

**SUMMARY REPORT
37 BEECH STREET (FORMERLY 254 BEECH STREET)
LAUREL BAY MILITARY HOUSING AREA
MARINE CORPS AIR STATION BEAUFORT
BEAUFORT, SC**

**Revision: 0
Prepared for:**

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

and



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

JUNE 2021

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

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List of Acronyms

bgs	below ground surface
BTEX	benzene, toluene, ethylbenzene, and xylenes
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
LNAPL	light non-aqueous phase liquid
LTM	long-term monitoring
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
UFP SAP	Uniform Federal Policy Sampling and Analysis Plan
USEPA	United States Environmental Protection Agency
UST	underground storage tank
VI	vapor intrusion
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, long-term monitoring (LTM) was approved by the South Carolina Department of Health and Environmental Control (SCDHEC) for 37 Beech Street (Formerly 254 Beech Street) in order to monitor groundwater impacts from the former heating oil USTs. LTM consists of annual groundwater sampling and monthly passive light non-aqueous phase liquid (LNAPL), also referred to as free product, recovery and monitoring activities. LTM activities are currently being conducted at the referenced property. The following information is included in this report:

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

1.1 Background Information

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

units, including legacy Capehart style homes and newer duplex style homes. The housing area is bordered on the west by salt marshes and the Broad River, and to the north, east and south by uplands. Forested areas lie along the northern and northeastern borders.

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

In 2007, MCAS Beaufort began a voluntary program to remove the unregulated, residential heating oil USTs and conduct sampling activities to determine if, and to what extent, petroleum constituents may have impacted the surrounding environment. MCAS Beaufort coordinated with the 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 IGWA sampling process utilizes temporary groundwater sampling points that are typically installed and sampled within the same day. The intent of the sampling point is to determine the presence or absence of the aforementioned COPCs in groundwater and identify whether former UST locations may require additional delineation of COPCs in groundwater. These sampling points are not subjected to the same installation standards as permanent monitoring wells and, as such; the data obtained from the IGWA wells can sometimes be biased high and is considered preliminary data. In order to confirm the presence of any impact to groundwater, a permanent well is installed where IGWA sampling has indicated the presence of free product and/or COPCs is in excess of the SCDHEC RBSLs for groundwater. If COPCs and/or free product are found to be present in the permanent well, additional permanent wells are installed to delineate the extent of impact to groundwater and a sampling program (LTM) is established. If free product is detected in a permanent well, a groundwater sample is not collected, and monthly passive LNAPL monitoring and recovery activities are conducted. Groundwater analytical results from permanent wells are also compared to the site specific groundwater vapor intrusion screening levels (VISLs) to evaluate the potential for vapor intrusion and the necessity for an investigation associated with this media. A multi-media investigation selection process tree, applicable to the LBMH UST investigations, is presented as Appendix A.

2.0 SAMPLING ACTIVITIES AND RESULTS

The following section presents the sampling activities and associated results for 37 Beech Street (Formerly 254 Beech Street). The sampling activities at 37 Beech Street (Formerly 254 Beech Street) comprised a soil investigation, IGWA sampling, installation and sampling of four permanent monitoring wells, LTM sampling, and a vapor intrusion (VI) investigation. Details

regarding the soil investigation at this site are provided in the *SCDHEC UST Assessment Report – 254 Beech Street* (MCAS Beaufort, 2015). The UST Assessment Report is provided in Appendix B. Details regarding the IGWA sampling activities at this site are provided in the *Initial Groundwater Investigation Report – February and March 2017* (Resolution Consultants, 2017). The laboratory report that includes the pertinent IGWA analytical results for this site is presented in Appendix C. Details regarding the permanent well installations and initial sampling activities at this site are provided in the *Groundwater Assessment Report – March and April 2018* (Resolution Consultants, 2018) and in the *Groundwater Assessment Report – November and December 2018 and April 2019* (CDM-AECOM Multimedia JV, 2019). The laboratory reports that includes the pertinent groundwater analytical results for this site are presented in Appendix D. Details regarding the LTM activities to date at this site are provided in the *2019 Groundwater Monitoring Report* (Resolution Consultants, 2019). A comprehensive table of the historical groundwater analytical results for all permanent monitoring wells at the site through 2019 is presented in Appendix E. Details regarding the VI investigation at this site are provided in the *Letter Report Petroleum Vapor Intrusion Investigations – February 2019 through July 2019* (CDM-AECOM Multimedia JV, 2019). The laboratory report that includes the pertinent soil gas analytical results for this site is presented in Appendix F.

2.1 UST Removal and Soil Sampling

In June 2015, two 280 gallon heating oil USTs were removed from underneath the rear concrete patio at 37 Beech Street (Formerly 254 Beech Street). Tank 1 was removed on June 22, 2015. Tank 2 was removed on June 23, 2015. The former UST locations are indicated on Figures 1 and 2 of the UST Assessment Report (Appendix B). The USTs were removed and properly disposed of (i.e., shipped offsite for recycling or transported to a landfill). There was no visual evidence (i.e., staining or sheen) of petroleum impact at the time of the UST removals. According to the UST Assessment Report (Appendix B), the depths to the bases of the USTs were 6'0" bgs (Tank 1) and 5'6" bgs (Tank 2) and a single soil sample was collected for each tank from that depth. The samples were collected from the fill port side of the former USTs to represent a worst case scenario and shipped to an offsite laboratory for analysis of the petroleum COPCs. Sampling was performed in accordance with applicable South Carolina regulation R.61-92, Part 280 (SCDHEC, 2017) and assessment guidelines.

2.2 Soil Analytical Results

A summary of the laboratory analytical results and SCDHEC RBSLs is presented in Table 1. A copy of the laboratory analytical data reports are included in the UST Assessment 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 (Tanks 1 and 2) were used by MCAS Beaufort, in consultation with SCDHEC, to determine a path forward (i.e., additional sampling or No Further Action [NFA]) for the property. The soil results collected from the former UST locations (Tanks 1 and 2) at 37 Beech Street (Formerly 254 Beech Street) were greater than the SCDHEC RBSLs, which indicated further investigation was required. In a letter dated August 1, 2016, SCDHEC requested an IGWA for 37 Beech Street (Formerly 254 Beech Street) to determine if the groundwater was impacted by petroleum COPCs. SCDHEC's request letter is provided in Appendix G.

2.3 Initial Groundwater Sampling

On March 6, 2017, a single temporary monitoring well was installed at 37 Beech Street (Formerly 254 Beech Street), in accordance with the South Carolina Well Standards and Regulations (R.61-71.H-I, updated June 24, 2016). In order to provide data that can be used to determine whether COPCs are migrating to underlying groundwater, the monitoring well was placed in the same general location as the former heating oil USTs (Tanks 1 and 2). The former UST locations are indicated on Figures 1 and 2 of the UST Assessment Report (Appendix B). Further details are provided in the *Initial Groundwater Investigation Report – February and March 2017* (Resolution Consultants, 2017).

The sampling strategy for this phase of the investigation required a one-time sampling event of the temporary monitoring well. Following well installation and development, a groundwater sample was collected using low-flow methods and shipped to an offsite laboratory for analysis of the petroleum COPCs. Upon completion of groundwater sampling, the temporary well was abandoned in accordance with the South Carolina Well Standards and Regulations R.61-71.H-I (SCDHEC, 2016). Field forms are provided in the *Initial Groundwater Investigation Report – February and March 2017* (Resolution Consultants, 2017).

2.4 Initial Groundwater Analytical Results

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

The groundwater results collected from 37 Beech Street (Formerly 254 Beech Street) were greater than the SCDHEC RBSLs and the site specific groundwater VISLs (Table 2), which indicated further investigation was required. In a letter dated July 27, 2017, SCDHEC requested a permanent well be installed for 37 Beech Street (Formerly 254 Beech Street) to confirm the impact to groundwater detected in the temporary well sample. SCDHEC's request letter is provided in Appendix G.

2.5 Permanent Well Groundwater Sampling

On March 14, 2018, a permanent monitoring well was installed at 37 Beech Street (Formerly 254 Beech Street), in accordance with the South Carolina Well Standards and Regulations (R.61-71.H-I, updated June 24, 2016). In order to provide data that can be used to determine whether COPCs are migrating to underlying groundwater, the permanent monitoring well, MW01, was placed in the same general location as the former heating oil USTs (Tanks 1 and 2) and the IGWA sample location. The former UST locations are indicated on Figures 1 and 2 of the UST Assessment Report (Appendix B). Further details are provided in the *Groundwater Assessment Report – March and April 2018* (Resolution Consultants, 2018). The sampling strategy for this phase of the investigation required an initial sampling event of the permanent monitoring well.

In November 2018, three additional permanent wells (MW02, MW03 and MW04) were installed around the property at 37 Beech Street (Formerly 254 Beech Street) to delineate potential contamination. Further details are provided in the *Groundwater Assessment Report – November and December 2018 and April 2019* (CDM-AECOM Multimedia JV, 2019). The sampling strategy for this phase of the investigation required an initial sampling event of the permanent monitoring wells.

Following well installation and development, groundwater samples were collected using low-flow methods and shipped to an offsite laboratory for analysis of the petroleum COPCs. Field forms are provided in the *Groundwater Assessment Report – March and April 2018* (Resolution Consultants, 2017) and in the *Groundwater Assessment Report – November and December 2018 and April 2019* (CDM-AECOM Multimedia JV, 2019).

2.6 Permanent Well Groundwater Analytical Results

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

During the March and April 2018 groundwater assessment, the groundwater results collected from 37 Beech Street (Formerly 254 Beech Street) at MW01 were greater than the SCDHEC RBSLs (Table 3), which indicated that further investigation was required. In a letter dated October 25, 2018, SCDHEC requested that LTM be carried out for 37 Beech Street (Formerly 254 Beech Street) to continue to monitor the impact to groundwater detected in the permanent well sample (MW01). SCDHEC's request letter is provided in Appendix G.

During the November and December 2018 and April 2019 groundwater assessment, the groundwater results collected from 37 Beech Street (Formerly 254 Beech Street) were less than the SCDHEC RBSLs (Table 3). Based on these results, a recommendation was made to adopt the delineation wells into the existing LTM program for 37 Beech Street (Formerly 254 Beech Street). In a letter dated August 14, 2019, SCDHEC approved the recommendation to add the additional permanent wells to the LTM program for 37 Beech Street (Formerly 254 Beech Street) in order to monitor the impact to groundwater at this property. SCDHEC's approval letter is provided in Appendix G.

2.7 Long Term Monitoring

The LTM program at 37 Beech Street (Formerly 254 Beech Street) consists of annual groundwater sampling at the four permanent monitoring wells and monthly passive LNAPL monitoring and recovery activities. LNAPL monitoring and recovery activities consist of monthly gauging of monitoring wells with current and/or historical LNAPL detections and downgradient monitoring wells and monthly passive removal of LNAPL, if present, using hydrophobic absorbent socks. LTM sampling activities have been conducted annually since 2019 at the referenced site. The latest groundwater sampling details and LNAPL monitoring and recovery activities are provided in the *2019 Groundwater Monitoring Report* (Resolution Consultants, 2019).

The sampling strategy for this phase of the investigation required annual LTM sampling of the permanent wells until an optimized monitoring strategy (e.g., reduced COPCs, reduced sampling frequency, reduce number of wells, etc.) or NFA determination could be made for the site. During each LTM sampling event, groundwater samples were collected using low-flow methods and

shipped to an offsite laboratory for analysis of the petroleum COPCs. If free product was detected, a groundwater sample was not collected from that location. Field forms from the most recent sampling event in February and March 2019 are provided in the *2019 Groundwater Monitoring Report* (Resolution Consultants, 2019).

2.8 Long Term Monitoring Analytical Results

A summary of the laboratory analytical results and SCDHEC RBSLs is presented in Table 4. A comprehensive table of the historical groundwater analytical results for all permanent monitoring wells at the site through 2019 is presented in Appendix E. The associated laboratory analytical data reports are located in each of the annual LBMH groundwater monitoring reports.

The groundwater results collected from 37 Beech Street (Formerly 254 Beech Street) from at least one of the monitoring wells were greater than the SCDHEC RBSLs and/or the site specific groundwater VISLs (Table 4) and/or had a detection of free product during the 2018 and 2019 groundwater sampling events. This indicated LTM was required to continue at the property to further assess the impact in groundwater by COPCs associated with the former UST at concentrations that may present a potential risk to human health and the environment. In a letter dated December 17, 2019, SCDHEC approved continuing LTM at 37 Beech Street (Formerly 254 Beech Street) in order to monitor groundwater impacts from the former heating oil UST. SCDHEC's approval letter is provided in Appendix G.

LTM will continue at this property until COPC concentrations in groundwater sampled from all permanent monitoring wells are less than the SCDHEC RBSLs for three or more consecutive sampling events and free product is no longer detected at greater than 0.01 feet.

2.9 Soil Gas Sampling

On February 20, 2019, three temporary subsurface soil gas wells were attempted to be installed at 37 Beech Street (Formerly 254 Beech Street) in accordance with the SCDHEC approved *Uniform Federal Policy Sampling and Analysis Plan (UFP SAP) for Vapor Media, Revision 1* (CDM-AECOM Multimedia JV, 2019). A subsurface soil gas well was attempted to be placed in the same general location as the former heating oil UST (Tank 1). A second subsurface soil gas well was attempted to be placed in the same general location as the former heating oil UST (Tank 2) and MW01. A third subsurface soil gas well was attempted to be placed near the house slab. All three subsurface soil gas wells were unable to be installed due to shallow

groundwater at the location. The former UST locations are indicated on Figures 1 and 2 of the UST Assessment Report (Appendix B). Further details are provided in the *Letter Report Petroleum Vapor Intrusion Investigations – February 2019 through July 2019* (CDM-AECOM Multimedia JV, 2019).

On February 21, 2019, a temporary sub-slab vapor point were installed at 37 Beech Street (Formerly 254 Beech Street) in accordance with the SCDHEC approved *UFP SAP for Vapor Media, Revision 1* (CDM-AECOM Multimedia JV, 2019). The sub-slab vapor point was placed under the house slab. Further details are provided in the *Letter Report Petroleum Vapor Intrusion Investigations – February 2019 through July 2019* (CDM-AECOM Multimedia JV, 2019).

The sampling strategy for this phase of the investigation required a one-time sampling event of the sub-slab vapor point. The sub-slab vapor point was sampled on February 21, 2019. A soil gas sample was collected and shipped to an offsite laboratory for analysis of the petroleum COPCs. Upon completion of soil gas sampling, the temporary sub-slab vapor point was abandoned in accordance with the *UFP SAP for Vapor Media, Revision 1* (CDM-AECOM Multimedia JV, 2019). Field forms are provided in the *Letter Report Petroleum Vapor Intrusion Investigations – February 2019 through July 2019* (CDM-AECOM Multimedia JV, 2019).

2.10 Soil Gas Analytical Results

A summary of the laboratory analytical results and United States Environmental Protection Agency (USEPA) VISLs is presented in Table 5. A copy of the laboratory analytical data report is included in Appendix F.

The soil gas results collected from 37 Beech Street (Formerly 254 Beech Street) were below the USEPA VISLs, which indicated that the sub-slab soil gas was not impacted by COPCs associated with the former USTs at concentrations that present a potential risk to human health and the environment.

3.0 PROPERTY STATUS

Based on the analytical results for groundwater collected from the permanent monitoring wells and/or detection of free product, LTM is required to continue at 37 Beech Street (Formerly 254 Beech Street) to further assess the impact in groundwater by COPCs associated with the former USTs. Groundwater monitoring results for this site beyond 2019 will be available on the Laurel Bay Health Study website, which is located at:

<https://www.beaufort.marines.mil/Resources/Laurel-Bay-Health-Study/>. Based on the analytical results for soil gas, it was determined that there was not a VI concern at this property and a recommendation was made for no additional VI assessment activities. SCDHEC approved the no further VI investigation recommendation for 37 Beech Street (Formerly 254 Beech Street) in a letter dated February 5, 2020. SCDHEC's letter is provided in Appendix G.

4.0 REFERENCES

CDM-AECOM Multimedia JV, 2019. *Groundwater Assessment Report – November and December 2018 and April 2019 for Laurel Bay Military Housing Area, Multiple Properties, Laurel Bay Military Housing Area, Marine Corps Air Station Beaufort, Beaufort, South Carolina*, July 2019.

CDM-AECOM Multimedia JV, 2019. *Uniform Federal Policy Sampling and Analysis Plan for Vapor Media, Revision 1, for Laurel Bay Military Housing Area, Marine Corps Air Station Beaufort, Beaufort, South Carolina*, January 2019.

CDM-AECOM Multimedia JV, 2019. *Letter Report Petroleum Vapor Intrusion Investigations – February 2019 through July 2019 for Laurel Bay Military Housing Area, Multiple Properties, Laurel Bay Military Housing Area, Marine Corps Air Station Beaufort, Beaufort, South Carolina*, December 2019.

Marine Corps Air Station Beaufort, 2015. *South Carolina Department of Health and Environmental Control (SCDHEC) Underground Storage Tank Assessment Report – 254 Beech Street, Laurel Bay Military Housing Area*, November 2015.

Resolution Consultants, 2017. *Initial Groundwater Investigation Report – February and March 2017 for Laurel Bay Military Housing Area, Multiple Properties, Laurel Bay Military Housing Area, Marine Corps Air Station Beaufort, Beaufort, South Carolina*, June 2017.

Resolution Consultants, 2018. *Groundwater Assessment Report – March and April 2018 for Laurel Bay Military Housing Area, Multiple Properties, Laurel Bay Military Housing Area, Marine Corps Air Station Beaufort, Beaufort, South Carolina*, September 2018.

Resolution Consultants, 2019. *2019 Groundwater Monitoring Report for Laurel Bay Military Housing Area, Long-Term Monitoring (LTM), Laurel Bay Military Housing Area, Marine Corps Air Station Beaufort, Beaufort, South Carolina*, October 2019.

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

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

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

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

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

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

United States Environmental Protection Agency, 2019. *USEPA OSWER Vapor Intrusion Assessment, Vapor Intrusion Screening Level Calculator*, May 2019.

Tables

**Table 1
 Laboratory Analytical Results - Soil
 37 Beech Street (Formerly 254 Beech Street)
 Laurel Bay Military Housing Area
 Marine Corps Air Station Beaufort
 Beaufort, South Carolina**

Constituent	SCDHEC RBSLs ⁽¹⁾	Results Samples Collected 06/22/15 and 06/23/15	
		254 Beech - 1 06/22/15	254 Beech - 2 06/23/15
Volatile Organic Compounds Analyzed by EPA Method 8260B (mg/kg)			
Benzene	0.003	1.04	ND
Ethylbenzene	1.15	11.0	0.131
Naphthalene	0.036	102	3.99
Toluene	0.627	0.510	ND
Xylenes, Total	13.01	16.0	0.0159
Semivolatile Organic Compounds Analyzed by EPA Method 8270D (mg/kg)			
Benzo(a)anthracene	0.066	0.246	ND
Benzo(b)fluoranthene	0.066	0.178	ND
Benzo(k)fluoranthene	0.066	0.0703	ND
Chrysene	0.066	0.249	ND
Dibenz(a,h)anthracene	0.066	ND	ND

Notes:

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

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 - Initial Groundwater
37 Beech Street (Formerly 254 Beech Street)
Laurel Bay Military Housing Area
Marine Corps Air Station Beaufort
Beaufort, South Carolina

Constituent	SCDHEC RBSLs ⁽¹⁾	Site-Specific Groundwater VISLs ⁽²⁾	Results Sample Collected 03/06/17
Volatile Organic Compounds Analyzed by EPA Method 8260B (µg/L)			
Benzene	5	16.24	3.5
Ethylbenzene	700	45.95	5.8
Naphthalene	25	29.33	110
Toluene	1000	105,445	ND
Xylenes, Total	10,000	2,133	ND
Semivolatile Organic Compounds Analyzed by EPA Method 8270D (µg/L)			
Benzo(a)anthracene	10	NA	0.73
Benzo(b)fluoranthene	10	NA	0.43
Benzo(k)fluoranthene	10	NA	0.25
Chrysene	10	NA	0.68
Dibenz(a,h)anthracene	10	NA	ND

Notes:

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

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

Bold font indicates the analyte was detected.

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

EPA - United States Environmental Protection Agency

JE - Johnson & Ettinger

NA - not applicable

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

RBSL - Risk-Based Screening Level

SCDHEC - South Carolina Department Of Health and Environmental Control

µg/L - micrograms per liter

VISL - Vapor Intrusion Screening Level

**Table 3
Laboratory Analytical Results - Permanent Monitoring Well Groundwater
37 Beech Street (Formerly 254 Beech Street)
Laurel Bay Military Housing Area
Marine Corps Air Station Beaufort
Beaufort, South Carolina**

Constituent	SCDHEC RBSLs ⁽¹⁾	Site-Specific Groundwater VISLs ⁽²⁾	Results Samples Collected 03/20/18 and 12/17/18			
			MW01 03/20/18	MW02 12/17/18	MW03 12/17/18	MW04 12/17/18
Volatile Organic Compounds Analyzed by EPA Method 8260B (µg/L)						
Benzene	5	16.24	17	ND	ND	ND
Ethylbenzene	700	45.95	15	ND	ND	ND
Naphthalene	25	29.33	190	ND	ND	ND
Toluene	1000	105,445	ND	ND	ND	ND
Xylenes, Total	10,000	2,133	ND	ND	ND	ND
Semivolatile Organic Compounds Analyzed by EPA Method 8270D (µg/L)						
Benzo(a)anthracene	10	NA	ND	ND	ND	ND
Benzo(b)fluoranthene	10	NA	ND	ND	ND	ND
Benzo(k)fluoranthene	10	NA	ND	ND	ND	ND
Chrysene	10	NA	ND	ND	ND	ND
Dibenz(a,h)anthracene	10	NA	ND	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).

⁽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 1x10⁶, a target hazard quotient of 1 (per target organ), and a default residential exposure scenario, assuming exposure for 24 hours/day, 350 days/year, for 26 years. Modeling was performed for a range of depths to groundwater for application as appropriate in different areas of the Laurel Bay Military Housing Area. The most conservative levels are presented for comparison. Refer to Appendix H of the Uniform Federal Policy Sampling Analysis and Sampling Plan for Vapor Media, Revision 4 (Resolution Consultants, April 2017) for additional information.

Bold font indicates the analyte was detected.

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

EPA - United States Environmental Protection Agency

JE - Johnson & Ettinger

NA - not applicable

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

RBSL - Risk-Based Screening Level

SCDHEC - South Carolina Department Of Health and Environmental Control

µg/L - micrograms per liter

VISL - Vapor Intrusion Screening Level

Table 4
Laboratory Analytical Results - Long Term Monitoring
37 Beech Street (Formerly 254 Beech Street)
Laurel Bay Military Housing Area
Marine Corps Air Station Beaufort
Beaufort, South Carolina

Constituent	Benzene	Ethylbenzene	Naphthalene	Toluene	Xylenes	Benzo(a) anthracene	Benzo(b) fluoranthene	Benzo(k) fluoranthene	Chrysene	Dibenz(a,h) anthracene
SCDHEC RBSLs ⁽¹⁾ (µg/L)	5	700	25	1000	10,000	10	10	10	10	10
Site-Specific Groundwater VISLs ⁽²⁾ (µg/L)	16.24	45.95	29.33	105,445	2,133	N/A	N/A	N/A	N/A	N/A
Well ID	Sample Date									
BEALB254MW01	3/20/2018	17	15	190	ND	ND	ND	ND	ND	ND
	3/13/2019	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP
BEALB254MW02	12/17/2018	ND	ND	ND	ND	ND	ND	ND	ND	ND
	3/13/2019	ND	ND	ND	ND	ND	ND	ND	ND	ND
BEALB254MW03	12/17/2018	ND	ND	ND	ND	ND	ND	ND	ND	ND
	3/11/2019	ND	ND	ND	ND	ND	ND	ND	ND	ND
BEALB254MW04	12/17/2018	ND	ND	ND	ND	ND	ND	ND	ND	ND
	3/11/2019	ND	ND	ND	ND	ND	ND	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).

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

Bold font indicates the analyte was detected.

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

FP - free product

JE - Johnson & Ettinger

N/A - not applicable

NA - not analyzed

ND - not detected at the reporting limit (or method detection limit if shown on the laboratory report). A comprehensive table of the historical groundwater analytical results for all permanent monitoring wells at the site through 2019 is presented in Appendix E.

NS - not sampled

RBSL - Risk-Based Screening Level

SCDHEC - South Carolina Department Of Health and Environmental Control

µg/L - micrograms per liter

VISL - Vapor Intrusion Screening Level

Table 5
Laboratory Analytical Results - Vapor
37 Beech Street (Formerly 254 Beech Street)
Laurel Bay Military Housing Area
Marine Corps Air Station Beaufort
Beaufort, South Carolina

Constituent	USEPA VISL ⁽¹⁾	Soil Gas Results Sample Collected 02/21/19
Volatile Organic Compounds Analyzed by USEPA Method TO-15 (µg/m³)		
Benzene	12	0.93
Toluene	17000	0.24
Ethylbenzene	37	0.66
m,p-Xylenes	350	1.6
o-Xylene	350	0.47
Naphthalene	2.8	ND

Notes:

⁽¹⁾ United States Environmental Protection Agency Exterior Soil Gas Vapor Intrusion Screening Level (VISL) from VISL Calculator (May 2019).

VISLs are based on a residual exposure scenario and a target risk level of 1×10^{-6} and a hazard quotient of 0.1. Bold font indicates the analyte was detected.

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

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

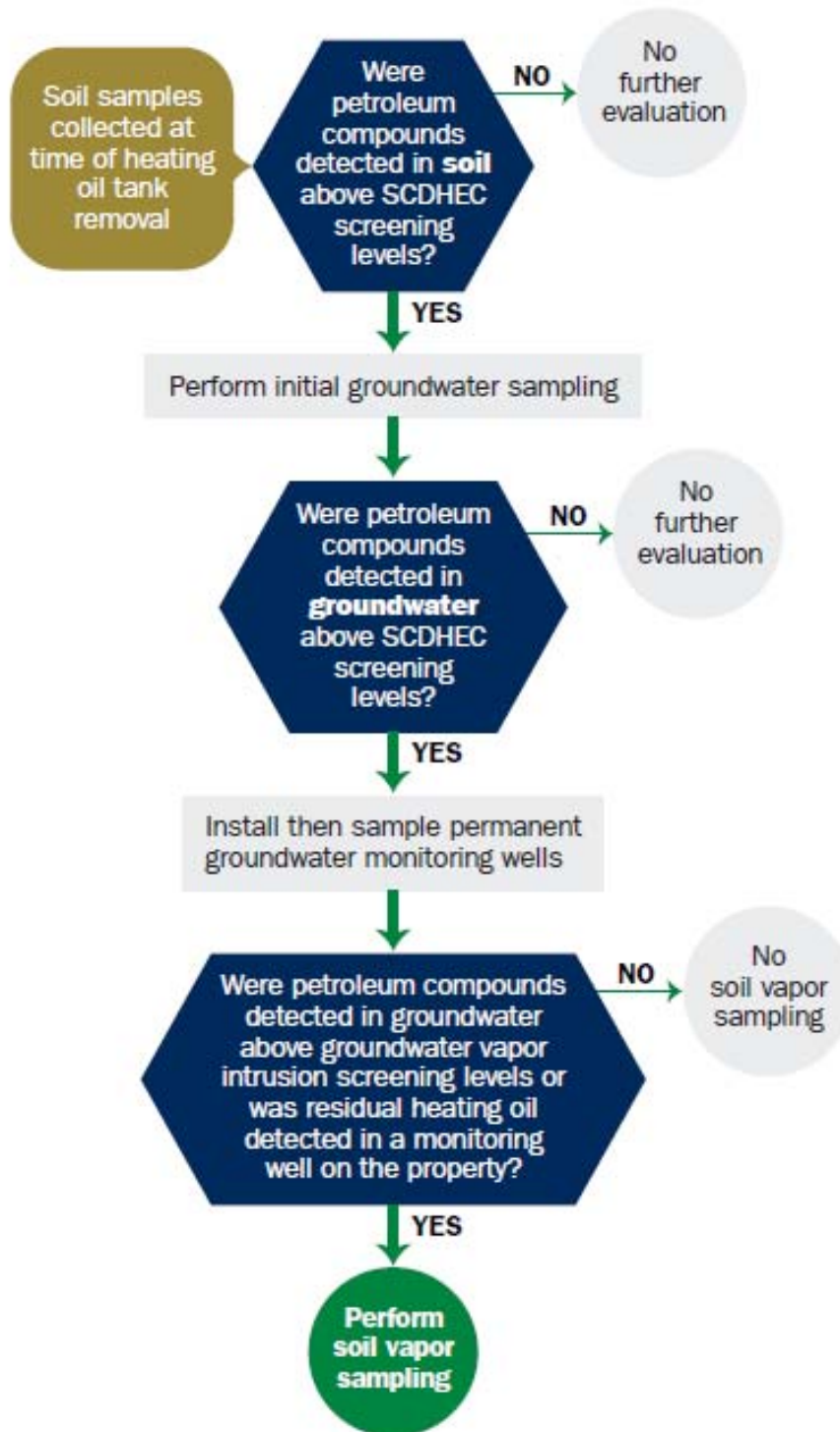
RBSL - Risk-Based Screening Level

µg/m³ - micrograms per cubic meter

USEPA - United States Environmental Protection Agency

VISL - Vapor Intrusion Screening Level

Appendix A
Multi-Media Selection Process for LBMH



Appendix A - Multi-Media Selection Process for LBMH

Appendix B
UST Assessment Report

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

<p>Date Received</p> <p style="text-align: center;">State Use Only</p>

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
254 Beech Street, Laurel Bay Military Housing Area
Street Address or State Road (as applicable)
Beaufort,
Beaufort
City
County

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

- 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.....

254Beech-1	254Beech-2	
Heating oil	Heating oil	
280 gal	280 gal	
Late 1950s	Late 1950s	
Steel	Steel	
Mid 80s	Mid 80s	
6'	5'6"	
No	No	
No	No	
Removed	Removed	
6/22/2015	6/23/2015	
Yes	Yes	
Yes	Yes	

- M. Method of disposal for any USTs removed from the ground (attach disposal manifests)
UST 254Beech-1 was removed from the ground and recycled. UST 254Beech-2 was removed from the ground and disposed in 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)
Contaminated water was pumped from UST 254Beech-1 and disposed by MCAS.
UST 254Beech-2 had been 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 in both tanks.

VII. PIPING INFORMATION

A.	Construction Material..(ex. Steel, FRP).....	254Beech-1	254Beech-2	
B.	Distance from UST to Dispenser.....	Steel & Copper	Steel & Copper	
C.	Number of Dispensers.....	N/A	N/A	
D.	Type of System Pressure or Suction.....	N/A	N/A	
E.	Was Piping Removed from the Ground? Y/N	Suction	Suction	
F.	Visible Corrosion or Pitting Y/N.....	No	No	
G.	Visible Holes Y/N.....	Yes	Yes	
H.	Age.....	No	No	
I.	If any corrosion, pitting, or holes were observed, describe the location and extent for each piping run.	Late 1950s	Late 1950s	

Steel vent piping for both tanks were corroded and pitted. All copper supply and return piping 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
<p>A. Were any petroleum-stained or contaminated soils found in the UST excavation, soil borings, trenches, or monitoring wells?</p> <p>If yes, indicate depth and location on the site map.</p>		X	
<p>B. Were any petroleum odors detected in the excavation, soil borings, trenches, or monitoring wells?</p> <p>If yes, indicate location on site map and describe the odor (strong, mild, etc.)</p>		X	
<p>C. Was water present in the UST excavation, soil borings, or trenches?</p> <p>If yes, how far below land surface (indicate location and depth)?</p>		X	
<p>D. Did contaminated soils remain stockpiled on site after closure?</p> <p>If yes, indicate the stockpile location on the site map.</p> <p>Name of DHEC representative authorizing soil removal:</p>		X	
<p>E. Was a petroleum sheen or free product detected on any excavation or boring waters?</p> <p>If yes, indicate location and thickness.</p>		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 #
254 Beech-1	Excav at fill end	Soil	Sandy	6'	6/22/15 1345 hrs	P. Shaw	
254 Beech-2	Excav at fill end	Soil	Sandy	5'6"	6/23/15 1045 hrs	P. Shaw	
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

* = Depth Below the Surrounding Land Surface

XI. SAMPLING METHODOLOGY

Provide a detailed description of the methods used to collect 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.

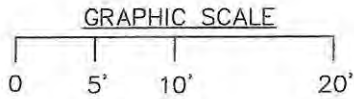
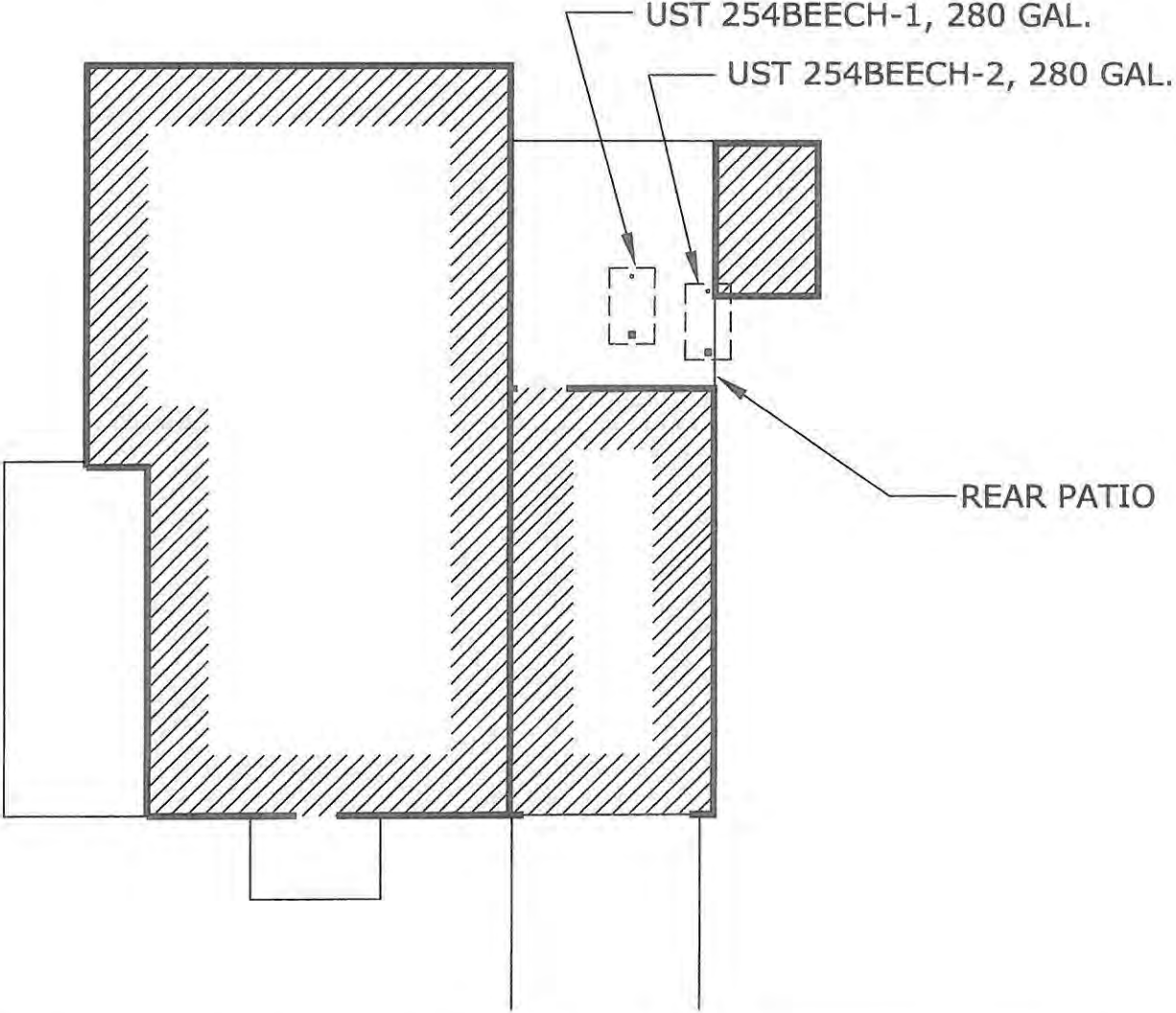
XII. RECEPTORS

	Yes	No
<p>A. Are there any lakes, ponds, streams, or wetlands located within 1000 feet of the UST system?</p> <p>If yes, indicate type of receptor, distance, and direction on site map.</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>B. Are there any public, private, or irrigation water supply wells within 1000 feet of the UST system?</p> <p>If yes, indicate type of well, distance, and direction on site map.</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>C. Are there any underground structures (e.g., basements) Located within 100 feet of the UST system?</p> <p>If yes, indicate type of structure, distance, and direction on site map.</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>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?</p> <p style="padding-left: 150px;">*Sewer, water, electricity, cable, fiber optic & geothermal</p> <p>If yes, indicate the type of utility, distance, and direction on the site map.</p>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<p>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?</p> <p>If yes, indicate the area of contaminated soil on the site map.</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

XIII. SITE MAP

You must supply a scaled 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)



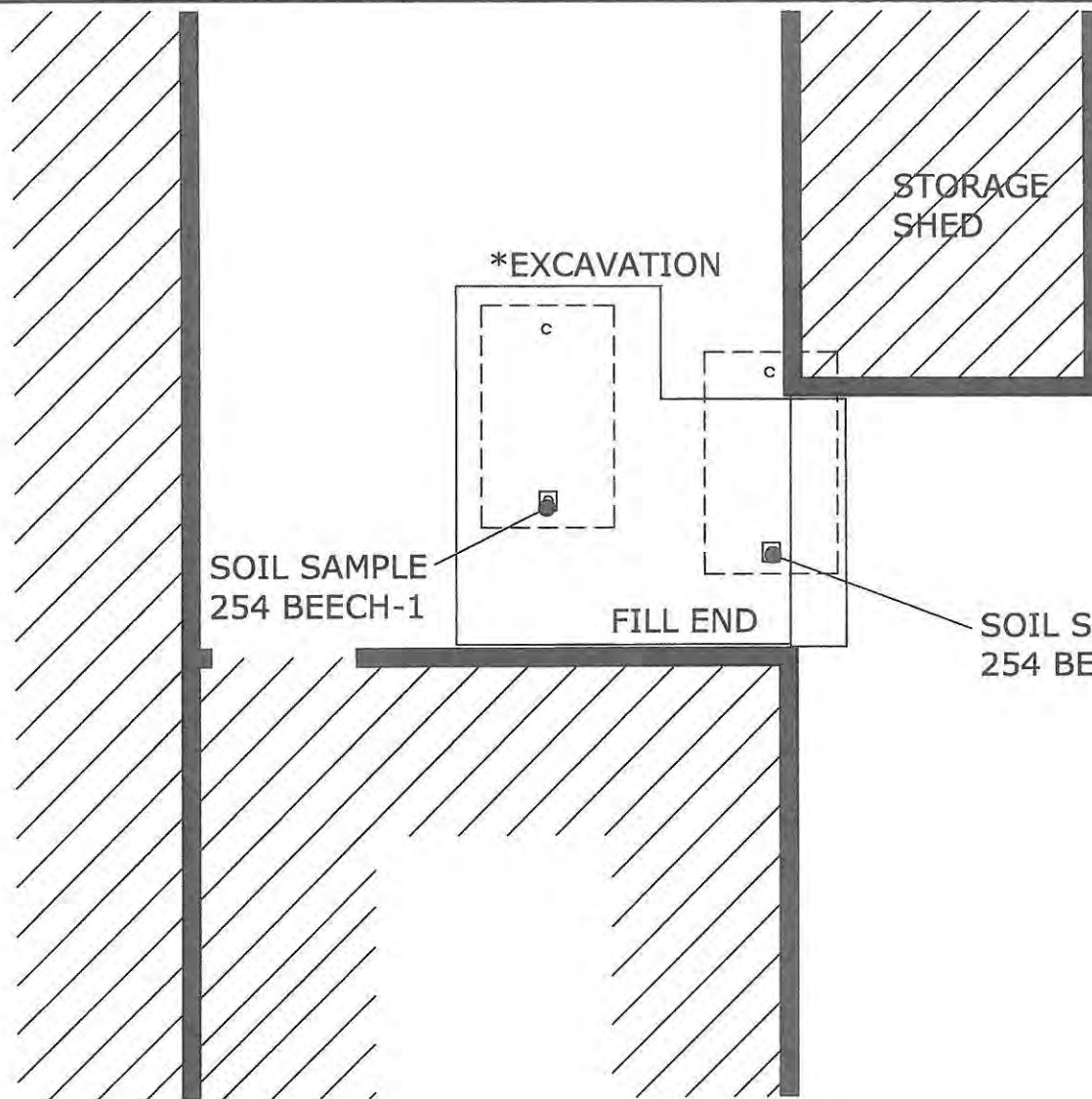
TANK DEPTH BELOW GRADE
254BEECH-1 = 36"
254BEECH-2 = 30"

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

FIGURE 1 SITE MAP 254 BEECH STREET, LAUREL BAY MCAS BEAUFORT SC	
SCALE: GRAPHIC	DWG DATE JULY 2015



HOUSE



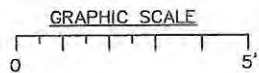
SOIL SAMPLE
254 BEECH-1

*EXCAVATION

STORAGE
SHED

FILL END

SOIL SAMPLE
254 BEECH-2



*A PORTION OF THE PATIO
WAS REMOVED TO FACILITATE
EXTRACTING TANKS -1 & -2.

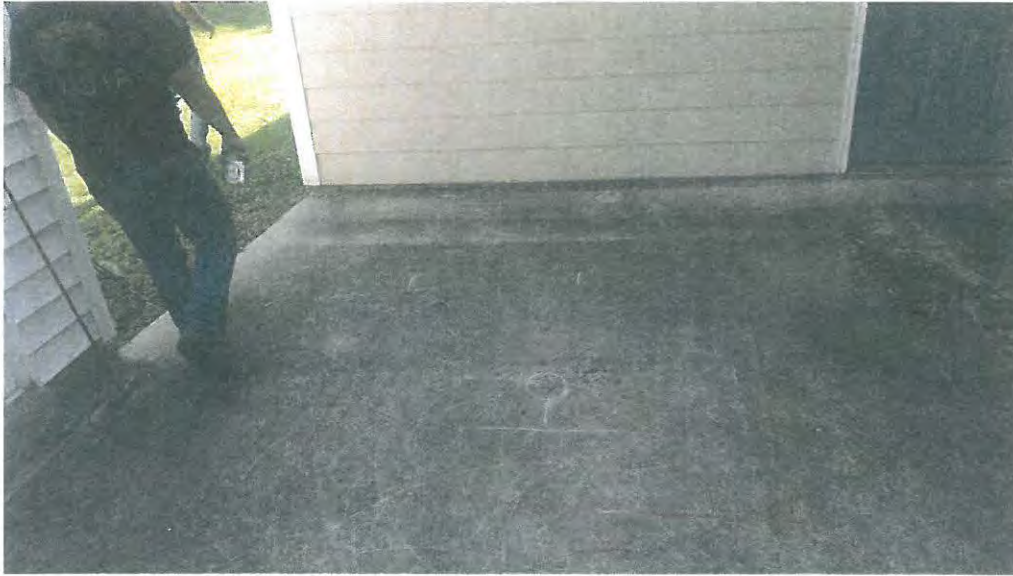
SBG-EEG

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

FIGURE 2 UST SAMPLE LOCATIONS
254 BEECH STREET LAUREL BAY
MCAS BEAUFORT SC

SCALE: GRAPHIC

DWG DATE JULY 2015



Picture 1: Location of UST 254Beech-1.



Picture 2: UST 254Beech-1 excavation.



Picture 3: Wrapping the tank for transport.



Picture 4: Location of 254Beech-2.



Picture 5: 254Beech-2 excavation.



Picture 6: 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	254Beech-1		254Beech-2			
Benzene		1.04 mg/kg		ND			
Toluene		0.510 mg/kg		ND			
Ethylbenzene		11.0 mg/kg		0.131 mg/kg			
Xylenes		16.0 mg/kg		0.0159 mg/kg			
Naphthalene		102 mg/kg		3.99 mg/kg			
Benzo (a) anthracene		0.246 mg/kg		ND			
Benzo (b) fluoranthene		0.178 mg/kg		ND			
Benzo (k) fluoranthene		0.0703 mg/kg		ND			
Chrysene		0.249 mg/kg		ND			
Dibenz (a, h) anthracene		ND		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: 490-81602-1
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:
7/14/2015 10:23:09 AM

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



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

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

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

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Sample Summary

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

TestAmerica Job ID: 490-81602-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
490-81602-1	254 Beech-1	Soil	06/22/15 13:45	06/29/15 08:30
490-81602-2	254 Beech-2	Soil	06/23/15 10:45	06/29/15 08:30



Case Narrative

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

TestAmerica Job ID: 490-81602-1

Job ID: 490-81602-1

Laboratory: TestAmerica Nashville

4

Narrative

Job Narrative
490-81602-1

Comments

No additional comments.

Receipt

The samples were received on 6/29/2015 8:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.9° C.

GC/MS VOA

Method(s) 8260B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with analytical batches 490-262061 and 490-261693.

Method(s) 8260B: The method blank for analytical batch 490-262061 contained Naphthalene above the method detection limit (MDL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

Method(s) 8260B: The method blank for analytical batch 490-261693 contained Naphthalene above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method(s) 8260B: Due to sample matrix effect on the internal standard (ISTD), a dilution was required for the following sample: 254 Beech-2 (490-81602-2).

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

GC/MS Semi VOA

Method(s) 8270D: Due to the high concentration of target analytes, the matrix spike / matrix spike duplicate (MS/MSD) for preparation batch 490-261807 and analytical batch 490-262111 could not be evaluated for accuracy and precision. The associated laboratory control sample (LCS) met acceptance criteria.

No additional analytical or quality issues were noted, other than those described above or 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: 490-81602-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
*	ISTD response or retention time outside acceptable limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
E	Result exceeded calibration range.
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.
α	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 Sample Results

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

TestAmerica Job ID: 490-81602-1

Client Sample ID: 254 Beech-1

Date Collected: 06/22/15 13:45

Date Received: 06/29/15 08:30

Lab Sample ID: 490-81602-1

Matrix: Soil

General Chemistry

Analyte

Percent Solids

Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
77		0.10	0.10	%			06/30/15 11:41	1

6

Client Sample Results

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

TestAmerica Job ID: 490-81602-1

Client Sample ID: 254 Beech-1

Date Collected: 06/22/15 13:45

Date Received: 06/29/15 08:30

Lab Sample ID: 490-81602-1

Matrix: Soil

Percent Solids: 77.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.04		0.136	0.0464	mg/Kg	☺	06/22/15 13:45	07/06/15 16:00	1
Ethylbenzene	11.0		0.136	0.0464	mg/Kg	☺	06/22/15 13:45	07/06/15 16:00	1
Naphthalene	102	B	6.82	2.32	mg/Kg	☺	06/22/15 13:45	07/06/15 16:32	20
Toluene	0.510		0.136	0.0505	mg/Kg	☺	06/22/15 13:45	07/06/15 16:00	1
Xylenes, Total	16.0		0.205	0.0846	mg/Kg	☺	06/22/15 13:45	07/06/15 16:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	83		70 - 130	06/22/15 13:45	07/06/15 16:00	1
1,2-Dichloroethane-d4 (Surr)	80		70 - 130	06/22/15 13:45	07/06/15 16:32	20
4-Bromofluorobenzene (Surr)	130		70 - 130	06/22/15 13:45	07/06/15 16:00	1
4-Bromofluorobenzene (Surr)	87		70 - 130	06/22/15 13:45	07/06/15 16:32	20
Dibromofluoromethane (Surr)	83		70 - 130	06/22/15 13:45	07/06/15 16:00	1
Dibromofluoromethane (Surr)	87		70 - 130	06/22/15 13:45	07/06/15 16:32	20
Toluene-d8 (Surr)	103		70 - 130	06/22/15 13:45	07/06/15 16:00	1
Toluene-d8 (Surr)	97		70 - 130	06/22/15 13:45	07/06/15 16:32	20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	1.31		0.0669	0.00999	mg/Kg	☺	07/03/15 11:47	07/06/15 16:50	1
Acenaphthylene	0.323		0.0669	0.00899	mg/Kg	☺	07/03/15 11:47	07/06/15 16:50	1
Anthracene	0.210		0.0669	0.00899	mg/Kg	☺	07/03/15 11:47	07/06/15 16:50	1
Benzo[a]anthracene	0.246		0.0669	0.0150	mg/Kg	☺	07/03/15 11:47	07/06/15 16:50	1
Benzo[a]pyrene	0.108		0.0669	0.0120	mg/Kg	☺	07/03/15 11:47	07/06/15 16:50	1
Benzo[b]fluoranthene	0.178		0.0669	0.0120	mg/Kg	☺	07/03/15 11:47	07/06/15 16:50	1
Benzo[g,h,i]perylene	ND		0.0669	0.00899	mg/Kg	☺	07/03/15 11:47	07/06/15 16:50	1
Benzo[k]fluoranthene	0.0703		0.0669	0.0140	mg/Kg	☺	07/03/15 11:47	07/06/15 16:50	1
1-Methylnaphthalene	13.3		1.34	0.280	mg/Kg	☺	07/03/15 11:47	07/07/15 14:30	20
Pyrene	0.579		0.0669	0.0120	mg/Kg	☺	07/03/15 11:47	07/06/15 16:50	1
Phenanthrene	2.63	F1	0.0669	0.00899	mg/Kg	☺	07/03/15 11:47	07/06/15 16:50	1
Chrysene	0.249		0.0669	0.00899	mg/Kg	☺	07/03/15 11:47	07/06/15 16:50	1
Dibenz(a,h)anthracene	ND		0.0669	0.00699	mg/Kg	☺	07/03/15 11:47	07/06/15 16:50	1
Fluoranthene	0.583		0.0669	0.00899	mg/Kg	☺	07/03/15 11:47	07/06/15 16:50	1
Fluorene	1.48		0.0669	0.0120	mg/Kg	☺	07/03/15 11:47	07/06/15 16:50	1
Indeno[1,2,3-cd]pyrene	ND		0.0669	0.00999	mg/Kg	☺	07/03/15 11:47	07/06/15 16:50	1
Naphthalene	2.82	F1	0.0669	0.00899	mg/Kg	☺	07/03/15 11:47	07/06/15 16:50	1
2-Methylnaphthalene	21.3		1.34	0.320	mg/Kg	☺	07/03/15 11:47	07/07/15 14:30	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	74		29 - 120	07/03/15 11:47	07/06/15 16:50	1
Terphenyl-d14 (Surr)	92		13 - 120	07/03/15 11:47	07/06/15 16:50	1
Nitrobenzene-d5 (Surr)	87		27 - 120	07/03/15 11:47	07/06/15 16:50	1

TestAmerica Nashville

Client Sample Results

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

TestAmerica Job ID: 490-81602-1

Client Sample ID: 254 Beech-2

Date Collected: 06/23/15 10:45

Date Received: 06/29/15 08:30

Lab Sample ID: 490-81602-2

Matrix: Soil

General Chemistry

Analyte

Percent Solids

Result	Qualifier	RL	RL Unit
76		0.10	0.10 %

D	Prepared	Analyzed	Dil Fac
		06/30/15 11:41	1



Client Sample Results

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

TestAmerica Job ID: 490-81602-1

Client Sample ID: 254 Beech-2

Date Collected: 06/23/15 10:45

Date Received: 06/29/15 08:30

Lab Sample ID: 490-81602-2

Matrix: Soil

Percent Solids: 76.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00218	0.000730	mg/Kg	☉	06/23/15 10:45	07/03/15 05:36	1
Ethylbenzene	0.131		0.00218	0.000730	mg/Kg	☉	06/23/15 10:45	07/03/15 05:36	1
Naphthalene	3.99	B	0.336	0.114	mg/Kg	☉	06/23/15 10:45	07/06/15 15:29	1
Toluene	ND		0.00218	0.000806	mg/Kg	☉	06/23/15 10:45	07/03/15 05:36	1
Xylenes, Total	0.0159		0.00545	0.00134	mg/Kg	☉	06/23/15 10:45	07/03/15 05:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	90		70 - 130	06/23/15 10:45	07/03/15 05:36	1
1,2-Dichloroethane-d4 (Surr)	82		70 - 130	06/23/15 10:45	07/06/15 15:29	1
4-Bromofluorobenzene (Surr)	107	*	70 - 130	06/23/15 10:45	07/03/15 05:36	1
4-Bromofluorobenzene (Surr)	113		70 - 130	06/23/15 10:45	07/06/15 15:29	1
Dibromofluoromethane (Surr)	98		70 - 130	06/23/15 10:45	07/03/15 05:36	1
Dibromofluoromethane (Surr)	87		70 - 130	06/23/15 10:45	07/06/15 15:29	1
Toluene-d8 (Surr)	102		70 - 130	06/23/15 10:45	07/03/15 05:36	1
Toluene-d8 (Surr)	103		70 - 130	06/23/15 10:45	07/06/15 15:29	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0664	0.00991	mg/Kg	☉	07/03/15 11:47	07/06/15 18:02	1
Acenaphthylene	ND		0.0664	0.00892	mg/Kg	☉	07/03/15 11:47	07/06/15 18:02	1
Anthracene	ND		0.0664	0.00892	mg/Kg	☉	07/03/15 11:47	07/06/15 18:02	1
Benzo[a]anthracene	ND		0.0664	0.0149	mg/Kg	☉	07/03/15 11:47	07/06/15 18:02	1
Benzo[a]pyrene	ND		0.0664	0.0119	mg/Kg	☉	07/03/15 11:47	07/06/15 18:02	1
Benzo[b]fluoranthene	ND		0.0664	0.0119	mg/Kg	☉	07/03/15 11:47	07/06/15 18:02	1
Benzo[g,h,i]perylene	ND		0.0664	0.00892	mg/Kg	☉	07/03/15 11:47	07/06/15 18:02	1
Benzo[k]fluoranthene	ND		0.0664	0.0139	mg/Kg	☉	07/03/15 11:47	07/06/15 18:02	1
1-Methylnaphthalene	0.140		0.0664	0.0139	mg/Kg	☉	07/03/15 11:47	07/06/15 18:02	1
Pyrene	ND		0.0664	0.0119	mg/Kg	☉	07/03/15 11:47	07/06/15 18:02	1
Phenanthrene	0.0358	J	0.0664	0.00892	mg/Kg	☉	07/03/15 11:47	07/06/15 18:02	1
Chrysene	ND		0.0664	0.00892	mg/Kg	☉	07/03/15 11:47	07/06/15 18:02	1
Dibenz(a,h)anthracene	ND		0.0664	0.00694	mg/Kg	☉	07/03/15 11:47	07/06/15 18:02	1
Fluoranthene	ND		0.0664	0.00892	mg/Kg	☉	07/03/15 11:47	07/06/15 18:02	1
Fluorene	ND		0.0664	0.0119	mg/Kg	☉	07/03/15 11:47	07/06/15 18:02	1
Indeno[1,2,3-cd]pyrene	ND		0.0664	0.00991	mg/Kg	☉	07/03/15 11:47	07/06/15 18:02	1
Naphthalene	0.0346	J	0.0664	0.00892	mg/Kg	☉	07/03/15 11:47	07/06/15 18:02	1
2-Methylnaphthalene	0.194		0.0664	0.0159	mg/Kg	☉	07/03/15 11:47	07/06/15 18:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	68		29 - 120	07/03/15 11:47	07/06/15 18:02	1
Terphenyl-d14 (Surr)	79		13 - 120	07/03/15 11:47	07/06/15 18:02	1
Nitrobenzene-d5 (Surr)	66		27 - 120	07/03/15 11:47	07/06/15 18:02	1

TestAmerica Nashville

QC Sample Results

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

TestAmerica Job ID: 490-81602-1

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

Lab Sample ID: MB 490-261693/7
Matrix: Solid
Analysis Batch: 261693

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

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Benzene	ND		0.00200	0.000670	mg/Kg			07/03/15 03:01	1
Ethylbenzene	ND		0.00200	0.000670	mg/Kg			07/03/15 03:01	1
Naphthalene	0.002634	J	0.00500	0.00170	mg/Kg			07/03/15 03:01	1
Toluene	ND		0.00200	0.000740	mg/Kg			07/03/15 03:01	1
Xylenes, Total	ND		0.00500	0.00123	mg/Kg			07/03/15 03:01	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	85		70 - 130		07/03/15 03:01	1
4-Bromofluorobenzene (Surr)	108		70 - 130		07/03/15 03:01	1
Dibromofluoromethane (Surr)	96		70 - 130		07/03/15 03:01	1
Toluene-d8 (Surr)	101		70 - 130		07/03/15 03:01	1

Lab Sample ID: LCS 490-261693/4
Matrix: Solid
Analysis Batch: 261693

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

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Benzene	0.0500	0.04469		mg/Kg		89	75 - 127
Ethylbenzene	0.0500	0.05346		mg/Kg		107	80 - 134
Naphthalene	0.0500	0.04592		mg/Kg		92	69 - 150
Toluene	0.0500	0.04159		mg/Kg		83	80 - 132
Xylenes, Total	0.100	0.09728		mg/Kg		97	80 - 137

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	87		70 - 130
4-Bromofluorobenzene (Surr)	110		70 - 130
Dibromofluoromethane (Surr)	97		70 - 130
Toluene-d8 (Surr)	90		70 - 130

Lab Sample ID: LCSD 490-261693/5
Matrix: Solid
Analysis Batch: 261693

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

Analyte	Spike Added	LCSD LCSD		Unit	D	%Rec	%Rec. Limits	RPD	
		Result	Qualifier					RPD	Limit
Benzene	0.0500	0.04615		mg/Kg		92	75 - 127	3	50
Ethylbenzene	0.0500	0.05494		mg/Kg		110	80 - 134	3	50
Naphthalene	0.0500	0.04523		mg/Kg		90	69 - 150	2	50
Toluene	0.0500	0.04298		mg/Kg		86	80 - 132	3	50
Xylenes, Total	0.100	0.1023		mg/Kg		102	80 - 137	5	50

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	90		70 - 130
4-Bromofluorobenzene (Surr)	108		70 - 130
Dibromofluoromethane (Surr)	98		70 - 130
Toluene-d8 (Surr)	91		70 - 130

TestAmerica Nashville

QC Sample Results

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

TestAmerica Job ID: 490-81602-1

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

Lab Sample ID: MB 490-262061/13
Matrix: Solid
Analysis Batch: 262061

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

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Benzene	ND		0.100	0.0340	mg/Kg			07/06/15 14:58	1
Ethylbenzene	ND		0.100	0.0340	mg/Kg			07/06/15 14:58	1
Naphthalene	0.1650	J	0.250	0.0850	mg/Kg			07/06/15 14:58	1
Toluene	ND		0.100	0.0370	mg/Kg			07/06/15 14:58	1
Xylenes, Total	ND		0.150	0.0620	mg/Kg			07/06/15 14:58	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	83		70 - 130		07/06/15 14:58	1
4-Bromofluorobenzene (Surr)	112		70 - 130		07/06/15 14:58	1
Dibromofluoromethane (Surr)	90		70 - 130		07/06/15 14:58	1
Toluene-d8 (Surr)	103		70 - 130		07/06/15 14:58	1

Lab Sample ID: MB 490-262061/6
Matrix: Solid
Analysis Batch: 262061

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

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Benzene	ND		0.00200	0.000680	mg/Kg			07/06/15 11:21	1
Ethylbenzene	ND		0.00200	0.000680	mg/Kg			07/06/15 11:21	1
Naphthalene	ND		0.00500	0.00170	mg/Kg			07/06/15 11:21	1
Toluene	ND		0.00200	0.000740	mg/Kg			07/06/15 11:21	1
Xylenes, Total	ND		0.00300	0.00124	mg/Kg			07/06/15 11:21	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	85		70 - 130		07/06/15 11:21	1
4-Bromofluorobenzene (Surr)	109		70 - 130		07/06/15 11:21	1
Dibromofluoromethane (Surr)	93		70 - 130		07/06/15 11:21	1
Toluene-d8 (Surr)	106		70 - 130		07/06/15 11:21	1

Lab Sample ID: LCS 490-262061/10
Matrix: Solid
Analysis Batch: 262061

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

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Benzene	2.50	2.280		mg/Kg		91	75 - 127
Ethylbenzene	2.50	2.844		mg/Kg		114	80 - 134
Naphthalene	2.50	2.810		mg/Kg		112	69 - 150
Toluene	2.50	2.600		mg/Kg		104	80 - 132
Xylenes, Total	5.00	5.225		mg/Kg		105	80 - 137

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	81		70 - 130
4-Bromofluorobenzene (Surr)	114		70 - 130
Dibromofluoromethane (Surr)	88		70 - 130
Toluene-d8 (Surr)	108		70 - 130

TestAmerica Nashville

QC Sample Results

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

TestAmerica Job ID: 490-81602-1

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

Lab Sample ID: LCSD 490-262061/11
Matrix: Solid
Analysis Batch: 262061

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	2.50	2.259		mg/Kg		90	75 - 127	1	50
Ethylbenzene	2.50	2.815		mg/Kg		113	80 - 134	1	50
Naphthalene	2.50	2.759		mg/Kg		110	69 - 150	2	50
Toluene	2.50	2.459		mg/Kg		98	80 - 132	6	50
Xylenes, Total	5.00	5.205		mg/Kg		104	80 - 137	0	50

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	81		70 - 130
4-Bromofluorobenzene (Surr)	115		70 - 130
Dibromofluoromethane (Surr)	90		70 - 130
Toluene-d8 (Surr)	104		70 - 130

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

Lab Sample ID: MB 490-261807/1-A
Matrix: Solid
Analysis Batch: 262111

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 261807

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0670	0.0100	mg/Kg		07/03/15 11:47	07/06/15 14:17	1
Acenaphthylene	ND		0.0670	0.00900	mg/Kg		07/03/15 11:47	07/06/15 14:17	1
Anthracene	ND		0.0670	0.00900	mg/Kg		07/03/15 11:47	07/06/15 14:17	1
Benzo[a]anthracene	ND		0.0670	0.0150	mg/Kg		07/03/15 11:47	07/06/15 14:17	1
Benzo[a]pyrene	ND		0.0670	0.0120	mg/Kg		07/03/15 11:47	07/06/15 14:17	1
Benzo[b]fluoranthene	ND		0.0670	0.0120	mg/Kg		07/03/15 11:47	07/06/15 14:17	1
Benzo[g,h,i]perylene	ND		0.0670	0.00900	mg/Kg		07/03/15 11:47	07/06/15 14:17	1
Benzo[k]fluoranthene	ND		0.0670	0.0140	mg/Kg		07/03/15 11:47	07/06/15 14:17	1
1-Methylnaphthalene	ND		0.0670	0.0140	mg/Kg		07/03/15 11:47	07/06/15 14:17	1
Pyrene	ND		0.0670	0.0120	mg/Kg		07/03/15 11:47	07/06/15 14:17	1
Phenanthrene	ND		0.0670	0.00900	mg/Kg		07/03/15 11:47	07/06/15 14:17	1
Chrysene	ND		0.0670	0.00900	mg/Kg		07/03/15 11:47	07/06/15 14:17	1
Dibenz(a,h)anthracene	ND		0.0670	0.00700	mg/Kg		07/03/15 11:47	07/06/15 14:17	1
Fluoranthene	ND		0.0670	0.00900	mg/Kg		07/03/15 11:47	07/06/15 14:17	1
Fluorene	ND		0.0670	0.0120	mg/Kg		07/03/15 11:47	07/06/15 14:17	1
Indeno[1,2,3-cd]pyrene	ND		0.0670	0.0100	mg/Kg		07/03/15 11:47	07/06/15 14:17	1
Naphthalene	ND		0.0670	0.00900	mg/Kg		07/03/15 11:47	07/06/15 14:17	1
2-Methylnaphthalene	ND		0.0670	0.0160	mg/Kg		07/03/15 11:47	07/06/15 14:17	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	76		29 - 120	07/03/15 11:47	07/06/15 14:17	1
Terphenyl-d14 (Surr)	84		13 - 120	07/03/15 11:47	07/06/15 14:17	1
Nitrobenzene-d5 (Surr)	74		27 - 120	07/03/15 11:47	07/06/15 14:17	1

TestAmerica Nashville

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QC Sample Results

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

TestAmerica Job ID: 490-81602-1

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

Lab Sample ID: LCS 490-261807/2-A
Matrix: Solid
Analysis Batch: 262111

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 261807
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Acenaphthylene	1.67	1.298		mg/Kg		78	38 - 120
Anthracene	1.67	1.428		mg/Kg		86	46 - 124
Benzo[a]anthracene	1.67	1.422		mg/Kg		85	45 - 120
Benzo[a]pyrene	1.67	1.421		mg/Kg		85	45 - 120
Benzo[b]fluoranthene	1.67	1.366		mg/Kg		82	42 - 120
Benzo[g,h,i]perylene	1.67	1.457		mg/Kg		87	38 - 120
Benzo[k]fluoranthene	1.67	1.416		mg/Kg		85	42 - 120
1-Methylnaphthalene	1.67	1.361		mg/Kg		82	32 - 120
Pyrene	1.67	1.408		mg/Kg		84	43 - 120
Phenanthrene	1.67	1.312		mg/Kg		79	45 - 120
Chrysene	1.67	1.365		mg/Kg		82	43 - 120
Dibenz(a,h)anthracene	1.67	1.447		mg/Kg		87	32 - 128
Fluoranthene	1.67	1.481		mg/Kg		89	46 - 120
Fluorene	1.67	1.380		mg/Kg		83	42 - 120
Indeno[1,2,3-cd]pyrene	1.67	1.447		mg/Kg		87	41 - 121
Naphthalene	1.67	1.203		mg/Kg		72	32 - 120
2-Methylnaphthalene	1.67	1.241		mg/Kg		74	28 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl (Surr)	75		29 - 120
Terphenyl-d14 (Surr)	85		13 - 120
Nitrobenzene-d5 (Surr)	77		27 - 120

Lab Sample ID: 490-81602-1 MS
Matrix: Soil
Analysis Batch: 262111

Client Sample ID: 254 Beech-1
Prep Type: Total/NA
Prep Batch: 261807
%Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Acenaphthylene	0.323		2.14	1.895		mg/Kg	⊕	73	25 - 120
Anthracene	0.210		2.14	1.970		mg/Kg	⊕	82	28 - 125
Benzo[a]anthracene	0.246		2.14	1.944		mg/Kg	⊕	79	23 - 120
Benzo[a]pyrene	0.108		2.14	1.920		mg/Kg	⊕	85	15 - 128
Benzo[b]fluoranthene	0.178		2.14	1.931		mg/Kg	⊕	82	12 - 133
Benzo[g,h,i]perylene	ND		2.14	1.906		mg/Kg	⊕	89	22 - 120
Benzo[k]fluoranthene	0.0703		2.14	1.903		mg/Kg	⊕	86	28 - 120
1-Methylnaphthalene	11.3	E	2.14	6.588	E 4	mg/Kg	⊕	-219	10 - 120
Pyrene	0.579		2.14	2.062		mg/Kg	⊕	69	20 - 123
Phenanthrene	2.63	F1	2.14	2.916	F1	mg/Kg	⊕	13	21 - 122
Chrysene	0.249		2.14	1.825		mg/Kg	⊕	74	20 - 120
Dibenz(a,h)anthracene	ND		2.14	1.923		mg/Kg	⊕	90	12 - 128
Fluoranthene	0.583		2.14	2.102		mg/Kg	⊕	71	10 - 143
Fluorene	1.48		2.14	2.513		mg/Kg	⊕	48	20 - 120
Indeno[1,2,3-cd]pyrene	ND		2.14	1.874		mg/Kg	⊕	87	22 - 121
Naphthalene	2.82	F1	2.14	2.441	F1	mg/Kg	⊕	-18	10 - 120
2-Methylnaphthalene	14.0	E	2.14	8.800	E 4	mg/Kg	⊕	-244	13 - 120

TestAmerica Nashville

QC Sample Results

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

TestAmerica Job ID: 490-81602-1

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

Lab Sample ID: 490-81602-1 MS
Matrix: Soil
Analysis Batch: 262111

Client Sample ID: 254 Beech-1
Prep Type: Total/NA
Prep Batch: 261807

Surrogate	MS %Recovery	MS Qualifier	Limits
2-Fluorobiphenyl (Surr)	74		29 - 120
Terphenyl-d14 (Surr)	92		13 - 120
Nitrobenzene-d5 (Surr)	82		27 - 120

Lab Sample ID: 490-81602-1 MSD
Matrix: Soil
Analysis Batch: 262111

Client Sample ID: 254 Beech-1
Prep Type: Total/NA
Prep Batch: 261807

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Acenaphthylene	0.323		2.14	1.597		mg/Kg	☉	60	25 - 120	17	50
Anthracene	0.210		2.14	1.717		mg/Kg	☉	70	28 - 125	14	49
Benzo[a]anthracene	0.246		2.14	2.040		mg/Kg	☉	84	23 - 120	5	50
Benzo[a]pyrene	0.108		2.14	1.791		mg/Kg	☉	79	15 - 128	7	50
Benzo[b]fluoranthene	0.178		2.14	1.864		mg/Kg	☉	79	12 - 133	3	50
Benzo[g,h,i]perylene	ND		2.14	1.648		mg/Kg	☉	77	22 - 120	15	50
Benzo[k]fluoranthene	0.0703		2.14	1.768		mg/Kg	☉	79	28 - 120	7	45
1-Methylnaphthalene	11.3	E	2.14	9.511	E 4	mg/Kg	☉	-82	10 - 120	36	50
Pyrene	0.579		2.14	2.649		mg/Kg	☉	97	20 - 123	25	50
Phenanthrene	2.63	F1	2.14	3.223		mg/Kg	☉	28	21 - 122	10	50
Chrysene	0.249		2.14	1.812		mg/Kg	☉	73	20 - 120	1	49
Dibenz(a,h)anthracene	ND		2.14	1.619		mg/Kg	☉	76	12 - 128	17	50
Fluoranthene	0.583		2.14	2.594		mg/Kg	☉	94	10 - 143	21	50
Fluorene	1.48		2.14	2.277		mg/Kg	☉	37	20 - 120	10	50
Indeno[1,2,3-cd]pyrene	ND		2.14	1.607		mg/Kg	☉	75	22 - 121	15	50
Naphthalene	2.82	F1	2.14	3.083		mg/Kg	☉	12	10 - 120	23	50
2-Methylnaphthalene	14.0	E	2.14	12.99	E 4	mg/Kg	☉	-48	13 - 120	38	50

Surrogate	MSD %Recovery	MSD Qualifier	Limits
2-Fluorobiphenyl (Surr)	57		29 - 120
Terphenyl-d14 (Surr)	75		13 - 120
Nitrobenzene-d5 (Surr)	73		27 - 120

Method: Moisture - Percent Moisture

Lab Sample ID: 490-81567-A-2 DU
Matrix: Solid
Analysis Batch: 260818

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Percent Solids	88		87		%		0.4	20

TestAmerica Nashville

QC Association Summary

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

TestAmerica Job ID: 490-81602-1

GC/MS VOA

Prep Batch: 261126

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-81602-1	254 Beech-1	Total/NA	Soil	5035	
490-81602-2	254 Beech-2	Total/NA	Soil	5035	

Prep Batch: 261132

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-81602-2	254 Beech-2	Total/NA	Soil	5035	

Analysis Batch: 261693

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-81602-2	254 Beech-2	Total/NA	Soil	8260B	261132
LCS 490-261693/4	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 490-261693/5	Lab Control Sample Dup	Total/NA	Solid	8260B	
MB 490-261693/7	Method Blank	Total/NA	Solid	8260B	

Analysis Batch: 262061

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-81602-1	254 Beech-1	Total/NA	Soil	8260B	261126
490-81602-1	254 Beech-1	Total/NA	Soil	8260B	261126
490-81602-2	254 Beech-2	Total/NA	Soil	8260B	261126
LCS 490-262061/10	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 490-262061/11	Lab Control Sample Dup	Total/NA	Solid	8260B	
MB 490-262061/13	Method Blank	Total/NA	Solid	8260B	
MB 490-262061/6	Method Blank	Total/NA	Solid	8260B	

GC/MS Semi VOA

Prep Batch: 261807

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-81602-1	254 Beech-1	Total/NA	Soil	3550C	
490-81602-1 MS	254 Beech-1	Total/NA	Soil	3550C	
490-81602-1 MSD	254 Beech-1	Total/NA	Soil	3550C	
490-81602-2	254 Beech-2	Total/NA	Soil	3550C	
LCS 490-261807/2-A	Lab Control Sample	Total/NA	Solid	3550C	
MB 490-261807/1-A	Method Blank	Total/NA	Solid	3550C	

Analysis Batch: 262111

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-81602-1	254 Beech-1	Total/NA	Soil	8270D	261807
490-81602-1 MS	254 Beech-1	Total/NA	Soil	8270D	261807
490-81602-1 MSD	254 Beech-1	Total/NA	Soil	8270D	261807
490-81602-2	254 Beech-2	Total/NA	Soil	8270D	261807
LCS 490-261807/2-A	Lab Control Sample	Total/NA	Solid	8270D	261807
MB 490-261807/1-A	Method Blank	Total/NA	Solid	8270D	261807

Analysis Batch: 262462

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-81602-1	254 Beech-1	Total/NA	Soil	8270D	261807

TestAmerica Nashville

QC Association Summary

TestAmerica Job ID: 490-81602-1

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

General Chemistry

Analysis Batch: 260818

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-81567-A-2 DU	Duplicate	Total/NA	Solid	Moisture	
490-81602-1	254 Beech-1	Total/NA	Soil	Moisture	
490-81602-2	254 Beech-2	Total/NA	Soil	Moisture	

Lab Chronicle

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

TestAmerica Job ID: 490-81602-1

Client Sample ID: 254 Beech-1

Date Collected: 06/22/15 13:45

Date Received: 06/29/15 08:30

Lab Sample ID: 490-81602-1

Matrix: Soil

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			260818	06/30/15 11:41	MAA	TAL NSH

Client Sample ID: 254 Beech-1

Date Collected: 06/22/15 13:45

Date Received: 06/29/15 08:30

Lab Sample ID: 490-81602-1

Matrix: Soil

Percent Solids: 77.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			6.07 g	5.0 mL	261126	06/22/15 13:45	JLP	TAL NSH
Total/NA	Analysis	8260B		1	6.07 g	5.0 mL	262061	07/06/15 16:00	KKK	TAL NSH
Total/NA	Prep	5035			6.07 g	5.0 mL	261126	06/22/15 13:45	JLP	TAL NSH
Total/NA	Analysis	8260B		20	6.07 g	5.0 mL	262061	07/06/15 16:32	KKK	TAL NSH
Total/NA	Prep	3550C			38.93 g	1 mL	261807	07/03/15 11:47	LDC	TAL NSH
Total/NA	Analysis	8270D		1	38.93 g	1 mL	262111	07/06/15 16:50	BES	TAL NSH
Total/NA	Prep	3550C			38.93 g	1 mL	261807	07/03/15 11:47	LDC	TAL NSH
Total/NA	Analysis	8270D		20	38.93 g	1 mL	262462	07/07/15 14:30	BES	TAL NSH

9

Client Sample ID: 254 Beech-2

Date Collected: 06/23/15 10:45

Date Received: 06/29/15 08:30

Lab Sample ID: 490-81602-2

Matrix: Soil

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			260818	06/30/15 11:41	MAA	TAL NSH

Client Sample ID: 254 Beech-2

Date Collected: 06/23/15 10:45

Date Received: 06/29/15 08:30

Lab Sample ID: 490-81602-2

Matrix: Soil

Percent Solids: 76.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			6.005 g	5.0 mL	261132	06/23/15 10:45	JLP	TAL NSH
Total/NA	Analysis	8260B		1	6.005 g	5.0 mL	261693	07/03/15 05:36	KKK	TAL NSH
Total/NA	Prep	5035			6.314 g	5.0 mL	261126	06/23/15 10:45	JLP	TAL NSH
Total/NA	Analysis	8260B		1	6.314 g	5.0 mL	262061	07/06/15 15:29	KKK	TAL NSH
Total/NA	Prep	3550C			39.60 g	1 mL	261807	07/03/15 11:47	LDC	TAL NSH
Total/NA	Analysis	8270D		1	39.60 g	1 mL	262111	07/06/15 18:02	BES	TAL NSH

Laboratory References:

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

Method Summary

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

TestAmerica Job ID: 490-81602-1

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: 490-81602-1

Laboratory: TestAmerica Nashville

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

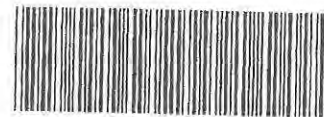
Authority	Program	EPA Region	Certification ID	Expiration Date
South Carolina	State Program	4	84009 (001)	02-28-16

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



COOLER RECEIPT FORM



490-81602 Chain of Custody

Cooler Received/Opened On 6/29/2015 @ 0830

1. Tracking # 9973 (last 4 digits, FedEx)

Courier: FedEx IR Gun ID 96210146

2. Temperature of rep. sample or temp blank when opened: 0.9 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?

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 (initial) DA

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 # DA

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

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

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

TestAmerica

Nashville Division
 2960 Foster Creighton
 Nashville, TN 37204

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

Client Name/Account #: SBG - EEG # 2449

Address: 10179 Highway 78

City/State/zip: Ladson, SC 29456

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

Telephone Number: 843.412.2087

Fax No: (843) 879-0701

Sampler Name: (Print) FRANK SHAW

Sampler Signature: [Signature]

Site State: SC

PO#: 1406

TA Quote #:

Project ID: Laurel Bay Housing Project

Project #:

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 ___

Loc: 490
 81602

Sample ID / Description	Date Sampled	Time Sampled	No. of Containers Shipped	Grab	Composite	Field Filtered	Preservative							Matrix						Analyze For	RUSH TAT (Pre-Schedule)	Standard TAT	Fax Results											
							Ice	HNO ₃ (Red Label)	H ₂ O ₂ (Blue Label)	NaOH (Orange Label)	H ₂ SO ₄ Plastic (Yellow Label)	H ₂ SO ₄ Glass (Yellow Label)	None (Black Label)	Other (Specify)	Groundwater	Wastewater	Drinking Water	Sludge	Soil					Other (specify)	BTEX + Naph - 8260	PAH - 8270D								
254 Beach-1	6/22/15	1345	5	X																														
254 Beach-2	6/23/15	1045	5	X																														

Notes:
 - H₂O₂ (Blue Label) Sodium Disulfate
 - Other (Specify) Methanol

Special Instructions:
 Relinquished by: [Signature]
 Date: 6/22/15
 Relinquished by: [Signature]
 Date: _____

Method of Shipment: FEDEX
 Received by: FedEx
 Received by TestAmerica: [Signature]
 Date: 6-24-15
 Time: 0830

Laboratory Comments: 0.9
 Temperature Upon Receipt: 0.9
 VOCs Free of Headspace? Y

Login Sample Receipt Checklist

Client: Small Business Group Inc.

Job Number: 490-81602-1

Login Number: 81602

List Source: TestAmerica Nashville

List Number: 1

Creator: Armstrong, Daniel

Question	Answer	Comment
Radioactivity wasn't checked or is \leq 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	0.9C
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 $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ATTACHMENT A

UST Certificate of Disposal

CONTRACTOR

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

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

TANK ID & LOCATION

UST 254Beech-1, 254 Beech Street, Laurel Bay Housing Area, MCAS Beaufort, S.C.

DISPOSAL LOCATION

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

TYPE OF TANK

SIZE (GAL)

Steel

280

CLEANING/DISPOSAL METHOD

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

DISPOSAL CERTIFICATION

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

T. L. White / 7/28/15
(Name) (Date)



NON-HAZARDOUS MANIFEST

NON-HAZARDOUS MANIFEST	1. Generator's US EPA ID No.	Manifest Doc No.	2. Page 1 of 1	
3. Generator's Mailing Address: MCAS BEAUFORT LAUREL BAY HOUSING BEAUFORT, SC 29904 4. Generator's Phone 843-879-0411	Generator's Site Address (if different than mailing):	A. Manifest Number WMNA	01519125	
		B. State Generator's ID		
5. Transporter 1 Company Name	6. US EPA ID Number	C. State Transporter's ID		
		D. Transporter's Phone		
7. Transporter 2 Company Name	8. US EPA ID Number	E. State Transporter's ID		
		F. Transporter's Phone		
9. Designated Facility Name and Site Address HICKORY HILL LANDFILL 2621 LOW COUNTRY DRIVE RIDGELAND, SC 29936	10. US EPA ID Number	G. State Facility ID		
		H. State Facility Phone	843-987-4643	
G E N E R A T O R	11. Description of Waste Materials	12. Containers	13. Total Quantity	
		No. Type	14. Unit Wt./Vol.	
	a. HEATING OIL TANK FILLED WITH SAND WM Profile # 102655SC			I. Misc. Comments
	b. WM Profile #			
	c. WM Profile #			
d. WM Profile #				
J. Additional Descriptions for Materials Listed Above	K. Disposal Location			
	Cell		Level	
	Grid			
15. Special Handling Instructions and Additional Information				
Purchase Order # 82141415 EMERGENCY CONTACT / PHONE NO.: 843-879-0411				
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	
T R A N S P O R T E R	17. Transporter 1 Acknowledgement of Receipt of Materials			
	Printed Name	Signature	Month Day Year	
F A C I L I T Y	18. Transporter 2 Acknowledgement of Receipt of Materials			
	Printed Name	Signature	Month Day Year	
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
Pink- FACILITY USE ONLY

Blue- GENERATOR #2 COPY
Gold- TRANSPORTER #1 COPY

Yellow- GENERATOR #1 COPY

Appendix C
Laboratory Analytical Report - Initial Groundwater

Volatile Organic Compounds by GC/MS

Client: AECOM - Resolution Consultants	Laboratory ID: SC08036-003
Description: BEALB254TW01WG20170306	Matrix: Aqueous
Date Sampled: 03/06/2017 1435	
Date Received: 03/08/2017	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	03/09/2017 1103	PMV		36622

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	LOD	DL	Units	Run
Benzene	71-43-2	8260B	3.5		1.0	0.80	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	5.8		1.0	0.80	0.40	ug/L	1
Naphthalene	91-20-3	8260B	110		1.0	0.80	0.40	ug/L	1
Toluene	108-88-3	8260B	0.80	U	1.0	0.80	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260B	0.80	U	1.0	0.80	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		110	85-114
Dibromofluoromethane		104	80-119
1,2-Dichloroethane-d4		98	81-118
Toluene-d8		97	89-112

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time Q = Surrogate failure
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria L = LCS/LCSD failure
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W" S = MS/MSD failure

Semivolatile Organic Compounds by GC/MS

Client: AECOM - Resolution Consultants	Laboratory ID: SC08036-003
Description: BEALB254TW01WG20170306	Matrix: Aqueous
Date Sampled: 03/06/2017 1435	
Date Received: 03/08/2017	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	03/16/2017 1934	RBH	03/09/2017 1736	36656

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	LOD	DL	Units	Run
Benzo(a)anthracene	56-55-3	8270D	0.73		0.20	0.10	0.040	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	0.43		0.20	0.10	0.040	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	0.25		0.20	0.10	0.040	ug/L	1
Chrysene	218-01-9	8270D	0.68		0.20	0.10	0.040	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	0.10	U	0.20	0.10	0.040	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Nitrobenzene-d5		73	44-120
2-Fluorobiphenyl		56	44-119
Terphenyl-d14		53	50-134

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time Q = Surrogate failure
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria L = LCS/LCSD failure
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W" S = MS/MSD failure

Appendix D
Laboratory Analytical Reports – Permanent Well Groundwater

Volatile Organic Compounds by GC/MS

Client: AECOM - Resolution Consultants	Laboratory ID: TC21023-004
Description: BEALB254MW01WG20180320	Matrix: Aqueous
Date Sampled: 03/20/2018 1055	
Date Received: 03/21/2018	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	03/27/2018 0138	BWS		67937

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	LOD	DL	Units	Run
Benzene	71-43-2	8260B	17		1.0	0.80	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	15		1.0	0.80	0.40	ug/L	1
Naphthalene	91-20-3	8260B	190		1.0	0.80	0.40	ug/L	1
Toluene	108-88-3	8260B	0.80	U	1.0	0.80	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260B	0.80	U	1.0	0.80	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		108	85-114
Dibromofluoromethane		103	80-119
1,2-Dichloroethane-d4		101	81-118
Toluene-d8		98	89-112

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection S = MS/MSD failure

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Semivolatile Organic Compounds by GC/MS

Client: AECOM - Resolution Consultants	Laboratory ID: TC21023-004
Description: BEALB254MW01WG20180320	Matrix: Aqueous
Date Sampled: 03/20/2018 1055	
Date Received: 03/21/2018	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	04/02/2018 1520	CMP2	03/22/2018 0945	67612
2	3520C	8270D	1	04/08/2018 1439	CMP2	04/03/2018 1550	68613

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

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
Nitrobenzene-d5		53	44-120	H	80	44-120
2-Fluorobiphenyl	N	41	44-119	H	63	44-119
Terphenyl-d14		50	50-134	H	84	50-134

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection S = MS/MSD failure

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Volatile Organic Compounds by GC/MS

Client: AECOM - Resolution Consultants	Laboratory ID: TL18026-033
Description: BEALB254MW02WG20181217	Matrix: Aqueous
Date Sampled: 12/17/2018 1405	
Date Received: 12/18/2018	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/28/2018 1412	JJG		93570

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

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		106	85-114
Dibromofluoromethane		95	80-119
1,2-Dichloroethane-d4		93	81-118
Toluene-d8		100	89-112

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection S = MS/MSD failure

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Semivolatile Organic Compounds by GC/MS

Client: AECOM - Resolution Consultants	Laboratory ID: TL18026-033
Description: BEALB254MW02WG20181217	Matrix: Aqueous
Date Sampled: 12/17/2018 1405	
Date Received: 12/18/2018	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	12/26/2018 1803	CMP2	12/21/2018 1527	93114
2	3520C	8270D	1	01/06/2019 1447	CMP2	12/31/2018 1416	93702

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

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
Nitrobenzene-d5		64	44-120	H	79	44-120
2-Fluorobiphenyl		51	44-119	H	63	44-119
Terphenyl-d14		86	50-134	H	93	50-134

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection S = MS/MSD failure

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Semivolatile Organic Compounds by GC/MS

Client: AECOM - Resolution Consultants	Laboratory ID: TL18026-033
Description: BEALB254MW02WG20181217	Matrix: Aqueous
Date Sampled: 12/17/2018 1405	
Date Received: 12/18/2018	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	12/26/2018 1803	CMP2	12/21/2018 1527	93114
2	3520C	8270D	1	01/06/2019 1447	CMP2	12/31/2018 1416	93702

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

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
Nitrobenzene-d5		64	44-120	H	79	44-120
2-Fluorobiphenyl		51	44-119	H	63	44-119
Terphenyl-d14		86	50-134	H	93	50-134

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection S = MS/MSD failure

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Volatile Organic Compounds by GC/MS

Client: AECOM - Resolution Consultants	Laboratory ID: TL18026-040
Description: BEALB254MW03WG20181217	Matrix: Aqueous
Date Sampled: 12/17/2018 1500	
Date Received: 12/18/2018	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/28/2018 1607	JJG		93570

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

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		113	85-114
Dibromofluoromethane		98	80-119
1,2-Dichloroethane-d4		96	81-118
Toluene-d8		105	89-112

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection S = MS/MSD failure

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Semivolatile Organic Compounds by GC/MS

Client: AECOM - Resolution Consultants	Laboratory ID: TL18026-040
Description: BEALB254MW03WG20181217	Matrix: Aqueous
Date Sampled: 12/17/2018 1500	
Date Received: 12/18/2018	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	12/27/2018 1248	CMP2	12/21/2018 1527	93114
2	3520C	8270D	1	01/06/2019 1738	CMP2	12/31/2018 1416	93702

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

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
Nitrobenzene-d5		55	44-120	H	77	44-120
2-Fluorobiphenyl	N	42	44-119	H	65	44-119
Terphenyl-d14		81	50-134	H	96	50-134

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection S = MS/MSD failure

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Semivolatile Organic Compounds by GC/MS

Client: AECOM - Resolution Consultants	Laboratory ID: TL18026-040
Description: BEALB254MW03WG20181217	Matrix: Aqueous
Date Sampled: 12/17/2018 1500	
Date Received: 12/18/2018	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	12/27/2018 1248	CMP2	12/21/2018 1527	93114
2	3520C	8270D	1	01/06/2019 1738	CMP2	12/31/2018 1416	93702

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

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
Nitrobenzene-d5		55	44-120	H	77	44-120
2-Fluorobiphenyl	N	42	44-119	H	65	44-119
Terphenyl-d14		81	50-134	H	96	50-134

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection S = MS/MSD failure

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Volatile Organic Compounds by GC/MS

Client: AECOM - Resolution Consultants	Laboratory ID: TL18026-025
Description: BEALB254MW04WG20181217	Matrix: Aqueous
Date Sampled: 12/17/2018 1200	
Date Received: 12/18/2018	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/29/2018 0252	STM		93626

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

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		106	85-114
Dibromofluoromethane		105	80-119
1,2-Dichloroethane-d4		99	81-118
Toluene-d8		106	89-112

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection S = MS/MSD failure

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Semivolatile Organic Compounds by GC/MS

Client: AECOM - Resolution Consultants	Laboratory ID: TL18026-025
Description: BEALB254MW04WG20181217	Matrix: Aqueous
Date Sampled: 12/17/2018 1200	
Date Received: 12/18/2018	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	12/30/2018 1527	CMP2	12/20/2018 1633	93012

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

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Nitrobenzene-d5		82	44-120
2-Fluorobiphenyl		62	44-119
Terphenyl-d14		78	50-134

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 U = Not detected at or above the LOQ N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis LOD = Limit of Detection S = MS/MSD failure

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Appendix E
Historical Groundwater Analytical Results

Appendix E-3
 Historical Groundwater Analytical Results - 2013 through 2019
 Laurel Bay Military Housing Area
 MCAS Beaufort, South Carolina

Old Laurel Bay Military Housing Area Address	New Laurel Bay Military Housing Area Address	SCDHEC RBSLs			Benzene	Ethylbenzene	Naphthalene	Toluene	Xylenes	Benzo(a)anthracene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	
		Well ID	Sample Date	Sample Type	5	700	25	1000	10000	10	10	10	10	10	
119 Banyan Drive	57 Banyan Drive	BEALB119MW01	12/11/2015	N	< 0.45 U	5	36 J	< 0.48 U	3.3 J	0.065 J	0.034 J	< 0.040 U	0.079 J	< 0.080 U	
			12/11/2015	FD	< 0.45 U	5	37 J	< 0.48 U	3.5 J	< 0.040 U	< 0.040 U	< 0.040 U	< 0.040 U	0.037 J	< 0.080 UJ
			7/28/2016	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ
			6/14/2017	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	0.050 J	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ
			1/23/2018	N	NA	NA	< 0.80 U	NA	NA	NA	NA	NA	NA	NA	NA
		BEALB119MW02	12/11/2015	N	< 0.45 U	< 0.51 U	< 0.96 U	0.31 J	< 0.57 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.080 U
			7/28/2016	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U
			6/13/2017	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ
			1/23/2018	N	NA	NA	< 0.80 U	NA	NA	NA	NA	NA	NA	NA	NA
		BEALB119MW03	12/11/2015	N	< 0.45 U	< 0.51 U	< 0.96 U	< 0.48 U	< 0.57 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.080 U
			7/28/2016	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ
			6/13/2017	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 UJ
			1/23/2018	N	NA	NA	< 0.80 U	NA	NA	NA	NA	NA	NA	NA	NA
		BEALB119MW04	12/14/2015	N	< 0.45 U	< 0.51 U	< 0.96 U	< 0.48 U	< 0.57 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.080 U
			7/28/2016	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U
			6/13/2017	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 UJ
1/23/2018	N		NA	NA	< 0.80 U	NA	NA	NA	NA	NA	NA	NA	NA		
128 Banyan Drive	156 Banyan Drive	BEALB128MW01	12/14/2015	N	0.68 J	6.5	29	0.42 J	21	< 0.040 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.080 U	
			7/28/2016	N	1.7	18	51	0.87 J	19	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	
			6/14/2017	N	1.4	19	55	0.79 J	33	0.048 J	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	
			1/22/2018	N	NA	NA	64	NA	NA	NA	NA	NA	NA	NA	NA
			3/19/2019	N	NA	NA	6.1	NA	NA	NA	NA	NA	NA	NA	NA
		BEALB128MW02	12/14/2015	N	< 0.45 U	< 0.51 U	< 0.96 U	< 0.48 U	< 0.57 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.080 U
			7/28/2016	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U
			6/14/2017	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	0.043 J	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ
			1/22/2018	N	NA	NA	< 0.80 U	NA	NA	NA	NA	NA	NA	NA	NA
		BEALB128MW03	12/14/2015	N	< 0.45 U	< 0.51 U	< 0.96 U	< 0.48 U	< 0.57 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.080 U
			7/29/2016	N	1.4	7.1	39	< 0.80 U	15	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ
			6/13/2017	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 UJ
			1/22/2018	N	NA	NA	10	NA	NA	NA	NA	NA	NA	NA	NA
			3/19/2019	N	NA	NA	< 0.80 U	NA	NA	NA	NA	NA	NA	NA	NA
		BEALB128MW04	12/14/2015	N	< 0.45 U	< 0.51 U	< 0.96 U	7.4	< 0.57 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.080 U
			7/29/2016	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U
7/29/2016	FD		< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U		
6/13/2017	N		< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	0.043 J	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 UJ		
1/22/2018	N		NA	NA	< 0.80 U	NA	NA	NA	NA	NA	NA	NA	NA		
130 Banyan Drive	174 Banyan Drive	BEALB130MW01	3/23/2017	N	1.2	66	160	< 0.80 U	12	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	
			1/19/2018	N	0.45 J	35	96	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	
			3/19/2019	N	< 0.80 U	19	54	< 0.80 U	< 0.80 U	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	
			3/19/2019	FD	< 0.80 U	18	49	< 0.80 U	< 0.80 U	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	
		BEALB130MW02	12/19/2018	N	< 0.80 U	10	130	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U
			12/19/2018	FD	< 0.80 U	10	130	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U
		BEALB130MW03	3/19/2019	N	0.87 J	16	150	< 0.80 U	< 0.80 U	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ
			12/19/2018	N	< 0.80 U	1.5	10	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U
		BEALB130MW04	3/19/2019	N	< 0.80 U	1.2	13	< 0.80 U	< 0.80 U	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ
			12/19/2018	N	< 0.80 U	< 0.80 U	0.42 J	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U
		BEALB130MW05	3/19/2019	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U
			12/19/2018	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U
BEALB130MW06	4/8/2019	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U		

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Old Laurel Bay Military Housing Area Address	New Laurel Bay Military Housing Area Address	SCDHEC RBSLs			Benzene	Ethylbenzene	Naphthalene	Toluene	Xylenes	Benzo(a)anthracene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene
		Well ID	Sample Date	Sample Type	5	700	25	1000	10000	10	10	10	10	10
273 Birch Drive	82 Birch Drive	BEALB273MW01	7/25/2016	N	2.4	5.9	75	< 0.80 U	1.5	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U
			6/14/2017	N	1.9	16	170	< 0.80 U	< 0.80 U	0.056 J	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ
			1/23/2018	N	2.6	11	140	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U
			3/5/2019	N	NA	NA	100	NA	NA	NA	NA	NA	NA	NA
		BEALB273MW02	12/13/2018	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U
			3/6/2019	N	NA	NA	< 0.80 U	NA	NA	NA	NA	NA	NA	NA
		BEALB273MW03	12/13/2018	N	< 0.80 UJ	0.72 J	24 J	< 0.80 UJ	0.67 J	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U
			3/5/2019	N	NA	NA	15	NA	NA	NA	NA	NA	NA	NA
		BEALB273MW04	12/13/2018	N	< 0.80 UJ	< 0.80 UJ	0.78 J	< 0.80 UJ	< 0.80 UJ	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U
			3/5/2019	N	NA	NA	< 0.80 U	NA	NA	NA	NA	NA	NA	NA
BEALB273MW05	12/13/2018	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U		
	3/6/2019	N	NA	NA	< 0.80 U	NA	NA	NA	NA	NA	NA	NA		
282 Birch Drive	191 Birch Drive	BEALB282MW136	7/30/2013	N	0.41 J	1.2	57	< 0.25 U	< 0.25 U	< 0.11 U	< 0.11 U	< 0.11 U	< 0.11 U	
			9/11/2014	N	< 0.40 U	0.76 J	14	< 0.20 U	< 0.40 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.040 U	
			9/11/2014	FD	< 0.40 U	0.76 J	15	< 0.20 U	< 0.40 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.040 U	
			9/15/2015	N	< 0.45 U	NA	16	NA	NA	NA	NA	NA	NA	
			9/15/2015	FD	< 0.45 U	NA	13	NA	NA	NA	NA	NA	NA	
			7/28/2016	N	NA	NA	15	NA	NA	NA	NA	NA	NA	
		BEALB282MW137	7/30/2013	N	< 0.25 U	< 0.25 U	< 0.25 U	< 0.25 U	< 0.25 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	
			9/11/2014	N	< 0.40 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.40 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.080 U	
			9/15/2015	N	< 0.45 U	NA	< 0.96 U	NA	NA	NA	NA	NA	NA	
			7/28/2016	N	NA	NA	< 0.80 U	NA	NA	NA	NA	NA	NA	
		BEALB282MW138	7/30/2013	N	< 0.25 U	< 0.25 U	< 0.25 U	< 0.25 U	< 0.25 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	
			9/12/2014	N	< 0.40 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.40 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.080 U	
			9/15/2015	N	< 0.45 U	NA	0.14 J	NA	NA	NA	NA	NA	NA	
			7/27/2016	N	NA	NA	< 0.80 U	NA	NA	NA	NA	NA	NA	
		BEALB282MW139	7/30/2013	N	< 0.25 U	< 0.25 U	0.41 J	< 0.25 U	< 0.25 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	
			9/12/2014	N	< 0.40 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.40 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.080 U	
9/15/2015	N		< 0.45 U	NA	< 0.96 U	NA	NA	NA	NA	NA	NA			
7/27/2016	N		NA	NA	< 0.80 U	NA	NA	NA	NA	NA	NA			
285 Birch Drive	174 Birch Drive	BEALB285MW01	3/23/2017	N	0.95	5.1	33	< 0.80	5.9	< 0.10	< 0.10	< 0.10	< 0.10	
			1/23/2018	N	2.1	10	60	< 0.80 U	7.2	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	
			3/6/2019	N	1.6	5.2	35	< 0.80	1.4	< 0.10 UJ	< 0.10	< 0.10 UJ	< 0.010	
		BEALB285MW02	12/18/2018	N	< 0.80 U	< 0.80 U	0.41 J	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	
			3/6/2019	N	< 0.80 U	< 0.80 U	2	< 0.80 U	< 0.80 U	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	
		BEALB285MW03	12/18/2018	N	0.52 J	1.5	39	< 0.80 U	< 0.80 U	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	
			3/6/2019	N	0.66 J	1.6	37	< 0.80	< 0.80	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	
		BEALB285MW04	12/18/2018	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	
			3/6/2019	N	< 0.80	< 0.80	0.49 J	< 0.80	< 0.80	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	
		BEALB285MW05	12/18/2018	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	
			3/6/2019	N	< 0.80	< 0.80	0.6 J	< 0.80	< 0.80	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	
		BEALB285MW06	12/18/2018	N	3.1	4.9	56	< 0.80 U	12	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	
			12/18/2018	FD	3.3	5.2	61	< 0.80 U	13	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	
			3/6/2019	N	4.6	5.2	49	< 0.80 U	7.1	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	
3/6/2019	FD		4.2	4.7	53	< 0.80 U	7.2	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ			
292 Birch Drive	273 Birch Drive	BEALB285MW07	4/8/2019	N	< 0.80 U	< 0.80 U	9.1	< 0.80 UJ	0.52 J	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	
		BEALB292MW01	3/23/2017	N	< 0.80	3.2	10	< 0.80	< 0.80	< 0.10	< 0.10	< 0.10	< 0.10	

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		Well ID	Sample Date	Sample Type	5	700	25	1000	10000	10	10	10	10	10	
388 Acorn Drive	125 Acorn Drive	BEALB388MW110	7/29/2013	N	0.25 J	15	72	< 0.25 U	23	0.33	0.19 J	< 0.11 U	0.20 J	< 0.11 U	
			9/10/2014	N	2.0	14	71	< 0.20 U	18	< 0.040 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.080 U	
			9/14/2015	N	0.75 J	NA	49 BJ	NA	NA	NA	NA	NA	NA	NA	NA
			7/27/2016	N	NA	NA	30	NA	NA	NA	NA	NA	NA	NA	NA
			6/15/2017	N	NA	NA	34	NA	NA	NA	NA	NA	NA	NA	NA
			1/24/2018	N	NA	NA	62	NA	NA	NA	NA	NA	NA	NA	NA
			3/18/2019	N	NA	NA	35	NA	NA	NA	NA	NA	NA	NA	NA
			3/18/2019	FD	NA	NA	32	NA	NA	NA	NA	NA	NA	NA	NA
		BEALB388MW111	7/29/2013	N	< 0.25 U	< 0.25 U	< 0.25 U	< 0.25 U	< 0.25 U	< 0.25 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U
			9/10/2014	N	< 0.40 U	< 0.20 U	0.48 J	< 0.20 U	< 0.40 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.080 U
			9/14/2015	N	< 0.45 U	NA	< 0.96 U	NA	NA	NA	NA	NA	NA	NA	NA
			7/27/2016	N	NA	NA	< 0.80 U	NA	NA	NA	NA	NA	NA	NA	NA
			6/15/2017	N	NA	NA	< 0.80 U	NA	NA	NA	NA	NA	NA	NA	NA
			1/24/2018	N	NA	NA	< 0.80 U	NA	NA	NA	NA	NA	NA	NA	NA
			3/18/2019	N	NA	NA	< 0.80 U	NA	NA	NA	NA	NA	NA	NA	NA
			3/18/2019	N	NA	NA	< 0.80 U	NA	NA	NA	NA	NA	NA	NA	NA
		BEALB388MW112	7/29/2013	N	< 0.25 U	< 0.25 U	14	< 0.25 U	< 0.25 U	< 0.11 U	< 0.11 U	< 0.11 U	< 0.11 U	< 0.11 U	< 0.11 U
			9/10/2014	N	< 0.40 U	< 0.20 U	26	< 0.20 U	< 0.40 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.080 U
			9/14/2015	N	< 0.45 U	NA	6.8 BJ	NA	NA	NA	NA	NA	NA	NA	NA
			7/27/2016	N	NA	NA	2.8	NA	NA	NA	NA	NA	NA	NA	NA
			7/27/2016	FD	NA	NA	3.2	NA	NA	NA	NA	NA	NA	NA	NA
			6/15/2017	N	NA	NA	8.5	NA	NA	NA	NA	NA	NA	NA	NA
			1/24/2018	N	NA	NA	3.5	NA	NA	NA	NA	NA	NA	NA	NA
			3/18/2019	N	NA	NA	2.1	NA	NA	NA	NA	NA	NA	NA	NA
391 Acorn Drive	138 Acorn Drive	BEALB391MW113	7/30/2013	N	< 0.25 U	< 0.25 U	< 0.25 U	< 0.25 U	< 0.25 U	< 0.11 U	< 0.11 U	< 0.11 U	< 0.11 U	< 0.11 U	
			9/10/2014	N	< 0.40 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.40 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.080 U	
			9/15/2015	N	< 0.45 U	NA	< 0.96 U	NA	NA	NA	NA	NA	NA	NA	
		BEALB391MW114	7/29/2013	N	< 0.25 U	< 0.25 U	6.6	< 0.25 U	< 0.25 U	< 0.11 U	< 0.11 U	< 0.11 U	< 0.11 U	< 0.11 U	< 0.11 U
			7/29/2013	FD	< 0.25 U	< 0.25 U	6.3	< 0.25 U	< 0.25 U	< 0.11 U	< 0.11 U	< 0.11 U	< 0.11 U	< 0.11 U	< 0.11 U
			9/10/2014	N	< 0.40 U	< 0.20 U	12	< 0.20 U	< 0.40 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.080 U
		BEALB391MW115	9/14/2015	N	< 0.45 U	NA	0.51 BJ	NA	NA	NA	NA	NA	NA	NA	NA
			7/29/2013	N	< 0.25 U	< 0.25 U	< 0.25 U	< 0.25 U	< 0.25 U	< 0.12 U	< 0.12 U	< 0.12 U	< 0.12 U	< 0.12 U	< 0.12 U
			9/10/2014	N	< 0.40 U	< 0.20 U	0.89 J	< 0.20 U	< 0.40 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.080 U
		BEALB391MW116	9/14/2015	N	< 0.45 U	NA	0.63 BJ	NA	NA	NA	NA	NA	NA	NA	NA
			7/29/2013	N	< 0.25 U	< 0.25 U	3.7	< 0.25 U	< 0.25 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U
			9/10/2014	N	< 0.40 U	< 0.20 U	0.57 J	< 0.20 U	< 0.40 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.080 U
398 Acorn Drive	203 Acorn Drive	BEALB398MW104	9/14/2015	N	< 0.45 U	NA	19 BJ	NA	NA	NA	NA	NA	NA		
			7/30/2013	N	< 0.25 U	< 0.25 U	< 0.25 U	< 0.25 U	< 0.25 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	
			9/10/2014	N	< 0.40 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.40 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.080 U	
		BEALB398MW105	9/15/2015	N	< 0.45 U	NA	< 0.96 U	NA	NA	NA	NA	NA	NA	NA	
			7/30/2013	N	< 0.25 U	< 0.25 U	< 0.25 U	< 0.25 U	< 0.25 U	< 0.11 U	< 0.11 U	< 0.11 U	< 0.11 U	< 0.11 U	< 0.11 U
			9/10/2014	N	< 0.40 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.40 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.080 U
		BEALB398MW106	9/15/2015	N	< 0.45 U	NA	0.18 J	NA	NA	NA	NA	NA	NA	NA	NA
			7/30/2013	N	0.71	0.18 J	0.93	< 0.25 U	< 0.25 U	< 0.11 U	< 0.11 U	< 0.11 U	< 0.11 U	< 0.11 U	< 0.11 U
			9/10/2014	N	< 0.40 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.40 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.080 U
430 Elderberry Drive	323 Elderberry Drive	BEALB430MW01	9/15/2015	N	< 0.45 U	NA	< 0.96 U	NA	NA	NA	NA	NA	NA		
			7/22/2016	N	< 0.80 U	9.1	24	< 0.80 U	24	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	
			7/22/2016	N	< 0.80 U	9.1	24	< 0.80 U	24	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	

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Old Laurel Bay Military Housing Area Address	New Laurel Bay Military Housing Area Address	SCDHEC RBSLs			Benzene	Ethylbenzene	Naphthalene	Toluene	Xylenes	Benzo(a)anthracene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	
					5	700	25	1000	10000	10	10	10	10	10	
		Well ID	Sample Date	Sample Type											
456 Elderberry Drive	537 Elderberry Drive	BEALB456MW01	7/22/2016	N	6.1	44	200	< 4.0 U	28	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	
			6/15/2017	N	5.4	64	340	< 0.80 U	41	0.21 J	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	
			1/26/2018	N	4.4 J	51	320	< 4.0 U	36	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	
			3/8/2019	N/A	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP
		BEALB456MW02	12/18/2018	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U
			3/8/2019	N	< 0.80 U	NA	< 0.80 U	NA	NA	NA	NA	NA	NA	NA	NA
		BEALB456MW03	12/18/2018	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U
			3/8/2019	N	< 0.80 U	NA	< 0.80 U	NA	NA	NA	NA	NA	NA	NA	NA
		BEALB456MW04	12/18/2018	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ
			3/11/2019	N	< 0.80 U	NA	< 0.80 U	NA	NA	NA	NA	NA	NA	NA	NA
		BEALB456MW05	12/18/2018	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ
3/8/2019	N		< 0.80 U	NA	< 0.80 U	NA	NA	NA	NA	NA	NA	NA	NA		
458 Elderberry Drive	551 Elderberry Drive	BEALB458MW01	7/22/2016	N	1.5	19	76	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	
			6/15/2017	N/A	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	
			1/26/2018	N/A	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	
			3/13/2019	N/A	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	
		BEALB458MW02	12/17/2018	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U
			3/13/2019	N	< 0.80 U	< 0.80 U	7.6	< 0.80 U	< 0.80 U	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	
		BEALB458MW03	12/18/2018	N	< 0.80 U	< 0.80 U	0.75 J	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U
			3/13/2019	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	
		BEALB458MW04	12/17/2018	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	0.040 J	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U
3/13/2019	N		< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ			
468 Dogwood Drive	65 Dogwood Drive	BEALB468MW01	7/25/2016	N	< 0.80 U	< 0.80 U	1.3	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U		
473 Dogwood Drive	82 Dogwood Drive	BEALB473MW01	3/23/2017	N	< 0.80 U	11	57	< 0.80 U	2.7	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U		
			1/24/2018	N	< 0.80 U	5.3	37	< 0.80 U	0.60 J	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U		
			3/13/2019	N	< 0.80 U	4.4	32	< 0.80 U	1.4	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ		
			3/13/2019	FD	< 0.80 U	4.5	30	< 0.80 U	1.4	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ		
		BEALB473MW02	12/18/2018	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	
			3/12/2019	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	
		BEALB473MW03	12/18/2018	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	
			3/13/2019	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ		
		BEALB473MW04	12/18/2018	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	
			12/18/2018	FD	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	
		BEALB473MW05	3/13/2019	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	
12/18/2018	N		< 0.80 U	< 0.80 U	0.51 J	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U			
3/12/2019	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ				
518 Laurel Bay Boulevard	403 Laurel Bay Boulevard	BEALB518MW01	7/26/2016	N	< 0.80 U	1.5	20	< 0.80 U	2.6	< 0.10 U	0.16 J	< 0.10 U	0.15 J		
635 Dahlia Drive	542 Dahlia Drive	BEALB635MW01	7/22/2016	N	< 0.80 U	< 0.80 U	0.81 J	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U		
638 Dahlia Drive	549 Dahlia Drive	BEALB638MW01	7/22/2016	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U		
640 Dahlia Drive	569 Dahlia Drive	BEALB640MW01	7/22/2016	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U		
		BEALB640MW02	7/22/2016	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U		
647 Dahlia Drive	668 Dahlia Drive	BEALB647MW01	7/21/2016	N	< 0.80 U	0.59 J	4.3	< 0.80 U	0.79 J	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U		
648 Dahlia Drive	633 Dahlia Drive	BEALB648MW01	7/21/2016	N	< 0.80 U	1.2	4.8	< 0.80 U	1.9	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U		
			6/16/2017	N	< 0.80 U	5.3	7.7	< 0.80 U	0.98 J	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U		
			1/24/2018	N/A	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	
			3/7/2019	N/A	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	
		BEALB648MW02	12/17/2018	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	
			3/8/2019	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ		
		BEALB648MW03	12/17/2018	N	< 0.80 U	< 0.80 U	0.43 J	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	
			3/7/2019	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U		
		BEALB648MW04	12/13/2018	N	< 0.80 U	< 0.80 U	0.86 J	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	
3/7/2019	N		< 0.80 U	< 0.80 U	3.9	< 0.80 U	0.48 J	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ			

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Old Laurel Bay Military Housing Area Address	New Laurel Bay Military Housing Area Address	SCDHEC RBSLs			Benzene	Ethylbenzene	Naphthalene	Toluene	Xylenes	Benzo(a)anthracene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	
		Well ID	Sample Date	Sample Type	5	700	25	1000	10000	10	10	10	10	10	
650 Dahlia Drive	653 Dahlia Drive	BEALB650MW01	7/21/2016	N/A	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	
			6/16/2017	N	0.56 J	13	59	< 0.80 U	2.3	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U
			1/26/2018	N	< 0.80 U	4.3	12	< 0.80 U	0.46 J	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U
			3/7/2019	N	< 0.80 U	0.62 J	0.84 J	< 0.80 U	< 0.80 U	0.11 J	0.067 J	0.053 J	0.072 J	0.050 J	
			3/7/2019	FD	< 0.80 U	0.74 J	1.1	< 0.80 U	< 0.80 U	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ
		BEALB650MW02	7/21/2016	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U
			6/15/2017	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ
			1/26/2018	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U
		BEALB650MW03	12/17/2018	N	< 0.80 UJ	< 0.80 UJ	< 0.80 UJ	< 0.80 UJ	< 0.80 UJ	< 0.80 UJ	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U
			3/7/2019	N	< 0.80 U	< 0.80 U	0.86 J	< 0.80 U	< 0.80 U	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ
		BEALB650MW04	12/17/2018	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ
			3/7/2019	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ
BEALB650MW05	12/17/2018	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ		
	3/7/2019	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ		
BEALB650MW06	12/17/2018	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ		
	3/6/2019	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ		
652 Dahlia Drive	669 Dahlia Drive	BEALB652MW01	7/21/2016	N	< 0.80 U	< 0.80 U	0.61 J	< 0.80 U	0.49 J	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U		
		BEALB652MW02	7/21/2016	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U		
747 Blue Bell Lane	426 Blue Bell Lane	BEALB747MW01	3/23/2017	N	< 0.80	2.1	22	< 0.80	0.7	< 0.10	< 0.10	< 0.10	< 0.10		
749 Blue Bell Lane	440 Blue Bell Lane	BEALB749MW01	3/23/2017	N	< 0.80	3.3	29	< 0.80	7.4	< 0.10	< 0.10	< 0.10	< 0.10		
			1/25/2018	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	
			3/6/2019	N	< 0.80 U	< 0.80 U	0.53 J	< 0.80 U	< 0.80 U	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	
		BEALB749MW02	12/13/2018	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U
			3/6/2019	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	
		BEALB749MW03	12/13/2018	N	< 0.80 UJ	< 0.80 UJ	< 0.80 UJ	< 0.80 UJ	< 0.80 UJ	< 0.80 UJ	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U
			3/6/2019	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	
		BEALB749MW04	12/13/2018	N	< 0.80 UJ	< 0.80 UJ	< 0.80 UJ	< 0.80 UJ	< 0.80 UJ	< 0.80 UJ	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U
			3/6/2019	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	
		BEALB749MW05	12/13/2018	N	< 0.80 UJ	< 0.80 UJ	< 0.80 UJ	< 0.80 UJ	< 0.80 UJ	< 0.80 UJ	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U
3/5/2019	N		< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ			
760 Althea Street	101 Althea Street	BEALB760MW01	7/21/2016	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U		
774 Althea Street	247 Althea Street	BEALB774MW01	3/20/2018	N/A	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP		
			3/12/2019	N/A	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP		
		BEALB774MW02	12/17/2018	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	
			3/12/2019	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ		
		BEALB774MW03	12/17/2018	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	
			3/12/2019	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ		
		BEALB774MW04	12/17/2018	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	
			3/12/2019	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ		
BEALB774MW05	12/17/2018	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U		
	3/12/2019	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ				
775 Althea Street	244 Althea Street	BEALB775MW01	3/23/2017	N	< 0.80	6.2	23	< 0.80	< 0.80	< 0.10	< 0.10	< 0.10	< 0.10		
1033 Foxglove Street	256 Foxglove Street	BEALB1033MW01	12/16/2015	N	< 0.45 U	< 0.51 U	1.1 J	< 0.48 U	< 0.57 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.040 U		
			12/16/2015	FD	< 0.45 U	< 0.51 U	0.84 J	< 0.48 U	< 0.57 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.040 U		
		BEALB1033MW02	12/16/2015	N	< 0.45 U	< 0.51 U	< 0.96 U	< 0.48 U	< 0.57 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.040 U		
		BEALB1033MW03	12/16/2015	N	< 0.45 U	< 0.51 U	0.30 J	< 0.48 U	< 0.57 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.040 U		
BEALB1033MW04	12/15/2015	N	< 0.45 U	< 0.51 U	0.71 J	< 0.48 U	< 0.57 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.040 U				
1034 Foxglove Street	261 Foxglove Street	BEALB1034MW01	3/24/2017	N	< 0.80	< 0.80	1.5	< 0.80	< 0.80	< 0.10	< 0.10	< 0.10	< 0.10		



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 Laurel Bay Military Housing Area
 MCAS Beaufort, South Carolina

Old Laurel Bay Military Housing Area Address	New Laurel Bay Military Housing Area Address	SCDHEC RBSLs			Benzene	Ethylbenzene	Naphthalene	Toluene	Xylenes	Benzo(a)anthracene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	
		Well ID	Sample Date	Sample Type	5	700	25	1000	10000	10	10	10	10	10	
1054 Gardenia Drive	Empty Lot	BEALB1054DMW1	8/1/2013	N	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	
			9/11/2014	N	< 0.40 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.40 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.080 U	
			9/16/2015	N	< 0.45 U	NA	< 0.96 U	NA	NA	NA	NA	NA	NA	NA	NA
			7/27/2016	N	NA	NA	0.99 J	NA	NA	NA	NA	NA	NA	NA	NA
			6/19/2017	N	NA	NA	< 0.80 U	NA	NA	NA	NA	NA	NA	NA	NA
			1/25/2018	N	NA	NA	< 0.80 U	NA	NA	NA	NA	NA	NA	NA	NA
			3/4/2019	N	NA	NA	< 0.80 U	NA	NA	NA	NA	NA	NA	NA	NA
		BEALB1054MW2	8/1/2013	N	< 0.50 U	< 0.50 U	3.7	< 0.50 U	< 0.50 U	< 0.21 U	< 0.21 U	< 0.21 U	< 0.21 U	< 0.21 U	< 0.21 U
			8/1/2013	FD	< 0.50 U	< 0.50 U	3.7	< 0.50 U	< 0.50 U	< 0.21 U	< 0.21 U	< 0.21 U	< 0.21 U	< 0.21 U	< 0.21 U
			9/11/2014	N	< 0.40 U	< 0.20 U	0.45 J	< 0.20 U	< 0.40 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.080 U
			9/16/2015	N	< 0.45 U	NA	< 0.96 U	NA	NA	NA	NA	NA	NA	NA	NA
			7/27/2016	N	NA	NA	< 0.80 U	NA	NA	NA	NA	NA	NA	NA	NA
			6/19/2017	N	NA	NA	< 0.80 U	NA	NA	NA	NA	NA	NA	NA	NA
			1/25/2018	N	NA	NA	< 0.80 U	NA	NA	NA	NA	NA	NA	NA	NA
		3/4/2019	N	NA	NA	0.58 J	NA	NA	NA	NA	NA	NA	NA	NA	
		BEALB1054MW4	8/1/2013	N	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U
			9/11/2014	N	< 0.40 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.40 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.080 U
			9/16/2015	N	< 0.45 U	NA	< 0.96 U	NA	NA	NA	NA	NA	NA	NA	NA
			7/28/2016	N	NA	NA	< 0.80 U	NA	NA	NA	NA	NA	NA	NA	NA
			6/19/2017	N	NA	NA	< 0.80 U	NA	NA	NA	NA	NA	NA	NA	NA
			1/25/2018	N	NA	NA	< 0.80 U	NA	NA	NA	NA	NA	NA	NA	NA
			3/4/2019	N	NA	NA	< 0.80 U	NA	NA	NA	NA	NA	NA	NA	NA
		BEALB1054MW7	8/1/2013	N	< 0.50 U	< 0.50 U	3.6	< 0.50 U	< 0.50 U	< 0.21 U	< 0.21 U	< 0.21 U	< 0.21 U	< 0.21 U	< 0.21 U
			9/11/2014	N	< 0.40 U	< 0.20 U	< 0.20 U	1.5	< 0.40 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.080 U
			9/16/2015	N	< 0.45 U	NA	< 0.96 U	NA	NA	NA	NA	NA	NA	NA	NA
			7/27/2016	N	NA	NA	< 0.80 U	NA	NA	NA	NA	NA	NA	NA	NA
			6/19/2017	N	NA	NA	< 0.80 U	NA	NA	NA	NA	NA	NA	NA	NA
			1/25/2018	N	NA	NA	< 0.80 U	NA	NA	NA	NA	NA	NA	NA	NA
			3/4/2019	N	NA	NA	< 0.80 U	NA	NA	NA	NA	NA	NA	NA	NA
		BEALB1054MW127	8/1/2013	N	< 0.50 U	2.5	25	< 0.50 U	0.62	< 0.21 UJ	< 0.21 UJ	< 0.21 UJ	< 0.21 UJ	< 0.21 UJ	< 0.21 UJ
			9/11/2014	N	< 0.40 U	2.3	15	< 0.20 U	1.1	< 0.040 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.080 U
			9/16/2015	N	< 0.45 U	NA	17	NA	NA	NA	NA	NA	NA	NA	NA
			7/28/2016	N	NA	NA	8.3	NA	NA	NA	NA	NA	NA	NA	NA
			6/19/2017	N	NA	NA	7.2	NA	NA	NA	NA	NA	NA	NA	NA
			1/25/2018	N	NA	NA	8.7	NA	NA	NA	NA	NA	NA	NA	NA
			3/4/2019	N	NA	NA	5.4	NA	NA	NA	NA	NA	NA	NA	NA
		BEALB1054MW128	8/1/2013	N	< 0.50 U	4.4	42	0.20 J	6.3	< 0.21 UJ	< 0.21 UJ	< 0.21 UJ	< 0.21 UJ	< 0.21 UJ	< 0.21 UJ
			9/11/2014	N	< 0.40 U	2.4	18	< 0.20 U	2.5	< 0.040 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.080 U
			9/16/2015	N	< 0.45 U	NA	23 BJ	NA	NA	NA	NA	NA	NA	NA	NA
			7/27/2016	N	NA	NA	4.9	NA	NA	NA	NA	NA	NA	NA	NA
			6/19/2017	N	NA	NA	13	NA	NA	NA	NA	NA	NA	NA	NA
			1/25/2018	N	NA	NA	7.0	NA	NA	NA	NA	NA	NA	NA	NA
			3/4/2019	N	NA	NA	11	NA	NA	NA	NA	NA	NA	NA	NA
		BEALB1054MW129	8/1/2013	N	0.32 J	18	73	2.1	35	< 0.21 U	< 0.21 U	< 0.21 U	< 0.21 U	< 0.21 U	< 0.21 U
			9/11/2014	N	0.19 J	13	54	1.3	25	< 0.040 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.080 U
			9/11/2014	FD	0.19 J	12	44	1.3	22	< 0.040 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.080 U
			9/16/2015	N	< 0.45 U	NA	54 BJ	NA	NA	NA	NA	NA	NA	NA	NA
			9/16/2015	FD	< 0.45 U	NA	59	NA	NA	NA	NA	NA	NA	NA	NA
7/28/2016	N		NA	NA	29	NA	NA	NA	NA	NA	NA	NA	NA		
6/19/2017	N		NA	NA	31	NA	NA	NA	NA	NA	NA	NA	NA		
1/25/2018	N		NA	NA	41	NA	NA	NA	NA	NA	NA	NA	NA		
3/5/2019	N		NA	NA	45	NA	NA	NA	NA	NA	NA	NA	NA		
3/5/2019	FD	NA	NA	43	NA	NA	NA	NA	NA	NA	NA	NA			

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Old Laurel Bay Military Housing Area Address	New Laurel Bay Military Housing Area Address	SCDHEC RBSLs			Benzene	Ethylbenzene	Naphthalene	Toluene	Xylenes	Benzo(a)anthracene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	
		Well ID	Sample Date	Sample Type	5	700	25	1000	10000	10	10	10	10	10	
1132 Iris Lane	345 Iris Lane	BEALB1132MW01	7/26/2016	N	< 0.80 U	5.4	33	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	
			6/16/2017	N	< 0.80 U	1.1	2.2	< 0.80 U	0.83 J	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	
			1/25/2018	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	
			3/5/2019	N	NA	NA	0.76 J	NA	NA	NA	NA	NA	NA	NA	NA
		BEALB1132MW02	12/17/2018	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ
			3/5/2019	N	NA	NA	< 0.80 U	NA	NA	NA	NA	NA	NA	NA	NA
		BEALB1132MW03	12/17/2018	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ
			3/5/2019	N	NA	NA	< 0.80 U	NA	NA	NA	NA	NA	NA	NA	NA
		BEALB1132MW04	12/17/2018	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ
3/5/2019	N		NA	NA	0.64 J	NA	NA	NA	NA	NA	NA	NA	NA		
BEALB1132MW05	12/17/2018	N	< 0.80 UJ	< 0.80 UJ	< 0.80 UJ	< 0.80 UJ	< 0.80 UJ	< 0.80 UJ	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U		
	3/5/2019	N	NA	NA	1.5	NA	NA	NA	NA	NA	NA	NA	NA		
1133 Iris Lane	408 Iris Lane	BEALB1133MW01	7/26/2016	N	< 0.80 U	< 0.80 U	0.45 J	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U		
1144 Iris Lane	433 Iris Lane	BEALB1144MW01	7/26/2016	N/A	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP		
			6/16/2017	N	4.4	25	180	< 0.80 U	3.3	< 1.0 UJ	< 1.0 UJ	< 1.0 UJ	< 1.0 UJ		
			1/29/2018	N	4	19	130 J	< 0.80 U	< 0.80 U	0.42 J	< 0.50 UJ	< 0.50 UJ	0.21 J	< 0.50 UJ	
			3/5/2019	N	1.4	10	59	< 0.80 U	< 0.80 U	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ	
			3/5/2019	FD	1.4	10	61	< 0.80 U	< 0.80 U	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ	
		BEALB1144MW02	7/26/2016	N	5	52	210	< 4.0 U	< 4.0 U	< 1.0 UJ	< 1.0 UJ	< 1.0 UJ	< 1.0 UJ	< 1.0 UJ	
			7/26/2016	FD	5	53	200	< 4.0 U	< 4.0 U	< 1.0 UJ	< 1.0 UJ	< 1.0 UJ	< 1.0 UJ	< 1.0 UJ	
			6/16/2017	N	5.4	58	230	< 0.80 U	3.1	< 1.0 UJ	< 1.0 UJ	< 1.0 UJ	< 1.0 UJ	< 1.0 UJ	
			1/26/2018	N	2.8	23	110	< 0.80 U	< 0.80 U	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ	
		BEALB1144MW03	12/17/2018	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	
			3/4/2019	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	
		BEALB1144MW04	12/13/2018	N	< 0.80 UJ	< 0.80 UJ	< 0.80 UJ	< 0.80 UJ	< 0.80 UJ	< 0.80 UJ	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	
			3/4/2019	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	
		BEALB1144MW05	12/17/2018	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	
			3/5/2019	N	< 0.80 U	< 0.80 U	0.44 J	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	
		BEALB1144MW06	12/13/2018	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	
			3/5/2019	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	
		1148 Iris Lane	467 Iris Lane	BEALB1148MW01	7/26/2016	N/A	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP
					6/16/2017	N/A	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP
1/29/2018	N/A				NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP		
3/4/2019	N/A				NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP		
BEALB1148MW02	7/26/2016			N/A	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	
	6/16/2017			N	0.61 J	15	100	< 0.80 U	4.9	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	
	1/29/2018			N	< 0.80 U	3.5	50 J	< 0.80 U	0.52 J	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U		
	3/4/2019			N	< 0.80 U	1.1	6.7	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U		
BEALB1148MW03	12/13/2018			N	< 0.80 UJ	< 0.80 UJ	< 0.80 UJ	< 0.80 UJ	< 0.80 UJ	< 0.80 UJ	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	
	3/4/2019			N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U		
BEALB1148MW04	12/13/2018			N	< 0.80 UJ	< 0.80 UJ	< 0.80 UJ	< 0.80 UJ	< 0.80 UJ	< 0.80 UJ	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	
	3/5/2019			N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U		
BEALB1148MW05	12/13/2018			N	< 0.80 UJ	0.82 J	11 J	< 0.80 UJ	< 0.80 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	
	3/4/2019			N	< 0.80 U	0.72 J	7.7	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	
BEALB1148MW06	12/13/2018	N	< 0.80 UJ	< 0.80 UJ	1.1 J	< 0.80 UJ	< 0.80 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ			
	3/4/2019	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ			
1168 Jasmine Street	40 Jasmine Street	BEALB1168MW01	12/17/2015	N	< 0.45 U	0.71 J	1.9 J	< 0.48 U	< 0.57 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.080 U		
			12/17/2015	FD	< 0.45 U	0.46 J	1.4 J	< 0.48 U	< 0.57 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.080 U		
		BEALB1168MW02	12/17/2015	N	< 0.45 U	< 0.51 U	< 0.96 U	< 0.48 U	< 0.57 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.080 U		
			12/17/2015	N	< 0.45 U	< 0.51 U	< 0.96 U	< 0.48 U	< 0.57 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.080 U		
1186 Bobwhite Drive	Empty Lot	BEALB1186MW01	12/11/2017	N	< 0.80 U	< 0.80 U	0.40 J	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U			
1192 Bobwhite Drive	Empty Lot	BEALB1192MW01	12/7/2017	N	< 0.80 U	< 0.80 U	1.6	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U			
1194 Bobwhite Drive	Empty Lot	BEALB1194MW01	12/7/2017	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U			
1272 Albatross Drive	59 Albatross Drive	BEALB1272MW01	7/26/2016	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U			
1352 Cardinal Lane	Empty Lot	BEALB1352MW01	12/8/2017	N	< 0.80 U	1.4	12	< 0.80 U	0.47 J	< 0.10 U	< 0.10 U	< 0.10 U			
1356 Cardinal Lane	Empty Lot	BEALB1356MW01	12/8/2017	N	< 0.80 U	3.9	18	< 0.80 U	2.9	< 0.10 U	< 0.10 U	< 0.10 U			

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		Well ID	Sample Date	Sample Type	5	700	25	1000	10000	10	10	10	10	10	
1420 Albatross Drive	Empty Lot	BEALB1420MW01	12/7/2017	N	< 0.80 U	7.5	33	< 0.80 U	9.6	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	
			2/27/2019	N/A	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP
		BEALB1420MW02	12/14/2018	N	< 0.80 U	< 0.80 U	0.58 J	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U
			2/27/2019	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U
		BEALB1420MW03	12/14/2018	N	< 0.80 U	3.4	12	< 0.80 U	5.3	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U
			2/27/2019	N	0.44 J	5.2	17	< 0.80 U	2.8	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U
1426 Albatross Drive	Empty Lot	BEALB1426MW01	12/7/2017	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	
1429 Albatross Drive	Empty Lot	BEALB1429MW01	12/7/2017	N	< 0.80 U	9.7	60	< 0.80 U	13	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	
			2/26/2019	N	< 0.80 U	3.8	16	< 0.80 U	0.83 J	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	
		BEALB1429MW02	12/14/2018	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	
			2/26/2019	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	
		BEALB1429MW03	12/14/2018	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	
			2/26/2019	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	
1431 Dove Lane	480 Dove Lane	BEALB1431MW01	3/24/2017	N	< 0.80 U	0.86	69	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	
			1/29/2018	N	< 0.80 U	< 0.80 U	29 J	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	
			2/25/2019	N	< 0.80 U	0.72 J	81	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	
		BEALB1431MW02	12/14/2018	N	< 0.80 U	< 0.80 U	2.2	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	
			2/25/2019	N	< 0.80 U	< 0.80 U	2.5	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	
		BEALB1431MW03	12/13/2018	N	< 0.80 U	< 0.80 U	3.9	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	
1434 Dove Lane	Empty Lot	BEALB1434MW01	12/7/2017	N	< 0.80 U	0.50 J	6.5	< 0.80 U	0.18 J	< 0.10 UJ	< 0.10 UJ	0.092 J	< 0.10 UJ		
			3/23/2017	N	7.4	65	240	13	300	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
		BEALB1435MW01	1/29/2018	N	5.2	42	180 J	2.9	77	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	
			1/29/2018	FD	4.8	40	150 J	2.5	64	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	
			2/25/2019	N	4.2	35	97	1.1	35	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	
			2/25/2019	FD	4.4	37	91	1.1	35	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	
1435 Dove Lane	500 Dove Lane	BEALB1435MW02	12/13/2018	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U		
			2/25/2019	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U		
		BEALB1435MW03	12/13/2018	N	< 0.80 U	< 0.80 U	0.65 J	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U		
			2/25/2019	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U		
		BEALB1435MW04	12/13/2018	N	3.1	17	73	2.2	74	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U		
			12/13/2018	FD	3.1	17	74	2.1	72	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U		
			2/25/2019	N	2.8	16	73	2	77	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U		
			12/13/2018	N	< 0.80 U	< 0.80 U	1	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U		
1436 Dove Lane	Empty Lot	BEALB1436MW01	12/7/2017	N	< 0.80 U	0.49 J	9	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U		
		1440 Dove Lane	Empty Lot	BEALB1440MW01	12/7/2017	N	< 0.80 U	1.6	3.4	< 0.80 U	3	< 0.10 U	< 0.10 U	< 0.10 U	
1442 Dove Lane	Empty Lot	BEALB1442MW01	12/7/2017	N	< 0.80 U	0.79 J	6.2	57	0.70 J	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U		
1444 Dove Lane	Empty Lot	BEALB1444MW01	12/7/2017	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ		



Appendix E-3
 Historical Groundwater Analytical Results - 2013 through 2019
 Laurel Bay Military Housing Area
 MCAS Beaufort, South Carolina

Old Laurel Bay Military Housing Area Address	New Laurel Bay Military Housing Area Address	SCDHEC RBSLs			Benzene	Ethylbenzene	Naphthalene	Toluene	Xylenes	Benzo(a)anthracene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	
		Well ID	Sample Date	Sample Type	5	700	25	1000	10000	10	10	10	10	10	
1452 Cardinal Lane	567 Cardinal Lane	BEALB1452MW01	3/23/2017	N	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	
			2/26/2019	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U
		BEALB1452MW02	3/20/2018	N	< 0.80 U	3.9	45	< 0.80 U	< 0.80 U	17	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ	< 0.10 UJ
			2/26/2019	N/A	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP
		BEALB1452MW03	12/14/2018	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U
			2/26/2019	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U
		BEALB1452MW04	12/14/2018	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U
			2/26/2019	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U
		BEALB1452MW05	12/14/2018	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U
			2/26/2019	N	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.80 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U
1472 Cardinal Lane	743 Cardinal Lane	BEALB1472MW130	8/2/2013	N	3.3	13	37	0.33 J	19	< 0.11 UJ	< 0.11 UJ	< 0.11 UJ	< 0.11 UJ	< 0.11 UJ	
			8/2/2013	FD	3.2	13	37	0.32 J	18	< 0.11 U	< 0.11 U	< 0.11 U	< 0.11 U	< 0.11 U	
			9/12/2014	N	5.6	17	36	0.40 J	14 J	< 0.40 U	< 0.40 U	< 0.40 U	< 0.40 U	< 0.80 U	
			9/12/2014	FD	5.8	19	40	0.42 J	18	< 0.40 U	< 0.40 U	< 0.40 U	< 0.40 U	< 0.80 U	
		BEALB1472MW130R	3/24/2017	N	2.9	41	110	1.1	110	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	
			3/24/2017	FD	2.6	39	110	1	100	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	
			6/19/2017	N	2.6	NA	74	NA	NA	NA	NA	NA	NA	NA	
			1/30/2018	N	2.3	NA	62 J	NA	NA	NA	NA	NA	NA	NA	
			1/30/2018	FD	2.4	NA	56 J	NA	NA	NA	NA	NA	NA	NA	
		BEALB1472MW131	2/26/2019	N/A	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	NS - FP	
			8/2/2013	N	< 0.25 U	< 0.25 U	< 0.25 U	< 0.25 U	< 0.25 U	< 0.25 U	< 0.11 U	< 0.11 U	< 0.11 U	< 0.11 U	< 0.11 U
			9/12/2014	N	< 0.40 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.40 U	< 0.40 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.080 U
			6/19/2017	N	< 0.80 U	NA	< 0.80 U	NA	NA	NA	NA	NA	NA	NA	NA
			1/30/2018	N	< 0.80 U	NA	0.98 J	NA	NA	NA	NA	NA	NA	NA	NA
		BEALB1472MW132	2/26/2019	N	< 0.80 U	NA	< 0.80 U	NA	NA	NA	NA	NA	NA	NA	NA
			8/2/2013	N	< 0.25 U	< 0.25 U	< 0.25 U	< 0.25 U	< 0.25 U	< 0.25 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U
			9/12/2014	N	< 0.40 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.40 U	< 0.40 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.080 U
			6/16/2017	N	< 0.80 U	NA	< 0.80 U	NA	NA	NA	NA	NA	NA	NA	NA
			1/30/2018	N	< 0.80 U	NA	< 0.80 U	NA	NA	NA	NA	NA	NA	NA	NA
		BEALB1472MW143	2/26/2019	N	< 0.80 U	NA	< 0.80 U	NA	NA	NA	NA	NA	NA	NA	NA
			8/2/2013	N	< 0.25 U	< 0.25 U	3.8	< 0.25 U	< 0.25 U	< 0.11 U	< 0.11 U	< 0.11 U	< 0.11 U	< 0.11 U	
			9/12/2014	N	< 0.40 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.40 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.080 U	
			6/16/2017	N	< 0.80 U	NA	< 0.80 U	NA	NA	NA	NA	NA	NA	NA	NA
			1/29/2018	N	< 0.80 U	NA	< 0.80 U	NA	NA	NA	NA	NA	NA	NA	NA
		BEALB1472MW144	2/26/2019	N	< 0.80 U	NA	< 0.80 U	NA	NA	NA	NA	NA	NA	NA	NA
			8/2/2013	N	< 0.25 U	< 0.25 U	4.1	< 0.25 U	< 0.25 U	< 0.11 UJ	< 0.11 UJ	< 0.11 UJ	< 0.11 UJ	< 0.11 UJ	
			9/12/2014	N	< 0.40 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.40 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.080 U	
			6/16/2017	N	< 0.80 U	NA	< 0.80 U	NA	NA	NA	NA	NA	NA	NA	NA
			1/29/2018	N	< 0.80 U	NA	< 0.80 U	NA	NA	NA	NA	NA	NA	NA	NA
		BEALB1472MW145	2/26/2019	N	< 0.80 U	NA	< 0.80 U	NA	NA	NA	NA	NA	NA	NA	NA
8/1/2013	N		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.21 U	< 0.21 U	< 0.21 U	< 0.21 U	< 0.21 U		
9/12/2014	N		< 0.40 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.40 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.040 U	< 0.080 U		
6/16/2017	N		< 0.80 UJ	NA	< 0.80 U	NA	NA	NA	NA	NA	NA	NA	NA		
1/26/2018	N		< 0.80 U	NA	< 0.80 U	NA	NA	NA	NA	NA	NA	NA	NA		

Notes:
 All units are in micrograms per liter (µg/L)
 Bold font indicates the analyte was detected.
 Bold font and shading indicates the concentration exceeds the SC RBSL.
 * - The VOC analyses were inadvertently cancelled for sample BEAL148MW01 in January 2018; however, there was a duplicate sample collected at this location (BEAL148MW01-a). The results of the duplicate sample are valid, and therefore the duplicate sample result will be utilized as the primary sample result.
 FP - free product
 J - Estimated Value
 N/A - not applicable
 NA - not analyzed
 NS - not sampled
 Sample Type N = normal sample, FD = duplicate sample
 U or < = Non-detect at laboratory detection limit

Appendix F
Laboratory Analytical Report - Vapor

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 1

Client: AECOM

Client Sample ID: BEALB254SS01GS20190221

Client Project ID: WE39-37 Beech Street / 60514950.3

ALS Project ID: P1901057

ALS Sample ID: P1901057-001

Test Code: EPA TO-15

Date Collected: 2/21/19

Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16

Date Received: 2/28/19

Analyst: Lusine Hakobyan

Date Analyzed: 3/4/19

Sampling Media: 1.0 L Summa Canister

Volume(s) Analyzed: 0.40 Liter(s)

Test Notes:

Container ID: 1SC00155

Initial Pressure (psig): -0.82

Final Pressure (psig): 6.57

Container Dilution Factor: 1.53

CAS #	Compound	Result µg/m ³	LOQ µg/m ³	LOD µg/m ³	MDL µg/m ³	Data Qualifier
71-43-2	Benzene	0.93	2.0	0.65	0.29	J
108-88-3	Toluene	24	2.0	0.65	0.25	
100-41-4	Ethylbenzene	0.66	2.0	0.65	0.29	J
179601-23-1	m,p-Xylenes	1.6	4.2	1.3	0.54	J
95-47-6	o-Xylene	0.47	2.0	0.65	0.29	J
91-20-3	Naphthalene	1.2	2.0	1.2	0.50	U

U = Undetected at the limit of detection: The associated data value is the limit of detection, adjusted by any dilution factor used in the analysis.

LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

Appendix G
Regulatory Correspondence



August 1, 2016

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

RE: IGWA
Laurel Bay Underground Tank Assessment Reports
Dated July 2015, November 2015, March 2016

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

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,

A handwritten signature in blue ink, appearing to read "Laurel Petrus", is written over a light blue horizontal line.

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

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

Attachment to: Petrus to Drawdy, August 1, 2016
Subject: IGWA, Laurel Bay Underground Tank Assessment Reports
Dated July 2015, November 2015, March 2016

Draft Final Initial Groundwater Investigation Report for (7 addresses/8 tanks)

Permanent Monitoring Well Investigation recommendation	
465 Dogwood Tank 2	254 Beech Tank 2
1352 Cardinal Tank 2*	641 Dahlia Tank 2
121 Banyan	1346 Cardinal
254 Beech Tank 1	1177 Bobwhite
* IGWA well has already been installed along with 1352 Cardinal Tank 1 and a recommendation for permanent wells and groundwater monitoring was approved 2/22/16	



July 27, 2017

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

RE: Draft Final Initial Groundwater Investigation Report, February and March 2017

Dear Mr. Drawdy:

The South Carolina Department of Health and Environmental Control (DHEC) received groundwater data from temporary monitoring well installations in the Draft Final Groundwater Investigation Report, Laurel Bay Military Housing Area for the fifty two (52) addresses shown 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).

Per DHEC's request, groundwater samples were collected from the attached referenced addresses. DHEC reviewed the groundwater data and previous investigations and it agrees with the conclusions and recommendations included in the document. To further assess the impact to groundwater, permanent groundwater monitoring wells should be installed at the three (3) stated addresses. For the remaining forty nine (49) addresses, there is no indication of contamination on the property and therefore no further investigation is required at this time.

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

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

Sincerely,

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

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

Attachment to: Petrus to Drawdy Dated July 27, 2017

Draft Final Initial Groundwater Investigation Report for (52 addresses)

Permanent Well Installation recommendation (3 Addresses):

- 254 Beech Street (110 ug/L)
- 268 Beech Street (28 ug/L)
- 774 Althea Street (35 ug/L)

No Further Action recommendation (49 addresses):

- 113 Birch Drive
- 121 Banyan Drive
- 122 Banyan Drive
- 159 Cypress Street
- 221 Cypress Street
- 274 Birch Drive
- 279 Birch Drive
- 283 Birch Drive
- 328 Ash Street
- 346 Ash Street
- 359 Aspen Street
- 370 Aspen Street
- 377 Aspen Street
- 409 Elderberry Drive
- 465 Dogwood Drive
- 480 Laurel Bay Boulevard
- 486 Laurel Bay Boulevard
- 515 Laurel Bay Boulevard
- 542 Laurel Bay Boulevard
- 593 Aster Street
- 630 Dahlia Drive
- 641 Dahlia Drive
- 693 Camelia Drive
- 723 Bluebell Lane
- 860 Dolphin Street
- 873 Cobia Drive
- 883 Cobia Drive
- 905 Barracuda Drive
- 921 Barracuda Drive
- 935 Albacore Street
- 946 Albacore Street
- 1037 Iris Lane
- 1039 Iris Lane
- 1110 Iris Lane
- 1134 Iris Lane
- 1143 Iris Lane
- 1177 Bobwhite Drive
- 1202 Cardinal Lane
- 1212 Cardinal Lane
- 1222 Cardinal Lane
- 1224 Cardinal Lane
- 1226 Dove Lane
- 1236 Dove Lane
- 1245 Dove Lane
- 1247 Dove Lane
- 1274 Albatross Drive
- 1319 Albatross Drive
- 1337 Albatross Drive
- 1346 Cardinal Lane



October 25, 2018

Commanding Officer
Attention: NREA0 Mr. William A. Drawdy
United State Marine Corps Air Station
Post Office Box 55001
Beaufort, SC 29904-5001

RE: Approval Draft Final Groundwater Assessment Report March and April 2018
Approved NFA 268 Beech Street
Laurel Bay Military Housing Area

Dear Mr. Drawdy:

The South Carolina Department of Health and Environmental Control (DHEC) received the above report on September 18, 2018. The regulatory authority for the investigation and cleanup of releases from these tank systems is the South Carolina Pollution Control Act (S.C. Code Ann. §48-1-10 et seq., as amended).

DHEC has reviewed the groundwater assessment report. Based on this review, DHEC has not generated any comments. DHEC agrees with the recommendation of NFA for 268 Beech Street.

Please note that DHEC's decision is based on information provided by the Marine Corps Air Station (MCAS) to date. Any information found to be contradictory to this decision may require additional action. Furthermore, DHEC retains the right to request further investigation if deemed necessary. If you have any questions, please contact me at petruslb@dhec.sc.gov or 803-898-0294.

Sincerely,

Laurel Petrus
Department of Defense Corrective Action Section

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



August 14, 2019

Commanding Officer
Attention: NREAO Mr. Christopher L. Vaigneur
United States Marine Corps Air Station
Post Office Box 55001
Beaufort, SC 29904-5001

RE: Approval Draft Final Groundwater Assessment Report, November and December 2018 and April 2019, Laurel Bay Military Housing Area, Multiple Properties (CDM - AECOM Multimedia JV, dated July 2019)

Dear Mr. Vaigneur,

The South Carolina Department of Health and Environmental Control (DHEC) received the above referenced document on July 24, 2019. The regulatory authority for the investigation and cleanup of releases from these tank systems is the South Carolina Pollution Control Act (S.C. Code Ann. §48-1-10 et seq., as amended).

DHEC has not generated any comments and agrees with the conclusions and recommendations included in the document. The installation approval of the additional monitoring well at 1385 Dove Lane will need to be requested under separate cover.

Please note that DHEC's decision is based on information provided by the Marine Corps Air Station (MCAS) to date. Any information found to be contradictory to this decision may require additional action. Furthermore, DHEC retains the right to request further investigation if deemed necessary. If you have any questions, please contact Kent Krieg at kriegkm@dhec.sc.gov or 803-898-0255.

Sincerely,

Lisa Appel
RCRA Federal Facilities Section
Division of Waste Management

cc: Bryan Beck, NAVFAC MIDLANT (via email)
Craig Ehde, NREAO (via email)
Shawn Dolan, CDM-AECOM (via email)
Reahnita Tuten, EQC Region 8 (via email)



December 17, 2019

Commanding Officer
Attention: NREAO Mr. Christopher L. Vaigneur
United States Marine Corps Air Station
Post Office Box 55001
Beaufort, SC 29904-5001

RE: Approval - Draft Final 2019 Groundwater Monitoring Report
Laurel Bay Military Housing Area, Multiple Properties, Beaufort, SC
(Resolution Consultants, dated October 2019)

Dear Mr. Vaigneur,

The South Carolina Department of Health and Environmental Control (DHEC) received the above referenced document on October 28, 2019. The regulatory authority for the investigation and cleanup of releases from these tank systems is the South Carolina Pollution Control Act (S.C. Code Ann. §48-1-10 et seq., as amended).

DHEC has reviewed the document and requests some additional down-gradient wells be installed at some properties. DHEC also requests a topic be added to the next Tier I Meeting to review the groundwater trends at the attached listed properties to discuss the current monitoring program and the data gaps.

No changes to this document are necessary and DHEC now considers the 2019 Groundwater Monitoring Report for the Laurel Bay Military Housing Area, Multiple Properties to be Final. DHEC agrees with the recommendation of NFA for 1132 Iris Lane.

Please note that DHEC's decision is based on information provided by the Marine Corps Air Station (MCAS) to date. Any information found to be contradictory to this may require additional action. Furthermore, DHEC retains the right to request further investigation if it is deemed necessary. If you have any questions, please contact Kent Krieg at kriegkm@dhec.sc.gov or 803-898-0255.

Sincerely,

Lisa Appel
RCRA Federal Facilities Section
Division of Waste Management

Attachment

cc: Bryan Beck, NAVFAC MIDLANT (via email)
Craig Ehde, NREAO (via email)
Shawn Dolan, AECOM (via email)
Reahnita Tuten, EQC Region 8 (via email)

Attachment: Appel to Vaigneur, Dated December 17, 2019

Re: Approval Draft Final 2019 Groundwater Monitoring Report
Laurel Bay Military Housing Area, Multiple Properties, Beaufort, SC
(Resolution Consultants, dated October 2019)

Properties to discuss the current monitoring program, and address any potential data gaps, during the next Tier I Meeting in February 2020:

285 Birch Drive	388 Acorn Drive (due to proximity of 326 Ash)
325 Ash Street	1054 Gardenia Street
326 Ash Street	1148 Iris Lane
330 Ash Street	1385 Dove Lane
343 Ash Street	1407 Eagle Lane



February 5, 2020

Commanding Officer
Attention: NREAO Mr. Christopher L. Vaigneur
United States Marine Corps Air Station
Post Office Box 55001
Beaufort, SC 29904-5001

RE: Approval Draft Final Letter Report – Petroleum Vapor Intrusion (VI) Investigations February 2019 through July 2019
Laurel Bay Military Housing Area, Multiple Properties, Beaufort, SC
(CDM - AECOM Multimedia JV, dated December 2019)

Dear Mr. Vaigneur,

The South Carolina Department of Health and Environmental Control (DHEC) received the above referenced document on December 6, 2019. The regulatory authority for the investigation and cleanup of releases from these tank systems is the South Carolina Pollution Control Act (S.C. Code Ann. §48-1-10 et seq., as amended).

DHEC has reviewed the Investigations Report and based on this review, DHEC did not generate any comments. DHEC agrees that no additional VI assessment activities are required for the following properties at this time and approves this document as Final:

- 136 Cypress Street (formerly 228 Cypress) –previously concurred on 6 Nov 2019
- 37 Beech Street (formerly 254 Beech)
- 247 Althea Street (formerly 774 Althea)
- 1452 Cardinal Lane (empty lot)

Please note that DHEC's decision is based on information provided by the Marine Corps Air Station (MCAS) to date. Any information found to be contradictory to this may require additional action. Furthermore, DHEC retains the right to request further investigation if it is deemed necessary. If you have any questions, please contact Kent Krieg at kriegkm@dhec.sc.gov or 803-898-0255.

Sincerely,

Lisa Appel, Project Manager
RCRA Federal Facilities Section
Division of Waste Management

cc: Bryan Beck, NAVFAC MIDLANT (via email)
Craig Ehde, NREAO (via email)
Shawn Dolan, AECOM (via email)
Reahnita Tuten, EQC Region 8 (via email)