

N60200.AR.001525
NAS CECIL FIELD, FL
5090.3a

CONFIRMATORY SAMPLING REPORT FOR BUILDING 290A TANK G290A BASE
REALIGNMENT AND CLOSURE UNDERGROUND STORAGE TANK AND ABOVEGROUND
STORAGE TANK GREY SITES NAS CECIL FIELD FL
11/1/1998
HARDING LAWSON ASSOCIATES

CONFIRMATORY SAMPLING REPORT
BUILDING 290A, TANK G290-A
BASE REALIGNMENT AND CLOSURE
UNDERGROUND STORAGE TANK AND
ABOVEGROUND STORAGE TANK GREY SITES

NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

Approved

Unit Identification Code: N60200

Contract No.: N62467-89-D-0317/090

Prepared by:

Harding Lawson Associates
2590 Executive Center Circle, East
Tallahassee, Florida 32301

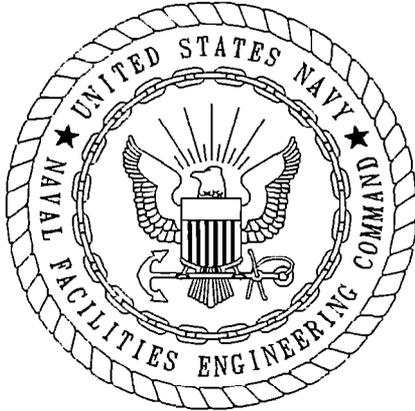
Prepared for:

Department of the Navy, Southern Division
Naval Facilities Engineering Command
2155 Eagle Drive
North Charleston, South Carolina 29418

Bryan Kizer, Code 1842, Engineer-in-Charge

November 1998

Revision 0.0



CERTIFICATION OF TECHNICAL
DATA CONFORMITY (MAY 1987)

The Contractor, Harding Lawson Associates, hereby certifies that, to the best of its knowledge and belief, the technical data delivered herewith under Contract No. N62467-89-D-0317/090 are complete and accurate and comply with all requirements of this contract.

DATE: November 30, 1998

NAME AND TITLE OF CERTIFYING OFFICIAL: Rao Angara
Task Order Manager

NAME AND TITLE OF CERTIFYING OFFICIAL: Eric A. Blomberg, P.G.
Project Technical Lead

(DFAR 252.227-7036)

TABLE OF CONTENTS

Confirmatory Sampling Report
Building 290A, Tank G290-A
Naval Air Station Cecil Field
Jacksonville, Florida

<u>Chapter</u>	<u>Title</u>	<u>Page No.</u>
1.0	INTRODUCTION	1
2.0	FIELD INVESTIGATION	1
3.0	SCREENING AND ANALYTICAL RESULTS	1
4.0	CONCLUSIONS AND RECOMMENDATIONS	1

REFERENCES

APPENDICES

- Appendix A: Monitoring Well Installation Detail
- Appendix B: Groundwater Analytical Data

LIST OF FIGURES

Confirmatory Sampling Report
Building 290A, Tank G290-A
Naval Air Station Cecil Field
Jacksonville, Florida

<u>Figure</u>	<u>Title</u>	<u>Page No.</u>
1	Tank 290A, Aboveground Storage Tank	2

LIST OF TABLES

<u>Table</u>	<u>Title</u>	<u>Page No.</u>
1	Soil Screening Results	3
2	Summary of Groundwater Analytical Detections	4

GLOSSARY

ABB-ES ABB Environmental Services, Inc.
AST aboveground storage tank

HLA Harding Lawson Associates

OVA organic vapor analyzer

1.0 INTRODUCTION

Harding Lawson Associates (HLA), under contract to the Southern Division, Naval Facilities Engineering Command, has completed the confirmatory sampling for Tank G290-A at Naval Air Station Cecil Field in Jacksonville, Florida. This report summarizes the related field operations, results, conclusions, and recommendations of the confirmatory sampling.

Tank G290-A is an aboveground storage tank (AST) located immediately north of Building 290A, southeast of the intersection of the north-south and east-west runways (Figure 1) (ABB Environmental Services, Inc. [ABB-ES], 1994). Building 290A houses a standby generator for Building 290. Tank G290-A was installed in 1995, has a 250-gallon capacity, and is in compliance with state tank regulations. Tank G290-A replaced Tank G290U, which was an underground storage tank located west of Building 290A (Figure 1). Tank G290U was removed in November 1995 by ISI International and received a clean closure.

A contamination assessment plan for the assessment of soil and groundwater at Tank G290-A was prepared by HLA (then ABB-ES) in November 1996 (ABB-ES, 1996).

2.0 FIELD INVESTIGATION

The confirmatory sampling of the Tank G290-A site was initiated in January 1997 and included the advancement of three soil borings to the water table and the installation and sampling of one monitoring well. Soil samples were collected at depth intervals of 1 foot below land surface and every 2 feet thereafter to the water table and screened for hydrocarbon vapors with an organic vapor analyzer (OVA). One monitoring well, CEF-290A-2S, was installed at the AST location to a depth of 12 feet. Monitoring well construction detail is presented in Appendix A. One groundwater sample was collected on March 26, 1997, and analyzed for the Kerosene Analytical Group parameters. A general site plan indicating the location of the soil borings and monitoring well is presented on Figure 1.

3.0 SCREENING AND ANALYTICAL RESULTS

Excessively contaminated soil was not detected in soil samples collected during the confirmatory sampling. The soil OVA data that were collected are summarized in Table 1 and presented on Figure 1. No contaminants other than methylene chloride (at 2.1 micrograms per liter [$\mu\text{g}/\ell$]) were detected in the groundwater sample collected from monitoring well CEF-290A-2S. Groundwater analytical data are summarized in Table 2. The complete analytical data set is presented in Appendix B.

4.0 CONCLUSIONS AND RECOMMENDATIONS

Data obtained during the confirmatory sampling at the Tank G290-A site did not indicate the presence of excessively contaminated soil.

No contaminants other than methylene chloride (at 2.1 $\mu\text{g}/\ell$) were detected in the groundwater sample collected from monitoring well CEF-290A-2S.

It is recommended that no further action take place at the Tank G290-A site until the tank is removed.

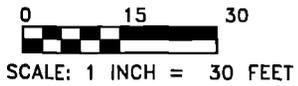
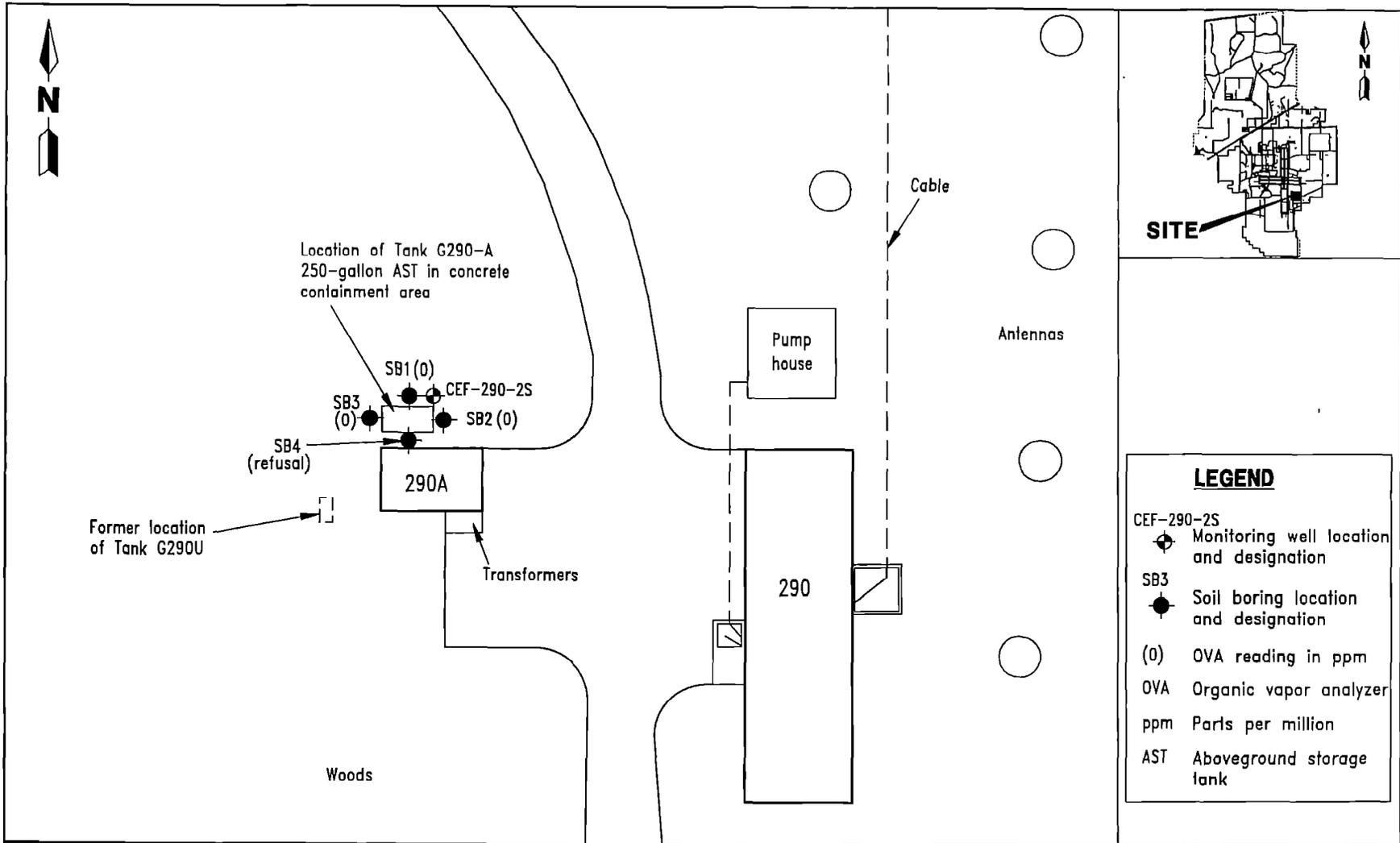


FIGURE 1
BUILDING 290A, TANK G290-A
STANDBY GENERATOR BUILDING



CONFIRMATORY SAMPLING REPORT
BUILDING 290A, TANK G290-A

NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

**Table 1
Soil Screening Results**

Confirmatory Sampling Report
Building 290A, Tank G290-A
Naval Air Station Cecil Field
Jacksonville, Florida

Location	OVA Concentration (ppm)			
	Depth (feet bls)	Unfiltered	Filtered	Actual
SB-1	1	0	-	0
	3	0	-	0
SB-2	1	0	-	0
	3	0	-	0
SB-3	1	0	-	0
	3	0	-	0
SB-4	refusal			

Notes: All soil samples were collected on January 16, 1997.
Soil samples were filtered with carbon to determine the methane concentration.

OVA = organic vapor analyzer.
ppm = parts per million.
bls = below land surface.
- = filtered readings were not collected.
refusal = subsurface obstruction encountered.

**Table 2
Summary of Groundwater Analytical Detections**

Site Assessment Report
Building 290A, Tank G290-A
Naval Air Station Cecil Field
Jacksonville, Florida

Compound	Monitoring Well CEF-290-2S	Groundwater Cleanup Target Levels ¹
<u>Volatile Organic Aromatics (USEPA Method 601/602) ($\mu\text{g}/\text{l}$)</u>		
Methylene chloride	2.1	NA
<u>Polynuclear Aromatic Hydrocarbons (USEPA Method 610) ($\mu\text{g}/\text{l}$)</u>		
No compounds detected.		
<u>Total Recoverable Petroleum Hydrocarbons (FL-PRO) ($\mu\text{g}/\text{l}$)</u>		
No compounds detected.		
¹ Chapter 62-770, Florida Administrative Code. Notes: Groundwater samples were collected on March 26, 1997. USEPA = U.S. Environmental Protection Agency. $\mu\text{g}/\text{l}$ = micrograms per liter. FL-PRO = Florida-Petroleum Residual Organics. NA = not applicable.		

REFERENCES

ABB Environmental Services, Inc. (ABB-ES). 1994. *Base Realignment and Closure Environmental Baseline Survey Report, Naval Air Station Cecil Field, Jacksonville, Florida*. Prepared for Southern Division, Naval Facilities Engineering Command (SOUTHNAVFACENGCOC), North Charleston, South Carolina (November).

ABB-ES. 1996. *Contamination Assessment Plan, Naval Air Station Cecil Field, Jacksonville, Florida*. Prepared for SOUTHNAVFACENGCOC, North Charleston, South Carolina (November).

APPENDIX A

MONITORING WELL INSTALLATION DETAIL

TITLE: NAS Cecil Field		LOG of WELL: CEF-290-2S	BORING NO. CEF-290-2S
CLIENT: SOUTHDIIVNAVAFACENCOM			PROJECT NO: 8542-03
CONTRACTOR: GEOTEK		DATE STARTED: 3-11-97	COMPLTD: 3-11-97
METHOD: 6.25" HSA	CASE SIZE: 2"	SCREEN INT.: 2-12	PROTECTION LEVEL: D
TOC ELEV.: FEET.	MONITOR INST.: FID	TOT DPTH: 13 FEET.	DPTH TO ∇ 5.95 FEET.
LOGGED BY: J Koch	WELL DEVELOPMENT DATE: 3-11-97		SITE: Building 290

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
0					SILTY SAND: Grey, fine grained, no petroleum odor.		SM	posthole	
0				SILTY SAND: Dark brown to black, fine grained with pieces of wood.	posthole				
5			70%	0	SILTY SAND: Dark brown, fine grained with traces of wood, saturated, no petroleum odor.		1,3,3,4		
10			100%	0	SILTY SAND: Dark brown to black, fine grain, no petroleum odor.		1,2,3,2		
15									
20									

APPENDIX B
GROUNDWATER ANALYTICAL DATA

NAS CECIL FIELD -- TANK G290-A
GROUNDWATER -- REPORT REQUEST NO. 10427

Lab Sample Number: B7C2701410
Site BRACGREY
Locator CEF2901S
Collect Date: 26-MAR-97

VALUE QUAL UNITS DL

BRACGREY ANALYTICAL PARAMETERS

1,1,1-Trichloroethane	1 U	ug/l	1
1,1,2,2-Tetrachloroethane	1 U	ug/l	1
1,1,2-Trichloroethane	1 U	ug/l	1
1,1-Dichloroethane	1 U	ug/l	1
1,1-Dichloroethene	1 U	ug/l	1
1,2-Dichlorobenzene	1 U	ug/l	1
1,3-Dichlorobenzene	1 U	ug/l	1
1,4-Dichlorobenzene	1 U	ug/l	1
1,2-Dichloroethane	1 U	ug/l	1
1,2-Dichloropropane	1 U	ug/l	1
1-Methylnaphthalene	2 U	ug/l	2
2-Methylnaphthalene	2 U	ug/l	2
Acenaphthene	2 U	ug/l	2
Acenaphthylene	2 U	ug/l	2
Anthracene	2 U	ug/l	2
Benzene	1 U	ug/l	1
Benzo (a) anthracene	.1 U	ug/l	.1
Benzo (a) pyrene	.1 U	ug/l	.1
Benzo (b) fluoranthene	.1 U	ug/l	.1
Benzo (g,h,i) perylene	.2 U	ug/l	.2
Benzo (k) fluoranthene	.15 U	ug/l	.15
Bromodichloromethane	1 U	ug/l	1
Bromoform	1 U	ug/l	1
Bromomethane	1 U	ug/l	1
Carbon tetrachloride	1 U	ug/l	1
Chlorobenzene	1 U	ug/l	1
Chloroethane	1 U	ug/l	1
Chloromethane	1 U	ug/l	1
Chloroform	1 U	ug/l	1
Chloromethane	1 U	ug/l	1
Chrysene	.1 U	ug/l	.1
Dibenzo (a,h) anthracene	.2 U	ug/l	.2
Dibromochloromethane	1 U	ug/l	1
Dichlorodifluoromethane	1 U	ug/l	1
Ethylbenzene	1 U	ug/l	1
Ethylene dibromide	.02 U	ug/l	.02
Fluoranthene	.2 U	ug/l	.2
Fluorene	2 U	ug/l	2
Indeno (1,2,3-cd) pyrene	.1 U	ug/l	.1
Lead	5 U	ug/l	5
Methyl tert-butyl ether	1 U	ug/l	1
Methylene chloride	2.1	ug/l	1
Naphthalene	2 U	ug/l	2
Phenanthrene	2 U	ug/l	2
Pyrene	.2 U	ug/l	.2
Tetrachloroethene	1 U	ug/l	1
Toluene	1 U	ug/l	1
Total petroleum hydrocarbons	.5 U	mg/l	.5
Trichloroethene	1 U	ug/l	1
Trichlorofluoromethane	1 U	ug/l	1

NAS CECIL FIELD -- TANK G290-A
GROUNDWATER -- REPORT REQUEST NO. 10427

Lab Sample Number: B7C2701410
Site BRACGREY
Locator CEF2901S
Collect Date: 26-MAR-97

	VALUE	QUAL	UNITS	DL
Vinyl chloride	1 U		ug/l	1
Xylenes (total)	1 U		ug/l	1
cis-1,3-Dichloropropene	1 U		ug/l	1
trans-1,2-Dichloroethene	1 U		ug/l	1
trans-1,3-Dichloropropene	1 U		ug/l	1

U = NOT DETECTED, J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE