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NSA PANAMA CITY
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CLOSURE ASSESSMENT FOR UNDERGROUND STORAGE TANK AT BUILDING 300 NSA
PANAMA CITY FL
4/1/1997
NAVY PUBLIC WORKS CENTER

CLOSURE ASSESSMENT
UNDERGROUND STORAGE TANK
BUILDING 300

NAVAL SURFACE WARFARE CENTER
COASTAL SYSTEMS STATION
PANAMA CITY, FLORIDA

Unit Identification Code: N61331

Prepared by:

Navy Public Works Center
Environmental Department
310 John Tower Road
Pensacola, Florida, 32508

Prepared for:

Commanding Officer, Coastal Systems Station
Dahlgren Division, Naval Surface Warfare Center
6703 West Highway 98
Panama City, Florida 32407-7001

Mr Mike Clayton, Code 051EMC, Environmental Engineer

April 1997

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Underground Storage Tank
Building 300
Coastal Systems Station
Panama City, Florida

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FIGURES

- Figure 1: Vicinity Map
- Figure 2: Site Map

ATTACHMENTS

- Attachment A: Application for Closure of Pollutant Storage Tank System
- Attachment B: Underground Storage Tank Installation and Removal Form
- Attachment C: Closure Assessment Form, Groundwater Analysis, & OVA Readings
- Attachment D: Decontamination Certification

GLOSSARY

FAC	Florida Administrative Code
OVA	Organic Vapor Analyzer
AST	Aboveground Storage Tank
UST	Underground Storage Tank
USEPA	U.S. Environmental Protection Agency

CLOSURE ASSESSMENT REPORT
UNDERGROUND STORAGE TANK
BUILDING 300

1.0 Facility

Building 300
Naval Surface Warfare Center
Coastal Systems Station
Panama City, Bay County, Florida

2.0 Operator

Commanding Officer, Coastal Systems Station
Dahlgren Division, Naval Surface Warfare Center
6703 West Highway 98, Code 051 EMC
Panama City, Florida 32407-7001

3.0 Site Location

See Figure 1.

4.0 Date of Closure

17 September 1996

5.0 Tank Status

There was one 2500 gallon underground storage tank (UST) removed from the southwest corner of Building 300 by the Public Works Center (PWC) as depicted by Figure 2. The UST was emptied prior to commencement of work by the Coastal Systems Station (CSS). The UST was completely decontaminated and rendered unuseable by PWC. The UST was properly disposed as scrap metal.

6.0 Tank Contents

Diesel

7.0 Tank Condition

The UST was in good condition at the time of removal.

8.0 Tank Area

The size of the excavation, was approximately twelve (12) feet wide by twenty (20) feet long and eight (8) feet deep. The excavation was filled with clean fill and compacted to grade.

9.0 Soil Screening

- Seven (7) soil samples were collected for headspace screening with an organic vapor analyzer (OVA). The samples were extracted at each side and underneath the UST is depicted by Figure 2.
- The soil screening was conducted in accordance with the headspace screening criteria in Chapter 62-770 FAC and PWC's Comprehensive Quality Assurance Plan.

10.0 Groundwater Analysis

A temporary groundwater monitoring well was placed at the center of the UST excavation, the well was developed and groundwater samples were collected on 25 March 1997. The samples were transported to the PWC Laboratory in Pensacola, Florida. The samples were analyzed using U.S. Environmental Protection Agency (EPA) Methods 8260 and 8270.

11.0 Conclusions

There were no indications of petroleum contamination noted above the state target levels for storage tank closures.

There were low levels of Chloroform, Bromodichloromethane, and Dibromochloromethane. The levels were below the State of Florida Drinking Water Standards (62-550.310 (2)(a)). There may be a leak in the local water supply or water treatment systems.

12.0 Recommendations

No further action.

13.0 Closure Assessment

Performed by the Public Works Center (PWC) Pensacola, Florida.

14.0 Project Manager

Mr. Paul R. Semmes, P.E.

15.0 Project Number

1395003

16.0 Report Date

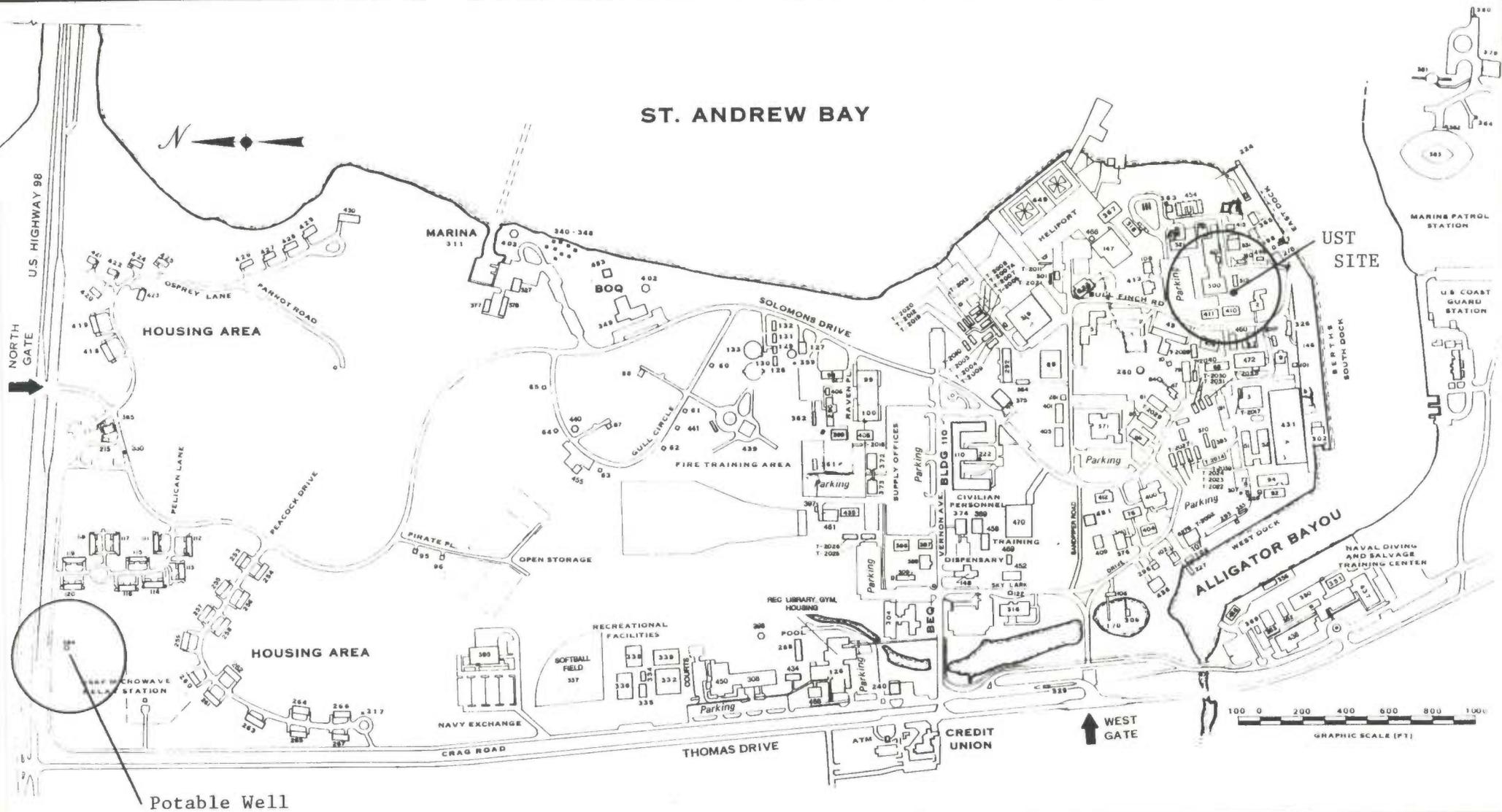
21 April 1997

Figures

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18



ST. ANDREW BAY



Potable Well



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18

BLDG 300

OVA READINGS

- A- 4' BLS, 0 PPM
- B- 4' BLS, 0 PPM
- C- 2' BLS, 0 PPM
- D- 8' BLS, 0 PPM
- E- 8' BLS, 0 PPM
- F- 8' BLS, 0 PPM
- G- 8' BLS, 0 PPM

FENCE →

F →

UST

← G

A ↓

↑ E

↑ D

↑ C

↑ B

REF BLDG 400	DEPARTMENT OF THE NAVY, NAVAL FACILITIES ENGINEERING COMMAND NAVY PUBLIC WORKS CENTER NAVAL AIR STATION PENSACOLA, FLORIDA		
DESIGNED _____	NAVAL SURFACE WARFARE CENTER COASTAL SYSTEMS STATION PANAMA CITY, FLORIDA		
DRAWN _____	DATE	CODE IDENT. NO.	ENVIRON. DEPT. NO.
CHECKED _____		900	
ENV. DIR. _____	DATE	SCALE AS SHOWN	SPFC.
LDG. DIV. DIR. _____			
ENGRG DEPT. HD. _____			
APPROVED _____	DATE		SHEET OF
ENVIRONMENTAL DEPARTMENT APPROVED _____	DATE		
PAUL H. DEBROS, P.E.			

Attachments

APPLICATION FOR CLOSURE OF POLLUTANT STORAGE TANK SYSTEM

Provide the facility information requested below.

FDEP Facility # 03/8518667 Facility Name U. S. Navy

Facility Location Naval Surface Warfare Center, Coastal Systems Station

Property Owner Commanding Officer, NSWCCSS (Code CP2F)

Property Owner Address 6703 West Highway 98, Panama City, FL 32407-7001

Phone (904) 235-5859

Method of Tank Closure Removal

Pollutant Storage Systems Specialty Contractor (PSSSC) who will be on site supervising closure activities. Attach copy of PSSSC license.

Individual Licensed as PSSSC N/A PSSSC # N/A

Firm U.S. Navy - Public Works Center (PWC)

Address 310 John Tower Road, Pensacola, FL 32508

Indicate the firm (s) that will degas, remove, and transport the tank(s), and the method of degassification.

Degassification Method Air Eduction (API 1604-4.2.5)

Firm Removing Tanks U.S. Navy - Public Works Center (PWC)

Contact Mr. Paul Semmes, P.E. Phone (904) 293-0635

Firm Transporting Tanks U. S. Navy - Public Works Center (PWC)

Contact Mr. Paul Semmes, P.E. Phone (904) 293-0635

Firm Receiving Tanks for Ultimate Disposal U.S. Navy - DRMO

Contact Ms. Gayle Brown Phone (904) 452-3459

Indicate the laboratory that will conduct groundwater analysis.

Contracted Laboratory U.S. Navy - PWC Phone (904) 452-4728

Contact Mr. Joe Moore FDEP QA/QC 920121G

Indicate firm(s) transporting and disposing of contaminated soils.

Firm Transporting Soils N/A

Contact _____ Phone _____

Firm Remediating/Disposing Soils _____

Contact _____ Phone _____

Disposal/Remediation Method _____

Indicate the firm(s) that will transport and ultimately dispose of residual product and sludge from the tanks.

Firm Transporting Residual Product and Sludge U.S. Navy - PWC

Contact Mr. Jerry Levins Phone (904) 452-8237

Firm Receiving/Disposal Residual Product and Sludge DRMO

Contact Ms. Gayle Brown Phone (904) 452-3459

Indicate the firm and names of personnel that will conduct field sampling.

Contracted Firm U.S. Navy - Public Works Center (PWC)

Contact Mr. Paul Semmes, P.E. Phone (904) 293-0635

Person (s) Sampling Mr. Paul Semmes, P.E.

Equipment used for soil screening (Specific Make and Model) Organic Vapor Analyzer

(OVA) Thermo Environmental (680 HVM) equipped w/Flame Ionization Detector (FID).



Florida Department of Environmental Protection

Twin Towers Office Bldg. 2600 Blair Stone Road Tallahassee, Florida 32399-2400

DEP Form # 62-761.900(5)
Underground Storage Tank Installation
Form Title Removal Form for Certified Contractors
Effective Date December 10, 1990
DEP Application No. (Filled in by DEP)

Underground Storage Tank Installation and Removal Form
For Certified Contractors

Pollutant Storage Systems Contractor as defined in Section 489.105, Florida Statutes (certified contractors as defined in Section 62-761.200, Florida Administrative Code) shall use this form to certify that the installation, replacement or removal of the storage tank system(s) located at the address listed below was performed in accordance with Department Reference Standards.

General Facility Information

- 1. DEP Facility Identification No.: 03/8518667
2. Facility Name: US NAVY - NSWC, CSS Telephone: (904) 235-5859
3. Street Address (physical location): 6703 WEST HIGHWAY 98, PANAMA CITY, FLORIDA 32407 - 7001
4. Owner Name: COMMANDING-OFFICER, NSWC, CSSTelephone: (904) 235-5859
5. Owner Address: CO, NSWC, SS (CODE CP2F) 6703 WEST HIGHWAY 98, PANAMA CITY, FL 32407
6. Number of Tanks: a. Installed at this time 0 b. Removed at this time 1
7. Tank(s) Manufactured by: UNKNOWN
8. Date Work Initiated: 17 SEPTEMBER 1996 9. Date Work Completed: 17 SEPTEMBER 1996

Underground Pollutant Tank Installation Checklist

Please certify the completion of the following installation requirements by placing an (X) in the appropriate box.

- 1. The tanks and piping are corrosion resistant and approved for use by State and Federal Laws.
2. Excavation, backfill and compaction completed in accordance with NFPA (National Fire Protection Association) 30(96), API (American Petroleum Institute) 1615, PEI (Petroleum Equipment Institute) RP100-94 and the manufacturers' specifications.
3. Tanks and piping pretested and installed in accordance with NFPA 30(96), API 1615, PEI/RP100-94 and the manufacturers' specifications.
4. Steel tanks and piping are cathodically protected in accordance with NFPA 30(96), API 1632, UL (Underwriters Laboratory) 1746, STI (Steel Tank Institute) R892-89 and the manufacturers' specifications.
5. Tanks and piping tested for tightness after installation in accordance with NFPA 30(96) and PEI RP100-94.
6. Monitoring well(s) or other leak detection devices installed and tested in accordance with Section 62-761.640, Florida Administrative Code (F.A.C.)
7. Spill and overfill protection devices installed in accordance with Section 62-761.500, F.A.C.
8. Secondary containment installed for tanks and piping as applicable in accordance with Section 62-761.500, F.A.C.

Please Note: The numbers following the abbreviations (e.g. API 1615) are publication or specification numbers issued by these institutions.

Underground Pollutant Tank Removal Checklist

- 1. Closure assessment performed in accordance with Section 62-761.800, F.A.C.
2. Underground tank removed and disposed of as specified in API 1604 in accordance with Section 62-761.800, F.A.C.



Closure Assessment Form

Users of storage tank systems that are replacing, removing or closing in place storage tanks shall use this form to demonstrate that a storage system closure assessment was performed in accordance with Rule 62-761.800(3) or 62-762.800(3), Florida Administrative Code.

Please Print or Type
Complete All Applicable Blanks

1. Date 21 FEBRUARY 1997
2. DEP Facility ID Number: 03/8518667 3. County BAY
4. Facility Name: US NAVY - NAVAL SURFACE WARFARE CENTER, COASTAL SYSTEMS STATION
5. Facility Owner: COMMANDING OFFICER, NSWC CSS, CODE CP2F
6. Facility Address: BUILDING 300, COASTAL SYSTEMS STATION
7. Mailing Address: 6703 WEST HIGHWAY 98, PANAMA CITY, FLORIDA 32407-7001
8. Telephone Number: (904) 235-5859 9. Facility Operator: MR MIKE CLAYTON
10. Are the Storage Tank(s): (Circle one or both) A. Aboveground or **B. Underground**
11. Type of Product(s) Stored: DIESEL
12. Were the Tank(s): (Circle one) A. Replaced **B. Removed** C. Closed in Place D. Upgraded (aboveground tanks only)
13. Number of Tanks closed: ONE 14. Age of Tanks: _____

Facility Assessment Information

- | Yes | No | Not
Applicable | |
|-------------------------------------|-------------------------------------|-------------------------------------|---|
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | | 1. Was a Discharge Reporting Form submitted to the Department?
If yes, When: _____ Where: _____ |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | | 2. Is the depth to ground water less than 20 feet? |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 3. Are monitoring wells present around the storage system?
If yes, please specify <input type="checkbox"/> Vapor Monitoring <input type="checkbox"/> Water Monitoring |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 4. Is there free product present in the monitoring wells or within the excavation? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 5. Were the petroleum hydrocarbon vapor levels in the soil greater than 500 parts per million for gasoline?
Specify sample type: <input type="checkbox"/> Vapor Monitoring wells <input type="checkbox"/> Soil sample(s) |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 6. Were the petroleum hydrocarbon vapor levels in the soils greater than 50 parts per million for diesel/kerosene?
Specify sample type: <input type="checkbox"/> Vapor Monitoring wells <input checked="" type="checkbox"/> Soil sample(s) |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 7. Were the analytical laboratory results of the ground water sample(s) greater than the allowable state target levels?
(See target levels on reverse side of this form and supply laboratory data sheet(s).) |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 8. If a used oil storage system, did a visual inspection detect any discolored soil indicating a release? |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 9. Are any potable wells located within 1/4 of a mile radius of the facility? |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 10. Is there a surface water body within 1/4 mile radius of the site? If yes, indicate distance: <u>300 ft.</u> |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 11. A detailed drawing or sketch of the facility that includes the storage system location, monitoring wells, buildings, storm drains, sample locations, and dispenser locations must accompany this form. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 12. If a facility has a pollutant storage tank system that has both gasoline and kerosene/diesel stored on site, both EPA method 602 and EPA method 610 must be performed on the ground water samples. |

Summary of OVA Readings

**Closure Assessment Report
Underground Storage Tank
Building 300
Coastal Systems Station
Panama City, Florida**

Hand Auger Sample No.	Depth (Feet)	Unfiltered (ppm)	Filtered (ppm)
SS-1	4	<1	<1
SS-2	4	<1	<1
SS-3	2	<1	<1
SS-4	8	<1	<1
SS-5	8	<1	<1
SS-6	8	<1	<1
SS-7	8	<1	<1

Readings for unfiltered samples are total hydrocarbon readings including methane; readings for filtered samples are methane only.

Notes: ppm = parts per million.

Navy Public Works Center

Environmental Laboratory

Bldg. 3887, Code 920
 NAS Pensacola, FL 32508
 Phone (904) 452-4728/3642
 DSN 922-4728/3642
 FAX (904) 452-2799/2387

Client: NPWC Environmental
 Address: Bldg. 3887, Code 910
 NAS Pensacola, FL 32508
 Phone #: 452-3180
 Contact: Paul Semmes

Analytical Report

Total Volatiles by Method 8260

Lab Report Number: 71246
 Sample Date: 03/25/97
 Received Date: 03/27/97
 Sample Site: Eglin, Tyndall, or CSS-P.C.
 Job Order No.: 181 5004

LAB Sample ID#	1- 71246			
Sample Name / Location	Bldg. 300 MW			
Collector's Name	S. Dueitt, R. Spencer			
Date & Time Collected	03/25/97 @ 1043			
Sample Type (composite or grab)	Grab			
Analyst	J. Moore			
Date of Extraction / Initials	03/27/97 JM			
Date of Analysis	03/27/97			
Sample Matrix	GW			
Dilution	X 1			
Compound Name	1- 71246	units	Det. Limit	Flags
Benzene	BDL	ug/L	1	
Bromobenzene	BDL	ug/L	1	
Bromochloromethane	BDL	ug/L	1	
Bromodichloromethane	6	ug/L	1	
Bromoform	BDL	ug/L	2	
Bromomethane	BDL	ug/L	3	
n-Butylbenzene	BDL	ug/L	1	
sec-Butylbenzene	BDL	ug/L	1	
tert-Butylbenzene	BDL	ug/L	2	
Carbon Tetrachloride	BDL	ug/L	1	
Chlorobenzene	BDL	ug/L	1	
Chloroethane	BDL	ug/L	1	
Chloroform	22	ug/L	1	
Chloromethane	BDL	ug/L	1	
2-Chlorotoluene *	BDL	ug/L	1	
4-Chlorotoluene *	BDL	ug/L	1	
Dibromochloromethane	1	ug/L	1	
1,2-Dibromo-3-chloropropane *	BDL	ug/L	5	
1,2-Dibromoethane	BDL	ug/L	1	
Dibromomethane	BDL	ug/L	1	
1,2-Dichlorobenzene	BDL	ug/L	1	
1,3-Dichlorobenzene	BDL	ug/L	1	
1,4-Dichlorobenzene	BDL	ug/L	1	
Dichlorodifluoromethane	BDL	ug/L	1	
1,1-Dichloroethane	BDL	ug/L	1	
1,2-Dichloroethane	BDL	ug/L	1	
1,1-Dichloroethene	BDL	ug/L	1	
cis-1,2-Dichloroethene	BDL	ug/L	1	
trans-1,2-Dichloroethene	BDL	ug/L	1	
1,2-Dichloropropane	BDL	ug/L	1	
1,3-Dichloropropane	BDL	ug/L	1	
2,2-Dichloropropane	BDL	ug/L	1	
1,1-Dichloropropene	BDL	ug/L	1	
Ethylbenzene	BDL	ug/L	1	
Ethyl ether *	BDL	ug/L	1	
Hexachlorobutadiene	BDL	ug/L	2	
2-Hexanone *	BDL	ug/L	1	
Isopropylbenzene	BDL	ug/L	1	
p-Isopropyltoluene	BDL	ug/L	1	

Navy Public Works Center Environmental Laboratory

Bldg. 3887, Code 920
 NAS Pensacola, FL 32508
 Phone (904) 452-4728/3642
 DSN 922-4728/3642
 FAX (904) 452-2799/2387

Client: NPWC Environmental
 Address: Bldg. 3887, Code 910
 NAS Pensacola, FL 32508
 Phone #: 452-3180
 Contact: Paul Semmes

Analytical Report

Total Volatiles by Method 8260

Lab Report Number: 71246
 Sample Date: 03/25/97
 Received Date: 03/27/97
 Sample Site: Eglin, Tyndall, or CSS-P.C.
 Job Order No.: 181 5004

Compound Name	1- 71246	units	Det. Limit	Flags
Methylene Chloride	BDL	ug/L	1	
Methyl ethyl ketone (MEK) *	BDL	ug/L	2	
Methyl isobutyl ketone (MIBK) *	BDL	ug/L	1	
Methyl-tert-butyl ether (MTBE)	BDL	ug/L	1	
Naphthalene	BDL	ug/L	1	
n-Propylbenzene	BDL	ug/L	1	
Styrene	BDL	ug/L	1	
1,1,1,2-Tetrachloroethane	BDL	ug/L	1	
1,1,2,2-Tetrachloroethane	BDL	ug/L	1	
Tetrachloroethene	BDL	ug/L	1	
Toluene	BDL	ug/L	1	
1,2,3-Trichlorobenzene	BDL	ug/L	1	
1,2,4-Trichlorobenzene	BDL	ug/L	1	
1,1,1-Trichloroethane	BDL	ug/L	1	
1,1,2-Trichloroethane	BDL	ug/L	1	
Trichloroethene	BDL	ug/L	1	
Trichlorofluoromethane	BDL	ug/L	1	
1,1,2-Trichloro-1,2,2-Trifluoroethane *	BDL	ug/L	1	
1,2,3-Trichloropropane	BDL	ug/L	1	
1,2,4-Trimethylbenzene	BDL	ug/L	1	
1,3,5-Trimethylbenzene	BDL	ug/L	1	
Vinyl Chloride	BDL	ug/L	1	
m,p-Xylene	BDL	ug/L	1	
o-Xylene	BDL	ug/L	1	

SURROGATE SPIKE RECOVERIES

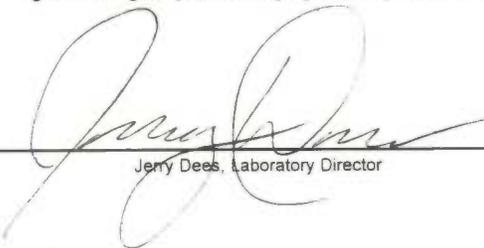
	Acceptance Limits	Percent Recovery
1,2-Dichloroethane-d4	75-133	103
Toluene-d8	86-119	100
Bromofluorobenzene	85-116	102

Explanation of Flags:

COMMENTS :

BDL = Below Detection Limit. ug/L = microgram per Liter. ug/Kg = microgram per Kilogram. * = FL HRS certification pending.

Approved by :



Jerry Dees, Laboratory Director

Date:

4/9/97

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Navy Public Works Center Environmental Laboratory

Bldg. 3887, Code 920
NAS Pensacola, FL 32508 - 6500
Phone (904) 452-4728/3642
DSN 922-4728/3642

Client: NPWC Environmental
Address: Bldg. 3887, Code 910
NAS Pensacola, FL 32508
Phone #: 452-3180
Contact: Paul Semmes

Analytical Report

610 PAH's by Method 8270

Lab Report Number: 71246
Sample Date: 03/25/97
Received Date: 03/27/97
Sample Site: Eglin, Tyndall, or CSS-P.C.
Job Order No.: 181 5004

LAB Sample ID#	1- 71246			
Sample Name / Location	Bldg. 300 MW			
Collector's Name	S. Dueitt, R. Spencer			
Date & Time Collected	03/25/97 @ 1043			
Sample Type (composite or grab)	Grab			
Analyst	M. Chambers			
Date of Extraction / Initials	03/31/97 JJ			
Date of Analysis	04/02/97			
Sample Matrix	GW			
Dilution	X 1			
Compound Name	1- 71246	units	Det. Limit	Flags
Acenaphthene	BDL	ug/L	2	
Acenaphthylene	BDL	ug/L	2	
Anthracene	BDL	ug/L	2	
Benzo(a)anthracene	BDL	ug/L	2	
Benzo(a)pyrene	BDL	ug/L	2	
Benzo(b)fluoranthene	BDL	ug/L	2	
Benzo(g,h,i)perylene	BDL	ug/L	2	
Benzo(k)fluoranthene	BDL	ug/L	3	
Chrysene	BDL	ug/L	2	
Dibenz(a,h)anthracene	BDL	ug/L	2	
luoranthene	BDL	ug/L	2	
Fluorene	BDL	ug/L	2	
Indeno(1,2,3-cd)pyrene	BDL	ug/L	2	
1-Methylnaphthalene *	BDL	ug/L	2	
2-Methylnaphthalene	BDL	ug/L	3	
Naphthalene	BDL	ug/L	2	
Phenanthrene	BDL	ug/L	2	
Pyrene	BDL	ug/L	2	

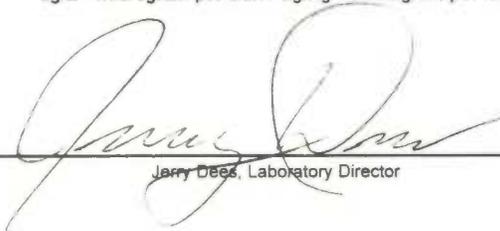
SURROGATE SPIKE RECOVERIES

	Acceptance Limits	Percent Recovery
Nitrobenzene- d5	35-114	72
2-Fluorobiphenyl	43-116	80
Terphenyl -d14	33-141	93

COMMENTS :

BDL = Below Detection Limit. ug/L = microgram per Liter. ug/Kg = microgram per Kilogram. * = FL HRS certification pending.

Approved by :


Jerry Dees, Laboratory Director

Date: 4/9/97

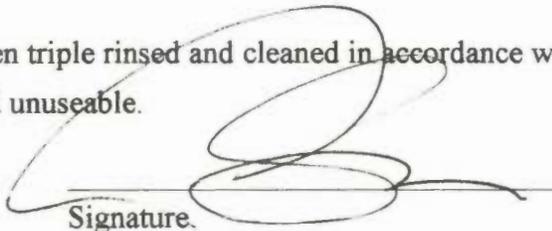
Report Generated

CERTIFICATE OF DECONTAMINATION

It is hereby certified that the following Storage Tanks have been decontaminated by PWC Pensacola AST/UST Storage System Tank Team:

BLDG 300
NAVAL SURFACE WARFARE CENTER,
COASTAL SYSTEM STATION
PANAMA CITY, FLORIDA

The Storage Tanks listed above have been triple rinsed and cleaned in accordance with 40 CFR 261.7(b)(3)(i) and have been rendered unuseable.


Signature.

Paul R Semmes, PE
Environmental Engineer
Title

4/8/97
Date