SUMMARY REPORT
73 FOXGLOVE STREET (FORMERLY 1012 FOXGLOVE STREET)

LAUREL BAY MILITARY HOUSING AREA

MARINE CORPS AIR STATION BEAUFORT

BEAUFORT, SC

Revision: 0 Prepared for:

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

and



Naval Facilities Engineering Command Atlantic 9324 Virginia Avenue Norfolk, Virginia 23511-3095 SUMMARY REPORT
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Prepared by:



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Contract Number: N62470-14-D-9016

CTO WE52

JUNE 2021



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List of Acronyms

bgs below ground surface

BTEX benzene, toluene, ethylbenzene, and xylenes

CTO Contract Task Order

COPC constituents of potential concern

IDIQ Indefinite Delivery, Indefinite Quantity

IGWA Initial Groundwater Assessment

JV Joint Venture

LBMH Laurel Bay Military Housing MCAS Marine Corps Air Station

NAVFAC Mid-Lant Naval Facilities Engineering Command Mid-Atlantic

NFA No Further Action

PAH polynuclear aromatic hydrocarbon

QAPP Quality Assurance Program Plan

RBSL risk-based screening level

SCDHEC South Carolina Department of Health and Environmental Control

Site LBMH area at MCAS Beaufort, South Carolina

UST underground storage tank

VISL vapor intrusion screening level



1.0 INTRODUCTION

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

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

This report summarizes the results the environmental investigation activities associated with the storage of home heating oil and the potential release of petroleum constituents at the referenced property. Based on the results of the investigation, a No Further Action (NFA) determination has been made by the South Carolina Department of Health and Environmental Control (SCDHEC) for 73 Foxglove Street (Formerly 1012 Foxglove Street). This NFA determination indicates that there are no unacceptable risks to human health or the environment for the petroleum constituents associated with the home heating oil USTs. The following information is included in this report:

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

1.1 Background Information

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





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

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

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

1.2 UST Removal and Assessment Process

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

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

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





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

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

2.0 SAMPLING ACTIVITIES AND RESULTS

The following section presents the sampling activities and associated results for 73 Foxglove Street (Formerly 1012 Foxglove Street). Details regarding the soil investigation at this site are provided in the *SCDHEC UST Assessment Report – 1012 Foxglove Street* (MCAS Beaufort, 2008). The UST Assessment Report is provided in Appendix B.

2.1 UST Removal and Soil Sampling

On August 1, 2007, a single 280 gallon heating oil UST was removed from the front landscaped bed area adjacent to the porch area at 73 Foxglove Street (Formerly 1012 Foxglove Street). The former UST location is indicated on the figure in the UST Assessment Report (Appendix B). The UST was removed and properly disposed of (i.e., shipped offsite for recycling or transported to a landfill). There was no visual evidence (i.e., staining or sheen) of petroleum impact at the time of the UST removal. According to the UST Assessment Report (Appendix B), the depth to the base of the UST was 5'0" bgs and a single soil sample was collected from that





depth. An additional soil sample was collected from the side of the excavation at a depth of 4'2" bgs. The samples were collected from the fill port side of the former UST to represent a worst case scenario.

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

2.2 Soil Analytical Results

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

The soil sample results were submitted by MCAS Beaufort to SCDHEC utilizing SCDHEC's UST Assessment Report form (Appendix B). The results of the soil sampling at the former UST location were used by MCAS Beaufort, in consultation with SCDHEC, to determine a path forward (i.e., additional sampling or NFA) for the property. The soil results collected from 73 Foxglove Street (Formerly 1012 Foxglove Street) were less than the SCDHEC RBSLs, which indicated the subsurface was not impacted by COPCs associated with the former UST at concentrations that presented a potential risk to human health and the environment.

3.0 PROPERTY STATUS

Based on the analytical results for soil, SCDHEC made the determination that NFA was required for 73 Foxglove Street (Formerly 1012 Foxglove Street). This NFA determination was obtained in a letter dated August 14, 2008. SCDHEC's NFA letter is provided in Appendix C.

4.0 REFERENCES

Marine Corps Air Station Beaufort, 2008. South Carolina Department of Health and Environmental Control (SCDHEC) Underground Storage Tank Assessment Report – 1012 Foxglove Street, Laurel Bay Military Housing Area, January 2008.





- South Carolina Department of Health and Environmental Control Bureau of Land and Waste Management, 2013. *Quality Assurance Program Plan for the Underground Storage Tank Management* Division, *Revision 2.0*, April 2013.
- South Carolina Department of Health and Environmental Control Bureau of Land and Waste Management, 2015. *Quality Assurance Program Plan for the Underground Storage Tank Management* Division, *Revision 3.0*, May 2015.
- South Carolina Department of Health and Environmental Control Bureau of Land and Waste Management, 2016. *Quality Assurance Program Plan for the Underground Storage Tank Management* Division, *Revision 3.1*, February 2016.
- South Carolina Department of Health and Environmental Control Bureau of Land and Waste Management, 2017. *R.61-92, Part 280, Underground Storage Tank Control Regulations*, March 2017.
- South Carolina Department of Health and Environmental Control Bureau of Land and Waste Management, 2018. *Underground Storage Tank Assessment Instructions for Permanent Closure and Change-In-Service*, March 2018.

Table



Table 1

Laboratory Analytical Results - Soil 73 Foxglove Street (Formerly 1012 Foxglove Street) Laurel Bay Military Housing Area Marine Corps Air Station Beaufort Beaufort, South Carolina

Constituent	SCDHEC RBSLs (1)	Results Samples Collected 08/01/07						
		1012 Foxglove Bottom 01	1012 Foxglove Side 02					
Volatile Organic Compounds Analyzed by EPA Method 8260B (mg/kg)								
Benzene	0.003	ND	ND					
Ethylbenzene	1.15	ND	ND					
Naphthalene	0.036	ND	ND					
Toluene	0.627	ND	0.000315					
Xylenes, Total	13.01	ND	ND					
Semivolatile Organic Compounds Ana	lyzed by EPA Method 8270D (mg/kg)							
Benzo(a)anthracene	0.66	ND	ND					
Benzo(b)fluoranthene	0.66	ND	ND					
Benzo(k)fluoranthene	0.66	ND	ND					
Chrysene	0.66	ND	ND					
Dibenz(a,h)anthracene	0.66	ND	ND					

Notes:

⁽¹⁾ South Carolina Risk-Based Screening Levels from the Quality Assurance Program Plan for the Underground Storage Tank Management Division, Revision 1.0 and 1.1 (SCDHEC, May 2001 and SCDHEC, February 2011) and the Underground Storage Tank Assessment Guidelines (SCDHEC, February 2006).

Bold font indicates the analyte was detected.

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

EPA - United States Environmental Protection Agency

mg/kg - milligram per kilogram

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

RBSL - Risk-Based Screening Level

SCDHEC - South Carolina Department Of Health and Environmental Control

Appendix A Multi-Media Selection Process for LBMH





Appendix A - Multi-Media Selection Process for LBMH

Appendix B UST Assessment Report



Attachment 1

South Carolina Department of Health and Environmental Control (SCDHEC)

Underground Storage Tank (UST) Assessment Report



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

I. OV	VNERSHIP OF UST (S)	
Beaufort Owner Name (Corpor	Military Compley Family Housing ration, Individual, Public Agency, Other)	
1510 L Mailing Address	Aurel Bay BlyD.	
Beau fo		·
843 Area Code	State Zip Code 379-3305 Kyle BROAD Telephone Number Contact Person	F00T
	· ·	

SITE IDENTIFICATION AND LOCATION П. Permit I.D. # CONSTRUCTION Facility Name or Company Site Identifier Fox Glove ss or State Road (as applicable)

III. INSURANCE INFORMATION

•		
	Insurance Statement	•
	The petroleum release reported to DHEC on	te ıp <u>is</u>
	Is there now, or has there ever been an insurance policy or other financial mechanism that covers this UST release? YES NO (check one)	
	If you answered YES to the above question, please complete the following information:	
	My policy provider is: The policy deductible is: The policy limit is:	
	If you have this type of insurance, please include a copy of the policy with this report.	ate up uis
-	And	
	I do/do not (circle one) wish to participate in the Superb Program.	
<u> </u>	IV. CERTIFICATION (To be signed by the UST owner/operator.)	
ati	certify that I have personally examined and am familiar with the information submitted in this and all tached documents; and that based on my inquiry of those individuals responsible for obtaining this formation, I believe that the submitted information is true, accurate, and complete.	
	me (Type or print.)	
Sig	nature	
To	be completed by Notary Public:	
Swo	orn before me this day of, 20	
(N	Jame)	
Nota Plea	ary Public for the state of	

	V. USI UNBURMATION	Т	ank 1	Taı.		Tank 3	Tank 4	Tank 5	Tanl
Α.	Product(ex. Gas, Kerosene)	- 11	t Z IESEL				 - ,		 -
B.		1	58g.			-			
C.	Age								
D.	Construction Material(ex. Steel, FRP)	5+	eel		_				
E.	Month/Year of Last Use								
F.	Depth (ft.) To Base of Tank	6	5"		-	-	•		
G.	Spill Prevention Equipment Y/N		,		-				
H.	Overfill Prevention Equipment Y/N		, -						
I	Method of Closure Removed Filled	Rein	ned			_			
J.	Date Tanks Removed/Filled	Judge							
K.	Visible Corrosion or Pitting Y/N	8-1-	07						
L.	Visible Holes Y/N	N						_	
_	•	7							
M.	Method of disposal for any USTs removed from th	e ground	i (atta	ch disp	posa	l mani:	fests)		
	Recycling - Scrap Ste					·	-		
					-				
	Method of disposal for any liquid petroleum, sludge disposal manifests)	es, or wa	stewa	ters re	mov	ed from	m the US	Ts (attac	h
1	Republic - I	KOAI	Hu.	<u>l57</u> -		AN	DFIL	<u> </u>	
_	Solidification	1	ىل	487	710	E I	$D \angle$	HOF	14

O.

VI. PIP JINFORMATION

		lanki	lank 2	Tank 3	Tank 4	Tank 5	Tank 6
4 .	Construction Material(ex. Steel, FRP)	Steel					
3.	Distance from UST to Dispenser	NA					
.	Number of Dispensers						
).	Type of System Pressure or Suction	-0-					
•	Was Piping Removed from the Ground? Y/N	Electric Pump					
	Visible Corrosion or Pitting Y/N	N					
	Visible Holes Y/N	N					··· · ····
	Age	,					
	If any corrosion, pitting, or holes were observed, o				····		
			<u> </u>	•			
	· · · · · · · · · · · · · · · · · · ·			·			
	VII. BRIEF SITE DESCRIPTION ANI						
	——————————————————————————————————————	HISTOR					
	. Home Heating Oil Tr	ANK -	Re:	SIDE	NTIA		
			<u> </u>			·	
					,		
			····				
-		 					

VIII. SITE CON_.TIONS

	Yes	No	Unk
A. Were any petroleum-stained or contaminated soils found in the UST excavation, soil borings, trenches, or monitoring wells? If yes, indicate depth and location on the site map.		×	4
B. Were any petroleum odors detected in the excavation, soil borings, trenches, or monitoring wells?			
If yes, indicate location on site map and describe the odor (strong, mild, etc.)		X.	
C. Was water present in the UST excavation, soil borings, or trenches? If yes, how far below land surface (indicate location and depth)?		×	
D. Did contaminated soils remain stockpiled on site after closure? If yes, indicate the stockpile location on the site map. Name of DHEC representative authorizing soil removal:		X .	
E. Was a petroleum sheen or free product detected on any excavation or boring waters? If yes, indicate location and thickness.		×	

SCDHEC Lab Certification Number DW: 8400900Z

В.

<u>B.</u>							
Sample#	Location	Sample Type (Soil/Water)	Soil Type (Sand/Clay)	Depth*	Date/Time of Collection	Collected by	OVA#
					8-1-07	MUJONE	4
1	BOTTOM	5 5	SAND SAND	de 0 "	11:30	A. MANUEL	ND
2	BOTTOM SIDE	5	50 SAND	50 "	1130	A-MANIETY	ND.
3							
4							
5							
6							
7						••	
8							
9							
10 .							
11							
12			·				· -
13	<u>.</u>						
14							
15							·
16							
17							,
18							
19							
20							

^{* =} Depth Below the Surrounding Land Surface

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

- EPA Method 8260 B Volatile ORGANIC Compounds - Preservative: Zea Sodium Bisulfate lea
- Preservative: 2ex Sodium Bi Sulfate 100
EPA METHOD 8270 Poly Aromatic Hydro CARBONS
- No Preservative
DNe (1) SIDEWALL And ONE (1) Batton
- Sample were secured from tank excavation
ONE (1) SIDEWALL AND ONE (1) Bottom SAMPLE WERE SECURED FROM TANK EXCAVATION SAMPLES WERE STORED AND Shipped IN AN INSURATED COOLER W/ ICE.
INSURATED Cooled W/ ICE -

XI. RECEPTORS

		Yes	No
А	Are there any lakes, ponds, streams, or wetlands located within 1000 feet of the UST system?		
	If yes, indicate type of receptor, distance, and direction on site map.		X
В.	Are there any public, private, or irrigation water supply wells within 1000 feet of the UST system?		
	If yes, indicate type of well, distance, and direction on site map.		i
C.	Are there any underground structures (e.g., basements) Located within 100 feet of the UST system?		
	If yes, indicate type of structure, distance, and direction on site map.	·	V
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?	; ;	
	If yes, indicate the type of utility, distance, and direction on the site map.		1
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?		
	If yes, indicate the area of contaminated soil on the site map.		

SUMMARY OF ANALYSIS RESULTS

NIA

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

CoC	SB-1	SB-2	SB-3	SB-4	SB-5	SB-6	SB-7	SB-8
Benzene								
Toluene					÷			·
Ethylbenzene	-			- ::				
Xylenes								
Naphthalene								
Benzo(a)anthracene			•	ĺ				
Benzo(b)flouranthene								
Benzo(k)flouranthene								
Chrysene					-			
Dibenz(a,h)anthracene								
TPH (EPA 3550)								<u></u>

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

SUMMARY OF ANALYSIS RESULTS (cont'd)

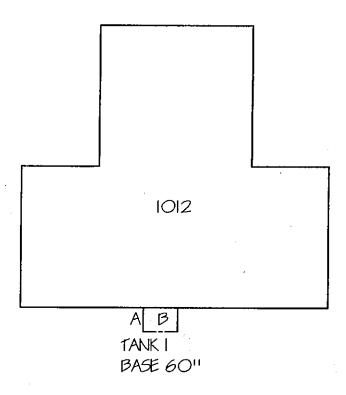
Enter the ground water analytical data for each sample for all CoC in the table below. If free product is present, indicate the measured thickness to the nearest 0.01 feet.

present, indicate the measured	1	T TOTAL COLUMN	7		
CoC	RBSL (µg/l)	W-1	W-2	W -3	W -4
Free Product Thickness	None				
Benzene	5				
Toluene	1,000				
Ethylbenzene	700		1		
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)anthracen e	10				
EDB	.05				
1,2-DCA	.05		•		
Lead	Site specific				

1012 FOLGELOVE

08:101:2007 12:30





FOX GLOVE STREET

TANK I EXCAVATION

A-SOIL TEST SIDE SAMPLE @ 50" B-SOIL TEST BOTTOM SAMPLE @ 60"

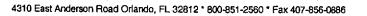


· · · · · · · · · · · · · · · · · · ·		
CUSTOMER:	SCALE:	EDO 1110
DESTRODES AT ENLAW ON THE RELATIVE MANAGEMENT	1/16'=1'-0'	EPG INC.
BEAUFORT MILITARY COMPLEX FAMILY HOUSING	SUPPLIER:	
<u> </u>	I · · - · - · · · ·	P.O. BOX 1096
SITE ADDRESS :	EPG INC.	MOUNT DUCACANT CO DOAGE 4000
1012 FOX GLOVE STREET	DATE:	MOUNT PLEASANT, SC 29465-1096
INITION OF STREET	9/22/2007	

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)



iestAmeric a

THE LEADER IN ENVIRONMENTAL TESTING

Client: EPG, INC.

Attn:

PO BOX 1096

MT PLEASANT, SC 29465

JOHN MAHONEY

Work Order:

OQH0571

Project:

LAUREL BAY

Project Number:

EP-2362

Sampled: 07/30/07-08/01/07

Received: 08/23/07

LABORATORY REPORT

Sample ID: 1012 FOXGLOVE BOTTOM 1 - Lab Number: OQH0571-01 - Matrix: Solid/Soil

CAS#	Analyte	Result	Q	Units	MDL	PQL	Dil Factor	Analyzed Date/Time	Ву	Method	Batch
General	Chemistry Parameters									~~ ~ ~~~	
NA	% Solids	94.7	Q	%.	0.100	0.100	I	08/28/07 18:25	RRP	EPA 160.3	7H28045
	Organic Compounds by EPA	Method 826	0B		÷						
71-43-2	Benzene	0.112	Q,U	ug/kg dry	0.112	0.305	1	08/24/07 10:01	JLS	EPA 8260B	7H24014
100-41-4	Ethylbenzene	0.129	Q,U	ug/kg dry	0.129	0.305	1	08/24/07 10:01	JLS	EPA 8260B	7H24014
91-20-3	Naphthalene	0.168	Q,U	ug/kg dry	0.168	0.305	1	08/24/07 10:01	JLS	EPA 8260B	7H24014
108-88-3	Toluene	0.263	Q,U	ug/kg dry	0.263	0.305	i	08/24/07 10:01	JLS	EPA 8260B	7H24014
1330-20-7	Xylenes, total	0.158	Q,U	ug/kg dry	0.158	0.305	1	08/24/07 10:01	JLS	EPA 8260B	7H24014
	1,2-Dichloroethane-d4 (73-137%)	114%									
	4-Bromofluorobenzene (59-118%)	101 %									
Surrogate:	Dibromofluoromethane (55-145%)	111%									
Surrogate:	Toluene-d8 (80-117%)	104 %									
General	Chemistry Parameters										
Solids	% Dry Solids	94.7	SPS	%	0.500	0.500	I	08/28/07 18:25	AEB	SW-846	7085830
	natic Hydrocarbons by EPA 8	3270C									
33-32-9	Acenaphthene	0.0376	Q,U	mg/kg dry	0.0376	0.0700	1	08/30/07 21:30	RLB	SW846 8270	C7085614
208-96-8	Acenaphthylene	0.0460	Q,U	mg/kg dry	0.0460	0.0700	1	08/30/07 21:30	RLB	SW846 8270	C7085614
120-12-7	Anthracene	0.0418	Q,U	mg/kg dry	0.0418	0.0700	1	08/30/07 21:30	RLB	SW846 8270	C7085614
i6-55-3	Benzo (a) anthracene	0.0386	U,Q	mg/kg dry	0.0386	0.0700	1	08/30/07 21:30	RLB	SW846 8270	C7085614
10-32-8	Benzo (a) pyrene	0.0418	Q,U	mg/kg dry	0.0418	0.0700	1	08/30/07 21:30	RLB	SW846 8270	C7085614
105-99-2	Benzo (b) fluoranthene	0.0397	Q,U	mg/kg dry	0.0397	0.0700	1	08/30/07 21:30	RLB	SW846 8270	C7085614
91-24-2	Benzo (g,h,i) perylene	0.0282	Q,U	mg/kg dry	0.0282	0.0700	1	08/30/07 21:30	RLB	SW846 8270	C7085614
:07-08-9	Benzo (k) fluoranthene	0.0480	Q,U	mg/kg dry	0.0480	0.0700	ì	08/30/07 21:30	RLB	SW846 8270	C7085614
:18-01-9	Chrysene	0.0407	Q,U	mg/kg dry	0.0407	0.0700	1	08/30/07 21:30	RLB	SW846 8270	C7085614
3-70-3	Dibenz (a,h) anthracene	0.0272	Q,U	mg/kg dry	0.0272	0.0700	1	08/30/07 21:30	RLB	SW846 82706	C7085614
06-44-0	Fluoranthene	0.0439	Q,U	mg/kg dry	0.0439	0.0700	1	08/30/07 21:30	RLB	SW846 82700	
6-73-7	Fluorene	0.0449	Q,U	mg/kg dry	0.0449	0.0700	1	08/30/07 21:30	RLB	SW846 82700	
93-39-5	Indeno (1,2,3-cd) pyrene	0.0355	Q,U	mg/kg dry	0.0355	0.0700	1	08/30/07 21:30	RLB	SW846 82700	
1-20-3	Naphthalene	0.0418	Q,U	mg/kg dry	0.0418	0.0700		08/30/07 21:30	RLB	SW846 82700	-
5-01-8	Phenanthrene	0.0418	Q,U	mg/kg dry	0.0418	0.0700		08/30/07 21:30	RLB	SW846 82700	
29-00-0	Pyrene	0.0491	Q,U	mg/kg dry	0.0491	0.0700		08/30/07 21:30	RLB	SW846 82700	
0-12-0	1-Methylnaphthalene	0.0376	Q,U	mg/kg dry	0.0376	0.0700		08/30/07 21:30	RLB	SW846 82700	
1.57-6	2-Methylnaphthalene	0.0376	· QU	mg/kg dry	0.0376	0.0700	₹,‱.	a an saa saa waa ah in i	RLB	SW846 82700	ಚಿತ್ರಗಳು, ಮಾ
urrogate: T	erphenyl-d14 (49-123%)	65 %	-				-			~ ·· · · · · · · · · · · · · · · · · ·	J, 505017
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LABORATORY REPORT

58 %

60 %

Sample ID: 1012 FOXGLOVE SIDE 02 - Lab Number: OQH0571-02 - Matrix: Solid/Soil

SAS# Analyte	Result	- Q	Units	MDL	PQL	Dil Factor	Analyzed Date/Time	Ву	Method	Batch
Feneral Chemistry Parameters A % Solids	92.9	Q	%.	0.100	0.100	1	08/28/07 18:25	RRP	EPA 160.3	7H28045
'olatile Organic Compounds by EPA	Method 8260E	3							•	

urrogate: 2-Fluorobiphenyl (30-93%)

urrogate: Nitrobenzene-d5 (34-87%)



THE LEADER IN ENVIRONMENTAL TESTING

, 4310 East Anderson Road Orlando, FL 32812 * 800-851-2560 * Fax 407-856-0886

Client: EPG, INC.

PO BOX 1096

MT PLEASANT, SC 29465

Attn: JOHN MAHONEY Work Order:

OQH0571

Project:

LAUREL BAY

Project Number: EP-2362 Sampled: 07/30/07-08/01/07

Received: 08/23/07

LABORATORY REPORT

Sample ID: 1012 FOXGLOVE SIDE 02 - Lab Number: OQH0571-02 - Matrix: Solid/Soil

CAS#	Analyte	Result	Q	Units	MDL	PQL	Dil Factor	Analyzed Date/Time	Ву	Method	Batch
Volatile	Organic Compounds by EPA	Method 826	60B								
71-43-2	Benzene	0.128	Q,U	ug/kg dry	0.128	0.350	1	08/24/07 10:21	JLS	EPA 8260B	7H24014
100-41-4	Ethylbenzene	0.148	Q,U	ug/kg dry	0.148	0.350	1	08/24/07 10:21	JLS	EPA 8260B	7H24014
91-20-3	Naphthalene	0.193	Q,U	ug/kg dry	0.193	0.350	1	08/24/07 10:21	JLS	EPA 8260B	7H24014
108-88-3	Toluene	0.315	Q,I	ug/kg dry	0.302	0.350	1	08/24/07 10:21	JLS	EPA 8260B	7H24014
1330-20-7	Xylenes, total	0.182	υ,g	ug/kg dry	0.182	0.350	1	08/24/07 10:21	JLS	EPA 8260B	7H24014
	1,2-Dichloroethane-d4 (73-137%)	123 %					•	00/2 1/07 10:20	100	LI /I 0200D	71124014
Surrogate:	4-Bromofluorobenzene (59-118%)	102 %									
Surrogate: I	Dibromofluoromethane (55-145%)	111%									
Surrogate:	Toluene-d8 (80-117%)	105 %				٠					
General (Chemistry Parameters										
Solids	% Dry Solids	92.9	SPS	%	0.500	0.500	1	08/28/07 18:25	AEB	SW-846	7085830
	natic Hydrocarbons by EPA S	1270C						30.22.0. 10.22		517 616	7003030
33-32-9	Acenaphthene	0.0377	Q,U	mg/kg dry	0.0377	0.0702	1	08/30/07 21:57	RLB	SW846 8270	C7085614
!08-96-8	Acenaphthylene	0.0461	Q,U	mg/kg dry	0.0461	0.0702	1	08/30/07 21:57	RLB	SW846 8270	
20-12-7	Anthracene	0.0419	Q,U	mg/kg dry	0.0419	0.0702	ī	08/30/07 21:57	RLB	SW846 8270	
6-55-3	Benzo (a) anthracene	0.0388	Q,Ü	mg/kg dry	0.0388	0.0702	1	08/30/07 21:57	RLB	SW846 8270	
0-32-8	Benzo (a) pyrene	0.0419	Q,U	mg/kg dry	0.0419	0.0702	1	08/30/07 21:57	RLB	SW846 82700	
.05-99-2	Benzo (b) fluoranthene	0.0398	Q,U	mg/kg dry	0.0398	0.0702	1	08/30/07 21:57	RLB	SW846 82700	
91-24-2	Benzo (g,h,i) perylene	0.0283	Q,U	mg/kg dry	0.0283	0.0702	1	08/30/07 21:57	RLB	SW846 82700	
07-08-9	Benzo (k) fluoranthene	0.0482	Q,U	mg/kg dry	0.0482	0.0702	_	08/30/07 21:57	RLB	SW846 82700	
18-01-9	Chrysene	0.0409	Q,U	mg/kg dry	0.0409	0.0702		08/30/07 21:57	RLB	SW846 82700	
3-70-3	Dibenz (a,h) anthracene	0.0272	Q,U	mg/kg dry	0.0272	0.0702		08/30/07 21:57	RLB	SW846 82700	
06-44-0	Fluoranthene	0.0440	Q,U	mg/kg dry	0.0440	0.0702		08/30/07 21:57	RLB	SW846 82700	
6-73-7	Fluorene	0.0451	Q,U	mg/kg dry	0.0451	0.0702		08/30/07 21:57	RLB	SW846 82700	
93-39-5	Indeno (1,2,3-cd) pyrene	0.0356	Q,U	mg/kg dry	0.0356	0.0702		08/30/07 21:57	RLB	SW846 82700	
1-20-3	Naphthalene	0.0419	Q,U	mg/kg dry	0.0419	0.0702		08/30/07 21:57	RLB		
5-01-8	Phenanthrene	0.0419	Q,U	mg/kg dry	0.0419	0.0702		08/30/07 21:57	RLB	SW846 82700	
29-00-0	Ругепе	0.0492	Q,U	mg/kg dry	0.0492	0.0702		08/30/07 21:57		SW846 82700	
)-12-0	I-Methylnaphthalene	0.0377	Q,U	mg/kg dry	0.0432	0.0702			RLB	SW846 82700	
l <i>-</i> 57-6	2-Methylnaphthalene	0.0377	Q,U	mg/kg dry	0.0377	0.0702			RLB	SW846 8270C	=
urrogate: Te	rphenyl-d14 (49-123%)	56 %	V10		0.0577	0.0702	, ,	08/30/07 21:57	RLB	SW846 8270C	7085614
urrogate: 2-	Fluorobiphenyl (30-93%)				<u> </u>	mara dalam da	or se	seme tem. Sur .			respect on

LABORATORY REPORT

52%

Sample ID: 1016 FOXGLOVE BOTTOM 1 - Lab Number: OQH0571-03 - Matrix: Solid/Soil

:AS#	Analyte	Result	Q	Units	MDL	PQL	Dil Factor	Analyzed Date/Time	Ву	Method	Batch
<u>eneral</u>	Chemistry Parameters										
4	% Solids	89.7	Q	%.	0.100	0.100	1	08/28/07 18:25	RRP	EPA 160.3	7H28045
olatile	Organic Compounds by I	EPA Method 8260	В								,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
-43-2	Benzene	0.111	Q,U	ug/kg dry	0.111	0.304	1	08/24/07 11:10	JLS	EPA 8260B	7H24014
0-41-4	Ethylbenzene	0.158	Q,J4,I	ug/kg dry	0.128	0.304	1	08/24/07 11:10	JLS	EPA 8260B	7H24014

urrogate: Nitrobenzene-d5 (34-87%)

Project Manager

Testamerica
ANALYTICAL TESTING CORPORATION

00H0571

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

Compliance Monitoring

Client Name	. =0	1/1																						
Client Name	•	7							. (Clien	it#:	· <u> </u>			_				,		ì	_	. !	
Address:											_					Projec	ct Name	***************************************		LLV		(\preceq)	للد	
City/State/Zip Code:	$\overline{}$			<u>~</u>	1 _										_	P	Project #	#:_E	<u>= 10 - </u>	231	6Z		<u> </u>	
Project Manager:		ΔN	<u></u>	70	hoi	20	<u> Ĺ</u>	4_								Site/Loca	ation IE):						*:_S_C
Telephone Number:			- ,				_ /	Fax	_	Report To: John Mahane														
Sampler Name: (Print Name)	<u> </u>	ack	<u> </u>	71	JNC.	S										Inv	voice To			= cl =+	 _	3	·T-1	1
Sampler Signature:						·									\mathscr{D}	ť	Quote #	#:				PO#:	-	
TAT					Matrix	Pre	60(V)	ation	8.#	of Cr	onta	inera			V			yze For	r:				_	7
Standard Rush (surcharges may apply)			oosite		Drinking Water S - Soll/Solid Specify Other									14.14		T /	$\int_{-\infty}^{\infty}$		T_{i}	T 1	//			QC Deliverables None Level 2
Date Needed:	! '		Composite	1						1	1			·8	范。	- /	- /		- /	4 /	- /		. /	(Batch QC)
Fax Results: Y N	Date Sampled	Time Sampled	Grab, C = C	8	Skdge DW - Grountwater - Wastewater					Joe Joe		Other (Specify)	$\ / \ $	LEXTING HIS	14-824)									Level 3 Level 4 Other:
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Appendix C Regulatory Correspondence



BOARD: Paul C. Aughtry, III Chairman Edwin H. Cooper, III Vice Chairman Steven G. Kisner Secretary



Promoting and protecting the health of the public and the environment

C. Earl Hunter, Commissioner

M. David Mitchell, MD

Glenn A. McCall

Henry C. Scott

BOARD:

Coleman F. Buckhouse, MD

14 August 2008

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

Re:

MCAS - Laurel Bay Housing - 1012 Foxglove

Site ID # 03996

UST Closure Reports received 31 January 2008

No Further Action Beaufort County

Dear Mr. Broadfoot:

The Department has reviewed the referenced closure report. Based upon the geotechnical data in the referenced report, the soil samples are below risk based screening levels.

As the Department did not specifically request this data, and the work conducted at this site received no prior review by the Department, we cannot provide any comments on the completeness of the work performed or the overall environmental conditions of the site. Based on the information and analytical data submitted, there is no evidence to indicate that a violation of the Pollution Control Act has occurred. Consequently, no investigation will be required at this time. Please note, this statement pertains only to the data submitted and does not apply to other areas of the site and/or any other potential regulatory violations. Further, the Department retains the right to request further investigation if deemed necessary.

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

Sincerely,

Michael Bishop, Hydrogeologist Groundwater Quality Section

Bureau of Water

B. Thomas Knight, Manager Groundwater Quality Section

Bureau of Water

cc:

Region 8 District EQC (via pdf)

MCAS, Commanding Officer, Attention: S-4 NREAO (William Drawdy) (via pdf)

Technical File (pdf)