualifier RL MDL 0 0.00242 0.000810 0 0.00242 0.000810 0 0.00604 0.00206 0 0.00242 0.000895 0 0.00604 0.000810 0 0.00604 0.000895 0 0.00604 0.000810 0 0.00604 0.000810 0 0.00604 0.000810 0 0.00604 0.000810 0 70 - 130 70 - 130 4 70 - 130 70 - 130 4 70 - 130 70 - 130	Qualifier RL MDL Unit 0 0.00242 0.000810 mg/Kg 0 0.00242 0.000810 mg/Kg 0 0.00604 0.00206 mg/Kg 0 0.00242 0.000895 mg/Kg 0 0.00242 0.000895 mg/Kg 0 0.00604 0.000810 mg/Kg 0 70 - 130 70 - 130 70 - 130 4 70 - 130 70 - 130 70 - 130	Qualifier RL MDL Unit D 0 0.00242 0.000810 mg/Kg 0 0 0.00242 0.000810 mg/Kg 0 0 0.00604 0.00206 mg/Kg 0 0 0.00242 0.000895 mg/Kg 0 0 0.00604 0.000810 mg/Kg 0 0 70 - 130 70 - 130 70 - 130 4 70 - 130 70 - 130 10	Qualifier RL MDL Unit D Prepared 0 0.00242 0.000810 mg/Kg 0 12/05/12 10:12 0 0.00242 0.000810 mg/Kg 0 12/05/12 10:12 0 0.00604 0.00206 mg/Kg 0 12/05/12 10:12 0 0.00242 0.000895 mg/Kg 0 12/05/12 10:12 0 0.00604 0.000895 mg/Kg 0 12/05/12 10:12 0 0.00604 0.000810 mg/Kg 0 12/05/12 10:12 1 70 - 130 12/05/12 10:12 12/05/12 10:12 12/05/12 10:12 1 70 - 130 12/05/12 10:12 12/05/12 10:12 12/05/12 10:12 1 1 1 1 12/05/1	RL MDL Unit D Prepared Analyzed 0 0.00242 0.000810 mg/Kg 0 12/05/12

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0790	0.0118	mg/Kg	\$	12/06/12 05:49	12/06/12 16:43	1
Acenaphthylene	ND		0.0790	0.0106	mg/Kg	ø	12/06/12 05:49	12/06/12 16:43	1
Anthracene	ND		0.0790	0.0106	mg/Kg	¢	12/06/12 05:49	12/06/12 16:43	1
Benzo[a]anthracene	ND		0.0790	0.0177	mg/Kg	¢	12/06/12 05:49	12/06/12 16:43	1
Benzo[a]pyrene	ND		0.0790	0.0141	mg/Kg	\$	12/06/12 05:49	12/06/12 16:43	1
Benzo[b]fluoranthene	ND		0.0790	0.0141	mg/Kg	¢	12/06/12 05:49	12/06/12 16:43	1
Benzo[g,h,i]perylene	ND		0.0790	0.0106	mg/Kg	\$	12/06/12 05:49	12/06/12 16:43	1
Benzo[k]fluoranthene	ND		0.0790	0.0165	mg/Kg	¢F.	12/06/12 05:49	12/06/12 16:43	1
1-Methylnaphthalene	ND		0.0790	0.0165	mg/Kg	¢	12/06/12 05:49	12/06/12 16:43	1
Pyrene	ND		0.0790	0.0141	mg/Kg	¢	12/06/12 05:49	12/06/12 16:43	1
Phenanthrene	ND		0.0790	0.0106	mg/Kg	\$	12/06/12 05:49	12/06/12 16:43	1
Chrysene	ND		0.0790	0.0106	mg/Kg	¢.	12/06/12 05:49	12/06/12 16:43	1
Dibenz(a,h)anthracene	ND		0.0790	0.00825	mg/Kg	ø	12/06/12 05:49	12/06/12 16:43	1
Fluoranthene	ND		0.0790	0.0106	mg/Kg	-02	12/06/12 05:49	12/06/12 16:43	1
Fluorene	ND		0.0790	0.0141	mg/Kg	\$	12/06/12 05:49	12/06/12 16:43	1
Indeno[1,2,3-cd]pyrene	ND		0.0790	0.0118	mg/Kg	\$	12/06/12 05:49	12/06/12 16:43	1
Naphthalene	ND		0.0790	0.0106	mg/Kg	\$	12/06/12 05:49	12/06/12 16:43	1
2-Methylnaphthalene	ND		0.0790	0.0189	mg/Kg	\$	12/06/12 05:49	12/06/12 16:43	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	67		29 - 120				12/06/12 05:49	12/06/12 16:43	1
Terphenyl-d14 (Surr)	87		13 - 120				12/06/12 05:49	12/06/12 16:43	1
Nitrobenzene-d5 (Surr)	61		27 - 120				12/06/12 05:49	12/06/12 16:43	1
General Chemistry	-			-	11-14		Despaced	Analyzad	Dil Eso
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	40/05/12 09:22	Dil Pac
Percent Solids	84		0.10	0.10	70			12/05/12 00:22	

Client Sample ID: 1460 Cardinal

Date Collected: 11/27/12 14:00 Date Received: 12/04/12 08:15

Lab Sample ID: 490-13293-2

Matrix: Solid Percent Solids: 94.3

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Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00209	0.000701	mg/Kg	¢	12/05/12 10:12	12/05/12 17:55	1
Ethylbenzene	ND		0.00209	0.000701	mg/Kg	ø	12/05/12 10:12	12/05/12 17:55	1
Naphthalene	ND		0.00523	0.00178	mg/Kg	Q	12/05/12 10:12	12/05/12 17:55	1
Toluene	ND		0.00209	0.000774	mg/Kg	¢	12/05/12 10:12	12/05/12 17:55	1
Xylenes, Total	ND		0.00523	0.000701	mg/Kg	0	12/05/12 10:12	12/05/12_17:55	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1.2-Dichloroethane-d4 (Surr)	96		70 - 130				12/05/12 10:12	12/05/12 17:55	1
4-Bromofluorobenzene (Surr)	102		70 - 130				12/05/12 10:12	12/05/12 17:55	1
Dibromofluoromethane (Surr)	97		70 - 130				12/05/12 10:12	12/05/12 17:55	1
Toluene-d8 (Surr)	94		70 - 130				12/05/12 10:12	12/05/12 17:55	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0702	0.0105	mg/Kg	¢	12/06/12 05:49	12/06/12 17:47	1
Acenaphthylene	ND		0.0702	0.00943	mg/Kg	Ø	12/06/12 05:49	12/06/12 17:47	1
Anthracene	ND		0.0702	0.00943	mg/Kg	\$	12/06/12 05:49	12/06/12 17:47	1
Benzo[a]anthracene	ND		0.0702	0.0157	mg/Kg	¢	12/06/12 05:49	12/06/12 17:47	1
Benzo[a]pyrene	ND		0.0702	0.0126	mg/Kg	0	12/06/12 05:49	12/06/12 17:47	1
Benzo[b]fluoranthene	ND		0.0702	0.0126	mg/Kg	\$	12/06/12 05:49	12/06/12 17:47	1
Benzo[g,h,i]perylene	ND		0.0702	0.00943	mg/Kg	-0F	12/06/12 05:49	12/06/12 17:47	1
Benzo[k]fluoranthene	ND		0.0702	0.0147	mg/Kg	\$	12/06/12 05:49	12/06/12 17:47	1
1-Methylnaphthalene	ND		0.0702	0.0147	mg/Kg	¢	12/06/12 05:49	12/06/12 17:47	1
Pvrene	ND		0.0702	0.0126	mg/Kg	¢	12/06/12 05:49	12/06/12 17:47	1
Phenanthrene	ND		0.0702	0.00943	mg/Kg	ø	12/06/12 05:49	12/06/12 17:47	1
Chrysene	ND		0.0702	0.00943	mg/Kg	\$	12/06/12 05:49	12/06/12 17:47	1
Dibenz(a,h)anthracene	ND		0.0702	0.00733	mg/Kg	\$	12/06/12 05:49	12/06/12 17:47	1
Fluoranthene	ND		0.0702	0.00943	mg/Kg	¢	12/06/12 05:49	12/06/12 17:47	1
Fluorene	ND		0.0702	0.0126	mg/Kg	0	12/06/12 05:49	12/06/12 17:47	1
Indeno[1,2,3-cd]pyrene	ND		0.0702	0.0105	mg/Kg	\$	12/06/12 05:49	12/06/12 17:47	1
Naphthalene	ND		0.0702	0.00943	mg/Kg	Q	12/06/12 05:49	12/06/12 17:47	1
2-Methylnaphthalene	ND		0.0702	0.0168	mg/Kg	¢	12/06/12 05:49	12/06/12 17:47	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	75		29 - 120				12/06/12 05:49	12/06/12 17:47	1
Terphenyl-d14 (Surr)	88		13 - 120				12/06/12 05:49	12/06/12 17:47	1
Nitrobenzene-d5 (Surr)	67		27 - 120				12/06/12 05:49	12/06/12 17:47	1
General Chemistry									
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	94		0.10	0.10	%			12/05/12 08:22	1

Client Sample ID: 1443 Dove

Date Collected: 11/28/12 14:45 Date Received: 12/04/12 08:15

Lab Sample ID: 490-13293-3

Matrix: Solid Percent Solids: 92.1

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Method: 8260B - Volatile Orga	nic Compounds	(GC/MS)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00240	0.000803	mg/Kg	¢	12/05/12 10:12	12/05/12 18:22	1
Ethylbenzene	ND		0.00240	0.000803	mg/Kg	\$	12/05/12 10:12	12/05/12 18:22	1
Naphthalene	ND		0.00599	0.00204	mg/Kg	¢	12/05/12 10:12	12/05/12 18:22	1
Toluene	0.000965	J	0.00240	0.000887	mg/Kg	¢	12/05/12 10:12	12/05/12 18:22	1
Xylenes, Total	0.00266	J	0.00599	0.000803	mg/Kg	\$	12/05/12 10:12	12/05/12 18:22	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		70 - 130				12/05/12 10:12	12/05/12 18:22	1
4-Bromofluorobenzene (Surr)	103		70 - 130				12/05/12 10:12	12/05/12 18:22	1
Dibromofluoromethane (Surr)	100		70 - 130				12/05/12 10:12	12/05/12 18:22	1
Toluene-d8 (Surr)	94		70 - 130				12/05/12 10:12	12/05/12 18:22	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0716	0.0107	mg/Kg	\$	12/06/12 05:49	12/06/12 18:08	1
Acenaphthylene	ND		0.0716	0.00962	mg/Kg	ø	12/06/12 05:49	12/06/12 18:08	1
Anthracene	ND		0.0716	0.00962	mg/Kg	ø	12/06/12 05:49	12/06/12 18:08	1
Benzo[a]anthracene	ND		0.0716	0.0160	mg/Kg	\$	12/06/12 05:49	12/06/12 18:08	1
Benzo[a]pyrene	ND		0.0716	0.0128	mg/Kg	\$	12/06/12 05:49	12/06/12 18:08	1
Benzo[b]fluoranthene	ND		0.0716	0.0128	mg/Kg	\$	12/06/12 05:49	12/06/12 18:08	1
Benzo[g,h,i]perylene	ND		0.0716	0.00962	mg/Kg	¢	12/06/12 05:49	12/06/12 18:08	1
Benzo[k]fluoranthene	ND		0.0716	0.0150	mg/Kg	¢	12/06/12 05:49	12/06/12 18:08	1
1-Methylnaphthalene	ND		0.0716	0.0150	mg/Kg	\$	12/06/12 05:49	12/06/12 18:08	1
Pvrene	ND		0.0716	0.0128	mg/Kg	¢	12/06/12 05:49	12/06/12 18:08	1
Phenanthrene	ND		0.0716	0.00962	mg/Kg	Ø	12/06/12 05:49	12/06/12 18:08	1
Chrysene	ND		0.0716	0.00962	mg/Kg	ø	12/06/12 05:49	12/06/12 18:08	1
Dibenz(a,h)anthracene	ND		0.0716	0.00748	mg/Kg	¢	12/06/12 05:49	12/06/12 18:08	1
Fluoranthene	ND		0.0716	0.00962	mg/Kg	\$	12/06/12 05:49	12/06/12 18:08	1
Fluorene	ND		0.0716	0.0128	mg/Kg	¢	12/06/12 05:49	12/06/12 18:08	1
Indeno[1,2,3-cd]pyrene	ND		0.0716	0.0107	mg/Kg	\$	12/06/12 05:49	12/06/12 18:08	1
Naphthalene	ND		0.0716	0.00962	mg/Kg	\$	12/06/12 05:49	12/06/12 18:08	1
2-Methylnaphthalene	ND		0.0716	0.0171	mg/Kg	¢	12/06/12 05:49	12/06/12 18:08	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	60		29 - 120				12/06/12 05:49	12/06/12 18:08	1
Terphenyl-d14 (Surr)	73		13 - 120				12/06/12 05:49	12/06/12 18:08	1
Nitrobenzene-d5 (Surr)	50		27 - 120				12/06/12 05:49	12/06/12 18:08	1
General Chemistry Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	92		0.10	0.10	%			12/05/12 08:22	1

Client Sample ID: 1316 Albatross

Date Collected: 11/29/12 15:45 Date Received: 12/04/12 08:15 TestAmerica Job ID: 490-13293-1 SDG: 1063

Lab Sample ID: 490-13293-4

Matrix: Solid Percent Solids: 95.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00211	0.000708	mg/Kg	\$	12/05/12 10:12	12/05/12 18:49	1
Ethylbenzene	ND		0.00211	0.000708	mg/Kg	¢	12/05/12 10:12	12/05/12 18:49	1
Naphthalene	ND		0.00528	0.00180	mg/Kg	¢	12/05/12 10:12	12/05/12 18:49	1
Toluene	ND		0.00211	0.000782	mg/Kg	Ø	12/05/12 10:12	12/05/12 18:49	
Xylenes, Total	ND		0.00528	0.000708	mg/Kg	ø	12/05/12 10:12	12/05/12 18:49	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
1,2-Dichloroethane-d4 (Surr)	97		70 - 130				12/05/12 10:12	12/05/12 18:49	
4-Bromofluorobenzene (Surr)	103		70 - 130				12/05/12 10:12	12/05/12 18:49	
Dibromofluoromethane (Surr)	98		70 - 130				12/05/12 10:12	12/05/12 18:49	
Toluene-d8 (Surr)	95		70 - 130				12/05/12 10:12	12/05/12 18:49	and the second

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0700	0.0105	mg/Kg	¢	12/06/12 05:49	12/06/12 18:30	1
Acenaphthylene	ND		0.0700	0.00941	mg/Kg	Q.	12/06/12 05:49	12/06/12 18:30	1
Anthracene	ND		0.0700	0.00941	mg/Kg	Q	12/06/12 05:49	12/06/12 18:30	1
Benzo[a]anthracene	ND		0.0700	0.0157	mg/Kg	¢	12/06/12 05:49	12/06/12 18:30	1
Benzo[a]pyrene	ND		0.0700	0.0125	mg/Kg	¢	12/06/12 05:49	12/06/12 18:30	1
Benzo[b]fluoranthene	ND		0.0700	0.0125	mg/Kg	325	12/06/12 05:49	12/06/12 18:30	1
Benzo[g,h,i]perylene	ND		0.0700	0.00941	mg/Kg	Ø	12/06/12 05:49	12/06/12 18:30	1
Benzo[k]fluoranthene	ND		0.0700	0.0146	mg/Kg	\$	12/06/12 05:49	12/06/12 18:30	1
1-Methylnaphthalene	ND		0.0700	0.0146	mg/Kg	\$	12/06/12 05:49	12/06/12 18:30	1
Pyrene	ND		0.0700	0.0125	mg/Kg	\$	12/06/12 05:49	12/06/12 18:30	1
Phenanthrene	ND		0.0700	0.00941	mg/Kg	¢	12/06/12 05:49	12/06/12 18:30	1
Chrysene	ND		0.0700	0.00941	mg/Kg	Ø	12/06/12 05:49	12/06/12 18:30	1
Dibenz(a,h)anthracene	ND		0.0700	0.00732	mg/Kg	ø	12/06/12 05:49	12/06/12 18:30	1
Fluoranthene	ND		0.0700	0.00941	mg/Kg	Ø	12/06/12 05:49	12/06/12 18:30	1
Fluorene	ND		0.0700	0.0125	mg/Kg	\$	12/06/12 05:49	12/06/12 18:30	1
Indeno[1,2,3-cd]pyrene	ND		0.0700	0.0105	mg/Kg	\$	12/06/12 05:49	12/06/12 18:30	1
Naphthalene	ND		0.0700	0.00941	mg/Kg	Ø	12/06/12 05:49	12/06/12 18:30	1
2-Methylnaphthalene	ND		0.0700	0.0167	mg/Kg	¢	12/06/12 05:49	12/06/12 18:30	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	64		29 - 120				12/06/12 05:49	12/06/12 18:30	1
Terphenyl-d14 (Surr)	81		13 - 120				12/06/12 05:49	12/06/12 18:30	1
Nitrobenzene-d5 (Surr)	57		27 - 120				12/06/12 05:49	12/06/12 18:30	1
General Chemistry	- 1-12 Vol 10	Qualification	D'	рі	Unit	0	Propared	Analyzed	Dil Fac
Analyte	Result	Quaimer	0.10	0.10	0/L	J	Fiehaien	12/05/12 08:22	1
Percent Solids	95		0.10	0.10	/0			12/00/12 00.22	100

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

Lab Sample ID: MB 490-41199/6	
Matrix: Solid	
Analysis Batch: 41199	

Client Sample ID: Method Blank Prep Type: Total/NA

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	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.100	0.0335	mg/Kg			12/05/12 11:52	1
Ethylbenzene	ND		0.100	0.0335	mg/Kg			12/05/12 11:52	1
Naphthalene	ND		0.250	0.0850	mg/Kg			12/05/12 11:52	1
Toluene	ND		0.100	0.0370	mg/Kg			12/05/12 11:52	1
Xylenes, Total	ND		0.250	0.0335	mg/Kg			12/05/12 11:52	1
	MB	МВ							
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	84		70 - 130					12/05/12 11:52	1
4-Bromofluorobenzene (Surr)	106		70 - 130					12/05/12 11:52	1
Dibromofluoromethane (Surr)	96		70 - 130					12/05/12 11:52	1
Toluene-d8 (Surr)	98		70 - 130					12/05/12 11:52	1

Lab Sample ID: LCS 490-41199/3 Matrix: Solid Analysis Batch: 41199

			Spike	LCS	LCS				%Rec.	
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene			0.0500	0.05602		mg/Kg		112	75 - 127	
Ethylbenzene			0.0500	0.05780		mg/Kg		116	80 - 134	
Naphthalene			0.0500	0.06223		mg/Kg		124	69 - 150	
Toluene			0.0500	0.05604		mg/Kg		112	80 - 132	
Xylenes, Total			0.150	0.1696		mg/Kg		113	80 - 137	
	LCS	LCS								
Surrogate	%Recovery	Qualifier	Limits							
and the second second second second			70 100							

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1,2-Dichloroethane-d4 (Surr)	97	70 - 130
4-Bromofluorobenzene (Surr)	102	70 - 130
Dibromofluoromethane (Surr)	100	70 - 130
Toluene-d8 (Surr)	96	70 - 130

97

96

Lab Sample ID: LCSD 490-41199/4 Matrix: Solid

Analysis Batch: 41199

Dibromofluoromethane (Surr)

Toluene-d8 (Surr)

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

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analysis batch. 41155									0/ Dec		PPD
			Spike	LCSD	LCSD				%Rec.		RFD
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene			0.0500	0.05251		mg/Kg		105	75 - 127	6	50
Ethylbenzene			0.0500	0.05448		mg/Kg		109	80 - 134	6	50
Naphthalene			0.0500	0.05883	1.1	mg/Kg		118	69 - 150	6	50
Toluene			0.0500	0.05383		mg/Kg		108	80 - 132	4	50
Xylenes, Total			0.150	0.1591		mg/Kg		106	80 - 137	6	50
	LCSD	LCSD		(a)							
Surrogate	%Recovery	Qualifier	Limits								
1,2-Dichloroethane-d4 (Surr)	96		70 - 130								
4-Bromofluorobenzene (Surr)	102		70 - 130								

70 - 130

70 - 130

TestAmerica Nashville

TestAmerica Job ID: 490-13293-1 SDG: 1063

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

Lab Sample ID: MB 490-41535/1-A Matrix: Solid Analysis Batch: 41642

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0670	0.0100	mg/Kg		12/06/12 05:49	12/06/12 16:01	1
Acenaphthylene	ND		0.0670	0.00900	mg/Kg		12/06/12 05:49	12/06/12 16:01	1
Anthracene	ND		0.0670	0.00900	mg/Kg		12/06/12 05:49	12/06/12 16:01	1
Benzo[a]anthracene	ND		0.0670	0.0150	mg/Kg		12/06/12 05:49	12/06/12 16:01	1
Benzo[a]pyrene	ND		0.0670	0.0120	mg/Kg		12/06/12 05:49	12/06/12 16:01	1
Benzo[b]fluoranthene	ND		0.0670	0.0120	mg/Kg		12/06/12 05:49	12/06/12 16:01	1
Benzo[g,h,i]pervlene	ND		0.0670	0.00900	mg/Kg		12/06/12 05:49	12/06/12 16:01	1
Benzo[k]fluoranthene	ND		0.0670	0.0140	mg/Kg		12/06/12 05:49	12/06/12 16:01	1
1-Methylnaphthalene	ND		0.0670	0.0140	mg/Kg		12/06/12 05:49	12/06/12 16:01	1
Pyrene	ND		0.0670	0.0120	mg/Kg		12/06/12 05:49	12/06/12 16:01	1
Phenanthrene	ND		0.0670	0.00900	mg/Kg		12/06/12 05:49	12/06/12 16:01	1
Chrysene	ND		0.0670	0.00900	mg/Kg		12/06/12 05:49	12/06/12 16:01	1
Dibenz(a,h)anthracene	ND		0.0670	0.00700	mg/Kg		12/06/12 05:49	12/06/12 16:01	1
Fluoranthene	ND		0.0670	0.00900	mg/Kg		12/06/12 05:49	12/06/12 16:01	1
Fluorene	ND		0.0670	0.0120	mg/Kg		12/06/12 05:49	12/06/12 16:01	1
Indeno[1,2,3-cd]pyrene	ND		0.0670	0.0100	mg/Kg		12/06/12 05:49	12/06/12 16:01	1
Naphthalene	ND		0.0670	0.00900	mg/Kg		12/06/12 05:49	12/06/12 16:01	1
2-Methylnaphthalene	ND		0.0670	0.0160	mg/Kg		12/06/12 05:49	12/06/12 16:01	1
	МВ	мв							
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac

Surrogate	%Recovery Qualifier	Limits	Frepared	Analyzeu	Durac
2-Fluorobiphenyl (Surr)	68	29 - 120	12/06/12 05:49	12/06/12 16:01	1
Terphenyl-d14 (Surr)	86	13 - 120	12/06/12 05:49	12/06/12 16:01	1
Nitrobenzene-d5 (Surr)	64	27 - 120	12/06/12 05:49	12/06/12 16:01	1

Lab Sample ID: LCS 490-41535/2-A Matrix: Solid

Analysis Batch: 41642

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Acenaphthylene	1.67	1.362		mg/Kg		82	38 - 120	
Anthracene	1.67	1.311		mg/Kg		79	46 - 124	
Benzo[a]anthracene	1.67	1.313		mg/Kg		79	45 - 120	
Benzo[a]pyrene	1.67	1.271		mg/Kg		76	45 - 120	
Benzo[b]fluoranthene	1.67	1.233		mg/Kg		74	42 - 120	
Benzo[g,h,i]perylene	1.67	1.279		mg/Kg		77	38 - 120	
Benzo[k]fluoranthene	1.67	1.368		mg/Kg		82	42 - 120	
1-Methylnaphthalene	1.67	1.339		mg/Kg		80	32 - 120	
Pyrene	1.67	1.361		mg/Kg		82	43 - 120	
Phenanthrene	1.67	1.361		mg/Kg		82	45 - 120	
Chrysene	1.67	1.282		mg/Kg		77	43 - 120	
Dibenz(a,h)anthracene	1.67	1.302		mg/Kg		78	32 - 128	
Fluoranthene	1.67	1.304		mg/Kg		78	46 - 120	
Fluorene	1.67	1.304		mg/Kg		78	42 - 120	
ndeno[1,2,3-cd]pyrene	1.67	1.291		mg/Kg		77	41 - 121	
Naphthalene	1.67	1.338		mg/Kg		80	32 - 120	
2-Methylnaphthalene	1.67	1.357		mg/Kg		81	28 - 120	

TestAmerica Nashville

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 41535

Prep Type: Total/NA

Client Sample ID: 1242 Dove

Prep Type: Total/NA

Prep Batch: 41535

Client Sample ID: Lab Control Sample

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

65

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Lab Sample ID: LCS 490-41535/2-A Matrix: Solid Analysis Batch: 41642

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
2-Fluorobiphenyl (Surr)	65		29 - 120
Terphenyl-d14 (Surr)	82		13 - 120
Nitrobenzene-d5 (Surr)	59		27 - 120

Lab Sample ID: 490-13293-1 MS Matrix: Solid

Analysis Batch: 41642									Prep I	Batch: 41535
	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Acenaphthylene	ND		1.97	1.662		mg/Kg	ø	84	25 - 120	
Anthracene	ND		1.97	1.683		mg/Kg	¢	85	28 - 125	
Benzo[a]anthracene	ND		1.97	1.671		mg/Kg	ŵ	85	23 - 120	
Benzo[a]pyrene	ND		1.97	1.714		mg/Kg	\$	87	15 - 128	
Benzo[b]fluoranthene	ND		1.97	1.656		mg/Kg	¢	84	12 - 133	
Benzo[g,h,i]perylene	ND		1.97	1.709		mg/Kg	Ø	87	22 - 120	
Benzo[k]fluoranthene	ND		1.97	1.812		mg/Kg	\$	92	28 - 120	
1-Methylnaphthalene	ND		1.97	1.544		mg/Kg	\$	78	10 - 120	
Pyrene	ND		1.97	1.754		mg/Kg	ø	89	20 - 123	
Phenanthrene	ND		1.97	1.737		mg/Kg	ø	88	21 - 122	
Chrysene	ND		1.97	1.633		mg/Kg	\$	83	20 - 120	
Dibenz(a,h)anthracene	ND		1.97	1.756		mg/Kg	\$	89	12 - 128	
Fluoranthene	ND		1.97	1.603		mg/Kg	\$	81	10 - 143	
Fluorene	ND		1.97	1.581		mg/Kg	¢	80	20 - 120	
Indeno[1,2,3-cd]pyrene	ND		1.97	1.737		mg/Kg	\$	88	22 - 121	
Naphthalene	ND		1.97	1.552		mg/Kg	¢	79	10 - 120	
2-Methylnaphthalene	ND		1.97	1.563		mg/Kg	₽	79	13 - 120	
	MS	MS								
Surrogate	%Recovery	Qualifier	Limits							

29 - 120

13 - 120

27 - 120

Lab Sample ID: 490-13293-1 MSD Matrix: Solid Analysis Batch: 41642

2-Fluorobiphenyl (Surr)

Nitrobenzene-d5 (Surr)

Terphenyl-d14 (Surr)

									Carlo Carlos
							Prep	Batch:	41535
le Sample	Spike	MSD	MSD				%Rec.		RPD
It Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
D	1.97	1.668		mg/Kg	¢	85	25 - 120	0	50
D	1.97	1.659		mg/Kg	¢	84	28 - 125	1	49
D	1.97	1.664		mg/Kg	¢	84	23 - 120	0	50
D	1.97	1.685		mg/Kg	ø	85	15 - 128	2	50
D	1.97	1.548		mg/Kg	¢	79	12 - 133	7	50
D	1.97	1.680		mg/Kg	\$	85	22 - 120	2	50
D	1.97	1.731		mg/Kg	¢	88	28 - 120	5	45
D	1.97	1.573		mg/Kg	¢	80	10 - 120	2	50
D	1.97	1.706		mg/Kg	¢	87	20 - 123	3	50
D	1.97	1.719		mg/Kg	¢	87	21 - 122	1	50
D	1.97	1.667		mg/Kg	\$	85	20 - 120	2	49
	le Sample ult Qualifier ID ID ID ID ID ID ID ID ID ID	Sample Spike Qualifier Added ID 1.97 ID 1.97	Sample Spike MSD Qualifier Added Result ID 1.97 1.668 ID 1.97 1.685 ID 1.97 1.680 ID 1.97 1.731 ID 1.97 1.731 ID 1.97 1.719 ID 1.97 1.667	Sample Spike MSD MSD Int Qualifier Added Result Qualifier Int 1.97 1.668 Intervalue Intervalue Int 1.97 1.668 Intervalue Intervalue Int 1.97 1.664 Intervalue Intervalue Int 1.97 1.664 Intervalue <	Sample Spike MSD MSD uit Qualifier Added Result Qualifier Unit ND 1.97 1.668 mg/Kg ND 1.97 1.668 mg/Kg ND 1.97 1.664 mg/Kg ND 1.97 1.664 mg/Kg ND 1.97 1.668 mg/Kg ND 1.97 1.664 mg/Kg ND 1.97 1.685 mg/Kg ND 1.97 1.548 mg/Kg ND 1.97 1.680 mg/Kg ND 1.97 1.731 mg/Kg ND 1.97 1.733 mg/Kg ND 1.97 1.706 mg/Kg ND 1.97 1.719 mg/Kg ND 1.97 1.667 mg/Kg	Sample Spike MSD MSD Qualifier Added Result Qualifier Unit D ND 1.97 1.668 mg/Kg 0 ND 1.97 1.668 mg/Kg 0 ND 1.97 1.664 mg/Kg 0 ND 1.97 1.664 mg/Kg 0 ND 1.97 1.664 mg/Kg 0 ND 1.97 1.685 mg/Kg 0 ND 1.97 1.680 mg/Kg 0 ND 1.97 1.548 mg/Kg 0 ND 1.97 1.731 mg/Kg 0 ND 1.97 1.573 mg/Kg 0 ND 1.97 1.706 mg/Kg 0 ND 1.97 1.719 mg/Kg 0 ND 1.97 1.667 mg/Kg 0	Sample Spike MSD MSD Math Qualifier Added Result Qualifier Unit D %Rec MD 1.97 1.668 mg/Kg % 85 MD 1.97 1.668 mg/Kg % 85 MD 1.97 1.669 mg/Kg % 84 MD 1.97 1.664 mg/Kg % 84 MD 1.97 1.664 mg/Kg % 85 MD 1.97 1.665 mg/Kg % 85 MD 1.97 1.685 mg/Kg % 85 MD 1.97 1.680 mg/Kg % 85 MD 1.97 1.673 mg/Kg % 88 MD 1.97 1.573 mg/Kg % 86 MD 1.97 1.706 mg/Kg % 87 MD 1.97 1.719 mg/Kg % <	Prep Mat Qualifier Added MSD MSD %Rec. MD 1.97 1.668 mg/Kg 0 85 25.120 MD 1.97 1.668 mg/Kg 0 84 28.125 MD 1.97 1.664 mg/Kg 0 84 23.120 MD 1.97 1.664 mg/Kg 0 85 15.128 MD 1.97 1.685 mg/Kg 0 85 22.133 MD 1.97 1.573 mg/Kg 0 85 22.120 MD 1.97 1.706 mg/Kg 0 87 20.123 MD 1.97 1.709 mg/Kg 0 87	Prep Batch: Met Spike MSD MSD %Rec. Met Added Result Qualifier Unit D %Rec. RPD MD 1.97 1.668 mg/Kg © 85 25-120 0 MD 1.97 1.668 mg/Kg © 84 28-125 1 MD 1.97 1.668 mg/Kg © 84 28-125 1 MD 1.97 1.664 mg/Kg © 84 28-125 1 MD 1.97 1.664 mg/Kg © 84 23-120 0 MD 1.97 1.664 mg/Kg © 85 15-128 2 MD 1.97 1.548 mg/Kg © 85 22-120 2 MD 1.97 1.687 mg/Kg © 88 28-120 2 MD 1.97 1.731 mg/Kg © 87 20-123

TestAmerica Nashville

Client Sample ID: 1242 Dove

Prep Type: Total/NA

QC Sample Results

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

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

Lab Sample ID: 490-13293-1 MSD								Clie	nt Sample	ID: 1242	Dove
Matrix: Solid									Prep T	ype: To	tal/NA
Analysis Batch: 41642									Prep	Batch:	41535
	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Dibenz(a,h)anthracene	ND		1.97	1.692		mg/Kg	¢	86	12 - 128	4	50
Fluoranthene	ND		1.97	1.607		mg/Kg	¢	82	10 - 143	0	50
Fluorene	ND		1.97	1.596		mg/Kg	¢	81	20 - 120	1	50
Indeno[1,2,3-cd]pyrene	ND		1.97	1.700		mg/Kg	¢	86	22 - 121	2	50
Naphthalene	ND		1.97	1.562		mg/Kg	\$	79	10 - 120	1	50
2-Methylnaphthalene	ND		1.97	1.590		mg/Kg	۵	81	13 - 120	2	50
	MSD	MSD									
Surrogate	%Recovery	Qualifier	Limits								
2-Fluorobiphenyl (Surr)	72		29 - 120								
Terphenyl-d14 (Surr)	91		13 - 120								
Nitrobenzene-d5 (Surr)	62		27 - 120								

Method: Moisture - Percent Moisture

Lab Sample ID: 490-13293-1 DU Matrix: Solid Analysis Batch: 41176

Client Sample ID: 1242 Dove Prep Type: Total/NA

1

Analysis Batelin Three	Sample	Sample	DU	DU				RPD
Analyte	Result	Qualifier	Result	Qualifier	Unit	D	RPI) Limit
Percent Solids	84		84		%		0.	20

QC Association Summary

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

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GC/MS VOA

Analysis Batch: 41199

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-13293-1	1242 Dove	Total/NA	Solid	8260B	41247
490-13293-2	1460 Cardinal	Total/NA	Solid	8260B	41247
490-13293-3	1443 Dove	Total/NA	Solid	8260B	41247
490-13293-4	1316 Albatross	Total/NA	Solid	8260B	41247
LCS 490-41199/3	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 490-41199/4	Lab Control Sample Dup	Total/NA	Solid	8260B	
MB 490-41199/6	Method Blank	Total/NA	Solid	8260B	
Prep Batch: 41247					
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-13293-1	1242 Dove	Total/NA	Solid	5035	
490-13293-2	1460 Cardinal	Total/NA	Solid	5035	
490-13293-3	1443 Dove	Total/NA	Solid	5035	
490-13293-4	1316 Albatross	Total/NA	Solid	5035	

GC/MS Semi VOA

Prep Batch: 41535

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-13293-1	1242 Dove	Total/NA	Solid	3550C	
490-13293-1 MS	1242 Dove	Total/NA	Solid	3550C	
490-13293-1 MSD	1242 Dove	Total/NA	Solid	3550C	
490-13293-2	1460 Cardinal	Total/NA	Solid	3550C	
490-13293-3	1443 Dove	Total/NA	Solid	3550C	
490-13293-4	1316 Albatross	Total/NA	Solid	3550C	
LCS 490-41535/2-A	Lab Control Sample	Total/NA	Solid	3550C	
MB 490-41535/1-A	Method Blank	Total/NA	Solid	3550C	

Analysis Batch: 41642

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-13293-1	1242 Dove	Total/NA	Solid	8270D	41535
490-13293-1 MS	1242 Dove	Total/NA	Solid	8270D	41535
490-13293-1 MSD	1242 Dove	Total/NA	Solid	8270D	41535
490-13293-2	1460 Cardinal	Total/NA	Solid	8270D	41535
490-13293-3	1443 Dove	Total/NA	Solid	8270D	41535
490-13293-4	1316 Albatross	Total/NA	Solid	8270D	41535
LCS 490-41535/2-A	Lab Control Sample	Total/NA	Solid	8270D	41535
MB 490-41535/1-A	Method Blank	Total/NA	Solid	8270D	41535

General Chemistry

Analysis Batch: 41176

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-13293-1	1242 Dove	Total/NA	Solid	Moisture	
490-13293-1 DU	1242 Dove	Total/NA	Solid	Moisture	
490-13293-2	1460 Cardinal	Total/NA	Solid	Moisture	
490-13293-3	1443 Dove	Total/NA	Solid	Moisture	
490-13293-4	1316 Albatross	Total/NA	Solid	Moisture	
490-13296-A-1 MS	Matrix Spike	Total/NA	Solid	Moisture	
490-13296-A-1 MSD	Matrix Spike Duplicate	Total/NA	Solid	Moisture	

TestAmerica Nashville

TestAmerica Job ID: 490-13293-1 SDG: 1063

Lab Sample ID: 490-13293-2

Lab Sample ID: 490-13293-3

Lab Sample ID: 490-13293-4

Matrix: Solid

Matrix: Solid

Matrix: Solid

Percent Solids: 95.2

Percent Solids: 92.1

2

Percent Solids: 94.3

Client Samp	le ID: 1242 I	Dove				La	ab Sample	ID: 490-13293-	-1
Date Collected	: 11/26/12 15:0	00						Matrix: Sol	id
Date Received	: 12/04/12 08:1	15					P	ercent Solids: 84	.4
	Batch	Batch		Dilution	Batch	Prepared			
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab	
Total/NA	Prep	5035			41247	12/05/12 10:12	ML	TAL NSH	
Total/NA	Analysis	8260B		1	41199	12/05/12 17:28	KK	TAL NSH	
Total/NA	Prep	3550C			41535	12/06/12 05:49	AK	TAL NSH	
Total/NA	Analysis	8270D		1	41642	12/06/12 16:43	WS	TAL NSH	
Total/NA	Analysis	Moisture		1	41176	12/05/12 08:22	RS	TAL NSH	

Client Sample ID: 1460 Cardinal Date Collected: 11/27/12 14:00

Date Received: 12/04/12 08:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			41247	12/05/12 10:12	ML	TAL NSH
Total/NA	Analysis	8260B		1	41199	12/05/12 17:55	КК	TAL NSH
Total/NA	Prep	3550C			41535	12/06/12 05:49	AK	TAL NSH
Total/NA	Analysis	8270D		1	41642	12/06/12 17:47	WS	TAL NSH
Total/NA	Analysis	Moisture		1	41176	12/05/12 08:22	RS	TAL NSH

Client Sample ID: 1443 Dove Date Collected: 11/28/12 14:45

Date Received: 12/04/12 08:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			41247	12/05/12 10:12	ML	TAL NSH
Total/NA	Analysis	8260B		1	41199	12/05/12 18:22	КК	TAL NSH
Total/NA	Prep	3550C			41535	12/06/12 05:49	AK	TAL NSH
Total/NA	Analysis	8270D		1	41642	12/06/12 18:08	WS	TAL NSH
Total/NA	Analysis	Moisture		1	41176	12/05/12 08:22	RS	TAL NSH

Client Sample ID: 1316 Albatross Date Collected: 11/29/12 15:45

Date Received: 12/04/12 08:15

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			41247	12/05/12 10:12	ML	TAL NSH
Total/NA	Analysis	8260B		1	41199	12/05/12 18:49	кк	TAL NSH
Total/NA	Prep	3550C			41535	12/06/12 05:49	AK	TAL NSH
Total/NA	Analysis	8270D		1	41642	12/06/12 18:30	WS	TAL NSH
Total/NA	Analysis	Moisture		1	41176	12/05/12 08:22	RS	TAL NSH

Laboratory References:

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

TestAmerica Nashville

Method Summary

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

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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: 490-13293-1 SDG: 1063

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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		
Sector Contraction of the sector of the sect	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	NELAC	9	1168CA	10-31-13		
Canadian Assoc Lab Accred (CALA)	Canada		3744	03-08-14		
Colorado	State Program	8	N/A	02-28-13		
Connecticut	State Program	1	PH-0220	12-31-13		
Florida	NELAC	4	E87358	06-30-13		
Illinois	NELAC	5	200010	12-09-12		
Iowa	State Program	7	131	05-01-14		
Kansas	NELAC	7	E-10229	10-31-13		
Kentucky	State Program	4	90038	12-31-12		
Kentucky (UST)	State Program	4	19	09-15-13		
Louisiana	NELAC	6	LA120025	12-31-12		
Louisiana	NELAC	6	30613	06-30-13		
Marvland	State Program	3	316	03-31-13		
Massachusetts	State Program	1	M-TN032	06-30-13		
Minnesota	NELAC	5	047-999-345	12-31-12		
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	NELAC	1	2963	10-09-13		
New Jersey	NELAC	2	TN965	06-30-13		
New York	NELAC	2	11342	04-01-13		
North Carolina DENR	State Program	4	387	12-31-12		
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	NELAC	10	TN200001	04-30-13		
Pennsylvania	NELAC	3	68-00585	06-30-13		
Rhode Island	State Program	1	LAO00268	12-30-12		
South Carolina	State Program	4	84009 (001)	02-28-13		
South Carolina	State Program	4	84009 (002)	02-23-14		
Tennessee	State Program	4	2008	02-23-14		
Texas	NELAC	6	T104704077-09-TX	08-31-13		
USDA	Federal		S-48469	11-02-13		
Utah	NELAC	8	TAN	06-30-13		
Virginia	NELAC	3	460152	06-14-13		
Washington	State Program	10	C789	07-19-13		
West Virginia DEP	State Program	3	219	02-28-13		
Wisconsin	State Program	5	998020430	08-31-13		
Wyoming (UST)	A2LA	8	453.07	12-31-13		

TestAmerica	
THE LEADER IN ENVIRONMENTAL TESTING Nashville, TN COOLER RECEIPT FORM	
Cooler Received/Opened On12/4/2012 @ 0815	490-13293 Chain of Custody
1. Tracking # (last 4 digits, FedEx)	
Courier: FedEx IR Gun ID17610176	cer entre i reestration,
2. Temperature of rep. sample or temp blank when opened: 116 Degrees Cels	ius
3. If Item #2 temperature is 0°C or less, was the representative sample or temp blan	nk frozen? YES NO.
4. Were custody seals on outside of cooler?	CYES NONA
If yes, how many and where:	Back
5. Were the seals intact, signed, and dated correctly?	ESNONA
6. Were custody papers inside cooler?	YES NO NA
I certify that I opened the cooler and answered questions 1-6 (initial)	VH-
7. Were custody seals on containers: YES (NO) and Inte	act YESNO
Were these signed and dated correctly?	YES NO NA
8. Packing mat'l used? Bubblewrape Plastic bag Peanuts Vermiculite Foam Ins	sert Paper Other None
9. Cooling process:) Dry ice Other None
10. Did all containers arrive in good condition (unbroken)?	HES NONA
11. Were all container labels complete (#, date, signed, pres., etc)?	TES .NO NA
12. Did all container labels and tags agree with custody papers?	YES NO NA
13a. Were VOA vials received?	YES NO NA
b. Was there any observable headspace present in any VOA vial?	YES SNO. NA - Soil
14. Was there a Trip Blank in this cooler? YESNO. A If multiple cooler	rs, sequence #A
I certify that I unloaded the cooler and answered questions 7-14 (intial)	F
15a. On pres'd bottles, did pH test strips suggest preservation reached the correct	t pH level? YESNONA
b. Did the bottle labels indicate that the correct preservatives were used	YES. NO NA
16. Was residual chlorine present?	YESNO.
I certify that I checked for chlorine and pH as per SOP and answered questions 15-	16 (intial) 🕱
17. Were custody papers properly filled out (ink, signed, etc)?	YED.NONA
18. Did you sign the custody papers in the appropriate place?	ESNONA
19. Were correct containers used for the analysis requested?	TES NONA
20. Was sufficient amount of sample sent in each container?	TESNONA
I certify that I entered this project into LIMS and answered questions 17-20 (intial)	Ø
I certify that I attached a label with the unique LIMS number to each container (intia	al) 6
21. Were there Non-Conformance issues at login? YESNOWas a NCM generat	ed? YES

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Client: Environmental Enterprise Group

Login Number: 13293 List Number: 1 Creator: Ford, Easton

Question	Answer	Comment	
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td></td> <td></td>	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: 490-13293-1 SDG Number: 1063

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List Source: TestAmerica Nashville

ATTACHMENT A

NON-HAZARDOUS MANIFEST

WASTE MANAGEMENT										
NON-HAZARDOUS MANIFEST	1. Generator's US EP	PA ID No.	Manifest Doc N	No.	2. Page 1	of				
3. Generator's Mailing Address:	Ger	Generator's Site Address (If different than mailing): A. Ma			A. Manife	st Number				
					W	MINA	00316	843		
BEAUFORT, SC 29907						B. State	Generator's	ID		
4. Generator's Phone 843-2	28-6461									
5. Transporter 1 Company Name 6. US EPA ID N			ID Number		C. Chata T	an an an an tan da d	0			
EEG, INC.		101			C. State Transporter's ID					
7 Transporter 2 Company Name		8 US FPA	. US EPA ID Number			D. Transporter's Phone 843-879-0411 E. State Transporter's ID				
7. Hansporter 2 company Name										
					F. Transpo	orter's Phone				
9. Designated Facility Name and Site	Address	10. US EP	A ID Number		353/117			Set Mr.		
HICKORY HILL LANDFILL					G. State Facility ID					
2621 LOW COUNTRY ROAD					H. State F	acility Phone	843-9	87-464	3	
RIDGELAND, SC 29936										
11 Description of Waste Materials			12. Co	ntainers	13. Total	14. Unit	L.M	isc. Comme	nts	
			No.	Туре	Quantity	Wt./Vol.				
a. REATING OIL TAINKS FILLED			1.1			100 J P.				
WM Pro	file # 102655SC		5	al-1102	Government and	同時表示		100		
b.										
WM Profile #										
с.				1.2		- 1 p				
				0.00000.00			ESTERST 2	LC-JWS		
WM Profile #					And States					
α.				- Ser-		14.11				
W/M Profile #			ZO-SALEON			and shares	22313/La			
J. Additional Descriptions for Mate	rials Listed Above	K. Disposal Location			1					
							1			
			Cell				Level			
15. Special Handling Instructions and UST'S from	Additional Informatio	03 Engle	4) 124	2Dou	JE	6)14	155(ARO	
D 1216 CARdi	VAI 3) 1-	544 CARO	INAL	215	68 CA	indini	41		_	
Purchase Order #		EMERGENCY	CONTACT / PHO	ONE NO.:						
16. GENERATOR'S CERTIFICATE:						a stata lavu b	ave been ful	luand		
I hereby certify that the above-description accurately described, classified and p	bed materials are not i backaged and are in pro	nazardous wastes as de oper condition for trans	portation acco	rding to ap	plicable regu	lations.	ave been fu	ily and		
Printed Name		Signature "On be	half of"	A			Month	Day	Yea	
17 Transporter 1 Acknowledgement	of Receipt of Material	\$	~	272			12	21		
Printed Name Acknowledgement		Signature		10	1000 To 1000		Month	Day	Yea	
James Balak	Union	Jam	es. It	Sald	hh		12	5	12	
18. Transporter 2 Acknowledgement	of Receipt of Material	s V								
Printed Name		Signature					Month	Day	Yea	
19. Certificate of Final Treatment/Did I certify, on behalf of the above listed	sposal I treatment facility, tha	it to the best of my kno	wledge, the ab	ove-descri	bed waste w	as managed	in complianc	e with al	I	
applicable laws, regulations, permits	and licenses on the da		covered by th	nis manifest	t.					
20. Facility Owner or Operator: Cert	ification of receipt of n	on-hazardous materials	covered by c						T	
20. Facility Owner or Operator: Cert	ification of receipt of n	Signature	Covered by a	1			Month	Day	Yea	
20. Facility Owner or Operator: Cert	ification of receipt of n	Signature	ni C	N.O	0		Month	Day	Yea	

Appendix C Regulatory Correspondence





Catherine B. Templeton, Director Promating and protecting the brath of the public and the environment

May 15, 2014

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

RE: No Further Action 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 Tanks (USTs) 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 and agrees there is no indication of soil or groundwater contamination on these properties, 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 kriegkm@dhec.sc.gov or 803-898-0255.

Sincerely,

20 M. The

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: NFA Dated 5/15/2014

Laurel Bay Underground Storage Tank Assessment Reports for: (143 addresses/146 tanks)

212 Balsam	503 Laurel Bay
219 Balsam	508 Laurel Bay
260 Beech Tank 1	510 Laurel Bay
260 Beech Tank 2	523 Laurel Bay
267 Birch	525 Laurel Bay
287 Birch	529 Laurel Bay
302 Ash	533 Laurel Bay
305 Ash	537 Laurel Bay
334 Ash	556 Dahlia
338 Ash Tank 1	557 Dahlia
338 Ash Tank 2	559 Dahlia
361 Aspen	562 Dahlia
371 Aspen	568 Dahlia
372 Aspen Tank 1	581 Aster
372 Aspen Tank 2	582 Aster
375 Aspen	584 Aster
385 Aspen	602 Dahlia
403 Elderberry	607 Dahlia
407 Elderberry	614 Dahlia
411 Elderberry	616 Dahlia
414 Elderberry	619 Dahlia
415 Elderberry	625 Dahlia
421 Elderberry	629 Dahlia
427 Elderberry	631 Dahlia
428 Elderberry	634 Dahlia
431 Elderberry	660 Camellia
455 Elderberry	661 Camellia
484 Laurel Bay	666 Camellia
490 Laurel Bay	669 Camellia
502 Laurel Bay	672 Camellia

Laurel Bay Underground Storage Tank Assessment Reports for: (143 addresses/146 tanks) cont.

674 Camellia	880 Cobia
677 Camellia	890 Cobia
679 Camellia	892 Cobia
686 Camellia	900 Barracuda
690 Camellia	906 Barracuda
698 Abelia	911 Barracuda
700 Bluebell	912 Barracuda
704 Bluebell	917 Barracuda
705 Bluebell	919 Barracuda
708 Bluebell	928 Albacore
710 Bluebell	1024 Foxglove
711 Bluebell	1028 Foxglove
714 Bluebell	1029 Foxglove
715 Bluebell	1038 Iris
726 Bluebell	1049 Gardenia
728 Bluebell	1079 Heather
731 Bluebell	1103 Iris
734 Bluebell	1122 Iris
759 Althea	1136 Iris
761 Althea	1173 Bobwhite
773 Althea	1200 Cardinal
778 Laurel Bay	1221 Cardinal
807 Azalea	1238 Dove
814 Azalea	1241 Dove
815 Azalea	1242 Dove
818 Azalea	1248 Dove
820 Azalea	1262 Dove
821 Azalea	1265 Dove
831 Azalea	1267 Dove
832 Azalea	1289 Eagle
834 Azalea	1298 Eagle
835 Azalea	1300 Eagle
841 Azalea	1303 Eagle
853 Dolphin	1304 Eagle
858 Dolphin	1315 Albatross
869 Cobia	1316 Albatross
874 Cobia	1320 Albatross
875 Cobia	1338 Albatross

Laurel Bay Underground Storage Tank Assessment Reports for: (143 addresses/146 tanks) cont.

1340 Albatross	
1342 Albatross	
1344 Cardinal	
1345 Cardinal	
1349 Cardinal	
1355 Cardinal	
1366 Cardinal	
1374 Dove	
1375 Dove	
1415 Albatross	