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NSA PANAMA CITY
5090.3a

CLOSURE ASSESSMENT REPORT FOR UNDERGROUND STORAGE TANK 52 NSA
PANAMA CITY FL
12/1/1997
NAVY PUBLIC WORKS CENTER

CLOSURE ASSESSMENT REPORT
UNDERGROUND STORAGE TANK
TANK 52

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 CP2S, Environmental Engineer

December 1997

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Naval Surface Warfare Center
Coastal Systems Station
Panama City, Florida

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GLOSSARY

AST	Aboveground Storage Tank
CSS	Coastal Systems Station, Panama City, Florida
DRMO	US Navy, Defense Reutilization and Marketing Organization
EPA	Environmental Protection Agency
FAC	Florida Administrative Code
FDEP	Florida Department of Environmental Protection
OVA	Organic Vapor Analyzer
PWC	US Navy, Public Works Center, Pensacola, Florida
UST	Underground Storage Tank

CLOSURE ASSESSMENT REPORT
UNDERGROUND STORAGE TANK
TANK 52

1.0 Facility

Building 94, 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 CP2S
Panama City, Florida 32407-7001

3.0 Site Location

The Coastal Systems Station is located along St Andrew Bay in Panama City, Florida (Figure 1).

4.0 Date of Closure

8 August 1997

5.0 Project Description

The US Navy Public Works Center (PWC), Pensacola, Florida was tasked by the Coastal Systems Station (CSS), Panama City to close a 720 gallon underground storage tank (UST) system located on the east side of Building 94, CSS Panama City (Figure 2). The UST was removed, cleaned and rendered unuseable by PWC. Photographs of the removal are provided as Attachment A. The UST was properly disposed by the US Navy, Defense Reutilization and Marketing Organization (DRMO), Pensacola, Florida (Attachment B).

The Application for Closure of Pollutant Storage Tank System, Underground Storage Tank Installation and Removal Form, Closure Assessment Form, and decontamination Certification are provided as Attachments C, D, E, and F respectively.

6.0 Tank Contents

The UST was used to store diesel for on-site heating. The contents were emptied by CSS prior to commencement of work.

The rinsate from the UST cleaning operations was disposed at the Fire Training Facility, Building 439, CSS, Panama City. The petroleum constituents were separated from the water and incinerated.

7.0 Tank Condition

The UST was cubically shaped, equipped with a box around the fill pipe, and constructed of steel. The UST was in good condition at the time of removal.

8.0 Excavation Area

The excavation was made approximately eight (8) feet wide, ten (10) feet long and six (6) feet deep. The excavation was filled with clean fill, compacted to grade, and paved with concrete.

Contaminated soil was encountered during the excavation process. The contamination was not required to be reported since the quantity was minimal. Approximately 1/4 cubic yard of contaminated soil was removed from the box around the fill pipe. The contaminated soil was stockpiled and is planned to be properly disposed by Southern Waste Services, Inc (SWS) within six months.

9.0 Soil Screening

Six (6) soil borings were installed around the UST using a manually operated hollow stem auger. The soil samples were collected and screened for organic vapor concentrations using the headspace screening technique. The soil samples were extracted around the fill pipe and at each corner of the excavation. The soil boring locations and screening results are provided as Attachment E.

The soil screening was conducted in accordance with the headspace screening criteria in Chapter 62-770 FAC and PWC's Comprehensive Quality Assurance Plan using an organic vapor analyzer (OVA). The OVA was manufactured by Thermo Environmental Instruments, Inc (Model 680 HVM) and equipped with a flame ionization detector (FID).

10.0 Groundwater Analysis

A temporary groundwater monitoring well was installed on 5 November 1997 by GFA International, Inc, Sarasota, Florida. The well was constructed with a 2" diameter by 13 foot long, Schedule 40 polyvinyl chloride (PVC) riser. The riser was equipped with a ten foot long by 0.010 inch slotted screen. The well consisted of a coarse silica sand filter and a bentonite seal. The top of the well was encased with concrete and equipped with a lock and a steel cover. The well location, well construction diagram, and groundwater laboratory analyses are provided in Attachment E.

The well was sampled by PWC on 13 November 1997. These samples were transported to the PWC Laboratory in Pensacola, Florida and analyzed for volatile content in accordance with Environmental Protection Agency (EPA) Method 8260, for poly aromatic hydrocarbons (PAH's) in accordance with EPA Method 8270, for ethylene dibromide content in accordance with EPA Method 504, for lead content in accordance with EPA Method 239.2, and for total petroleum hydrocarbon content in accordance with the State of Florida, Petroleum Range Organics (FL-PRO) method.

11.0 Findings and Conclusions

There was no petroleum contamination detected above the state target levels for storage tank closures.

12.0 Recommendations

This site is recommended for No Further Action.

13.0 Closure Assessment

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

14.0 Project Manager

Paul R. Semmes, P.E.

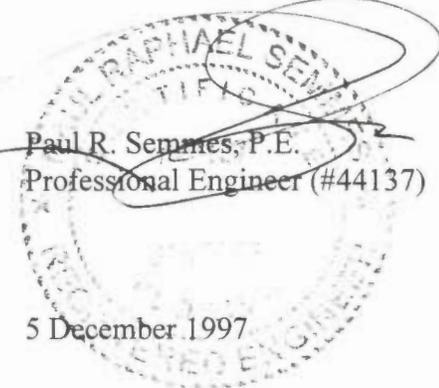
15.0 Project Number

1396004

16.0 Report Date

5 December 1997

The engineering evaluations and professional opinions rendered in this Closure Assessment Report that describes the work associated with the storage tank removal at the Coastal Systems Station, Panama City, Florida were conducted or developed in accordance with the commonly accepted procedures consistent with applicable standards of practice. If conditions are determined to exist differently than those described, the undersigned professional engineer should be notified to evaluate the effects of any additional information on the design described in this report.



Paul R. Semmes, P.E.
Professional Engineer (#44137)
5 December 1997

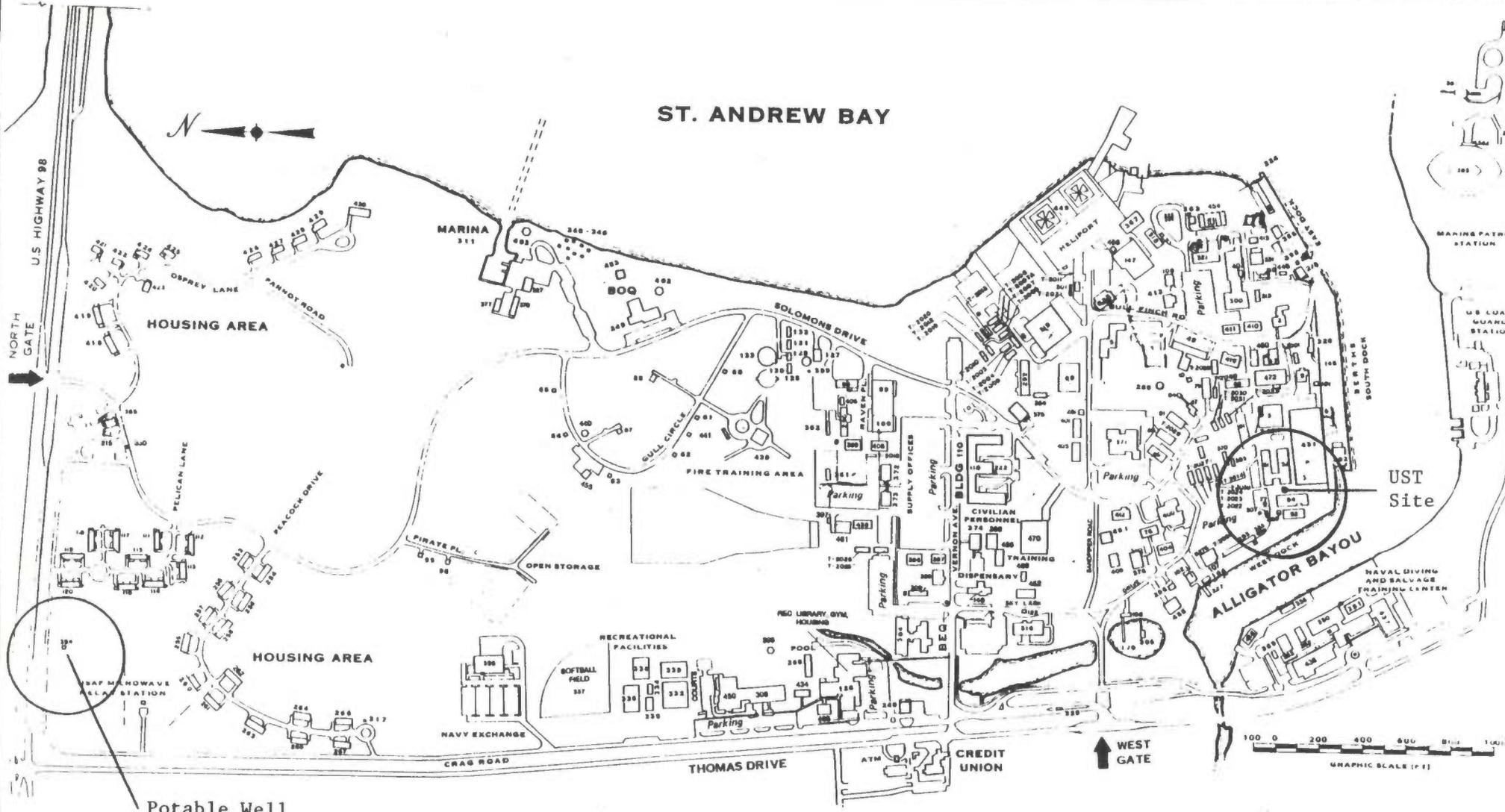
FIGURES

FIGURE 1
Vicinity Map

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



ST. ANDREW BAY



Potable Well



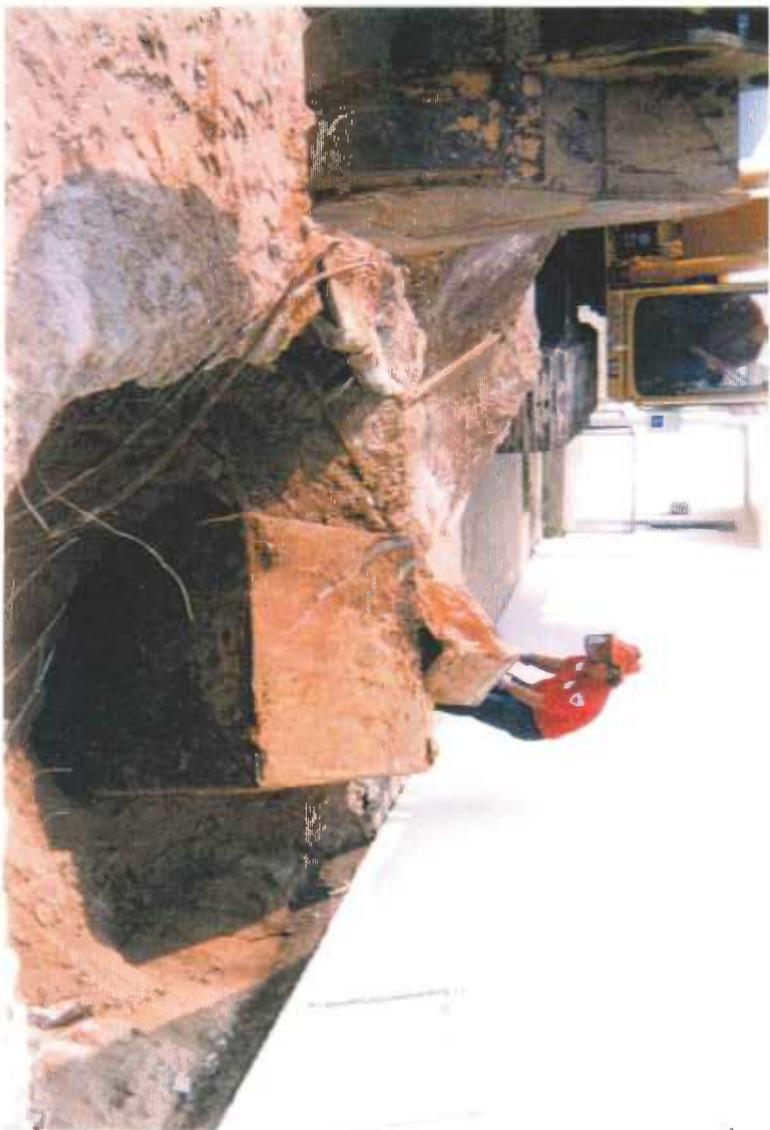
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18



FIGURE 2
Site Map

ATTACHMENTS

ATTACHMENT A
Photographs



ATTACHMENT B
Disposal Document
Scrap Metal

FROM	STOCK NUMBER	QUANTITY	DOCUMENT NUMBER	SUPPLEMENTARY ADDRESS	UNIT PRICE
NAVY PWC	FL 9170024567	452-2170	N65114-7237-9005	RMB	
SHIP TO	MARK FOR	PROJECT	TOTAL PRICE		
DRMO	SCRAP		DOLLARS	CTS.	
FREIGHT CLASSIFICATION NOMENCLATURE	ITEM NOMENCLATURE				
USED TANKS - NAVAL SYSTEMS CMD	x FUEL STORAGE TANKS				
RECEIVED BY AND DATE	INSPECTED BY AND DATE				
8/25/97					
WAREHOUSED BY AND DATE	WAREHOUSE LOCATION				
TRANSPORTATION CHARGEABLE TO	14 PLADING, A.W.B. OR RECEIVER'S SIGNATURE (AND DATE)	15 RECEIVER'S DOCUMENT NUMBER			
	James L. Davis 8-25-97				

FROM	STOCK NUMBER	QUANTITY	DOCUMENT NUMBER	SUPPLEMENTARY ADDRESS	UNIT PRICE
NAVY PWC	FL 9170024567	452-2170	N65114-7237-9004	RMB	
SHIP TO	MARK FOR	PROJECT	TOTAL PRICE		
DRMO	SCRAP		DOLLARS	CTS.	
FREIGHT CLASSIFICATION NOMENCLATURE	ITEM NOMENCLATURE				
USED TANKS - NAVAL SYSTEMS CMD	x FUEL STORAGE TANKS				
RECEIVED BY AND DATE	INSPECTED BY AND DATE				
8/25/97					
WAREHOUSED BY AND DATE	WAREHOUSE LOCATION				
TRANSPORTATION CHARGEABLE TO	14 PLADING, A.W.B. OR RECEIVER'S SIGNATURE (AND DATE)	15 RECEIVER'S DOCUMENT NUMBER			
	James L. Davis 8-25-97				

ATTACHMENT C
Application for Closure of
Pollutant Storage Tank System

APPLICATION FOR CLOSURE OF POLLUTANT STORAGE TANK SYSTEM

Provide the facility information requested below.

FDEP Facility # N/A Facility Name NSWC - CSS

Facility Location Building 94

Property Owner Commanding Officer, Coastal Systems Station (Code P25)

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

Phone (850) 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 (850) 452-4315

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

Contact Mr. Paul Semmes, P.E. Phone (850) 452-4315

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

Contact Mr. Gayle Brown Phone (850) 452-3459

Indicate the laboratory that will conduct groundwater analysis.

Contracted Laboratory U.S. Navy - PWC Phone (850) 452-3180

Contact Mr. Joe Moore FDEP QA/QC 920121G

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

Firm Transporting Soils Southern Waste Systems, Inc.

Contact Ms. Candace Esparza Phone (850)234-8428

Firm Remediating/Disposing Soils Southern Waste Systems, Inc.

Contact Ms. Candace Esparza Phone (850) 234-8428

Disposal/Remediation Method Landfill

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

Firm Transporting Residual Product and Sludge Southern Waste Systems, Inc.
(850) 234-8428

Contact Ms. Candace Esparza Phone (850) 234-8428

Firm Receiving/Disposal Residual Product and Sludge Southern Waste Systems, Inc.
(850) 234-8428

Contact Ms. Candace Esparza Phone (850) 234-8428

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 (850) 452-4315

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).

ATTACHMENT D
Underground Storage Tank
Installation and Removal Form



Florida Department of Environmental Regulation

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

DER Form #	17-761.800(5)
Form Title	Underground Storage Tank Installation & Removal Form for Certified Contractors
Effective Date	December 10, 1990
DER Application No.	(Filed in by DER)

Underground Storage Tank Installation and Removal Form For Certified Contractors

Pollutant Storage System Specialty Contractors as defined in Section 489.113, Florida Statutes (Certified contractors as defined in Section 17-761.200, 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

- DER Facility Identification No.: N/A
- Facility Name: NSWC Coastal Systems Station Telephone: (850) 235-5859
- Street Address (physical location): Building 94 (TANK #52)
- Owner Name: CO, Coastal Systems Station Telephone: (850) 235-5859
- Owner Address: 6703 West Highway 98, Panama City, Florida 32407-7001
- Number of Tanks: a. Installed at this time None b. Removed at this time One
- Tank(s) Manufactured by: Unknown
- Date Work Initiated: 8/8/97 9. Date Work Completed: 8/8/97

Underground Pollutant Tank Installation Checklist

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

- The tanks and piping are corrosion resistant and approved for use by State and Federal Laws.
- Excavation, backfill and compaction completed in accordance with NFPA (National Fire Protection Association) 30(87), API (American Petroleum Institute) 1615, PEI (Petroleum Equipment Institute) RP100-87 and the manufacturers' specifications.
- Tanks and piping pretested and installed in accordance with NFPA 30(87), API 1615, PEI/RP100(87) and the manufacturers' specifications.
- Steel tanks and piping are cathodically protected in accordance with NFPA 30(87), API 1632, UL (Underwriters Laboratory) 1746, STI (Steel Tank Institute) R892-89 and the manufacturer's specifications.
- Tanks and piping tested for tightness after installation in accordance with NFPA 30(87) and PEI/RP100-87.
- Monitoring well(s) or other leak detection devices installed and tested in accordance with Section 17-761.640, Florida Administrative Code (F.A.C.)
- Spill and overflow protection devices installed in accordance with Section 17-761.500, F.A.C.
- Secondary containment installed for tanks and piping as applicable in accordance with Section 17-761.500, 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

- Closure assessment performed in accordance with Section 17-761.800, F.A.C.
- Underground tank removed and disposed of as specified in API 1604 in accordance with Section 17-761.800, F.A.C.

ATTACHMENT E
Closure Assessment Form
Soil & Groundwater Analyses



Closure Assessment Form

Owners 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 12/5/97
2. DEP Facility ID Number: N/A 3. County Bay
4. Facility Name: NSWC Coastal Systems Station
5. Facility Owner: Commanding Officer, Coastal Systems Station
6. Facility Address: Building 94 (TANK #52)
7. Mailing Address: 6703 West Highway 98, Panama City, Florida 32407-7001
8. Telephone Number: (850) 235-5859 9. Facility Operator: 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: 50

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 checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 3. Are monitoring wells present around the storage system?
If yes, please specify <input type="checkbox"/> Vapor Monitoring <input checked="" 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>500'</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 checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 12. If a facility has a pollutant storage tank system that has both gasoline and kerosine/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, Tank 52 Naval Surface Warfare Center Coastal Systems Station Panama City, Florida

Hand Auger Sample No.	Depth (Feet)	Unfiltered (ppm)	Filtered (ppm)	Total Hydrocarbon Readings (ppm)
SS-1	1	<1	<1	0
SS-2	3	<1	<1	0
SS-3	6	<1	<1	0
SS-4	6	2	<1	2
SS-5	6	<1	<1	0
SS-6	6	<1	<1	0

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 440
NAS Pensacola, FL 32508
Phone (850) 452-3180/3642
DSN 922-3180/3642
FAX (850) 452-2799/2387

Client: NPWC Engineering
Address: Bldg. 458, Code 400
NAS Pensacola, FL 32508
Phone #: (850) 452-4315
Contact: Paul Semmes

Analytical Report

601/602 Volatiles by Method 8260

Lab Report Number: 74943
Sample Date: 11/13/97
Received Date: 11/13/97
Sample Site: Panama City
Job Order No.: 139 6004

LAB Sample ID#	1- 74943			
Sample Name / Location	NAVCSS MW # 94			
Collector's Name	P. Keane			
Date & Time Collected	11/13/97 @ 1040			
Sample Type (composite or grab)	Grab			
Analyst	M. Chambers			
Date of Extraction / Initials	11/14/97 MC			
Date of Analysis	11/14/97			
Sample Matrix	GW			
Dilution	X 1			
Compound Name	1- 74943	units	Det. Limit	Flags
Benzene	BDL	ug/L	1	
Bromodichloromethane	BDL	ug/L	1	
Bromoform	BDL	ug/L	2	
Bromomethane	BDL	ug/L	3	
Carbon Tetrachloride	BDL	ug/L	1	
Chlorobenzene	BDL	ug/L	1	
Chloroethane	BDL	ug/L	1	
2-Chloroethylvinyl ether	BDL	ug/L	1	
Chloroform	BDL	ug/L	1	
Chloromethane	BDL	ug/L	1	
Dibromochloromethane	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	
trans-1,2-Dichloroethene	BDL	ug/L	1	
1,2-Dichloropropane	BDL	ug/L	1	
cis-1,3-Dichloropropene	BDL	ug/L	1	
trans-1,3-Dichloropropene	BDL	ug/L	1	
Ethylbenzene	BDL	ug/L	1	
Methylene Chloride	BDL	ug/L	1	
Methyl-tert-butyl ether (MTBE) *	BDL	ug/l	1	
1,1,2,2-Tetrachloroethane	BDL	ug/L	1	
Tetrachloroethene	BDL	ug/L	1	
Toluene	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	
Vinyl Chloride	BDL	ug/L	1	
Xylenes (Total)	BDL	ug/L	1	

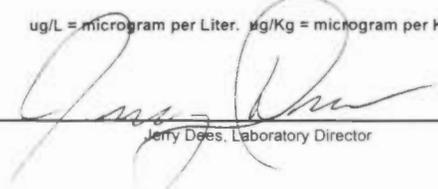
SURROGATE SPIKE RECOVERIES

	Acceptance Limits	Percent Recovery
1,2-Dichloroethane-d4	75-133	117
Toluene-d8	86-119	99
Bromofluorobenzene	85-116	104

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: 12/2/97

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Navy Public Works Center Environmental Laboratory

Bldg. 3887, Code 440
NAS Pensacola, FL 32508
Phone (850) 452-3180/3642
DSN 922-3180/3642
FAX (850) 452-2799/2387

Client: NPWC Engineering
Address: Bldg. 458, Code 400
NAS Pensacola, FL 32508
Phone #: (850) 452-4315
Contact: Paul Semmes

Analytical Report

610 PAH's by Method 8270

Lab Report Number: 74943
Sample Date: 11/13/97
Received Date: 11/13/97
Sample Site: Panama City
Job Order No.: 139 6004

LAB Sample ID#	1- 74943			
Sample Name / Location	NAVCSS MW # 94			
Collector's Name	P. Keane			
Date & Time Collected	11/13/97 @ 1040			
Sample Type (composite or grab)	Grab			
Analyst	J. Moore			
Date of Extraction / Initials	11/17/97 JJ			
Date of Analysis	11/20/97			
Sample Matrix	GW			
Dilution	X 1			
Compound Name	1- 74943	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	
Fluoranthene	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	

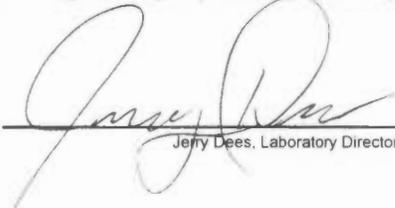
SURROGATE SPIKE RECOVERIES

	Acceptance Limits	Percent Recovery
Nitrobenzene- d5	35-114	85
2-Fluorobiphenyl	43-116	95
Terphenyl -d14	33-141	88

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: 12/2/97

Report Generated

Navy Public Works Center Environmental Laboratory

Bldg. 3887, Code 440
 NAS Pensacola, FL 32508
 Phone (850) 452-3180/3642
 DSN 922-3180/3642
 FAX (850) 452-2799/2387

Client: NPWC Engineering
 Address: Bldg. 458, Code 400
 NAS Pensacola, FL 32508
 Phone #: (850) 452-4315
 Contact: Paul Semmes

Analytical Report

Ethylene Dibromide by Method 504

Lab Report Number: 74943
 Sample Date: 11/13/97
 Received Date: 11/13/97
 Sample Site: Panama City
 Job Order No.: 139 6004

LAB Sample ID#	1- 74943			
Sample Name / Location	NAVCSS MW # 94			
Collector's Name	BH/PK			
Date & Time Collected	11/13/97 @ 1040			
Sample Type (composite or grab)	Grab			
Analyst	M. Chambers			
Date of Extraction / Initials	11/20/97 MC			
Date of Analysis	11/20/97			
Sample Matrix	GW			
Dilution	X 1			
Compound Name	1- 74943	units	Det. Limit	Flags
Ethylene Dibromide	BDL	ug/L	0.02	

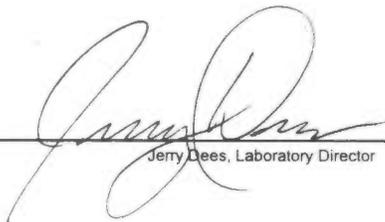
SURROGATE SPIKE RECOVERIES

	Acceptance Limits	Percent Recovery
Tetra-Chloro-m-Xylene	54-140	94

COMMENTS :

BDL = Below Detection Limit. ug/L = microgram per Liter. ug/Kg = microgram per Kilogram.

Approved by :


 Jerry Dees, Laboratory Director

Date: 12/2/97

Report Generated

**Navy Public Works Center
Environmental Laboratory**

Bldg. 3887, Code 440
NAS Pensacola, FL 32508
Phone (850) 452-3180/3642
DSN 922-3180/3642
FAX (850) 452-2799/2387

Client: NPWC Engineering
Address: Bldg. 458, Code 400
NAS Pensacola, FL 32508
Phone #: (850) 452-4315
Contact: Paul Semmes

Analytical Report

Petroleum Range Organics by FLPRO

Lab Report Number: 74943
Sample Date: 11/13/97
Received Date: 11/13/97
Sample Site: Panama City
Job Order No.: 139 6004

LAB Sample ID#	1- 74943			
Sample Name / Location	NAVCSS MW # 94			
Collector's Name	BH/PK			
Date & Time Collected	11/13/97 @ 1040			
Sample Type (composite or grab)	Grab			
Analyst	J. Moore			
Date of extraction / Initials	11/17/97 JJ			
Date of Analysis	11/24/97			
Sample Matrix	GW			
Dilution	x 1			
Parameter	1- 74943	units	Det. Limit	Flags
Petroleum Range Organics by FLPRO	BDL	mg/L	0.25	

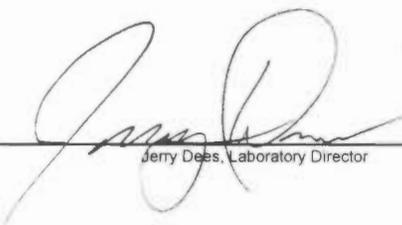
SURROGATE SPIKE RECOVERIES

	Acceptance Limits	Percent Recovery
ortho-Terphenyl	82-142 *	71
Nonatriacontane (C-39)	42-193 *	70

COMMENTS : * = Suggested surrogate recovery limits listed in the method. In-house laboratory limits are in the process of being determined.

BDL = Below Detection Limit. mg/L = milligram per Liter. mg/Kg = milligram per Kilogram.

Approved by :



Jerry Dees, Laboratory Director

Date: 12/2/97

**Navy Public Works Center
Environmental Laboratory**

Analytical Report

Total Lead by Method 239.2

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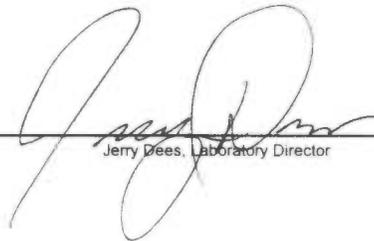
Lab Report Number: 74943
Sample Date: 11/13/97
Received Date: 11/13/97
Sample Site: Panama City
Job Order No.: 139 6004

LAB Sample ID#	1- 74943			
Sample Name / Location	NAVCSS MW # 94			
Collector's Name	P. Keane			
Date & Time Collected	11/13/97 @ 1040			
Sample Type (composite or grab)	Grab			
Analyst	B. Nelson			
Date of Analysis	11/17/97			
Sample Matrix	GW			
Dilution	X 1			
Element Name	1- 74943	units	Det. Limit	Flags
Lead	BDL	mg/L	0.003	

COMMENTS :

BDL = Below Detection Limit. mg/L = milligram per Liter. mg/Kg = milligram per Kilogram.

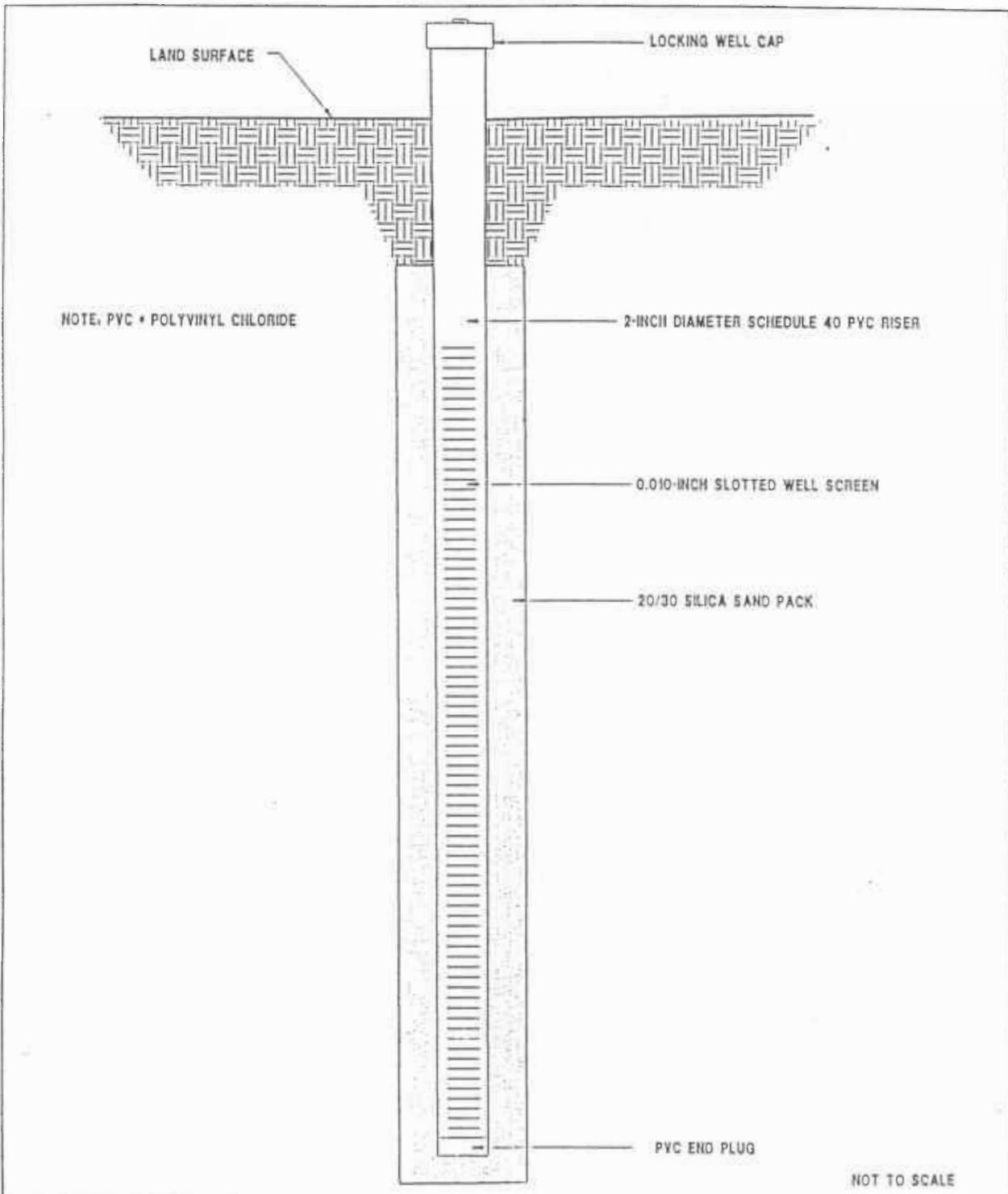
Approved by :



Jerry Dees, Laboratory Director

Date: 12/2/97

Report Generated



TYPICAL TEMPORARY MONITORING WELL
INSTALLATION DETAIL

ATTACHMENT F
Decontamination Certification

CERTIFICATE OF DECONTAMINATION

It is hereby certified that the following Storage Tanks located at the Naval Surface Warfare Center, Coastal Systems Station, Panama City, Florida have been decontaminated by the Navy Public Works Center (PWC), Pensacola, Florida:

Bldg 92	Bldg 110	Bldg 300	Bldg 371
Bldg 94 (TANK #52)	Bldg 129	Bldg 321 (TANK #322)	
Bldg 98	Bldg 146 (TANK #172)	Bldg 363	

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 unusable.

Signature

PAUL R Semmes, PE
Environmental Engineer

Title

Date

