**SUMMARY REPORT**
**492 IRIS LANE (FORMERLY 1141 IRIS 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**
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**JUNE 2021**

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**Prepared by:**

**CDM - AECOM Multimedia Joint Venture**
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**Contract Number: N62470-14-D-9016**
**CTO WE52**
**JUNE 2021**

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## Tables



## Appendices

## List of Acronyms

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

## 1.0 INTRODUCTION

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

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

This report summarizes the results the environmental investigation activities associated with the storage of home heating oil and the potential release of petroleum constituents at the referenced property. Based on the results of the investigation, a No Further Action (NFA) determination has been made by the South Carolina Department of Health and Environmental Control (SCDHEC) for 492 Iris Lane (Formerly 1141 Iris 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 492 Iris Lane (Formerly 1141 Iris Lane). Details regarding the soil investigation at this site are provided in *SCDHEC UST Assessment Report – 1141 Iris Lane* (MCAS Beaufort, 2008) and *SCDHEC UST Assessment Report – 1141 Iris Lane* (MCAS Beaufort, 2015). The UST Assessment Reports are provided in Appendix B. Details regarding the IGWA sampling activities at this site are provided in the *Investigation of Ground Water at Leaking Heating Oil UST Sites Report* (Resolution Consultants, 2008). The laboratory report that includes the pertinent IGWA analytical results for this site is presented in Appendix C.

### 2.1 UST Removal and Soil Sampling

In August 2007 and July 2015, two 280 gallon heating oil USTs were removed at 492 Iris Lane (Formerly 1141 Iris Lane). Tank 1 was removed on August 8, 2007 from the front yard area. Tank 2 was removed on July 23, 2015 from underneath the edge of the front concrete porch

and the front landscaped bed area. The former UST locations are indicated in the figures of the UST Assessment Reports (Appendix B). The USTs were removed, cleaned, and shipped offsite for recycling. There was no visual evidence (i.e., staining or sheen) of petroleum impact at the time of the UST removal. According to the UST Assessment Reports (Appendix B), the depths to the bases of the USTs were 5'3" (Tank 1) and 5' (Tank 2) bgs and a single soil sample was collected for each at that depth. An additional soil sample was collected from the side of the excavation at a depth of 4'1" for Tank 1. The samples were collected from the fill port side of the former USTs to represent a worst case scenario.

Following UST removal, a soil sample was collected from the base of each excavation and the side in the excavation for Tank 1 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 locations 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 492 Iris Lane (Formerly 1141 Iris Lane) during the removal of Tank 1 were greater than the SCDHEC RBSLs, which indicated further investigation was required. The soil results collected from 492 Iris Lane (Formerly 1141 Iris Lane) during the removal of Tank 2 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. In a letter dated July 16, 2008, SCDHEC requested an IGWA for 492 Iris Lane (Formerly 1141 Iris Lane) to determine if the groundwater was impacted by petroleum COPCs. SCDHEC's request letter is provided in Appendix D.

## 2.3 Groundwater Sampling

On July 29, 2008, a temporary monitoring well was installed at 492 Iris Lane (Formerly 1141 Iris Lane), in accordance with the South Carolina Well Standards and Regulations (R.61-71.H-I, updated June 24, 2016). In order to provide data that can be used to determine whether COPCs are migrating to underlying groundwater, the monitoring well was placed in the same general location as the former heating oil UST (Tank 1). The former UST location is indicated on Figures 2 and 3 of the UST Assessment Report (Appendix B). Further details are provided in the *Investigation of Ground Water at Leaking Heating Oil UST Sites Report* (Resolution Consultants, 2008).

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 *Investigation of Ground Water at Leaking Heating Oil UST Sites Report* (Resolution Consultants, 2008).

## 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 492 Iris Lane (Formerly 1141 Iris Lane) were less than the SCDHEC RBSLs and the site specific groundwater VISLs (Table 2), which indicated that the groundwater was not impacted by COPCs associated with the former UST at concentrations that present a potential risk to human health and the environment.

# 3.0 PROPERTY STATUS

Based on the analytical results for groundwater (Tank 1) and soil (Tank 2), SCDHEC made the determination that NFA was required for 492 Iris Lane (Formerly 1141 Iris Lane). This NFA determination was obtained in letters dated December 18, 2008 (Tank 1) and August 3, 2016 (Tank 2). SCDHEC's NFA letters are provided in Appendix D.

## 4.0 REFERENCES

Marine Corps Air Station Beaufort, 2008. *South Carolina Department of Health and Environmental Control (SCDHEC) Underground Storage Tank Assessment Report – 1141 Iris Lane, Laurel Bay Military Housing Area*, November 2008.

Marine Corps Air Station Beaufort, 2015. *South Carolina Department of Health and Environmental Control (SCDHEC) Underground Storage Tank Assessment Report – 1141 Iris Lane, Laurel Bay Military Housing Area*, November 2015.

Resolution Consultants, 2008. *Investigation of Ground Water at Leaking Heating Oil UST Sites Report, for Laurel Bay Military Housing Area, Multiple Properties, Laurel Bay Military Housing Area, Marine Corps Air Station Beaufort, Beaufort, South Carolina*, November 2008.

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

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

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

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

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

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

# Tables

**Table 1**
**Laboratory Analytical Results - Soil**
**492 Iris Lane (Formerly 1141 Iris Lane)**
**Laurel Bay Military Housing Area**
**Marine Corps Air Station Beaufort**
**Beaufort, South Carolina**

| Constituent | SCDHEC RBSLs [1] | Results Samples Collected 08/18/07 and 07/23/15 | | |
|---|---|---|---|---|
| | | 1141 Iris Bottom 01 08/18/07 | 1141 Iris Side 01 08/18/07 | 1141 Iris 07/23/15 |
| **Volatile Organic Compounds Analyzed by EPA Method 8260B (mg/kg)** | | | | |
| Benzene | 0.003 | ND | ND | ND |
| Ethylbenzene | 1.15 | **0.000302** | ND | ND |
| Naphthalene | 0.036 | **0.00165** | **0.00129** | ND |
| Toluene | 0.627 | **0.00337** | ND | ND |
| Xylenes, Total | 13.01 | **0.000501** | ND | ND |
| **Semivolatile Organic Compounds Analyzed by EPA Method 8270D (mg/kg)** | | | | |
| Benzo(a)anthracene | 0.66 | ND | **0.776** | ND |
| Benzo(b)fluoranthene | 0.66 | ND | **0.557** | ND |
| Benzo(k)fluoranthene | 0.66 | ND | **0.607** | ND |
| Chrysene | 0.66 | ND | **0.966** | ND |
| Dibenz(a,h)anthracene | 0.66 | ND | ND | ND |

**Notes:**

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

Bold font indicates the analyte was detected.

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

EPA - United States Environmental Protection Agency

mg/kg - milligrams per kilogram

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

RBSL - Risk-Based Screening Level

SCDHEC - South Carolina Department Of Health and Environmental Control

**Table 2**
**Laboratory Analytical Results - Groundwater**
**492 Iris Lane (Formerly 1141 Iris Lane)**
**Laurel Bay Military Housing Area**
**Marine Corps Air Station Beaufort**
**Beaufort, South Carolina**

| Constituent | SCDHEC RBSLs [1] | Site-Specific Groundwater VISLs (µg/L)[2] | Results Sample Collected 07/29/08 |
|---|---|---|---|
| **Volatile Organic Compounds Analyzed by EPA Method 8260B (µg/L)** | | | |
| Benzene | 5 | 16.24 | ND |
| Ethylbenzene | 700 | 45.95 | ND |
| Naphthalene | 25 | 29.33 | ND |
| Toluene | 1000 | 105,445 | ND |
| Xylenes, Total | 10,000 | 2,133 | **7.9** |
| **Semivolatile Organic Compounds Analyzed by EPA Method 8270D (µg/L)** | | | |
| Benzo(a)anthracene | 10 | NA | ND |
| Benzo(b)fluoranthene | 10 | NA | ND |
| Benzo(k)fluoranthene | 10 | NA | ND |
| Chrysene | 10 | NA | ND |
| Dibenz(a,h)anthracene | 10 | NA | ND |

**Notes:**

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

[2] Site-specific groundwater VISLs were calculated using the EPA JE Model Spreadsheets (Version 3.1, February 2004) and conservative modeling inputs representative of a small single-story house with an 8 foot ceiling. Site-specific groundwater VISLs were developed based on a target risk level of $1x10^{-6}$, a target hazard quotient of 1 (per target organ), and a default residential exposure scenario, assuming exposure for 24 hours/day, 350 days/year, for 26 years. Modeling was performed for a range of depths to groundwater for application as appropriate in different areas of the Laurel Bay Military Housing Area. The most conservative levels are presented for comparison. Refer to Appendix H of the Uniform Federal Policy Sampling Analysis and Sampling Plan for Vapor Media, Revision 4 (Resolution Consultants, April 2017) for additional information.

Bold font indicates the analyte was detected.

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

EPA - United States Environmental Protection Agency

JE - Johnson & Ettinger

NA - Not Applicable

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

RBSL - Risk-Based Screening Level

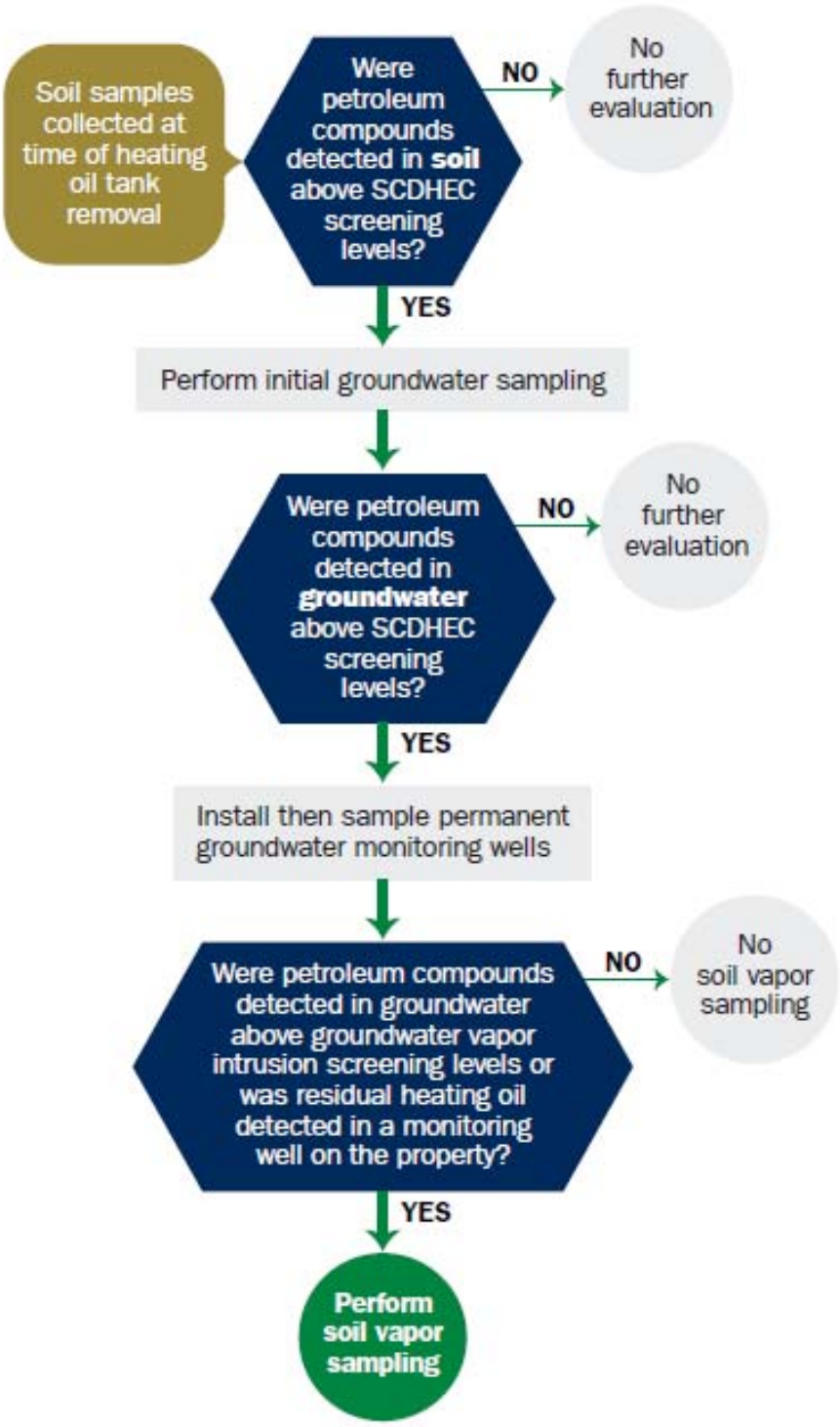
SCDHEC - South Carolina Department Of Health and Environmental Control

µg/L - micrograms per liter

VISL - Vapor Intrusion Screening Level

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

CDM - AECOM
Multimedia Joint Venture




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

**Appendix B**
**UST Assessment Reports**

CDM - AECOM
Multimedia Joint Venture

Attachment 1
South Carolina Department of Health and Environmental Control (SCDHEC)
**Underground Storage Tank (UST) Assessment Report**

Date Received
State Use Only

**Submit Completed Form To:**
**UST Program**
**SCDHEC**
**2600 Bull Street**
**Columbia, South Carolina 29201**
**Telephone (803) 896-6240**

## I. OWNERSHIP OF UST (S)

Beaufort Military Complex Family Housing
Owner Name (Corporation, Individual, Public Agency, Other)

1510 Laurel Bay Blvd.
Mailing Address

Beaufort | SC | 29906
City | State | Zip Code

843 | 379-3305 | Kyle Broadfoot
Area Code | Telephone Number | Contact Person

## II. SITE IDENTIFICATION AND LOCATION

N/A
Permit I.D. #

Actus Lend Lease Construction
Facility Name or Company Site Identifier

1141 Iris
Street Address or State Road (as applicable)

Beaufort, SC | 29906 | Beaufort
City | ZIP | County

Attachment 2

## III. INSURANCE INFORMATION

### Insurance Statement

The petroleum release reported to DHEC on N/A at Permit ID # 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.

**And**

I **do**/**do not** (circle one) wish to participate in the Superb Program.

## IV. CERTIFICATION (To be signed by the UST owner/operator.)

**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*

## V. UST INFORMATION

| | Tank 1 | Tank 2 | Tank 3 | Tank 4 | Tank 5 | Tank 6 |
|---|---|---|---|---|---|---|
| A. Product...(ex. Gas, Kerosene) | #2 DIESEL | | | | | |
| B. Capacity..(ex. 1k, 2k) | 350g. (APPROX) | | | | | |
| C. Age | | | | | | |
| D. Construction Material..(ex. Steel, FRP) | Steel | | | | | |
| E. Month/Year of Last Use | | | | | | |
| F. Depth (ft.) To Base of Tank | 63" | | | | | |
| G. Spill Prevention Equipment Y/N | N | | | | | |
| H. Overfill Prevention Equipment Y/N | N | | | | | |
| I. Method of Closure (Removed/Filled) | Removed | | | | | |
| J. Date Tanks Removed/Filled | 8-8-7 | | | | | |
| K. Visible Corrosion or Pitting Y/N | N | | | | | |
| L. Visible Holes Y/N | | | | | | |

M. Method of disposal for any USTs removed from the ground (attach disposal manifests)

Recycling - Scrap Steel

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

Republic - Broadhurst Landfill
Solidification + Subtitle D Landfill

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

TANK was filled w/oil/water

## VI. PIPING INFORMATION

| | Tank 1 | Tank 2 | Tank 3 | Tank 4 | Tank 5 | Tank 6 |
|---|---|---|---|---|---|---|
| A. Construction Material..(ex. Steel, FRP)..... | Steel | | | | | |
| B. Distance from UST to Dispenser..... | N/A | | | | | |
| C. Number of Dispensers..... | -0- | | | | | |
| D. Type of System Pressure or Suction..... | Electric Pump | | | | | |
| E. Was Piping Removed from the Ground? Y/N | N | | | | | |
| F. Visible Corrosion or Pitting Y/N..... | N | | | | | |
| G. Visible Holes Y/N..... | N | | | | | |
| H. Age..... | | | | | | |

I. If any corrosion, pitting, or holes were observed, describe the location and extent for each piping run.

## VII. BRIEF SITE DESCRIPTION AND HISTORY

Home Heating Oil Tank - Residential

## VIII. SITE CO[illegible] TIONS

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

## IX. SAMPLE INFORMATION

A. SCDHEC Lab Certification Number DW: 84009002

B.

| Sample # | Location | Sample Type (Soil/Water) | Soil Type (Sand/Clay) | Depth* | Date/Time of Collection | Collected by | OVA # |
|---|---|---|---|---|---|---|---|
| | | | | | | | |
| 1 | BOTTOM | S | SAND | 63" | 8-8-7 | M. JONES | ND |
| 2 | SIDE | S | SAND | 49" | 8-8-7 | M. JONES | ND |
| 3 | | | | | | | |
| 4 | | | | | | | |
| 5 | | | | | | | |
| 6 | | | | | | | |
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| 16 | | | | | | | |
| 17 | | | | | | | |
| 18 | | | | | | | |
| 19 | | | | | | | |
| 20 | | | | | | | |

* = Depth Below the Surrounding Land Surface

X. SAMPLING METHODOLO

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

EPA Method 8260 B Volatile Organic Compounds
- Preservative: 2 ea Sodium Bisulfate 1 ea
EPA Method 8270 Poly Aromatic Hydrocarbons
- No Preservative

One (1) Sidewall And One (1) Bottom Sample were secured from tank excavation Samples were stored and shipped in an insulated cooler w/ ice.

## XI. RECEPTORS

| | Yes | No |
|---|---|---|
| A. Are there any lakes, ponds, streams, or wetlands located within 1000 feet of the UST system?<br><br>If yes, indicate type of receptor, distance, and direction on site map. | | X |
| B. Are there any public, private, or irrigation water supply wells within 1000 feet of the UST system?<br><br>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?<br><br>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?<br><br>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?<br><br>If yes, indicate the area of contaminated soil on the site map. | | ✓ |

SUMMARY OF ANALYSIS RESULTS N/A

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

| CoC | SB-1 | SB-2 | SB-3 | SB-4 | SB-5 | SB-6 | SB-7 | SB-8 |
|---|---|---|---|---|---|---|---|---|
| Benzene | | | | | | | | |
| Toluene | | | | | | | | |
| Ethylbenzene | | | | | | | | |
| Xylenes | | | | | | | | |
| Naphthalene | | | | | | | | |
| Benzo(a)anthracene | | | | | | | | |
| Benzo(b)flouranthene | | | | | | | | |
| Benzo(k)flouranthene | | | | | | | | |
| Chrysene | | | | | | | | |
| Dibenz(a,h)anthracene | | | | | | | | |
| TPH (EPA 3550) | | | | | | | | |

| CoC | SB-9 | SB-10 | SB-11 | SB-12 | SB-13 | SB-14 | SB-15 | SB-16 |
|---|---|---|---|---|---|---|---|---|
| Benzene | | | | | | | | |
| Toluene | | | | | | | | |
| Ethylbenzene | | | | | | | | |
| Xylenes | | | | | | | | |
| Naphthalene | | | | | | | | |
| Benzo(a)anthracene | | | | | | | | |
| Benzo(b)flouranthene | | | | | | | | |
| Benzo(k)flouranthene | | | | | | | | |
| Chrysene | | | | | | | | |
| Dibenz(a,h)anthracene | | | | | | | | |
| TPH (EPA 3550) | | | | | | | | |

SUMMARY OF ANALYSIS RESULTS (cont'd) N/A

Enter the ground water analytical data for each sample for all CoC in the table below. If free product is present, indicate the measured thickness to the nearest 0.01 feet.

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

## 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)

OQH0507

Page 1 of 2

# TestAmerica
ANALYTICAL TESTING CORPORATION

To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes?
Compliance Monitoring _____

Client Name: EPG  Client #: _____
Address: _____
City/State/Zip Code: _____
Project Manager: _____
Telephone Number: _____  Fax: _____
Sampler Name: (Print Name) HACK JONES
Sampler Signature: _____

Project Name: LAUREL BAY
Project #: EP-2362
Site/Location ID: _____  State: _____
Report To: John Mahoney
Invoice To: _____
Quote #: _____  PO#: _____

TAT: X Standard; ___ Rush (surcharges may apply)
Date Needed: _____
Fax Results: Y N

| SAMPLE ID | Date Sampled | Time Sampled | G = Grab, C = Composite | Field Filtered | Matrix: SL - Sludge, DW - Drinking Water, GW - Groundwater, S - Soil/Solid, WW - Wastewater, Specify Other | Preservation & # of Containers: $HNO_3$ | HCl | NaOH | $H_2SO_4$ | Methanol | None | Other (Specify) | Analyze For: BTEX-NAPTH 8260 | PAH 8270 | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1057 GARDENIA BOTTOM-01 | 8-16-7 | 8:30 | G | | | | | | | 1 | 2 | 2 | X | X | -01 |
| 1057 GARDENIA SIDE-02 | 8-16-7 | 8:30 | G | | | | | | | 1 | 2 | 2 | X | X | -02 |
| 1061 GARDENIA-BOTTOM-01 | 8-17-7 | 8:30 | G | | | | | | | 1 | 2 | 2 | X | X | -03 |
| 1061 GARDENIA-SIDE-02 | 8-17-7 | 8:30 | G | | | | | | | 1 | 2 | 2 | X | X | -04 |
| 1065 GARDENIA-BOTTOM-01 | 8-17-07 | 10:00 | G | | | | | | | 1 | 2 | 2 | X | X | -05 |
| 1065 GARDENIA-SIDE-02 | 8-17-07 | 10:00 | G | | | | | | | 1 | 2 | 2 | X | X | -06 |
| 1141 IRIS - BOTTOM-01 | 8-18-7 | 9:00 | G | | | | | | | 1 | 2 | 2 | X | X | -07 |
| 1141 IRIS - SIDE-02 | 8-18-7 | 9:00 | G | | | | | | | 1 | 2 | 2 | X | X | -08 |
| 1048 - GARDENIA BOTTOM-01 | 8-18-7 | 1:00 | G | | | | | | | 1 | 2 | 2 | X | X | -09 |
| 1048 - GARDEN - SIDE-02 | 8-18-7 | 1:00 | G | | | | | | | 1 | 2 | 2 | X | X | -10 |

QC Deliverables: ___ None; X Level 2 (Batch QC); ___ Level 3; ___ Level 4; Other: _____

Special Instructions:
1057 GARDENIA HAD (2) ~~bottle~~ SAMPLES

| | | | | | |
|---|---|---|---|---|---|
| Relinquished By: John Mahoney | Date: 8/22/07 | Time: 1215 | Received By: [illegible] | Date: 8/22/07 | Time: 1215 |
| Relinquished By: [illegible] | Date: 8/22/07 | Time: 1730 | Received By: [illegible] | Date: 8/23/07 | Time: 0930 |
| Relinquished By: | Date: | Time: | Received By: | Date: | Time: |

LABORATORY COMMENTS:
Init Lab Temp:
Rec Lab Temp: 5.4
Custody Seals: Y N N/A
Bottles Supplied by Test America: Y N
Method of Shipment: 8624 4331 4975 FedEx Ground

# TestAmerica
ANALYTICAL TESTING CORPORATION

To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes?
Compliance Monitoring ____

Client Name: EPG  Client #: ____
Address: ____
City/State/Zip Code: ____
Project Manager: ____
Telephone Number: ____  Fax: ____
Sampler Name: (Print Name) Mack Jones
Sampler Signature: ____

Project Name: Laurel Bay
Project #: EP.2362
Site/Location ID: ____  State: ____
Report To: John Mahoney
Invoice To: ____
Quote #: ____  PO#: ____

TAT
X Standard
__ Rush (surcharges may apply)
Date Needed: ____
Fax Results: Y N

| SAMPLE ID | Date Sampled | Time Sampled | G = Grab, C = Composite | Field Filtered | Matrix: SL - Sludge, DW - Drinking Water, GW - Groundwater, S - Soil/Solid, WW - Wastewater, Specify Other | Preservation & # of Containers: $HNO_3$ | HCl | NaOH | $H_2SO_4$ | Methanol | None | Other (Specify) | Analyze For: BTEX + Naph. 8260 | PAH 8270 | QC Deliverables | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tank 2 1057 Garden Bottom | 8-16-07 | 2:30 | G | | | | | | | 1 | 2 | 2 | X | X | | -11 |
| Tank 2 1057 Garden Side | 8-16-07 | 2:30 | G | | | | | | | 1 | 2 | 2 | X | X | | -12 |

QC Deliverables
X None
X Level 2 (Batch QC)
__ Level 3
__ Level 4
Other: ____

Special Instructions:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Relinquished By: John Mahoney | Date: 8/22/07 | Time: 1215 | Received By: | | Date: 8.22.07 | Time: 1715 |
| Relinquished By: | Date: 8/22/07 | Time: 1730 | Received By: | | Date: 8/23/07 | Time: 09:30 |
| Relinquished By: | Date: | Time: | Received By: | | Date: | Time: |

LABORATORY COMMENTS:
Init Lab Temp:
Rec Lab Temp: 5.4
Custody Seals: Y N N/A
Bottles Supplied by Test America: Y N
Method of Shipment: Fed Ex To TA Orlando 8026 4331 4975

Client: EPG, INC.
PO BOX 1096
MT PLEASANT, SC 29465
Attn: JOHN MAHONEY

Work Order: OQH0569
Project: LAUREL BAY
Project Number: EP-2362

Sampled: 08/16/07-08/18/07
Received: 08/23/07

## LABORATORY REPORT
### Sample ID: 1065 GARDENIA-SIDE-02 - Lab Number: OQH0569-06 - Matrix: Solid/Soil

| CAS # | Analyte | Result | Q | Units | MDL | PQL | Dil Factor | Analyzed Date/Time | By | Method | Batch |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Polyaromatic Hydrocarbons by EPA 8270C** | | | | | | | | | | | |
| 83-32-9 | Acenaphthene | 0.0423 | U | mg/kg dry | 0.0423 | 0.0788 | 1 | 08/31/07 04:09 | RLB | SW846 8270C | 7085613 |
| 208-96-8 | Acenaphthylene | 0.0517 | U | mg/kg dry | 0.0517 | 0.0788 | 1 | 08/31/07 04:09 | RLB | SW846 8270C | 7085613 |
| 120-12-7 | Anthracene | 0.0470 | U | mg/kg dry | 0.0470 | 0.0788 | 1 | 08/31/07 04:09 | RLB | SW846 8270C | 7085613 |
| 56-55-3 | **Benzo (a) anthracene** | **0.0447** | I | mg/kg dry | 0.0435 | 0.0788 | 1 | 08/31/07 04:09 | RLB | SW846 8270C | 7085613 |
| 50-32-8 | Benzo (a) pyrene | 0.0470 | U | mg/kg dry | 0.0470 | 0.0788 | 1 | 08/31/07 04:09 | RLB | SW846 8270C | 7085613 |
| 205-99-2 | Benzo (b) fluoranthene | 0.0447 | U | mg/kg dry | 0.0447 | 0.0788 | 1 | 08/31/07 04:09 | RLB | SW846 8270C | 7085613 |
| 191-24-2 | Benzo (g,h,i) perylene | 0.0317 | U | mg/kg dry | 0.0317 | 0.0788 | 1 | 08/31/07 04:09 | RLB | SW846 8270C | 7085613 |
| 207-08-9 | Benzo (k) fluoranthene | 0.0541 | U | mg/kg dry | 0.0541 | 0.0788 | 1 | 08/31/07 04:09 | RLB | SW846 8270C | 7085613 |
| 218-01-9 | **Chrysene** | **0.0525** | I | mg/kg dry | 0.0459 | 0.0788 | 1 | 08/31/07 04:09 | RLB | SW846 8270C | 7085613 |
| 53-70-3 | Dibenz (a,h) anthracene | 0.0306 | U | mg/kg dry | 0.0306 | 0.0788 | 1 | 08/31/07 04:09 | RLB | SW846 8270C | 7085613 |
| 206-44-0 | Fluoranthene | 0.0494 | U | mg/kg dry | 0.0494 | 0.0788 | 1 | 08/31/07 04:09 | RLB | SW846 8270C | 7085613 |
| 86-73-7 | Fluorene | 0.0506 | U | mg/kg dry | 0.0506 | 0.0788 | 1 | 08/31/07 04:09 | RLB | SW846 8270C | 7085613 |
| 193-39-5 | Indeno (1,2,3-cd) pyrene | 0.0400 | U | mg/kg dry | 0.0400 | 0.0788 | 1 | 08/31/07 04:09 | RLB | SW846 8270C | 7085613 |
| 91-20-3 | Naphthalene | 0.0470 | U | mg/kg dry | 0.0470 | 0.0788 | 1 | 08/31/07 04:09 | RLB | SW846 8270C | 7085613 |
| 85-01-8 | Phenanthrene | 0.0470 | U | mg/kg dry | 0.0470 | 0.0788 | 1 | 08/31/07 04:09 | RLB | SW846 8270C | 7085613 |
| 129-00-0 | **Pyrene** | **0.0631** | I | mg/kg dry | 0.0553 | 0.0788 | 1 | 08/31/07 04:09 | RLB | SW846 8270C | 7085613 |
| 90-12-0 | 1-Methylnaphthalene | 0.0423 | U | mg/kg dry | 0.0423 | 0.0788 | 1 | 08/31/07 04:09 | RLB | SW846 8270C | 7085613 |
| 91-57-6 | 2-Methylnaphthalene | 0.0423 | U | mg/kg dry | 0.0423 | 0.0788 | 1 | 08/31/07 04:09 | RLB | SW846 8270C | 7085613 |
| *Surrogate: Terphenyl-d14 (49-123%)* | | *72 %* | | | | | | | | | |
| *Surrogate: 2-Fluorobiphenyl (30-93%)* | | *57 %* | | | | | | | | | |
| *Surrogate: Nitrobenzene-d5 (34-87%)* | | *64 %* | | | | | | | | | |

## LABORATORY REPORT
### Sample ID: 1141 IRIS-BOTTOM-01 - Lab Number: OQH0569-07 - Matrix: Solid/Soil

| CAS # | Analyte | Result | Q | Units | MDL | PQL | Dil Factor | Analyzed Date/Time | By | Method | Batch |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry Parameters** | | | | | | | | | | | |
| NA | **% Solids** | **81.9** | | **%** | 0.100 | 0.100 | 1 | 08/24/07 16:05 | RRP | EPA 160.3 | 7H24049 |
| **Volatile Organic Compounds by EPA Method 8260B** | | | | | | | | | | | |
| 71-43-2 | Benzene | 0.135 | U | ug/kg dry | 0.135 | 0.368 | 1 | 08/28/07 18:14 | JWT | EPA 8260B | 7H27020 |
| 100-41-4 | **Ethylbenzene** | **0.302** | I | ug/kg dry | 0.156 | 0.368 | 1 | 08/28/07 18:14 | JWT | EPA 8260B | 7H27020 |
| 91-20-3 | **Naphthalene** | **1.65** | | ug/kg dry | 0.203 | 0.368 | 1 | 08/28/07 18:14 | JWT | EPA 8260B | 7H27020 |
| 108-88-3 | **Toluene** | **3.37** | | ug/kg dry | 0.318 | 0.368 | 1 | 08/28/07 18:14 | JWT | EPA 8260B | 7H27020 |
| 330-20-7 | **Xylenes, total** | **0.501** | | ug/kg dry | 0.191 | 0.368 | 1 | 08/28/07 18:14 | JWT | EPA 8260B | 7H27020 |
| *Surrogate: 1,2-Dichloroethane-d4 (73-137%)* | | *104 %* | | | | | | | | | |
| *Surrogate: 4-Bromofluorobenzene (59-118%)* | | *80 %* | | | | | | | | | |
| *Surrogate: Dibromofluoromethane (55-145%)* | | *105 %* | | | | | | | | | |
| *Surrogate: Toluene-d8 (80-117%)* | | *96 %* | | | | | | | | | |
| **General Chemistry Parameters** | | | | | | | | | | | |
| Solids | **% Dry Solids** | **81.9** | SPS | **%** | 0.500 | 0.500 | 1 | 08/22/07 16:45 | AEB | SW-846 | 7085830 |
| **Polyaromatic Hydrocarbons by EPA 8270C** | | | | | | | | | | | |
| 83-32-9 | Acenaphthene | 0.0427 | U | mg/kg dry | 0.0427 | 0.0794 | 1 | 08/31/07 04:33 | RLB | SW846 8270C | 7085613 |
| 208-96-8 | Acenaphthylene | 0.0522 | U | mg/kg dry | 0.0522 | 0.0794 | 1 | 08/31/07 04:33 | RLB | SW846 8270C | 7085613 |

Client: EPG, INC.
PO BOX 1096
MT PLEASANT, SC 29465
Attn: JOHN MAHONEY

Work Order: OQH0569
Project: LAUREL BAY
Project Number: EP-2362

Sampled: 08/16/07-08/18/07
Received: 08/23/07

## LABORATORY REPORT
### Sample ID: 1141 IRIS-BOTTOM-01 - Lab Number: OQH0569-07 - Matrix: Solid/Soil

| CAS # | Analyte | Result | Q | Units | MDL | PQL | Dil Factor | Analyzed Date/Time | By | Method | Batch |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Polyaromatic Hydrocarbons by EPA 8270C - Cont.** | | | | | | | | | | | |
| 120-12-7 | Anthracene | 0.0474 | U | mg/kg dry | 0.0474 | 0.0794 | 1 | 08/31/07 04:33 | RLB | SW846 8270C | 7085613 |
| 56-55-3 | Benzo (a) anthracene | 0.0439 | U | mg/kg dry | 0.0439 | 0.0794 | 1 | 08/31/07 04:33 | RLB | SW846 8270C | 7085613 |
| 50-32-8 | Benzo (a) pyrene | 0.0474 | U | mg/kg dry | 0.0474 | 0.0794 | 1 | 08/31/07 04:33 | RLB | SW846 8270C | 7085613 |
| 205-99-2 | Benzo (b) fluoranthene | 0.0450 | U | mg/kg dry | 0.0450 | 0.0794 | 1 | 08/31/07 04:33 | RLB | SW846 8270C | 7085613 |
| 191-24-2 | Benzo (g,h,i) perylene | 0.0320 | U | mg/kg dry | 0.0320 | 0.0794 | 1 | 08/31/07 04:33 | RLB | SW846 8270C | 7085613 |
| 207-08-9 | Benzo (k) fluoranthene | 0.0545 | U | mg/kg dry | 0.0545 | 0.0794 | 1 | 08/31/07 04:33 | RLB | SW846 8270C | 7085613 |
| 218-01-9 | Chrysene | 0.0462 | U | mg/kg dry | 0.0462 | 0.0794 | 1 | 08/31/07 04:33 | RLB | SW846 8270C | 7085613 |
| 53-70-3 | Dibenz (a,h) anthracene | 0.0308 | U | mg/kg dry | 0.0308 | 0.0794 | 1 | 08/31/07 04:33 | RLB | SW846 8270C | 7085613 |
| 206-44-0 | Fluoranthene | 0.0498 | U | mg/kg dry | 0.0498 | 0.0794 | 1 | 08/31/07 04:33 | RLB | SW846 8270C | 7085613 |
| 86-73-7 | Fluorene | 0.0510 | U | mg/kg dry | 0.0510 | 0.0794 | 1 | 08/31/07 04:33 | RLB | SW846 8270C | 7085613 |
| 193-39-5 | Indeno (1,2,3-cd) pyrene | 0.0403 | U | mg/kg dry | 0.0403 | 0.0794 | 1 | 08/31/07 04:33 | RLB | SW846 8270C | 7085613 |
| 91-20-3 | Naphthalene | 0.0474 | U | mg/kg dry | 0.0474 | 0.0794 | 1 | 08/31/07 04:33 | RLB | SW846 8270C | 7085613 |
| 85-01-8 | Phenanthrene | 0.0474 | U | mg/kg dry | 0.0474 | 0.0794 | 1 | 08/31/07 04:33 | RLB | SW846 8270C | 7085613 |
| 129-00-0 | Pyrene | 0.0557 | U | mg/kg dry | 0.0557 | 0.0794 | 1 | 08/31/07 04:33 | RLB | SW846 8270C | 7085613 |
| 90-12-0 | 1-Methylnaphthalene | 0.0427 | U | mg/kg dry | 0.0427 | 0.0794 | 1 | 08/31/07 04:33 | RLB | SW846 8270C | 7085613 |
| 91-57-6 | 2-Methylnaphthalene | 0.0427 | U | mg/kg dry | 0.0427 | 0.0794 | 1 | 08/31/07 04:33 | RLB | SW846 8270C | 7085613 |
| *Surrogate: Terphenyl-d14 (49-123%)* | | *79 %* | | | | | | | | | |
| *Surrogate: 2-Fluorobiphenyl (30-93%)* | | *79 %* | | | | | | | | | |
| *Surrogate: Nitrobenzene-d5 (34-87%)* | | *88 %* | J1 | | | | | | | | |

## LABORATORY REPORT
### Sample ID: 1141 IRIS-SIDE-02 - Lab Number: OQH0569-08 - Matrix: Solid/Soil

| CAS # | Analyte | Result | Q | Units | MDL | PQL | Dil Factor | Analyzed Date/Time | By | Method | Batch |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry Parameters** | | | | | | | | | | | |
| NA | % Solids | 77.1 | | %. | 0.100 | 0.100 | 1 | 08/24/07 16:05 | RRP | EPA 160.3 | 7H24049 |
| **Volatile Organic Compounds by EPA Method 8260B** | | | | | | | | | | | |
| 71-43-2 | Benzene | 0.219 | U | ug/kg dry | 0.219 | 0.599 | 1 | 08/28/07 18:31 | JWT | EPA 8260B | 7H27020 |
| 100-41-4 | Ethylbenzene | 0.253 | U | ug/kg dry | 0.253 | 0.599 | 1 | 08/28/07 18:31 | JWT | EPA 8260B | 7H27020 |
| 91-20-3 | **Naphthalene** | **1.29** | | ug/kg dry | 0.331 | 0.599 | 1 | 08/28/07 18:31 | JWT | EPA 8260B | 7H27020 |
| 108-88-3 | Toluene | 0.518 | U | ug/kg dry | 0.518 | 0.599 | 1 | 08/28/07 18:31 | JWT | EPA 8260B | 7H27020 |
| 1330-20-7 | Xylenes, total | 0.311 | U | ug/kg dry | 0.311 | 0.599 | 1 | 08/28/07 18:31 | JWT | EPA 8260B | 7H27020 |
| *Surrogate: 1,2-Dichloroethane-d4 (73-137%)* | | *98 %* | | | | | | | | | |
| *Surrogate: 4-Bromofluorobenzene (59-118%)* | | *89 %* | | | | | | | | | |
| *Surrogate: Dibromofluoromethane (55-145%)* | | *100 %* | | | | | | | | | |
| *Surrogate: Toluene-d8 (80-117%)* | | *96 %* | | | | | | | | | |
| **General Chemistry Parameters** | | | | | | | | | | | |
| Solids | % Dry Solids | 77.1 | SPS | % | 0.500 | 0.500 | 1 | 08/22/07 16:45 | AEB | SW-846 | 7085830 |
| **Polyaromatic Hydrocarbons by EPA 8270C** | | | | | | | | | | | |
| 83-32-9 | Acenaphthene | 0.0459 | U | mg/kg dry | 0.0459 | 0.0854 | 1 | 08/31/07 04:56 | RLB | SW846 8270C | 7085613 |
| 208-96-8 | Acenaphthylene | 0.0561 | U | mg/kg dry | 0.0561 | 0.0854 | 1 | 08/31/07 04:56 | RLB | SW846 8270C | 7085613 |
| 120-12-7 | Anthracene | 0.0510 | U | mg/kg dry | 0.0510 | 0.0854 | 1 | 08/31/07 04:56 | RLB | SW846 8270C | 7085613 |
| 56-55-3 | **Benzo (a) anthracene** | **0.776** | | mg/kg dry | 0.0471 | 0.0854 | 1 | 08/31/07 04:56 | RLB | SW846 8270C | 7085613 |

Client: EPG, INC.
PO BOX 1096
MT PLEASANT, SC 29465
Attn: JOHN MAHONEY

Work Order: OQH0569
Project: LAUREL BAY
Project Number: EP-2362

Sampled: 08/16/07-08/18/07
Received: 08/23/07

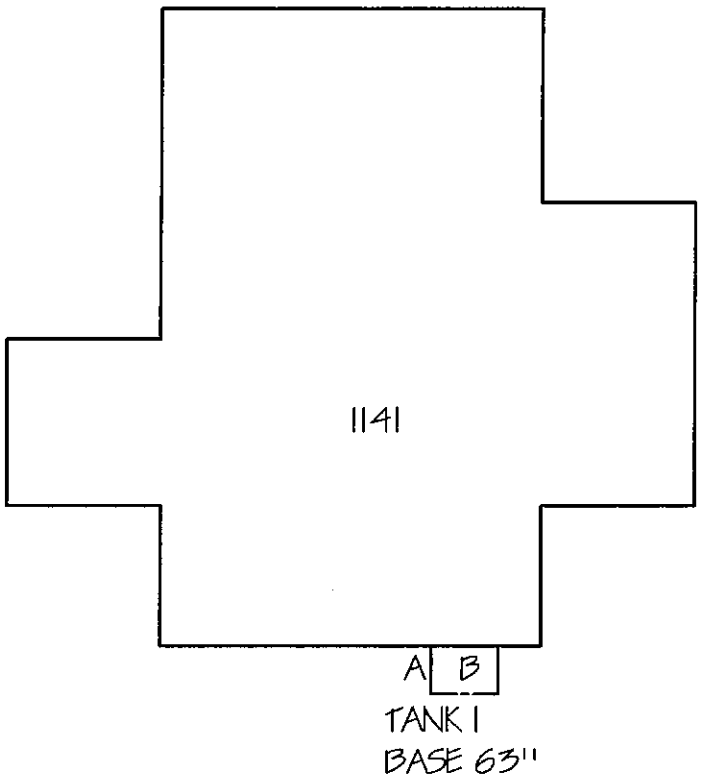
## LABORATORY REPORT
### Sample ID: 1141 IRIS-SIDE-02 - Lab Number: OQH0569-08 - Matrix: Solid/Soil

| CAS # | Analyte | Result | Q | Units | MDL | PQL | Dil Factor | Analyzed Date/Time | By | Method | Batch |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Polyaromatic Hydrocarbons by EPA 8270C - Cont.** | | | | | | | | | | | |
| 50-32-8 | **Benzo (a) pyrene** | **0.500** | | mg/kg dry | 0.0510 | 0.0854 | 1 | 08/31/07 04:56 | RLB | SW846 8270C | 7085613 |
| 205-99-2 | **Benzo (b) fluoranthene** | **0.557** | | mg/kg dry | 0.0484 | 0.0854 | 1 | 08/31/07 04:56 | RLB | SW846 8270C | 7085613 |
| 191-24-2 | **Benzo (g,h,i) perylene** | **0.172** | | mg/kg dry | 0.0344 | 0.0854 | 1 | 08/31/07 04:56 | RLB | SW846 8270C | 7085613 |
| 207-08-9 | **Benzo (k) fluoranthene** | **0.607** | | mg/kg dry | 0.0586 | 0.0854 | 1 | 08/31/07 04:56 | RLB | SW846 8270C | 7085613 |
| 218-01-9 | **Chrysene** | **0.966** | | mg/kg dry | 0.0497 | 0.0854 | 1 | 08/31/07 04:56 | RLB | SW846 8270C | 7085613 |
| 53-70-3 | Dibenz (a,h) anthracene | 0.0331 | U | mg/kg dry | 0.0331 | 0.0854 | 1 | 08/31/07 04:56 | RLB | SW846 8270C | 7085613 |
| 206-44-0 | **Fluoranthene** | **1.21** | | mg/kg dry | 0.0535 | 0.0854 | 1 | 08/31/07 04:56 | RLB | SW846 8270C | 7085613 |
| 86-73-7 | Fluorene | 0.0548 | U | mg/kg dry | 0.0548 | 0.0854 | 1 | 08/31/07 04:56 | RLB | SW846 8270C | 7085613 |
| 193-39-5 | **Indeno (1,2,3-cd) pyrene** | **0.190** | | mg/kg dry | 0.0433 | 0.0854 | 1 | 08/31/07 04:56 | RLB | SW846 8270C | 7085613 |
| 91-20-3 | Naphthalene | 0.0510 | U | mg/kg dry | 0.0510 | 0.0854 | 1 | 08/31/07 04:56 | RLB | SW846 8270C | 7085613 |
| 85-01-8 | Phenanthrene | 0.0510 | U | mg/kg dry | 0.0510 | 0.0854 | 1 | 08/31/07 04:56 | RLB | SW846 8270C | 7085613 |
| 129-00-0 | **Pyrene** | **1.66** | | mg/kg dry | 0.0599 | 0.0854 | 1 | 08/31/07 04:56 | RLB | SW846 8270C | 7085613 |
| 90-12-0 | 1-Methylnaphthalene | 0.0459 | U | mg/kg dry | 0.0459 | 0.0854 | 1 | 08/31/07 04:56 | RLB | SW846 8270C | 7085613 |
| 91-57-6 | 2-Methylnaphthalene | 0.0459 | U | mg/kg dry | 0.0459 | 0.0854 | 1 | 08/31/07 04:56 | RLB | SW846 8270C | 7085613 |
| *Surrogate: Terphenyl-d14 (49-123%)* | | *70 %* | | | | | | | | | |
| *Surrogate: 2-Fluorobiphenyl (30-93%)* | | *65 %* | | | | | | | | | |
| *Surrogate: Nitrobenzene-d5 (34-87%)* | | *73 %* | | | | | | | | | |

## LABORATORY REPORT
### Sample ID: 1048-GARDENIA BOTTOM 01 - Lab Number: OQH0569-09 - Matrix: Solid/Soil

| CAS # | Analyte | Result | Q | Units | MDL | PQL | Dil Factor | Analyzed Date/Time | By | Method | Batch |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry Parameters** | | | | | | | | | | | |
| NA | % Solids | **78.0** | | %. | 0.100 | 0.100 | 1 | 08/24/07 16:05 | RRP | EPA 160.3 | 7H24049 |
| **Volatile Organic Compounds by EPA Method 8260B** | | | | | | | | | | | |
| 71-43-2 | Benzene | 0.138 | U | ug/kg dry | 0.138 | 0.378 | 1 | 08/28/07 18:48 | JWT | EPA 8260B | 7H27020 |
| 100-41-4 | Ethylbenzene | 0.160 | U | ug/kg dry | 0.160 | 0.378 | 1 | 08/28/07 18:48 | JWT | EPA 8260B | 7H27020 |
| 91-20-3 | **Naphthalene** | **1.01** | | ug/kg dry | 0.209 | 0.378 | 1 | 08/28/07 18:48 | JWT | EPA 8260B | 7H27020 |
| 108-88-3 | Toluene | **0.424** | | ug/kg dry | 0.327 | 0.378 | 1 | 08/28/07 18:48 | JWT | EPA 8260B | 7H27020 |
| 330-20-7 | **Xylenes, total** | **0.651** | | ug/kg dry | 0.197 | 0.378 | 1 | 08/28/07 18:48 | JWT | EPA 8260B | 7H27020 |
| *Surrogate: 1,2-Dichloroethane-d4 (73-137%)* | | *112 %* | | | | | | | | | |
| *Surrogate: 4-Bromofluorobenzene (59-118%)* | | *89 %* | | | | | | | | | |
| *Surrogate: Dibromofluoromethane (55-145%)* | | *108 %* | | | | | | | | | |
| *Surrogate: Toluene-d8 (80-117%)* | | *89 %* | | | | | | | | | |
| **General Chemistry Parameters** | | | | | | | | | | | |
| Solids | % Dry Solids | **78.0** | SPS | % | 0.500 | 0.500 | 1 | 08/22/07 16:45 | AEB | SW-846 | 7085830 |
| **Polyaromatic Hydrocarbons by EPA 8270C** | | | | | | | | | | | |
| 83-32-9 | Acenaphthene | 0.0460 | U | mg/kg dry | 0.0460 | 0.0856 | 1 | 08/31/07 05:20 | RLB | SW846 8270C | 7085613 |
| 208-96-8 | Acenaphthylene | 0.0562 | U | mg/kg dry | 0.0562 | 0.0856 | 1 | 08/31/07 05:20 | RLB | SW846 8270C | 7085613 |
| 120-12-7 | **Anthracene** | **0.148** | | mg/kg dry | 0.0511 | 0.0856 | 1 | 08/31/07 05:20 | RLB | SW846 8270C | 7085613 |
| 56-55-3 | **Benzo (a) anthracene** | **2.20** | | mg/kg dry | 0.0473 | 0.0856 | 1 | 08/31/07 05:20 | RLB | SW846 8270C | 7085613 |
| 50-32-8 | **Benzo (a) pyrene** | **1.01** | | mg/kg dry | 0.0511 | 0.0856 | 1 | 08/31/07 05:20 | RLB | SW846 8270C | 7085613 |
| 205-99-2 | **Benzo (b) fluoranthene** | **1.60** | | mg/kg dry | 0.0486 | 0.0856 | 1 | 08/31/07 05:20 | RLB | SW846 8270C | 7085613 |

1141 IRIS LANE




TANK 1 EXCAVATION

A-SOIL TEST SIDE SAMPLE @ 49"
B-SOIL TEST BOTTOM SAMPLE @ 63"

| | | |
|---|---|---|
| CUSTOMER: BEAUFORT MILITARY COMPLEX FAMILY HOUSING | SCALE: 1/16"=1'-0" | EPG INC. |
| SITE ADDRESS: 1141 IRIS LANE | SUPPLIER: EPG INC. | P.O. BOX 1096 |
| | DATE: 9/22/2007 | MOUNT PLEASANT, SC 29465-1096 |

Attachment 1

South Carolina Department of Health and Environmental Control (SCDHEC)

# Underground Storage Tank (UST) Assessment Report

| Date Received<br><br>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 Housing Area, Marine Corps Air Station, Beaufort, SC
Facility Name or Company Site Identifier

1141 Iris Lane, Laurel Bay Military Housing Area
Street Address or State Road (as applicable)

| Beaufort, | Beaufort |
|---|---|
| City | County |

Attachment 2

## III. INSURANCE INFORMATION

### Insurance Statement

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

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

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

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

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

## IV. REQUEST FOR SUPERB FUNDING

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

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

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

_____
Name (Type or print.)

_____
Signature

### To be completed by Notary Public:

Sworn before me this _____ day of_____, 20____

_____
(Name)

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

## VI. UST INFORMATION

| | | | | |
|---|---|---|---|---|
| 1141Iris | | | | |
| Heating oil | | | | |
| 280 gal | | | | |
| Late 1950s | | | | |
| Steel | | | | |
| Mid 1980s | | | | |
| 5' | | | | |
| No | | | | |
| No | | | | |
| Removed | | | | |
| 7/23/2015 | | | | |
| Yes | | | | |
| Yes | | | | |

A. Product...(ex. Gas, Kerosene).....

B. Capacity..(ex. 1k, 2k).....

C. Age.....

D. Construction Material..(ex. Steel, FRP).....

E. Month/Year of Last Use.....

F. Depth (ft.) To Base of Tank.....

G. Spill Prevention Equipment Y/N.....

H. Overfill Prevention Equipment Y/N.....

I. Method of Closure Removed/Filled.....

J. Date Tanks Removed/Filled.....

K. Visible Corrosion or Pitting Y/N.....

L. Visible Holes Y/N.....

M. Method of disposal for any USTs removed from the ground (attach disposal manifests)
UST 1141Iris was removed from the ground and disposed 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 1141Iris 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

| | | | | |
|---|---|---|---|---|
| 1141Iris | | | | |
| Steel & Copper | | | | |
| N/A | | | | |
| N/A | | | | |
| Suction | | | | |
| No | | | | |
| Yes | | | | |
| No | | | | |
| Late 1950s | | | | |

A. Construction Material..(ex. Steel, FRP).....

B. Distance from UST to Dispenser.....

C. Number of Dispensers.....

D. Type of System Pressure or Suction.....

E. Was Piping Removed from the Ground? Y/N

F. Visible Corrosion or Pitting Y/N.....

G. Visible Holes Y/N.....

H. Age.....

I. If any corrosion, pitting, or holes were observed, describe the location and extent for each piping run.

Corrosion and pitting were found on the surface of the steel vent pipe. The copper supply and return 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.

# IX. SITE CONDITIONS

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

## X. SAMPLE INFORMATION

A. SCDHEC Lab Certification Number 84009

B.

| Sample # | Location | Sample Type (Soil/Water) | Soil Type (Sand/Clay) | Depth* | Date/Time of Collection | Collected by | OVA # |
|---|---|---|---|---|---|---|---|
| 1141Iris | Excav at fill end | Soil | Sandy | 5' | 7/23/15 1045 hrs | P. Shaw | |
| | | | | | | | |
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| 16 | | | | | | | |
| 17 | | | | | | | |
| 18 | | | | | | | |
| 19 | | | | | | | |
| 20 | | | | | | | |

* = Depth Below the Surrounding Land Surface

## XI. SAMPLING METHODOLOGY

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

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

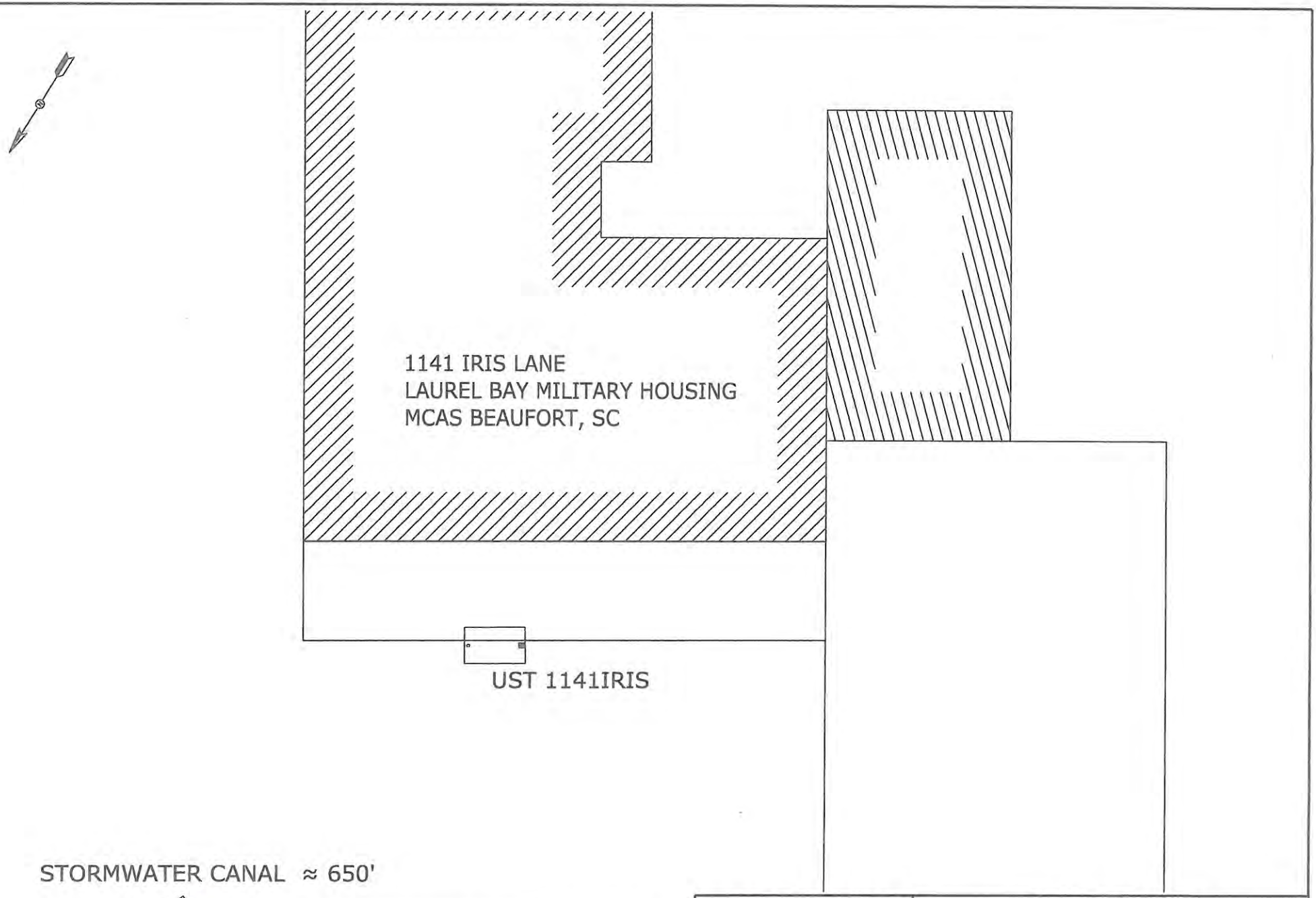
# XII. RECEPTORS

| | Yes | No |
|---|---|---|
| A. Are there any lakes, ponds, streams, or wetlands located within 1000 feet of the UST system? *Stormwater drainage canal<br>If yes, indicate type of receptor, distance, and direction on site map. | *X | |
| B. Are there any public, private, or irrigation water supply wells within 1000 feet of the UST system?<br>If yes, indicate type of well, distance, and direction on site map. | | X |
| C. Are there any underground structures (e.g., basements) Located within 100 feet of the UST system?<br>If yes, indicate type of structure, distance, and direction on site map. | | X |
| D. Are there any underground utilities (e.g., telephone, electricity, gas, water, sewer, storm drain) located within 100 feet of the UST system that could potentially come in contact with the contamination? *Sewer, water, electricity, cable, fiber optic & geothermal<br>If yes, indicate the type of utility, distance, and direction on the site map. | *X | |
| E. Has contaminated soil been identified at a depth less than 3 feet below land surface in an area that is not capped by asphalt or concrete?<br>If yes, indicate the area of contaminated soil on the site map. | | X |

## 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)

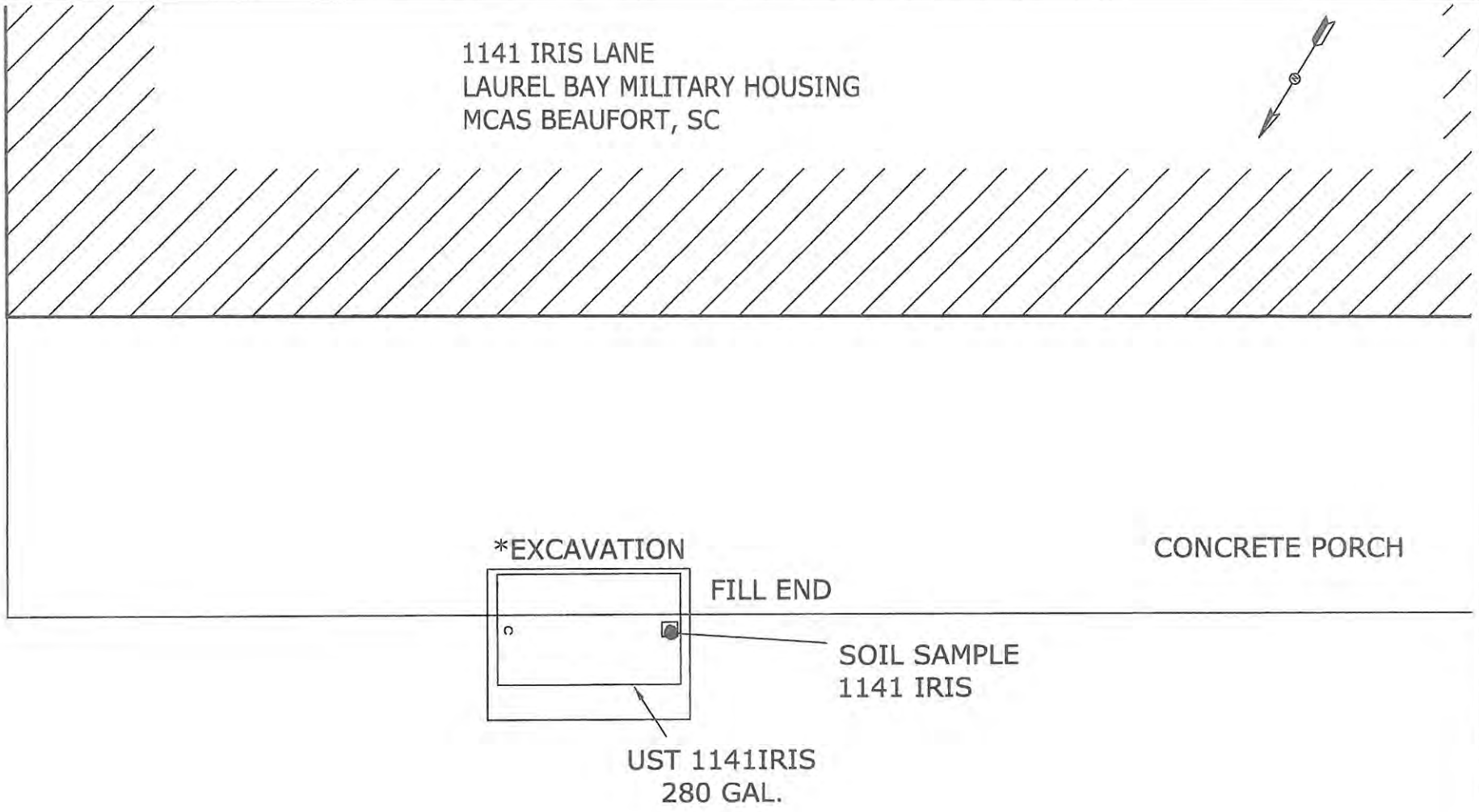



TANK DEPTH BELOW GRADE
1141IRIS = 24"

SBG-EEG
7301 RIVERS AVE., SUITE 245
N. CHARLESTON SC 29406
(843) 573-7140

FIGURE 1 SITE MAP
1141 IRIS LANE, LAUREL BAY
MCAS BEAUFORT SC

SCALE: GRAPHIC | DWG DATE AUG 2015




GRAPHIC SCALE
0 5'

*A PORTION OF THE PORCH WAS REMOVED TO FACILITATE REMOVAL OF THE TANK.

SBG-EEG
7301 RIVERS AVE., SUITE 245
N. CHARLESTON SC 29406
(843) 573-7140

FIGURE 2 UST SAMPLE LOCATIONS
1141 IRIS LANE, LAUREL BAY
MCAS BEAUFORT SC

SCALE: GRAPHIC | DWG DATE AUG 2015

Picture 1: Location of UST 1141Iris.


Picture 2: Tank pit.

Picture 3: Tank being prepared for transport.

Picture 4: Site after completion of tank removal.

## 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 | 1141Iris | | | | | | |
|---|---|---|---|---|---|---|---|
| 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) | | | | | | | |

| CoC | | | | | | | |
|---|---|---|---|---|---|---|---|
| Benzene | | | | | | | |
| Toluene | | | | | | | |
| Ethylbenzene | | | | | | | |
| Xylenes | | | | | | | |
| Naphthalene | | | | | | | |
| Benzo (a) anthracene | | | | | | | |
| Benzo (b) fluoranthene | | | | | | | |
| Benzo (k) fluoranthene | | | | | | | |
| Chrysene | | | | | | | |
| Dibenz (a, h) anthracene | | | | | | | |
| TPH (EPA 3550) | | | | | | | |

## SUMMARY OF ANALYSIS RESULTS (cont'd)

Enter the ground water analytical data for each sample for all CoC in the table below. If free product is present, indicate the measured thickness to the nearest 0.01 feet.

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

## XV. ANALYTICAL RESULTS

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

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

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

# ANALYTICAL REPORT

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

TestAmerica Job ID: 490-83650-1
Client Project/Site: Laurel Bay Housing Project

For:
Small Business Group Inc.
10179 Highway 78
Ladson, South Carolina 29456

Attn: Tom McElwee

*Authorized for release by:*
*8/4/2015 12:31:39 PM*

Ken Hayes, Project Manager II
(615)301-5035
ken.hayes@testamericainc.com

# Table of Contents

# Sample Summary

Client: Small Business Group Inc.
Project/Site: Laurel Bay Housing Project

TestAmerica Job ID: 490-83650-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 490-83650-1 | 1065 Gardenia | Soil | 07/21/15 13:00 | 07/25/15 08:20 |
| 490-83650-2 | 1063 Gardenia | Soil | 07/22/15 14:15 | 07/25/15 08:20 |
| 490-83650-3 | 1141 Iris | Soil | 07/23/15 10:45 | 07/25/15 08:20 |

## Job ID: 490-83650-1

### Laboratory: TestAmerica Nashville

4

**Narrative**

**Job Narrative**
**490-83650-1**

**Comments**
No additional comments.

**Receipt**
The samples were received on 7/25/2015 8:20 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.7° C.

**GC/MS VOA**
Method(s) 8260B: Batch 490-269466 is reported without a matrix spike/matrix spike duplicate (MS/MSD). The batch MS/MSD was originally performed on another client's sample, and this test was canceled at client request. This MS/MSD result does not have immediate bearing on any samples except for the actual sample spiked. The associated laboratory control sample (LCS) met acceptance criteria and provides long-term precision and accuracy for this batch.

Method(s) 8260B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 490-269642.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

**GC/MS Semi VOA**
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

**Organic Prep**
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

**VOA Prep**
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

# Definitions/Glossary

Client: Small Business Group Inc.
Project/Site: Laurel Bay Housing Project

TestAmerica Job ID: 490-83650-1

## Qualifiers

### GC/MS 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. |

### GC/MS Semi 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

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|---|---|
| ¤ | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CFL | Contains Free Liquid |
| CNF | Contains no Free Liquid |
| DER | Duplicate error ratio (normalized absolute difference) |
| Dil Fac | Dilution Factor |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision level concentration |
| MDA | Minimum detectable activity |
| EDL | Estimated Detection Limit |
| MDC | Minimum detectable concentration |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| NC | Not Calculated |
| 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: Small Business Group Inc.
Project/Site: Laurel Bay Housing Project

TestAmerica Job ID: 490-83650-1

## Client Sample ID: 1065 Gardenia

Date Collected: 07/21/15 13:00
Date Received: 07/25/15 08:20

## Lab Sample ID: 490-83650-1

Matrix: Soil

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | ND | | 0.00222 | 0.000744 | mg/Kg | | 07/21/15 12:00 | 07/30/15 22:45 | 1 |
| Ethylbenzene | ND | | 0.00222 | 0.000744 | mg/Kg | | 07/21/15 12:00 | 07/30/15 22:45 | 1 |
| Naphthalene | ND | | 0.00524 | 0.00178 | mg/Kg | | 07/21/15 12:00 | 07/31/15 15:44 | 1 |
| Toluene | ND | | 0.00222 | 0.000822 | mg/Kg | | 07/21/15 12:00 | 07/30/15 22:45 | 1 |
| Xylenes, Total | ND | | 0.00555 | 0.00137 | mg/Kg | | 07/21/15 12:00 | 07/30/15 22:45 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *97* | | *70 - 130* | *07/21/15 12:00* | *07/30/15 22:45* | *1* |
| *1,2-Dichloroethane-d4 (Surr)* | *99* | | *70 - 130* | *07/21/15 12:00* | *07/31/15 15:44* | *1* |
| *4-Bromofluorobenzene (Surr)* | *106* | | *70 - 130* | *07/21/15 12:00* | *07/30/15 22:45* | *1* |
| *4-Bromofluorobenzene (Surr)* | *99* | | *70 - 130* | *07/21/15 12:00* | *07/31/15 15:44* | *1* |
| *Dibromofluoromethane (Surr)* | *97* | | *70 - 130* | *07/21/15 12:00* | *07/30/15 22:45* | *1* |
| *Dibromofluoromethane (Surr)* | *101* | | *70 - 130* | *07/21/15 12:00* | *07/31/15 15:44* | *1* |
| *Toluene-d8 (Surr)* | *99* | | *70 - 130* | *07/21/15 12:00* | *07/30/15 22:45* | *1* |
| *Toluene-d8 (Surr)* | *99* | | *70 - 130* | *07/21/15 12:00* | *07/31/15 15:44* | *1* |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | ND | | 0.0822 | 0.0123 | mg/Kg | | 07/28/15 09:37 | 07/28/15 21:50 | 1 |
| Acenaphthylene | ND | | 0.0822 | 0.0110 | mg/Kg | | 07/28/15 09:37 | 07/28/15 21:50 | 1 |
| Anthracene | ND | | 0.0822 | 0.0110 | mg/Kg | | 07/28/15 09:37 | 07/28/15 21:50 | 1 |
| Benzo[a]anthracene | ND | | 0.0822 | 0.0184 | mg/Kg | | 07/28/15 09:37 | 07/28/15 21:50 | 1 |
| Benzo[a]pyrene | ND | | 0.0822 | 0.0147 | mg/Kg | | 07/28/15 09:37 | 07/28/15 21:50 | 1 |
| Benzo[b]fluoranthene | ND | | 0.0822 | 0.0147 | mg/Kg | | 07/28/15 09:37 | 07/28/15 21:50 | 1 |
| Benzo[g,h,i]perylene | ND | | 0.0822 | 0.0110 | mg/Kg | | 07/28/15 09:37 | 07/28/15 21:50 | 1 |
| Benzo[k]fluoranthene | ND | | 0.0822 | 0.0172 | mg/Kg | | 07/28/15 09:37 | 07/28/15 21:50 | 1 |
| 1-Methylnaphthalene | ND | | 0.0822 | 0.0172 | mg/Kg | | 07/28/15 09:37 | 07/28/15 21:50 | 1 |
| Pyrene | ND | | 0.0822 | 0.0147 | mg/Kg | | 07/28/15 09:37 | 07/28/15 21:50 | 1 |
| Phenanthrene | ND | | 0.0822 | 0.0110 | mg/Kg | | 07/28/15 09:37 | 07/28/15 21:50 | 1 |
| Chrysene | ND | | 0.0822 | 0.0110 | mg/Kg | | 07/28/15 09:37 | 07/28/15 21:50 | 1 |
| Dibenz(a,h)anthracene | ND | | 0.0822 | 0.00859 | mg/Kg | | 07/28/15 09:37 | 07/28/15 21:50 | 1 |
| Fluoranthene | ND | | 0.0822 | 0.0110 | mg/Kg | | 07/28/15 09:37 | 07/28/15 21:50 | 1 |
| Fluorene | ND | | 0.0822 | 0.0147 | mg/Kg | | 07/28/15 09:37 | 07/28/15 21:50 | 1 |
| Indeno[1,2,3-cd]pyrene | ND | | 0.0822 | 0.0123 | mg/Kg | | 07/28/15 09:37 | 07/28/15 21:50 | 1 |
| Naphthalene | ND | | 0.0822 | 0.0110 | mg/Kg | | 07/28/15 09:37 | 07/28/15 21:50 | 1 |
| 2-Methylnaphthalene | ND | | 0.0822 | 0.0196 | mg/Kg | | 07/28/15 09:37 | 07/28/15 21:50 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *2-Fluorobiphenyl (Surr)* | *71* | | *29 - 120* | *07/28/15 09:37* | *07/28/15 21:50* | *1* |
| *Terphenyl-d14 (Surr)* | *81* | | *13 - 120* | *07/28/15 09:37* | *07/28/15 21:50* | *1* |
| *Nitrobenzene-d5 (Surr)* | *73* | | *27 - 120* | *07/28/15 09:37* | *07/28/15 21:50* | *1* |

### General Chemistry

| Analyte | Result | Qualifier | RL | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Percent Solids | 80 | | 0.10 | 0.10 | % | | | 07/28/15 10:30 | 1 |

# Client Sample Results

Client: Small Business Group Inc.
Project/Site: Laurel Bay Housing Project

TestAmerica Job ID: 490-83650-1

## Client Sample ID: 1063 Gardenia

Date Collected: 07/22/15 14:15
Date Received: 07/25/15 08:20

## Lab Sample ID: 490-83650-2

Matrix: Soil

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | ND | | 0.00219 | 0.000735 | mg/Kg | | 07/22/15 13:15 | 07/30/15 23:16 | 1 |
| Ethylbenzene | 0.00176 | J | 0.00219 | 0.000735 | mg/Kg | | 07/22/15 13:15 | 07/30/15 23:16 | 1 |
| Naphthalene | 0.0138 | | 0.00549 | 0.00187 | mg/Kg | | 07/22/15 13:15 | 07/30/15 23:16 | 1 |
| Toluene | ND | | 0.00219 | 0.000812 | mg/Kg | | 07/22/15 13:15 | 07/30/15 23:16 | 1 |
| Xylenes, Total | 0.00574 | | 0.00549 | 0.00135 | mg/Kg | | 07/22/15 13:15 | 07/30/15 23:16 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *95* | | *70 - 130* | *07/22/15 13:15* | *07/30/15 23:16* | *1* |
| *4-Bromofluorobenzene (Surr)* | *125* | | *70 - 130* | *07/22/15 13:15* | *07/30/15 23:16* | *1* |
| *Dibromofluoromethane (Surr)* | *97* | | *70 - 130* | *07/22/15 13:15* | *07/30/15 23:16* | *1* |
| *Toluene-d8 (Surr)* | *104* | | *70 - 130* | *07/22/15 13:15* | *07/30/15 23:16* | *1* |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | 0.264 | | 0.0918 | 0.0137 | mg/Kg | | 07/28/15 09:37 | 07/28/15 22:16 | 1 |
| Acenaphthylene | 0.0606 | J | 0.0918 | 0.0123 | mg/Kg | | 07/28/15 09:37 | 07/28/15 22:16 | 1 |
| Anthracene | 0.0860 | J | 0.0918 | 0.0123 | mg/Kg | | 07/28/15 09:37 | 07/28/15 22:16 | 1 |
| Benzo[a]anthracene | 0.420 | | 0.0918 | 0.0206 | mg/Kg | | 07/28/15 09:37 | 07/28/15 22:16 | 1 |
| Benzo[a]pyrene | 0.178 | | 0.0918 | 0.0164 | mg/Kg | | 07/28/15 09:37 | 07/28/15 22:16 | 1 |
| Benzo[b]fluoranthene | 0.325 | | 0.0918 | 0.0164 | mg/Kg | | 07/28/15 09:37 | 07/28/15 22:16 | 1 |
| Benzo[g,h,i]perylene | 0.0482 | J | 0.0918 | 0.0123 | mg/Kg | | 07/28/15 09:37 | 07/28/15 22:16 | 1 |
| Benzo[k]fluoranthene | 0.125 | | 0.0918 | 0.0192 | mg/Kg | | 07/28/15 09:37 | 07/28/15 22:16 | 1 |
| 1-Methylnaphthalene | 0.872 | | 0.0918 | 0.0192 | mg/Kg | | 07/28/15 09:37 | 07/28/15 22:16 | 1 |
| Pyrene | 1.04 | | 0.0918 | 0.0164 | mg/Kg | | 07/28/15 09:37 | 07/28/15 22:16 | 1 |
| Phenanthrene | 0.747 | | 0.0918 | 0.0123 | mg/Kg | | 07/28/15 09:37 | 07/28/15 22:16 | 1 |
| Chrysene | 0.384 | | 0.0918 | 0.0123 | mg/Kg | | 07/28/15 09:37 | 07/28/15 22:16 | 1 |
| Dibenz(a,h)anthracene | ND | | 0.0918 | 0.00959 | mg/Kg | | 07/28/15 09:37 | 07/28/15 22:16 | 1 |
| Fluoranthene | 1.09 | | 0.0918 | 0.0123 | mg/Kg | | 07/28/15 09:37 | 07/28/15 22:16 | 1 |
| Fluorene | 0.370 | | 0.0918 | 0.0164 | mg/Kg | | 07/28/15 09:37 | 07/28/15 22:16 | 1 |
| Indeno[1,2,3-cd]pyrene | 0.0551 | J | 0.0918 | 0.0137 | mg/Kg | | 07/28/15 09:37 | 07/28/15 22:16 | 1 |
| Naphthalene | 0.188 | | 0.0918 | 0.0123 | mg/Kg | | 07/28/15 09:37 | 07/28/15 22:16 | 1 |
| 2-Methylnaphthalene | 0.959 | | 0.0918 | 0.0219 | mg/Kg | | 07/28/15 09:37 | 07/28/15 22:16 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *2-Fluorobiphenyl (Surr)* | *69* | | *29 - 120* | *07/28/15 09:37* | *07/28/15 22:16* | *1* |
| *Terphenyl-d14 (Surr)* | *76* | | *13 - 120* | *07/28/15 09:37* | *07/28/15 22:16* | *1* |
| *Nitrobenzene-d5 (Surr)* | *73* | | *27 - 120* | *07/28/15 09:37* | *07/28/15 22:16* | *1* |

### General Chemistry

| Analyte | Result | Qualifier | RL | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Percent Solids | 72 | | 0.10 | 0.10 | % | | | 07/28/15 10:30 | 1 |

Client: Small Business Group Inc.
Project/Site: Laurel Bay Housing Project

TestAmerica Job ID: 490-83650-1

## Client Sample ID: 1141 Iris

Date Collected: 07/23/15 10:45
Date Received: 07/25/15 08:20

## Lab Sample ID: 490-83650-3

Matrix: Soil

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | ND | | 0.00223 | 0.000748 | mg/Kg | | 07/23/15 09:45 | 07/30/15 23:47 | 1 |
| Ethylbenzene | ND | | 0.00223 | 0.000748 | mg/Kg | | 07/23/15 09:45 | 07/30/15 23:47 | 1 |
| Naphthalene | ND | | 0.00558 | 0.00190 | mg/Kg | | 07/23/15 09:45 | 07/30/15 23:47 | 1 |
| Toluene | ND | | 0.00223 | 0.000826 | mg/Kg | | 07/23/15 09:45 | 07/30/15 23:47 | 1 |
| Xylenes, Total | ND | | 0.00558 | 0.00137 | mg/Kg | | 07/23/15 09:45 | 07/30/15 23:47 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *98* | | *70 - 130* | *07/23/15 09:45* | *07/30/15 23:47* | *1* |
| *4-Bromofluorobenzene (Surr)* | *105* | | *70 - 130* | *07/23/15 09:45* | *07/30/15 23:47* | *1* |
| *Dibromofluoromethane (Surr)* | *99* | | *70 - 130* | *07/23/15 09:45* | *07/30/15 23:47* | *1* |
| *Toluene-d8 (Surr)* | *99* | | *70 - 130* | *07/23/15 09:45* | *07/30/15 23:47* | *1* |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | ND | | 0.0770 | 0.0115 | mg/Kg | | 07/28/15 09:37 | 07/28/15 22:42 | 1 |
| Acenaphthylene | ND | | 0.0770 | 0.0103 | mg/Kg | | 07/28/15 09:37 | 07/28/15 22:42 | 1 |
| Anthracene | ND | | 0.0770 | 0.0103 | mg/Kg | | 07/28/15 09:37 | 07/28/15 22:42 | 1 |
| Benzo[a]anthracene | ND | | 0.0770 | 0.0172 | mg/Kg | | 07/28/15 09:37 | 07/28/15 22:42 | 1 |
| Benzo[a]pyrene | ND | | 0.0770 | 0.0138 | mg/Kg | | 07/28/15 09:37 | 07/28/15 22:42 | 1 |
| Benzo[b]fluoranthene | ND | | 0.0770 | 0.0138 | mg/Kg | | 07/28/15 09:37 | 07/28/15 22:42 | 1 |
| Benzo[g,h,i]perylene | ND | | 0.0770 | 0.0103 | mg/Kg | | 07/28/15 09:37 | 07/28/15 22:42 | 1 |
| Benzo[k]fluoranthene | ND | | 0.0770 | 0.0161 | mg/Kg | | 07/28/15 09:37 | 07/28/15 22:42 | 1 |
| 1-Methylnaphthalene | 0.0943 | | 0.0770 | 0.0161 | mg/Kg | | 07/28/15 09:37 | 07/28/15 22:42 | 1 |
| Pyrene | ND | | 0.0770 | 0.0138 | mg/Kg | | 07/28/15 09:37 | 07/28/15 22:42 | 1 |
| Phenanthrene | 0.0429 | J | 0.0770 | 0.0103 | mg/Kg | | 07/28/15 09:37 | 07/28/15 22:42 | 1 |
| Chrysene | ND | | 0.0770 | 0.0103 | mg/Kg | | 07/28/15 09:37 | 07/28/15 22:42 | 1 |
| Dibenz(a,h)anthracene | ND | | 0.0770 | 0.00804 | mg/Kg | | 07/28/15 09:37 | 07/28/15 22:42 | 1 |
| Fluoranthene | ND | | 0.0770 | 0.0103 | mg/Kg | | 07/28/15 09:37 | 07/28/15 22:42 | 1 |
| Fluorene | ND | | 0.0770 | 0.0138 | mg/Kg | | 07/28/15 09:37 | 07/28/15 22:42 | 1 |
| Indeno[1,2,3-cd]pyrene | ND | | 0.0770 | 0.0115 | mg/Kg | | 07/28/15 09:37 | 07/28/15 22:42 | 1 |
| Naphthalene | ND | | 0.0770 | 0.0103 | mg/Kg | | 07/28/15 09:37 | 07/28/15 22:42 | 1 |
| 2-Methylnaphthalene | 0.119 | | 0.0770 | 0.0184 | mg/Kg | | 07/28/15 09:37 | 07/28/15 22:42 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *2-Fluorobiphenyl (Surr)* | *70* | | *29 - 120* | *07/28/15 09:37* | *07/28/15 22:42* | *1* |
| *Terphenyl-d14 (Surr)* | *78* | | *13 - 120* | *07/28/15 09:37* | *07/28/15 22:42* | *1* |
| *Nitrobenzene-d5 (Surr)* | *73* | | *27 - 120* | *07/28/15 09:37* | *07/28/15 22:42* | *1* |

### General Chemistry

| Analyte | Result | Qualifier | RL | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Percent Solids | 86 | | 0.10 | 0.10 | % | | | 07/28/15 10:30 | 1 |

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

Lab Sample ID: MB 490-269466/7
Matrix: Solid
Analysis Batch: 269466

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

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | ND | | 0.00200 | 0.000670 | mg/Kg | | | 07/30/15 19:07 | 1 |
| Ethylbenzene | ND | | 0.00200 | 0.000670 | mg/Kg | | | 07/30/15 19:07 | 1 |
| Naphthalene | ND | | 0.00500 | 0.00170 | mg/Kg | | | 07/30/15 19:07 | 1 |
| Toluene | ND | | 0.00200 | 0.000740 | mg/Kg | | | 07/30/15 19:07 | 1 |
| Xylenes, Total | ND | | 0.00500 | 0.00123 | mg/Kg | | | 07/30/15 19:07 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *100* | | *70 - 130* | | *07/30/15 19:07* | *1* |
| *4-Bromofluorobenzene (Surr)* | *98* | | *70 - 130* | | *07/30/15 19:07* | *1* |
| *Dibromofluoromethane (Surr)* | *103* | | *70 - 130* | | *07/30/15 19:07* | *1* |
| *Toluene-d8 (Surr)* | *96* | | *70 - 130* | | *07/30/15 19:07* | *1* |

Lab Sample ID: LCS 490-269466/3
Matrix: Solid
Analysis Batch: 269466

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

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Benzene | 0.0500 | 0.04310 | | mg/Kg | | 86 | 75 - 127 |
| Ethylbenzene | 0.0500 | 0.04288 | | mg/Kg | | 86 | 80 - 134 |
| Naphthalene | 0.0500 | 0.04174 | | mg/Kg | | 83 | 69 - 150 |
| Toluene | 0.0500 | 0.04139 | | mg/Kg | | 83 | 80 - 132 |
| Xylenes, Total | 0.100 | 0.08346 | | mg/Kg | | 83 | 80 - 137 |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *100* | | *70 - 130* |
| *4-Bromofluorobenzene (Surr)* | *99* | | *70 - 130* |
| *Dibromofluoromethane (Surr)* | *102* | | *70 - 130* |
| *Toluene-d8 (Surr)* | *97* | | *70 - 130* |

Lab Sample ID: LCSD 490-269466/4
Matrix: Solid
Analysis Batch: 269466

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

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | 0.0500 | 0.04291 | | mg/Kg | | 86 | 75 - 127 | 0 | 50 |
| Ethylbenzene | 0.0500 | 0.04176 | | mg/Kg | | 84 | 80 - 134 | 3 | 50 |
| Naphthalene | 0.0500 | 0.04255 | | mg/Kg | | 85 | 69 - 150 | 2 | 50 |
| Toluene | 0.0500 | 0.04094 | | mg/Kg | | 82 | 80 - 132 | 1 | 50 |
| Xylenes, Total | 0.100 | 0.08246 | | mg/Kg | | 82 | 80 - 137 | 1 | 50 |

| *Surrogate* | *LCSD %Recovery* | *LCSD Qualifier* | *Limits* |
|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *98* | | *70 - 130* |
| *4-Bromofluorobenzene (Surr)* | *98* | | *70 - 130* |
| *Dibromofluoromethane (Surr)* | *101* | | *70 - 130* |
| *Toluene-d8 (Surr)* | *97* | | *70 - 130* |

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

Lab Sample ID: MB 490-269642/7
Matrix: Solid
Analysis Batch: 269642

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

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | ND | | 0.00200 | 0.000670 | mg/Kg | | | 07/31/15 14:07 | 1 |
| Ethylbenzene | ND | | 0.00200 | 0.000670 | mg/Kg | | | 07/31/15 14:07 | 1 |
| Naphthalene | ND | | 0.00500 | 0.00170 | mg/Kg | | | 07/31/15 14:07 | 1 |
| Toluene | ND | | 0.00200 | 0.000740 | mg/Kg | | | 07/31/15 14:07 | 1 |
| Xylenes, Total | ND | | 0.00500 | 0.00123 | mg/Kg | | | 07/31/15 14:07 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *99* | | *70 - 130* | | *07/31/15 14:07* | *1* |
| *4-Bromofluorobenzene (Surr)* | *99* | | *70 - 130* | | *07/31/15 14:07* | *1* |
| *Dibromofluoromethane (Surr)* | *103* | | *70 - 130* | | *07/31/15 14:07* | *1* |
| *Toluene-d8 (Surr)* | *97* | | *70 - 130* | | *07/31/15 14:07* | *1* |

Lab Sample ID: LCS 490-269642/3
Matrix: Solid
Analysis Batch: 269642

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

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Benzene | 0.0500 | 0.04140 | | mg/Kg | | 83 | 75 - 127 |
| Ethylbenzene | 0.0500 | 0.04266 | | mg/Kg | | 85 | 80 - 134 |
| Naphthalene | 0.0500 | 0.04339 | | mg/Kg | | 87 | 69 - 150 |
| Toluene | 0.0500 | 0.04105 | | mg/Kg | | 82 | 80 - 132 |
| Xylenes, Total | 0.100 | 0.08325 | | mg/Kg | | 83 | 80 - 137 |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *95* | | *70 - 130* |
| *4-Bromofluorobenzene (Surr)* | *98* | | *70 - 130* |
| *Dibromofluoromethane (Surr)* | *98* | | *70 - 130* |
| *Toluene-d8 (Surr)* | *98* | | *70 - 130* |

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

Lab Sample ID: MB 490-268561/1-A
Matrix: Solid
Analysis Batch: 268573

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 268561

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | ND | | 0.0670 | 0.0100 | mg/Kg | | 07/28/15 09:37 | 07/28/15 15:15 | 1 |
| Acenaphthylene | ND | | 0.0670 | 0.00900 | mg/Kg | | 07/28/15 09:37 | 07/28/15 15:15 | 1 |
| Anthracene | ND | | 0.0670 | 0.00900 | mg/Kg | | 07/28/15 09:37 | 07/28/15 15:15 | 1 |
| Benzo[a]anthracene | ND | | 0.0670 | 0.0150 | mg/Kg | | 07/28/15 09:37 | 07/28/15 15:15 | 1 |
| Benzo[a]pyrene | ND | | 0.0670 | 0.0120 | mg/Kg | | 07/28/15 09:37 | 07/28/15 15:15 | 1 |
| Benzo[b]fluoranthene | ND | | 0.0670 | 0.0120 | mg/Kg | | 07/28/15 09:37 | 07/28/15 15:15 | 1 |
| Benzo[g,h,i]perylene | ND | | 0.0670 | 0.00900 | mg/Kg | | 07/28/15 09:37 | 07/28/15 15:15 | 1 |
| Benzo[k]fluoranthene | ND | | 0.0670 | 0.0140 | mg/Kg | | 07/28/15 09:37 | 07/28/15 15:15 | 1 |
| 1-Methylnaphthalene | ND | | 0.0670 | 0.0140 | mg/Kg | | 07/28/15 09:37 | 07/28/15 15:15 | 1 |
| Pyrene | ND | | 0.0670 | 0.0120 | mg/Kg | | 07/28/15 09:37 | 07/28/15 15:15 | 1 |
| Phenanthrene | ND | | 0.0670 | 0.00900 | mg/Kg | | 07/28/15 09:37 | 07/28/15 15:15 | 1 |

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

Lab Sample ID: MB 490-268561/1-A
Matrix: Solid
Analysis Batch: 268573

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 268561

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chrysene | ND | | 0.0670 | 0.00900 | mg/Kg | | 07/28/15 09:37 | 07/28/15 15:15 | 1 |
| Dibenz(a,h)anthracene | ND | | 0.0670 | 0.00700 | mg/Kg | | 07/28/15 09:37 | 07/28/15 15:15 | 1 |
| Fluoranthene | ND | | 0.0670 | 0.00900 | mg/Kg | | 07/28/15 09:37 | 07/28/15 15:15 | 1 |
| Fluorene | ND | | 0.0670 | 0.0120 | mg/Kg | | 07/28/15 09:37 | 07/28/15 15:15 | 1 |
| Indeno[1,2,3-cd]pyrene | ND | | 0.0670 | 0.0100 | mg/Kg | | 07/28/15 09:37 | 07/28/15 15:15 | 1 |
| Naphthalene | ND | | 0.0670 | 0.00900 | mg/Kg | | 07/28/15 09:37 | 07/28/15 15:15 | 1 |
| 2-Methylnaphthalene | ND | | 0.0670 | 0.0160 | mg/Kg | | 07/28/15 09:37 | 07/28/15 15:15 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *2-Fluorobiphenyl (Surr)* | *78* | | *29 - 120* | *07/28/15 09:37* | *07/28/15 15:15* | *1* |
| *Terphenyl-d14 (Surr)* | *89* | | *13 - 120* | *07/28/15 09:37* | *07/28/15 15:15* | *1* |
| *Nitrobenzene-d5 (Surr)* | *82* | | *27 - 120* | *07/28/15 09:37* | *07/28/15 15:15* | *1* |

Lab Sample ID: LCS 490-268561/2-A
Matrix: Solid
Analysis Batch: 268573

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 268561

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Acenaphthylene | 1.67 | 1.219 | | mg/Kg | | 73 | 38 - 120 |
| Anthracene | 1.67 | 1.345 | | mg/Kg | | 81 | 46 - 124 |
| Benzo[a]anthracene | 1.67 | 1.340 | | mg/Kg | | 80 | 45 - 120 |
| Benzo[a]pyrene | 1.67 | 1.349 | | mg/Kg | | 81 | 45 - 120 |
| Benzo[b]fluoranthene | 1.67 | 1.342 | | mg/Kg | | 81 | 42 - 120 |
| Benzo[g,h,i]perylene | 1.67 | 1.332 | | mg/Kg | | 80 | 38 - 120 |
| Benzo[k]fluoranthene | 1.67 | 1.421 | | mg/Kg | | 85 | 42 - 120 |
| 1-Methylnaphthalene | 1.67 | 1.387 | | mg/Kg | | 83 | 32 - 120 |
| Pyrene | 1.67 | 1.432 | | mg/Kg | | 86 | 43 - 120 |
| Phenanthrene | 1.67 | 1.308 | | mg/Kg | | 78 | 45 - 120 |
| Chrysene | 1.67 | 1.317 | | mg/Kg | | 79 | 43 - 120 |
| Dibenz(a,h)anthracene | 1.67 | 1.365 | | mg/Kg | | 82 | 32 - 128 |
| Fluoranthene | 1.67 | 1.349 | | mg/Kg | | 81 | 46 - 120 |
| Fluorene | 1.67 | 1.340 | | mg/Kg | | 80 | 42 - 120 |
| Indeno[1,2,3-cd]pyrene | 1.67 | 1.309 | | mg/Kg | | 79 | 41 - 121 |
| Naphthalene | 1.67 | 1.294 | | mg/Kg | | 78 | 32 - 120 |
| 2-Methylnaphthalene | 1.67 | 1.304 | | mg/Kg | | 78 | 28 - 120 |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *2-Fluorobiphenyl (Surr)* | *78* | | *29 - 120* |
| *Terphenyl-d14 (Surr)* | *87* | | *13 - 120* |
| *Nitrobenzene-d5 (Surr)* | *88* | | *27 - 120* |

Lab Sample ID: LCSD 490-268561/3-A
Matrix: Solid
Analysis Batch: 268573

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 268561

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthylene | 1.67 | 1.196 | | mg/Kg | | 72 | 38 - 120 | 2 | 50 |
| Anthracene | 1.67 | 1.336 | | mg/Kg | | 80 | 46 - 124 | 1 | 49 |

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

**Lab Sample ID: LCSD 490-268561/3-A**
**Matrix: Solid**
**Analysis Batch: 268573**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 268561**

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| Benzo[a]anthracene | 1.67 | 1.331 | | mg/Kg | | 80 | 45 - 120 | 1 | 50 |
| Benzo[a]pyrene | 1.67 | 1.350 | | mg/Kg | | 81 | 45 - 120 | 0 | 50 |
| Benzo[b]fluoranthene | 1.67 | 1.326 | | mg/Kg | | 80 | 42 - 120 | 1 | 50 |
| Benzo[g,h,i]perylene | 1.67 | 1.323 | | mg/Kg | | 79 | 38 - 120 | 1 | 50 |
| Benzo[k]fluoranthene | 1.67 | 1.442 | | mg/Kg | | 86 | 42 - 120 | 1 | 45 |
| 1-Methylnaphthalene | 1.67 | 1.426 | | mg/Kg | | 86 | 32 - 120 | 3 | 50 |
| Pyrene | 1.67 | 1.419 | | mg/Kg | | 85 | 43 - 120 | 1 | 50 |
| Phenanthrene | 1.67 | 1.294 | | mg/Kg | | 78 | 45 - 120 | 1 | 50 |
| Chrysene | 1.67 | 1.301 | | mg/Kg | | 78 | 43 - 120 | 1 | 49 |
| Dibenz(a,h)anthracene | 1.67 | 1.350 | | mg/Kg | | 81 | 32 - 128 | 1 | 50 |
| Fluoranthene | 1.67 | 1.362 | | mg/Kg | | 82 | 46 - 120 | 1 | 50 |
| Fluorene | 1.67 | 1.337 | | mg/Kg | | 80 | 42 - 120 | 0 | 50 |
| Indeno[1,2,3-cd]pyrene | 1.67 | 1.313 | | mg/Kg | | 79 | 41 - 121 | 0 | 50 |
| Naphthalene | 1.67 | 1.334 | | mg/Kg | | 80 | 32 - 120 | 3 | 50 |
| 2-Methylnaphthalene | 1.67 | 1.334 | | mg/Kg | | 80 | 28 - 120 | 2 | 50 |

| *Surrogate* | *LCSD %Recovery* | *LCSD Qualifier* | *Limits* |
|---|---|---|---|
| *2-Fluorobiphenyl (Surr)* | *77* | | *29 - 120* |
| *Terphenyl-d14 (Surr)* | *86* | | *13 - 120* |
| *Nitrobenzene-d5 (Surr)* | *89* | | *27 - 120* |

**Lab Sample ID: 490-83596-G-1-B MS**
**Matrix: Solid**
**Analysis Batch: 268573**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**
**Prep Batch: 268561**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthylene | ND | | 1.64 | 0.9547 | | mg/Kg | | 58 | 25 - 120 |
| Anthracene | ND | | 1.64 | 1.069 | | mg/Kg | | 65 | 28 - 125 |
| Benzo[a]anthracene | ND | | 1.64 | 1.057 | | mg/Kg | | 64 | 23 - 120 |
| Benzo[a]pyrene | ND | | 1.64 | 1.061 | | mg/Kg | | 65 | 15 - 128 |
| Benzo[b]fluoranthene | ND | | 1.64 | 1.058 | | mg/Kg | | 64 | 12 - 133 |
| Benzo[g,h,i]perylene | ND | | 1.64 | 1.032 | | mg/Kg | | 63 | 22 - 120 |
| Benzo[k]fluoranthene | ND | | 1.64 | 1.116 | | mg/Kg | | 68 | 28 - 120 |
| 1-Methylnaphthalene | ND | | 1.64 | 1.069 | | mg/Kg | | 65 | 10 - 120 |
| Pyrene | ND | | 1.64 | 1.141 | | mg/Kg | | 69 | 20 - 123 |
| Phenanthrene | ND | | 1.64 | 1.030 | | mg/Kg | | 63 | 21 - 122 |
| Chrysene | ND | | 1.64 | 1.042 | | mg/Kg | | 63 | 20 - 120 |
| Dibenz(a,h)anthracene | ND | | 1.64 | 1.059 | | mg/Kg | | 64 | 12 - 128 |
| Fluoranthene | ND | | 1.64 | 1.079 | | mg/Kg | | 66 | 10 - 143 |
| Fluorene | ND | | 1.64 | 1.061 | | mg/Kg | | 65 | 20 - 120 |
| Indeno[1,2,3-cd]pyrene | ND | | 1.64 | 1.029 | | mg/Kg | | 63 | 22 - 121 |
| Naphthalene | ND | | 1.64 | 0.9924 | | mg/Kg | | 60 | 10 - 120 |
| 2-Methylnaphthalene | ND | | 1.64 | 1.001 | | mg/Kg | | 61 | 13 - 120 |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *2-Fluorobiphenyl (Surr)* | *58* | | *29 - 120* |
| *Terphenyl-d14 (Surr)* | *68* | | *13 - 120* |

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

**Lab Sample ID: 490-83596-G-1-B MS**
**Matrix: Solid**
**Analysis Batch: 268573**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**
**Prep Batch: 268561**

| Surrogate | MS %Recovery | MS Qualifier | Limits |
|---|---|---|---|
| *Nitrobenzene-d5 (Surr)* | *63* | | *27 - 120* |

**Lab Sample ID: 490-83596-G-1-C MSD**
**Matrix: Solid**
**Analysis Batch: 268573**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**
**Prep Batch: 268561**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acenaphthylene | ND | | 1.64 | 0.7399 | | mg/Kg | | 45 | 25 - 120 | 25 | 50 |
| Anthracene | ND | | 1.64 | 0.8269 | | mg/Kg | | 51 | 28 - 125 | 26 | 49 |
| Benzo[a]anthracene | ND | | 1.64 | 0.8182 | | mg/Kg | | 50 | 23 - 120 | 25 | 50 |
| Benzo[a]pyrene | ND | | 1.64 | 0.8152 | | mg/Kg | | 50 | 15 - 128 | 26 | 50 |
| Benzo[b]fluoranthene | ND | | 1.64 | 0.8164 | | mg/Kg | | 50 | 12 - 133 | 26 | 50 |
| Benzo[g,h,i]perylene | ND | | 1.64 | 0.7932 | | mg/Kg | | 48 | 22 - 120 | 26 | 50 |
| Benzo[k]fluoranthene | ND | | 1.64 | 0.8460 | | mg/Kg | | 52 | 28 - 120 | 28 | 45 |
| 1-Methylnaphthalene | ND | | 1.64 | 0.8431 | | mg/Kg | | 52 | 10 - 120 | 24 | 50 |
| Pyrene | ND | | 1.64 | 0.8717 | | mg/Kg | | 53 | 20 - 123 | 27 | 50 |
| Phenanthrene | ND | | 1.64 | 0.7858 | | mg/Kg | | 48 | 21 - 122 | 27 | 50 |
| Chrysene | ND | | 1.64 | 0.7939 | | mg/Kg | | 49 | 20 - 120 | 27 | 49 |
| Dibenz(a,h)anthracene | ND | | 1.64 | 0.8132 | | mg/Kg | | 50 | 12 - 128 | 26 | 50 |
| Fluoranthene | ND | | 1.64 | 0.8412 | | mg/Kg | | 51 | 10 - 143 | 25 | 50 |
| Fluorene | ND | | 1.64 | 0.8250 | | mg/Kg | | 50 | 20 - 120 | 25 | 50 |
| Indeno[1,2,3-cd]pyrene | ND | | 1.64 | 0.7780 | | mg/Kg | | 48 | 22 - 121 | 28 | 50 |
| Naphthalene | ND | | 1.64 | 0.7799 | | mg/Kg | | 48 | 10 - 120 | 24 | 50 |
| 2-Methylnaphthalene | ND | | 1.64 | 0.7927 | | mg/Kg | | 48 | 13 - 120 | 23 | 50 |

| Surrogate | MSD %Recovery | MSD Qualifier | Limits |
|---|---|---|---|
| *2-Fluorobiphenyl (Surr)* | *64* | | *29 - 120* |
| *Terphenyl-d14 (Surr)* | *73* | | *13 - 120* |
| *Nitrobenzene-d5 (Surr)* | *69* | | *27 - 120* |

## Method: Moisture - Percent Moisture

**Lab Sample ID: 490-83612-C-1 DU**
**Matrix: Solid**
**Analysis Batch: 268640**

**Client Sample ID: Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit | D | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|
| Percent Solids | 75 | | 74 | | % | | 1 | 20 |

# QC Association Summary

Client: Small Business Group Inc.
Project/Site: Laurel Bay Housing Project

TestAmerica Job ID: 490-83650-1

## GC/MS VOA

### Prep Batch: 268988

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 490-83650-1 | 1065 Gardenia | Total/NA | Soil | 5035 | |
| 490-83650-1 | 1065 Gardenia | Total/NA | Soil | 5035 | |
| 490-83650-2 | 1063 Gardenia | Total/NA | Soil | 5035 | |
| 490-83650-3 | 1141 Iris | Total/NA | Soil | 5035 | |

### Analysis Batch: 269466

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 490-83650-1 | 1065 Gardenia | Total/NA | Soil | 8260B | 268988 |
| 490-83650-2 | 1063 Gardenia | Total/NA | Soil | 8260B | 268988 |
| 490-83650-3 | 1141 Iris | Total/NA | Soil | 8260B | 268988 |
| LCS 490-269466/3 | Lab Control Sample | Total/NA | Solid | 8260B | |
| LCSD 490-269466/4 | Lab Control Sample Dup | Total/NA | Solid | 8260B | |
| MB 490-269466/7 | Method Blank | Total/NA | Solid | 8260B | |

### Analysis Batch: 269642

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 490-83650-1 | 1065 Gardenia | Total/NA | Soil | 8260B | 268988 |
| LCS 490-269642/3 | Lab Control Sample | Total/NA | Solid | 8260B | |
| MB 490-269642/7 | Method Blank | Total/NA | Solid | 8260B | |

## GC/MS Semi VOA

### Prep Batch: 268561

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 490-83596-G-1-B MS | Matrix Spike | Total/NA | Solid | 3550C | |
| 490-83596-G-1-C MSD | Matrix Spike Duplicate | Total/NA | Solid | 3550C | |
| 490-83650-1 | 1065 Gardenia | Total/NA | Soil | 3550C | |
| 490-83650-2 | 1063 Gardenia | Total/NA | Soil | 3550C | |
| 490-83650-3 | 1141 Iris | Total/NA | Soil | 3550C | |
| LCS 490-268561/2-A | Lab Control Sample | Total/NA | Solid | 3550C | |
| LCSD 490-268561/3-A | Lab Control Sample Dup | Total/NA | Solid | 3550C | |
| MB 490-268561/1-A | Method Blank | Total/NA | Solid | 3550C | |

### Analysis Batch: 268573

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 490-83596-G-1-B MS | Matrix Spike | Total/NA | Solid | 8270D | 268561 |
| 490-83596-G-1-C MSD | Matrix Spike Duplicate | Total/NA | Solid | 8270D | 268561 |
| 490-83650-1 | 1065 Gardenia | Total/NA | Soil | 8270D | 268561 |
| 490-83650-2 | 1063 Gardenia | Total/NA | Soil | 8270D | 268561 |
| 490-83650-3 | 1141 Iris | Total/NA | Soil | 8270D | 268561 |
| LCS 490-268561/2-A | Lab Control Sample | Total/NA | Solid | 8270D | 268561 |
| LCSD 490-268561/3-A | Lab Control Sample Dup | Total/NA | Solid | 8270D | 268561 |
| MB 490-268561/1-A | Method Blank | Total/NA | Solid | 8270D | 268561 |

## General Chemistry

### Analysis Batch: 268640

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 490-83612-C-1 DU | Duplicate | Total/NA | Solid | Moisture | |
| 490-83650-1 | 1065 Gardenia | Total/NA | Soil | Moisture | |

## General Chemistry (Continued)

### Analysis Batch: 268640 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 490-83650-2 | 1063 Gardenia | Total/NA | Soil | Moisture | |
| 490-83650-3 | 1141 Iris | Total/NA | Soil | Moisture | |

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# Lab Chronicle

Client: Small Business Group Inc.
Project/Site: Laurel Bay Housing Project

TestAmerica Job ID: 490-83650-1

## Client Sample ID: 1065 Gardenia

Date Collected: 07/21/15 13:00
Date Received: 07/25/15 08:20

Lab Sample ID: 490-83650-1
Matrix: Soil

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 5035 | | | 5.608 g | 5.00 mL | 268988 | 07/21/15 12:00 | MAH | TAL NSH |
| Total/NA | Analysis | 8260B | | 1 | 5.608 g | 5.00 mL | 269466 | 07/30/15 22:45 | WC1 | TAL NSH |
| Total/NA | Prep | 5035 | | | 5.942 g | 5.00 mL | 268988 | 07/21/15 12:00 | MAH | TAL NSH |
| Total/NA | Analysis | 8260B | | 1 | 5.942 g | 5.00 mL | 269642 | 07/31/15 15:44 | WC1 | TAL NSH |
| Total/NA | Prep | 3550C | | | 30.46 g | 1 mL | 268561 | 07/28/15 09:37 | LDC | TAL NSH |
| Total/NA | Analysis | 8270D | | 1 | 30.46 g | 1 mL | 268573 | 07/28/15 21:50 | SNR | TAL NSH |
| Total/NA | Analysis | Moisture | | 1 | | | 268640 | 07/28/15 10:30 | MAA | TAL NSH |

## Client Sample ID: 1063 Gardenia

Date Collected: 07/22/15 14:15
Date Received: 07/25/15 08:20

Lab Sample ID: 490-83650-2
Matrix: Soil

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 5035 | | | 6.323 g | 5.00 mL | 268988 | 07/22/15 13:15 | MAH | TAL NSH |
| Total/NA | Analysis | 8260B | | 1 | 6.323 g | 5.00 mL | 269466 | 07/30/15 23:16 | WC1 | TAL NSH |
| Total/NA | Prep | 3550C | | | 30.38 g | 1 mL | 268561 | 07/28/15 09:37 | LDC | TAL NSH |
| Total/NA | Analysis | 8270D | | 1 | 30.38 g | 1 mL | 268573 | 07/28/15 22:16 | SNR | TAL NSH |
| Total/NA | Analysis | Moisture | | 1 | | | 268640 | 07/28/15 10:30 | MAA | TAL NSH |

## Client Sample ID: 1141 Iris

Date Collected: 07/23/15 10:45
Date Received: 07/25/15 08:20

Lab Sample ID: 490-83650-3
Matrix: Soil

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 5035 | | | 5.192 g | 5.00 mL | 268988 | 07/23/15 09:45 | MAH | TAL NSH |
| Total/NA | Analysis | 8260B | | 1 | 5.192 g | 5.00 mL | 269466 | 07/30/15 23:47 | WC1 | TAL NSH |
| Total/NA | Prep | 3550C | | | 30.28 g | 1 mL | 268561 | 07/28/15 09:37 | LDC | TAL NSH |
| Total/NA | Analysis | 8270D | | 1 | 30.28 g | 1 mL | 268573 | 07/28/15 22:42 | SNR | TAL NSH |
| Total/NA | Analysis | Moisture | | 1 | | | 268640 | 07/28/15 10:30 | MAA | TAL NSH |

**Laboratory References:**

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

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# Method Summary

Client: Small Business Group Inc.
Project/Site: Laurel Bay Housing Project

TestAmerica Job ID: 490-83650-1

| 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: Small Business Group Inc.
Project/Site: Laurel Bay Housing Project

TestAmerica Job ID: 490-83650-1

## Laboratory: TestAmerica Nashville

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

| Authority | Program | EPA Region | Certification ID | Expiration Date |
|---|---|---|---|---|
| North Carolina (WW/SW) | State Program | 4 | 387 | 12-31-15 |

The following analytes are included in this report, but certification is not offered by the governing authority:

| Analysis Method | Prep Method | Matrix | Analyte |
|---|---|---|---|
| Moisture | | Soil | Percent Solids |

| | | | | |
|---|---|---|---|---|
| South Carolina | State Program | 4 | 84009 (001) | 02-28-16 |

The following analytes are included in this report, but certification is not offered by the governing authority:

| Analysis Method | Prep Method | Matrix | Analyte |
|---|---|---|---|
| 8270D | 3550C | Soil | 1-Methylnaphthalene |
| Moisture | | Soil | Percent Solids |

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
Nashville, TN

# COOLER RECEIPT FORM


490-83650 Chain of Custody

Cooler Received/Opened On 7/25/2015 @ 0820

1. Tracking # 3480 (last 4 digits, FedEx)

Courier: FedEx IR Gun ID 94660220

2. Temperature of rep. sample or temp blank when opened: 0.7 *Degrees Celsius*

3. If item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO (NA)

4. Were custody seals on outside of cooler? (YES)..NO...NA

If yes, how many and where: (2) Front/Back

5. Were the seals intact, signed, and dated correctly? (YES)..NO...NA

6. Were custody papers inside cooler? (YES)..NO...NA

I certify that I opened the cooler and answered questions 1-6 (intial) MSM

7. Were custody seals on containers: YES (NO) and Intact YES...NO...(NA)

Were these signed and dated correctly? YES...NO...(NA)

8. Packing mat'l used? (Bubblewrap) Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: (Ice) Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? (YES)..NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? (YES)..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...NO...(NA)

14. Was there a Trip Blank in this cooler? YES..(NO)..NA If multiple coolers, sequence #_____

I certify that I unloaded the cooler and answered questions 7-14 (intial) DA

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES..NO..(NA)

b. Did the bottle labels indicate that the correct preservatives were used YES...NO...(NA)

16. Was residual chlorine present? YES...NO...(NA)

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial) DA

17. Were custody papers properly filled out (ink, signed, etc)? (YES)..NO...NA

18. Did you sign the custody papers in the appropriate place? (YES)..NO...NA

19. Were correct containers used for the analysis requested? (YES)..NO...NA

20. Was sufficient amount of sample sent in each container? (YES)..NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (intial) DA

I certify that I attached a label with the unique LIMS number to each container (intial) DA

21. Were there Non-Conformance issues at login? YES..(NO) Was a NCM generated? YES..(NO)..#_____

BIS = Broken in shipment
Cooler Receipt Form.doc

LF-1
End of Form

Revised 11/28/12



8/4/2015

Loc: 490
83650

8/4/2015

**TestAmerica**
THE LEADER IN ENVIRONMENTAL TESTING

Nashville Division
2960 Foster Creighton
Nashville, TN 37204

Phone: 615-726-0177
Toll Free: 800-765-0980
Fax: 615-726-3404

To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes?

Compliance Monitoring? Yes ____ No ____

Enforcement Action? Yes ____ No ____

Client Name/Account #: SBG - EEG # 2449

Address: 10179 Highway 78

City/State/Zip: Ladson, SC 29456

Site State: SC

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

PO#: 1406

Telephone Number: 843.412.2097 Fax No.: (843) 412-2027

TA Quote #:

Sampler Name: (Print) Pratt Shaw

Project ID: Laurel Bay Housing Project

Sampler Signature:

Project #:

| Sample ID / Description | Date Sampled | Time Sampled | No. of Containers Shipped | Grab | Composite | Field Filtered | Preservative: Ice | $HNO_3$ (Red Label) | HCl (Blue Label) Secondary Preservative | NaOH ( Orange Label) | $H_2SO_4$ Plastic (Yellow Label) | $H_2SO_4$ Glass(Yellow Label) | None (Black Label) | Other ( Specify) Methanol | Matrix: Groundwater | Wastewater | Drinking Water | Sludge | Soil | Other (specify): | Analyze For: BTEX + Napth - 8260 | PAH - 8270D | RUSH TAT (Pre-Schedule) | Standard TAT | Fax Results | Send QC with report |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1065 GARDENIA | 7/21/15 | 1300 | 5 | X | | | | | 2 | | | | 2 | 1 | | | | | X | | X | X | | | | |
| 1063 GARDENIA | 7/22/15 | 1415 | 5 | X | | | | | 2 | | | | 2 | 1 | | | | | X | | X | X | | | | |
| 1141 Iris | 7/23/15 | 1045 | 5 | X | | | | | 2 | | | | 2 | 1 | | | | | X | | X | X | | | | |

Special Instructions:

Method of Shipment: FEDEX

Laboratory Comments:
Temperature Upon Receipt: 0.7
VOCs Free of Headspace? Y N

| Relinquished by: | Date | Time | Received by: | Date | Time |
|---|---|---|---|---|---|
| | 7/24/15 | 0930 | Fedex | | |
| Relinquished by: | Date | Time | Received by TestAmerica: | Date | Time |
| | | | TAN | 7-25-15 | 0820 |

# Login Sample Receipt Checklist

Client: Small Business Group Inc.

Job Number: 490-83650-1

**Login Number: 83650**
**List Number: 1**
**Creator: Armstrong, Daniel**

**List Source: TestAmerica Nashville**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | True | |
| The cooler's custody seal, if present, is intact. | True | |
| Sample custody seals, if present, are intact. | N/A | |
| 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 | 0.7C |
| 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 | |

13

ATTACHMENT A

# NON-HAZARDOUS MANIFEST

WASTE MANAGEMENT

| | | | |
|---|---|---|---|
| NON-HAZARDOUS MANIFEST | 1. Generator's US EPA ID No. Manifest Doc No. | 2. Page 1 of 1 | |

**GENERATOR**

| | | |
|---|---|---|
| 3. Generator's Mailing Address:<br>MCAS BEAUFORT<br>LAUREL BAY HOUSING<br>BEAUFORT, SC 29904<br>4. Generator's Phone 843-879-0411 | Generator's Site Address (If different than mailing): | A. Manifest Number WMNA 01519125<br>B. State Generator's ID |
| 5. Transporter 1 Company Name | 6. US EPA ID Number | C. State Transporter's ID<br>D. Transporter's Phone |
| 7. Transporter 2 Company Name | 8. US EPA ID Number | E. State Transporter's ID<br>F. Transporter's Phone |
| 9. Designated Facility Name and Site Address<br>HICKORY HILL LANDFILL<br>2621 LOW COUNTRY DRIVE<br>RIDGELAND, SC 29936 | 10. US EPA ID Number | G. State Facility ID<br>H. State Facility Phone 843-987-4643 |

| 11. Description of Waste Materials | 12. Containers No. | 12. Containers Type | 13. Total Quantity | 14. Unit Wt./Vol. | I. Misc. Comments |
|---|---|---|---|---|---|
| a. HEATING OIL TANK FILLED WITH SAND<br>WM Profile # 102655SC | 1 | | | | |
| b.<br>WM Profile # | | | | | |
| c.<br>WM Profile # | | | | | |
| d.<br>WM Profile # | | | | | |

| J. Additional Descriptions for Materials Listed Above | K. Disposal Location | | | |
|---|---|---|---|---|
| | Cell | | Level | |
| | Grid | | | |

15. Special Handling Instructions and Additional Information

Purchase Order # EMERGENCY CONTACT / PHONE NO.:

16. GENERATOR'S CERTIFICATE:

I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations.

| Printed Name | Signature "On behalf of" | Month | Day | Year |
|---|---|---|---|---|
| | | | | |

**TRANSPORTER**

17. Transporter 1 Acknowledgement of Receipt of Materials

| Printed Name | Signature | Month | Day | Year |
|---|---|---|---|---|
| | | | | |

18. Transporter 2 Acknowledgement of Receipt of Materials

| Printed Name | Signature | Month | Day | Year |
|---|---|---|---|---|
| | | | | |

**FACILITY**

19. Certificate of Final Treatment/Disposal

I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.

20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.

| Printed Name | Signature | Month | Day | Year |
|---|---|---|---|---|
| | | | | |

White- TREATMENT, STORAGE, DISPOSAL FACILITY COPY Blue- GENERATOR #2 COPY Yellow- GENERATOR #1 COPY

Pink- FACILITY USE ONLY Gold- TRANSPORTER #1 COPY

**Appendix C**
**Laboratory Analytical Report - Groundwater**

CDM - AECOM
Multimedia Joint Venture

Pace Analytical®
www.pacelabs.com

**Pace Analytical Services, Inc.**
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

**Pace Analytical Services, Inc.**
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

## ANALYTICAL RESULTS

Project: LAUREL BAY SAMPLING 7/29/08
Pace Project No.: 9224564

**Sample: 1124 IRIS A** **Lab ID: 9224564008** Collected: 07/29/08 10:30 Received: 07/31/08 13:40 Matrix: Water

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **8270 MSSV PAH by SIM SPE** | Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3535 | | | | | | | |
| Acenaphthene | ND | ug/L | 10.0 | 1 | 08/03/08 00:00 | 08/12/08 23:00 | 83-32-9 | |
| Acenaphthylene | ND | ug/L | 7.5 | 1 | 08/03/08 00:00 | 08/12/08 23:00 | 208-96-8 | |
| Anthracene | ND | ug/L | 0.25 | 1 | 08/03/08 00:00 | 08/12/08 23:00 | 120-12-7 | |
| Benzo(a)anthracene | ND | ug/L | 0.50 | 1 | 08/03/08 00:00 | 08/12/08 23:00 | 56-55-3 | |
| Benzo(a)pyrene | ND | ug/L | 1.0 | 1 | 08/03/08 00:00 | 08/12/08 23:00 | 50-32-8 | |
| Benzo(b)fluoranthene | ND | ug/L | 1.5 | 1 | 08/03/08 00:00 | 08/12/08 23:00 | 205-99-2 | |
| Benzo(g,h,i)perylene | ND | ug/L | 1.0 | 1 | 08/03/08 00:00 | 08/12/08 23:00 | 191-24-2 | |
| Benzo(k)fluoranthene | ND | ug/L | 1.0 | 1 | 08/03/08 00:00 | 08/12/08 23:00 | 207-08-9 | |
| Chrysene | ND | ug/L | 0.50 | 1 | 08/03/08 00:00 | 08/12/08 23:00 | 218-01-9 | |
| Dibenz(a,h)anthracene | ND | ug/L | 1.0 | 1 | 08/03/08 00:00 | 08/12/08 23:00 | 53-70-3 | |
| Fluoranthene | ND | ug/L | 1.5 | 1 | 08/03/08 00:00 | 08/12/08 23:00 | 206-44-0 | |
| Fluorene | ND | ug/L | 1.6 | 1 | 08/03/08 00:00 | 08/12/08 23:00 | 86-73-7 | |
| Indeno(1,2,3-cd)pyrene | ND | ug/L | 1.0 | 1 | 08/03/08 00:00 | 08/12/08 23:00 | 193-39-5 | |
| 1-Methylnaphthalene | ND | ug/L | 10.0 | 1 | 08/03/08 00:00 | 08/12/08 23:00 | 90-12-0 | |
| 2-Methylnaphthalene | ND | ug/L | 10.0 | 1 | 08/03/08 00:00 | 08/12/08 23:00 | 91-57-6 | |
| Naphthalene | ND | ug/L | 7.5 | 1 | 08/03/08 00:00 | 08/12/08 23:00 | 91-20-3 | |
| Phenanthrene | ND | ug/L | 1.0 | 1 | 08/03/08 00:00 | 08/12/08 23:00 | 85-01-8 | |
| Pyrene | ND | ug/L | 0.50 | 1 | 08/03/08 00:00 | 08/12/08 23:00 | 129-00-0 | |
| Nitrobenzene-d5 (S) | 58 | % | 50-150 | 1 | 08/03/08 00:00 | 08/12/08 23:00 | 4165-60-0 | |
| 2-Fluorobiphenyl (S) | 57 | % | 50-150 | 1 | 08/03/08 00:00 | 08/12/08 23:00 | 321-60-8 | |
| Terphenyl-d14 (S) | 54 | % | 50-150 | 1 | 08/03/08 00:00 | 08/12/08 23:00 | 1718-51-0 | |
| **8260 MSV Low Level** | Analytical Method: EPA 8260 | | | | | | | |
| Benzene | ND | ug/L | 1.0 | 1 | | 08/05/08 20:18 | 71-43-2 | |
| Ethylbenzene | ND | ug/L | 1.0 | 1 | | 08/05/08 20:18 | 100-41-4 | |
| Naphthalene | ND | ug/L | 2.0 | 1 | | 08/05/08 20:18 | 91-20-3 | |
| Toluene | ND | ug/L | 1.0 | 1 | | 08/05/08 20:18 | 108-88-3 | |
| m&p-Xylene | ND | ug/L | 2.0 | 1 | | 08/05/08 20:18 | 1330-20-7 | |
| o-Xylene | ND | ug/L | 1.0 | 1 | | 08/05/08 20:18 | 95-47-6 | |
| 4-Bromofluorobenzene (S) | 99 | % | 87-109 | 1 | | 08/05/08 20:18 | 460-00-4 | |
| Dibromofluoromethane (S) | 96 | % | 85-115 | 1 | | 08/05/08 20:18 | 1868-53-7 | |
| 1,2-Dichloroethane-d4 (S) | 99 | % | 79-120 | 1 | | 08/05/08 20:18 | 17060-07-0 | |
| Toluene-d8 (S) | 101 | % | 70-120 | 1 | | 08/05/08 20:18 | 2037-26-5 | |

**Sample: 1141 IRIS A** **Lab ID: 9224564009** Collected: 07/29/08 09:10 Received: 07/31/08 13:40 Matrix: Water

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **8270 MSSV PAH by SIM SPE** | Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3535 | | | | | | | |
| Acenaphthene | ND | ug/L | 2.0 | 1 | 08/03/08 00:00 | 08/12/08 23:23 | 83-32-9 | |
| Acenaphthylene | ND | ug/L | 1.5 | 1 | 08/03/08 00:00 | 08/12/08 23:23 | 208-96-8 | |
| Anthracene | ND | ug/L | 0.050 | 1 | 08/03/08 00:00 | 08/12/08 23:23 | 120-12-7 | |
| Benzo(a)anthracene | ND | ug/L | 0.10 | 1 | 08/03/08 00:00 | 08/12/08 23:23 | 56-55-3 | |
| Benzo(a)pyrene | ND | ug/L | 0.20 | 1 | 08/03/08 00:00 | 08/12/08 23:23 | 50-32-8 | |
| Benzo(b)fluoranthene | ND | ug/L | 0.30 | 1 | 08/03/08 00:00 | 08/12/08 23:23 | 205-99-2 | |

Pace Analytical®
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**Pace Analytical Services, Inc.**
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

**Pace Analytical Services, Inc.**
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

## ANALYTICAL RESULTS

Project: LAUREL BAY SAMPLING 7/29/08
Pace Project No.: 9224564

**Sample: 1141 IRIS A** **Lab ID: 9224564009** Collected: 07/29/08 09:10 Received: 07/31/08 13:40 Matrix: Water

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **8270 MSSV PAH by SIM SPE** | Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3535 | | | | | | | |
| Benzo(g,h,i)perylene | ND | ug/L | 0.20 | 1 | 08/03/08 00:00 | 08/12/08 23:23 | 191-24-2 | |
| Benzo(k)fluoranthene | ND | ug/L | 0.20 | 1 | 08/03/08 00:00 | 08/12/08 23:23 | 207-08-9 | |
| Chrysene | ND | ug/L | 0.10 | 1 | 08/03/08 00:00 | 08/12/08 23:23 | 218-01-9 | |
| Dibenz(a,h)anthracene | ND | ug/L | 0.20 | 1 | 08/03/08 00:00 | 08/12/08 23:23 | 53-70-3 | |
| Fluoranthene | ND | ug/L | 0.30 | 1 | 08/03/08 00:00 | 08/12/08 23:23 | 206-44-0 | |
| Fluorene | ND | ug/L | 0.31 | 1 | 08/03/08 00:00 | 08/12/08 23:23 | 86-73-7 | |
| Indeno(1,2,3-cd)pyrene | ND | ug/L | 0.20 | 1 | 08/03/08 00:00 | 08/12/08 23:23 | 193-39-5 | |
| 1-Methylnaphthalene | ND | ug/L | 2.0 | 1 | 08/03/08 00:00 | 08/12/08 23:23 | 90-12-0 | |
| 2-Methylnaphthalene | ND | ug/L | 2.0 | 1 | 08/03/08 00:00 | 08/12/08 23:23 | 91-57-6 | |
| Naphthalene | ND | ug/L | 1.5 | 1 | 08/03/08 00:00 | 08/12/08 23:23 | 91-20-3 | |
| Phenanthrene | ND | ug/L | 0.20 | 1 | 08/03/08 00:00 | 08/12/08 23:23 | 85-01-8 | |
| Pyrene | ND | ug/L | 0.10 | 1 | 08/03/08 00:00 | 08/12/08 23:23 | 129-00-0 | |
| Nitrobenzene-d5 (S) | 56 | % | 50-150 | 1 | 08/03/08 00:00 | 08/12/08 23:23 | 4165-60-0 | |
| 2-Fluorobiphenyl (S) | 62 | % | 50-150 | 1 | 08/03/08 00:00 | 08/12/08 23:23 | 321-60-8 | |
| Terphenyl-d14 (S) | 63 | % | 50-150 | 1 | 08/03/08 00:00 | 08/12/08 23:23 | 1718-51-0 | |
| **8260 MSV Low Level** | Analytical Method: EPA 8260 | | | | | | | |
| Benzene | ND | ug/L | 1.0 | 1 | | 08/05/08 20:42 | 71-43-2 | |
| Ethylbenzene | ND | ug/L | 1.0 | 1 | | 08/05/08 20:42 | 100-41-4 | |
| Naphthalene | ND | ug/L | 2.0 | 1 | | 08/05/08 20:42 | 91-20-3 | |
| Toluene | ND | ug/L | 1.0 | 1 | | 08/05/08 20:42 | 108-88-3 | |
| m&p-Xylene | **7.9** | ug/L | 2.0 | 1 | | 08/05/08 20:42 | 1330-20-7 | |
| o-Xylene | ND | ug/L | 1.0 | 1 | | 08/05/08 20:42 | 95-47-6 | |
| 4-Bromofluorobenzene (S) | 99 | % | 87-109 | 1 | | 08/05/08 20:42 | 460-00-4 | |
| Dibromofluoromethane (S) | 96 | % | 85-115 | 1 | | 08/05/08 20:42 | 1868-53-7 | |
| 1,2-Dichloroethane-d4 (S) | 99 | % | 79-120 | 1 | | 08/05/08 20:42 | 17060-07-0 | |
| Toluene-d8 (S) | 101 | % | 70-120 | 1 | | 08/05/08 20:42 | 2037-26-5 | |

**Sample: 1160 JASMINE A** **Lab ID: 9224564010** Collected: 07/29/08 09:50 Received: 07/31/08 13:40 Matrix: Water

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **8270 MSSV PAH by SIM SPE** | Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3535 | | | | | | | |
| Acenaphthene | ND | ug/L | 2.0 | 1 | 08/04/08 00:00 | 08/13/08 02:07 | 83-32-9 | |
| Acenaphthylene | ND | ug/L | 1.5 | 1 | 08/04/08 00:00 | 08/13/08 02:07 | 208-96-8 | |
| Anthracene | ND | ug/L | 0.050 | 1 | 08/04/08 00:00 | 08/13/08 02:07 | 120-12-7 | |
| Benzo(a)anthracene | ND | ug/L | 0.10 | 1 | 08/04/08 00:00 | 08/13/08 02:07 | 56-55-3 | |
| Benzo(a)pyrene | ND | ug/L | 0.20 | 1 | 08/04/08 00:00 | 08/13/08 02:07 | 50-32-8 | |
| Benzo(b)fluoranthene | ND | ug/L | 0.30 | 1 | 08/04/08 00:00 | 08/13/08 02:07 | 205-99-2 | |
| Benzo(g,h,i)perylene | ND | ug/L | 0.20 | 1 | 08/04/08 00:00 | 08/13/08 02:07 | 191-24-2 | |
| Benzo(k)fluoranthene | ND | ug/L | 0.20 | 1 | 08/04/08 00:00 | 08/13/08 02:07 | 207-08-9 | |
| Chrysene | ND | ug/L | 0.10 | 1 | 08/04/08 00:00 | 08/13/08 02:07 | 218-01-9 | |
| Dibenz(a,h)anthracene | ND | ug/L | 0.20 | 1 | 08/04/08 00:00 | 08/13/08 02:07 | 53-70-3 | |
| Fluoranthene | ND | ug/L | 0.30 | 1 | 08/04/08 00:00 | 08/13/08 02:07 | 206-44-0 | |
| Fluorene | ND | ug/L | 0.31 | 1 | 08/04/08 00:00 | 08/13/08 02:07 | 86-73-7 | |

**Appendix D**
**Regulatory Correspondence**

CDM - AECOM
Multimedia Joint Venture

D H E C
PROMOTE PROTECT PROSPER



16 July 2008

Beaufort Military Complex Family Housing
ATTN: Kyle Broadfoot
1510 Laurel Bay Blvd.
Beaufort, SC 29906

Re: MCAS – Laurel Bay Housing – 1141 Iris Lane
**Site ID # 03940**
UST Closure Reports received 31 January 2008
Beaufort County

Dear Mr. Broadfoot:

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

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

Should you have any questions, please contact me at 803-898-3553 (office phone), 803-898-2893 (fax) or bishopma@dhec.sc.gov.

Sincerely,

Michael Bishop, Hydrogeologist
Groundwater Quality Section
Bureau of Water

cc: Region 8 District EQC (via pdf)
MCAS, Commanding Officer, Attention: S-4 NREAO (William Drawdy) (via pdf)
Technical File

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

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

18 December 2008

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

Re: MCAS – Laurel Bay Housing – 1141 Iris
**Site ID # 03940**
Groundwater Sampling Results received 6 November 2008
Beaufort County

Dear Mr. Ehde:

Per the Department's request, a groundwater sample was collected from the referenced site. The groundwater results were reported as non-detect. Based on the information and analytical data submitted, the Department recognizes that MCAS has adequately addressed the known environmental contamination identified on the property to date in accordance with the approved scope of work. Consequently, no further investigation is required at this time. Please note, this statement pertains only to the portion of the site addressed in the referenced report and does not apply to other areas of the site and/or any other potential regulatory violations. Further, the Department retains the right to request further investigation if deemed necessary.

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

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

Jan T. Cooke, Hydrogeologist

B. Thomas Knight, Manager

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

dhec
Healthy People Healthy Communities.

August 3, 2016

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
Dated July 2015, November 2015

Dear Mr. Drawdy:

The South Carolina Department of Health and Environmental Control (the Department) received the Underground Storage Tanks (USTs) Assessment Reports for the addresses listed in the attachment. 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 petruslb@dhec.sc.gov or 803-898-0294.

Sincerely,

Laurel Petrus, Environmental Engineer Associate
Bureau of Land and Waste Management

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

Attachment to: Petrus to Drawdy
Subject: No Further Action
Dated August 3, 2016

Laurel Bay Underground Assessment Reports for (28 addresses/29 tanks)

| No Further Action recommendation: | |
|---|---|
| 309 Ash | 1001 Bobwhite |
| 477 Dogwood Tank 2 | 1020 Foxglove |
| 563 Dahlia | 1063 Gardenia |
| 659 Camellia | 1065 Gardenia Tank 2 |
| 1213 Cardinal | 1100 Iris Tank 3* |
| 114 Banyan | 1139 Iris |
| 158 Cypress | 1141 Iris Tank 2 |
| 459 Elderberry | 1174 Bobwhite |
| 611 Dahlia | 1184 Bobwhite Tank 1 |
| 656 Camellia | 1184 Bobwhite Tank 2 |
| 671 Camellia | 1220 Cardinal |
| 678 Camellia | 1253 Dove |
| 724 Bluebell | 1332 Albatross |
| 732 Bluebell | 1387 Dove |
| 934 Albacore | |
| | |
| *1100 Iris Tank 1-NFA 12/19/2008, Tank 2-NFA 7/1/15; Paperwork for Tank 3 is labeled Tank 2 | |