N60200.AR.001862
NAS CECIL FIELD, FL
5090.3a

CONFIRMATORY SAMPLING REPORT FOR BUILDING 200 OIL-WATER SEPARATOR 200-OW AND TANK 200-OW BASE REALIGNMENT AND CLOSURE STORAGE TANK GREY SITES REVISION 1 NAS CECIL FIELD FL

5/1/1999

HARDING LAWSON ASSOCIATES

CONFIRMATORY SAMPLING REPORT

BUILDING 200, OIL-WATER SEPARATOR 200-OW AND TANK 200-OW

BASE REALIGNMENT AND CLOSURE

UNDERGROUND STORAGE TANK AND ABOVEGROUND STORAGE TANK GREY SITES

NAVAL AIR STATION CECIL FIELD JACKSONVILLE, FLORIDA

Unit Identification Code: N60200

Contract No.: N62467-89-D-0317/149

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

May 1999

Revision 1.0

CERTIFICATION OF TECHNICAL
DATA CONFORMITY (MAY 1987)

The Contractor, ABB Environmental Services, Inc., hereby certifies that, to the best of its knowledge and belief, the technical data delivered herewith under Contract No. N62467-89-D-0317/149 are complete and accurate and comply with all requirements of this contract.

DATE: May 14, 1999

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 200, Oil-Water Separator 200-OW and Tank 200-OW
Naval Air Station Cecil Field
Jacksonville, Florida

Chapter	Title	Page No.
1.0	INTRODUCTION	1
2.0	FIELD INVESTIGATION	1
3.0	SCREENING AND ANALYTICAL RESULTS	1
4.0	CONCLUSIONS AND RECOMMENDATIONS	6

REFERENCES

APPENDICES

Appendix A: Closure Assessment Report
Appendix B: Monitoring Well Installation Detail
Appendix C: Analytical Data

LIST OF FIGURES

Confirmatory Sampling Report
Building 200, Oil-Water Separator 200-OW and Tank 200-OW
Naval Air Station Cecil Field
Jacksonville, Florida

Figure	Title	Page No.
1	Site Plan	2
2	Soil Boring and Monitoring Well Locations	3

LIST OF TABLES

Table	Title	Page No.
1	Soil Screening Results	4
2	Summary of Groundwater Analytical Results	7

GLOSSARY

ABB-ES	ABB Environmental Services, Inc.
bls	below land surface
FAC	Florida Administrative Code
OVA	organic vapor analyzer
ppm	parts per million
UST	underground storage tank

1.0 INTRODUCTION

ABB Environmental Services, Inc. (ABB-ES), under contract to the Southern Division, Naval Facilities Engineering Command, has completed the confirmatory sampling for the oil-water separator 200-OW and its associated underground storage tank (UST) 200-OW, at Naval Air Station Cecil Field in Jacksonville, Florida. This report summarizes the related field operations, results, conclusions, and recommendations of the confirmatory sampling.

Oil-water separator 200-OW and the UST were located east of Building 200. Building 200 is used as a hobby shop and as the administrative headquarters of the Morale, Welfare, and Recreation staff (Figure 1). The oil-water separator had a 150 gallon capacity. The UST had a 300-gallon capacity and is used to store waste oil from the oil-water separator (ABB-ES, 1997a). A Contamination Assessment Plan for the assessment of soil and groundwater at Building 200 was prepared by ABB-ES in November 1996 (ABB-ES, 1996). Confirmatory sampling was initially conducted in February 1997 and the Confirmatory Sampling Report recommended that additional soil investigation take place (ABB-ES, 1997b).

Oil-water separator 200-OW and Tank 200-OW were removed by Supship Portsmouth Environmental Detachment Charleston in August 1998. A closure report was prepared for the site and submitted to Florida Department of Environmental Protection (FDEP) in December 1998 (Detachment, 1998) and is included in Appendix A.

2.0 FIELD INVESTIGATION

Supplemental confirmatory sampling for oil-water separator 200-OW and for Tank 200-OW was initiated in October 1997. It included:

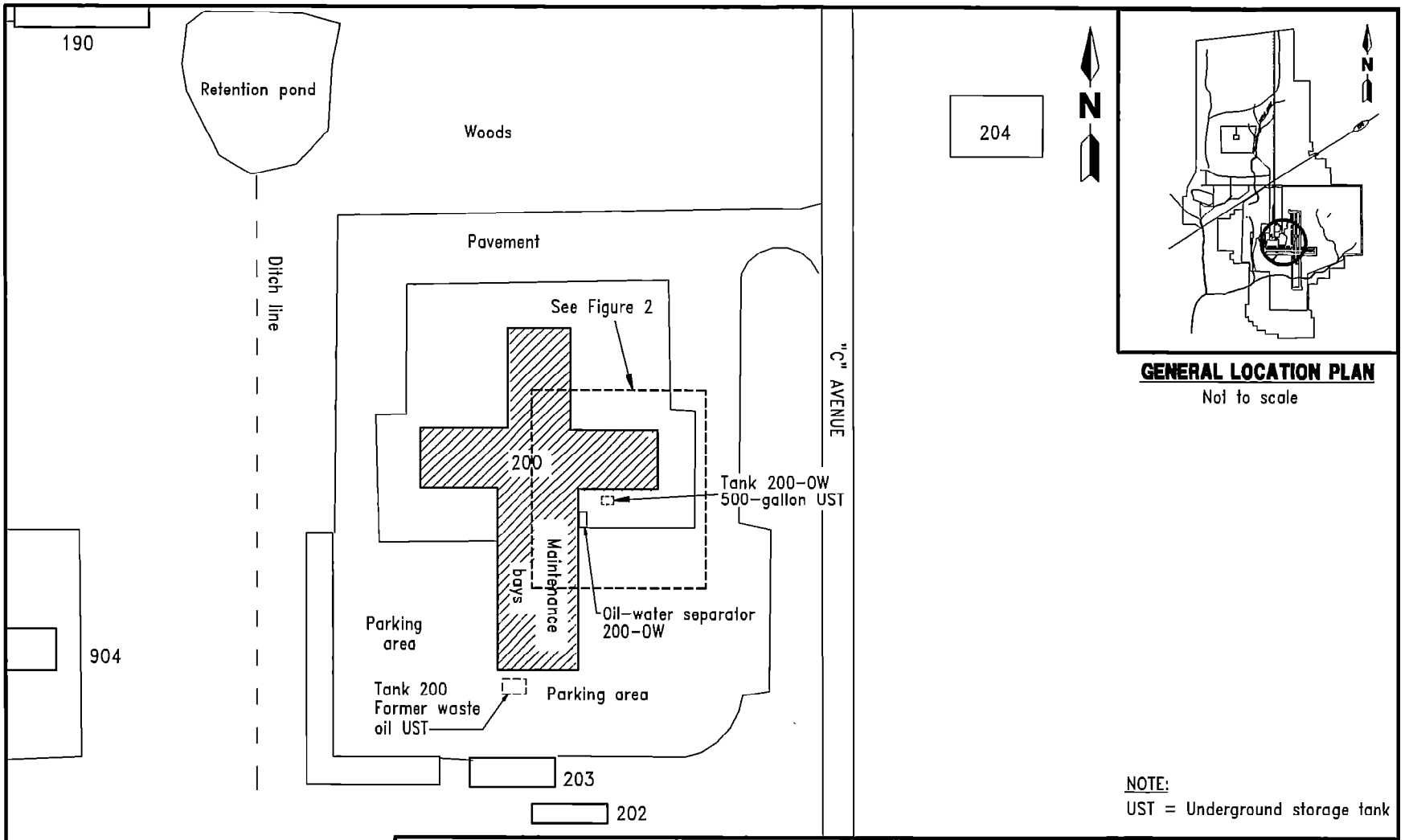
- the advancement of three soil borings to the water table, and
- the collection and analysis of one groundwater sample.

Soil samples were collected from each boring at depth intervals of 1 foot below land surface (bls) and every 2 feet thereafter to the water table. These samples were screened for hydrocarbon vapors with an organic vapor analyzer (OVA).

Monitoring well TW-200-1, which was installed during the closure assessment, was resampled for TRPH and chromium. A general site plan indicating the location of the soil borings and monitoring wells is presented on Figure 2. The monitoring well construction details for CEF-200-OW-1S, which was previously installed during the initial confirmatory sampling program, is presented as Appendix B.

3.0 SCREENING AND ANALYTICAL RESULTS

Excessively contaminated soil (greater than 50 parts per million [ppm] on an OVA) was not detected in the three soil borings advanced during the supplemental confirmatory sampling. The borings were advanced to delineate the extent of excessively contaminated soil identified in boring OW-SB4. The soil OVA data are summarized in Table 1 and presented on Figure 2.



GENERAL LOCATION PLAN
Not to scale

NOTE:
UST = Underground storage tank

FIGURE 1
SITE PLAN

CONFIRMATORY SAMPLING REPORT
OIL-WATER SEPARATOR 200-OW
AND TANK 200-OW

NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

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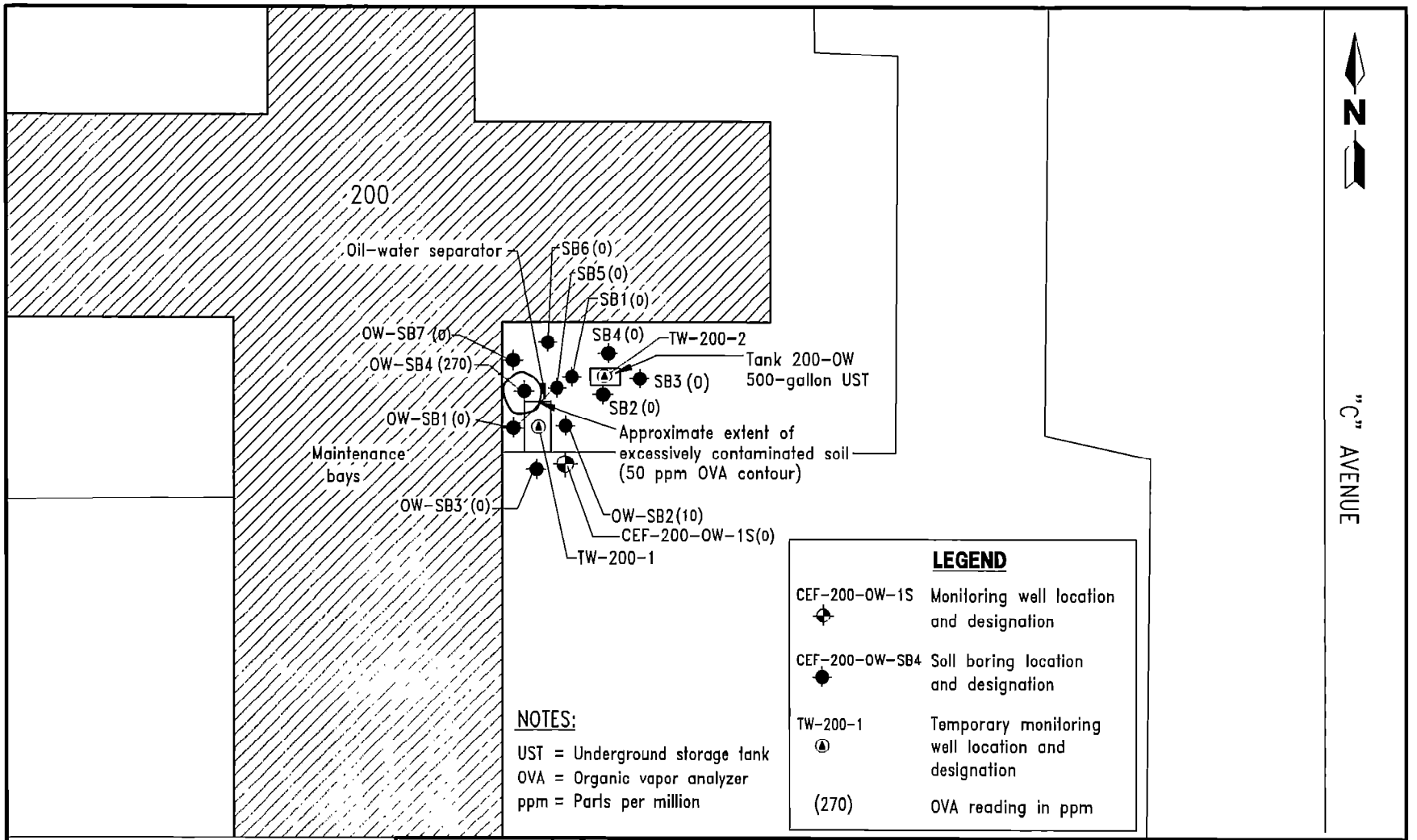


0 15 30
SCALE: 1 INCH = 30 FEET

FIGURE 2
SOIL BORING AND MONITORING WELL LOCATIONS

CONFIRMATORY SAMPLING REPORT
OIL-WATER SEPARATOR 200-OW
AND TANK 200-OW

NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

CFT200OW.CSR
PMW.05.99

Table 1
Soil Screening Results

Confirmatory Sampling Report
Building 200, Oil-Water Separator 200-OW and Tank 200-OW
Naval Air Station Cecil Field
Jacksonville, Florida

Location	OVA Concentration (ppm)			
	Depth (feet bls)	Unfiltered	Filtered	Actual
SB1	1	0	–	0
	3	0	–	0
	4 (wet)	0	–	0
SB2	1	0	–	0
	3	0	–	0
	4 (wet)	0	–	0
SB3	1	0	–	0
	3	0	–	0
	4 (wet)	0	–	0
SB4	1	0	–	0
	3	0	–	0
	4 (wet)	0	–	0
OW-SB1	1	0	–	0
	3	0	–	0
	5	0	–	0
	7 (wet)	240	0	240
	9 (wet)	24	0	24
OW-SB2	1	0	–	0
	3	0	–	0
	5	0	–	0
	6 (refusal)	10	–	10
OW-SB3	1	0	–	0
	3	0	–	0
	4 (refusal)	0	–	0
OW-SB4	1	0	–	0
	3	0	–	0
	5	270	0	270
	7 (wet)	600	0	600
SB5	1	0	–	0
	3	0	–	0
	4 (refusal)	NA	NA	NA
SB6	1	0	–	0
	3	0	–	0
	5	0	–	0
	7 (wet)	0	–	0

See notes at end of table.

Table 1 (Continued)
Soil Screening Results

Confirmatory Sampling Report
Building 200, Oil-Water Separator 200-OW and Tank 200-OW
Naval Air Station Cecil Field
Jacksonville, Florida

Location	OVA Concentration (ppm)			
	Depth (feet bls)	Unfiltered	Filtered	Actual
SB7	1	0	–	0
	3	0	–	0
	5	0	–	0
	7 (wet)	0	--	0
CEF-200-OW-1S	1	0	–	0
	3	0	–	0
	7 (wet)	10	–	10
	11 (wet)	11	–	11

Notes: All soil samples were collected on February 11, 1997 and October 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.
wet = soil sample was completely saturated when analyzed.
refusal = subsurface obstruction encountered during boring advancement; no further samples collected at this location.
NA = not applicable.

No excessively contaminated soil was detected during the tank removal. No compounds were detected above cleanup target levels in the soil samples collected during removal. Analytical results are presented in the closure assessment report in Appendix A.

During the initial confirmatory sampling, groundwater contamination was not detected at concentrations exceeding requirements specified in Chapter 62-770 of the Florida Administrative Code (FAC). However, TRPH and chromium were detected at concentrations above cleanup target levels in the groundwater sample collected during the closure assessment from the temporary well installed at the former oil-water separator location. This well was subsequently resampled in March 1999 and TRPH and chromium were not detected. Analytical data are summarized in Table 2 and presented in Appendix C.

4.0 CONCLUSIONS AND RECOMMENDATIONS

Data obtained during the removal of oil-water separator 200-OW and Tank 200-OW did not indicate the presence of excessively contaminated soil or the presence of contaminated soil at concentrations above cleanup target levels.

No contaminants were detected above the regulatory standards specified in Chapter 62-770, FAC, in the groundwater samples collected from monitoring well CEF-200-1S or the resampling of temporary well TW-200-1.

It is recommended that no further action take place at the oil-water separator 200-OW and Tank 200-OW site.

Table 2
Summary of Groundwater Analytical Results

Confirmatory Sampling Report
Building 200, Oil-Water Separator 200-OW and Tank 200-OW
Naval Air Station Cecil Field
Jacksonville, Florida

Compound	CEF-200-OW-1S		TW-200-1		TW-200-2	Groundwater Cleanup Target Levels[1]
	July 1996 Sample 60W00101	March 1997	September 1998	March 1999	September 1998	
Volatile Organic Aromatics (USEPA Method 601/602) (μg/ℓ)						
No compounds detected.						
Polynuclear Aromatic Hydrocarbons (USEPA Method 625) (μg/ℓ)						
No compounds detected.						
Total Recoverable Petroleum Hydrocarbons (TRPH) (FL-PRO) (mg/ℓ)						
TRPH	ND	ND	**26**	ND	ND	5
Inorganic Analytes (μg/ℓ)						
Barium	28.2J	NC	300	ND	20	2,000
Chromium	ND	NC	**200**	ND	ND	100

[1] Chapter 62-770, Florida Administrative Code.

Notes: Bold indicates concentration exceeds cleanup target level.

USEPA = U.S. Environmental Protection Agency.
μg/ℓ = micrograms per liter.
J = estimated value.
FL-PRO = Florida Petroleum Residual Organics.
mg/ℓ = milligrams per liter.
NC = not collected.

REFERENCES

ABB Environmental Services, Inc. (ABB-ES). 1996. *Contamination Assessment Plan, Naval Air Station Cecil Field, Jacksonville, Florida*. Prepared for Southern Division, Naval Facilities Engineering Command (SOUTHNAVFACENGCOM), North Charleston, South Carolina (November).

ABB-ES. 1997a. *Base Realignment and Closure Tank Management Plan, Naval Air Station Cecil Field, Jacksonville, Florida*. Prepared for SOUTHNAVFACENGCOM, North Charleston, South Carolina (January).

ABB-ES. 1997b. *Confirmatory Sampling Report, Building 200, Tank 200-OW, Naval Air Station Cecil Field, Jacksonville, Florida*. Prepared for SOUTHNAVFACENGCOM, North Charleston, South Carolina (November).

Detachment. 1998. Closure Assessment Report, Naval Air Station Cecil Field, Jacksonville, Florida (December).

APPENDIX A

CLOSURE ASSESSMENT REPORT

DER Form # 17-761.900(6)
Form Title: Closure Assessment Form
Effective Date: December 10, 1990
DER Application No.

Florida Department of Environmental Regulation
Twin Towers Office Bldg • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

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 assesment was performed in accordance with Rule 17-761 or 17-762, Florida Administrative Code. Eligible Early Detection Incentive (EDI) and Reimbursement Program sites do not have to perform a closure assessment.

Please Print or Type
Complete All Applicable Blanks

1. Date: 12-7-98
2. DER Facility ID Number: 168507293 3. County: DUVAL
4. Facility Name: BUILDING 200, HOBBY SHOP
5. Facility Owner: U.S. NAVY, NAVAL AIR STATION CECIL FIELD
6. Facility Address: BUILDING 200, "C" AVENUE
7. Mailing Address: N.P.W.C., BOX 101, CECIL FIELD ZONE, NAS CECIL FIELD
8. Telephone Number: (904) 778-5620, x114 9. Facility Operator: DAVE KRUZICKI
10. Are the Storage Tank(s): **(Circle one or both)** A. Aboveground or B. (Underground)
11. Type of Product(s) Stored: USED OIL
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: TWO 14. Age of Tanks: UNKNOWN

Facility Assessment Information

Yes	No	Not Applicable	
☐	☒		1. Is the facility participating in the Florida Petroleum Liability Insurance and Restoration Program (FPLIRP)?
☐	☒		2. Was a Discharge Reporting Form submitted to the Department? If yes, When: ____ Where: ____
☒	☐		3. Is the depth to ground water less than 20 feet?
☒	☐	☐	4. Are monitoring wells present around the storage system? If yes, specify type: ☒ Water monitoring ☐ Vapor monitoring
☐	☒	☐	5. Is there free product present in the monitoring wells or within the excavation?
☐	☐	☒	6. Were the petroleum hydrocarbon vapor levels in the soils greater than 500 parts per million for gasoline? Specify sample type: ☐ Vapor Monitoring wells ☐ Soil sample(s)
☐	☐	☒	7. Were the petroleum hydrocarbon vapor levels in the soils greater than 50 parts per million for diesel/kerosene? Specify sample type: ☐ Vapor Monitoring wells ☐ Soil sample(s)
☒	☐	☐	8. 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 sheets)
☐	☒	☐	9. If a used oil storage system, did a visual inspection detect any discolored soil indicating a release?
☐	☒		10. Are any potable wells located within ¼ of a mile radius of the facility?
☐	☒		11. Is there a surface water body within ¼ mile radius of the site? If yes, indicate distance: ____

Northwest District: 160 Governmental Center, Pensacola, Florida 32501-5794
Northeast District: 7825 Baymeadows Way, Suite B-200, Jacksonville, Florida 32207
Central District: 3319 Maguire Blvd, Suite 232, Orlando, Florida 32803-3767
Southwest District: 4520 Oak Fair Blvd, Tampa, Florida 33610-7347
South District: 2269 Bay St, Fort Myers, Florida 33901-3881
Southeast District: 1900 S. Congress Ave, Suite A, West Palm Beach, Florida 33406

DER Form # 17-761.900(6)
Form Title Closure Assessment Form
Effective Date December 10, 1990
DER Application No _____ (Field in by DEP)

12. 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.
13. 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 obtained.
14. Amount of soils removed and receipt of proper disposal.
15. If yes is answered to any one of questions 5-9, a Discharge Reporting Form 17-761.900(1) indicating a suspected release shall be submitted to the Department within one working day.
16. A copy of this form and any attachments must be submitted to the Department's district office in your area and to the locally administered program office under contract with the Department within 60 days of completion of tank removal or filling a tank with an inert material.

Signature of Owner — Date

T. L. LaGlee

Signature of Person Performing Assessment — Date

PROJECT MANAGER

Title of Person Performing Assessment

State Ground Water Target Levels That Affect A Pollutant Storage Tank System Closure Assessment

State ground water target levels are as follows:

1. For gasoline (EPA Method 602):
   a. Benzene — 1 ug/l
   b. Total VOA — 50 ug/l
      - Benzene
      - Toluene
      - Total Xylenes
      - Ethylbenzene
   c. Methyl Tert-Butyl Ether (MTBE) — 50 ug/l
2. For kerosene/diesel (EPA Method 610):
   a. Polynuclear Aromatic Hydrocarbons (PAHS) (Best achievable detection limit, 10 ug/l maximum)

SPORTENVDETCHASN
SUPSHIP PORTSMOUTH ENVIRONMENTAL DETACHMENT CHARLESTON
1899 NORTH HOBSON AVENUE
NORTH CHARLESTON, S.C. 29405-2106
Underground Storage Tank (UST) Assessment Report

I OWNERSHIP OF UST(S)

Agency/Owner: Naval Air Station, Cecil Field DER Facility No. 168507293

Mailing Address: N.P.W.C., Box 101, Cecil Field Zone, NAS Cecil Field.

City: Jacksonville State: FL Zip Code: 32215-0101

Area Code: 904 Telephone Number: 778-5620, x114 Contact Person: Dave Kruzicki

II SITE IDENTIFICATION AND LOCATION

Site I.D. #: BUILDING 200

Facility Name: Naval Air Station Cecil Field

Street Address: Building 200, "C" Avenue

City: Jacksonville, 32215-0101 County: Duval

III CLOSURE INFORMATION

Closure Started: 8/29/98 Closure Completed: 9/05/98

Number of USTs Closed: 2

N/A
Consultant

SPORTENVDETCHASN
UST Removal Contractor

IV. CERTIFICATION (Read and Sign after completing entire submittal)

I certify that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals responsible for obtaining this information, I believe that the submitted information is true, accurate and complete

T.L. McElwee
Name (Type or Print)

T.L. McElwee
Signature

V. UST INFORMATION

		O/W SEP	O/W SEP TANK	Tank 3	Tank 4	Tank 5
A.	Product	Waste Oil/ Water	Waste Oil/ Water			
B.	Capacity	150 gal	300 gal			
C.	Age	Unk	Unk			
D.	Construction Material	steel	steel			
E.	Month/Year of Last Use	Unk	Unk			
F.	Depth (ft.) To Base of Tank	5' 6"	8' 5"			
G.	Spill Prevention Equipment Y/N	N	N			
H.	Overfill Prevention Equipment Y/N	N	N			
I.	Method of Closure Removed/Filled	R	R			
J.	Visible Corrosion or Pitting Y/N	N	N			
K.	Visible Holes Y/N	N	N			

L. Method of disposal for any USTs removed from the ground (attach disposal manifests)

UST 200 & OWS 200 were removed, cut open at both ends, as needed, drained and cleaned with a steam cleaner. They were then cut up for recycling as scrap metal and delivered to Commercial Metals Inc.. (See Attachment III.)

M. Method of disposal for any liquid petroleum, sludges, or waste waters removed from the USTs (attach disposal manifests)

Prior to tank removals the residual waste oil/water was pumped out of the tank by Cecil Field Fuel Farm personnel for recycling. The oily rinse water was recycled through the oil/water separator at the Transportation Office, Building 80, NAS Cecil Field.

N. If any corrosion, pitting, or holes were observed, describe the location and extent for each UST

UST 200, a waste oil tank, and OWS 200, an O/W Separator, were steel exterior. OWS 200 was installed inside a concrete block vault (6' x 6' x 5' 6" deep). The concrete block vault had only soil as its bottom. Both tanks were in very good condition with no corrosion, pitting or holes.

VI. PIPING INFORMATION

	O/W SEP	O/W SEP TANK	Tank 3	Tank 4
A. Construction Material.....	Steel/ Cast Iron	Steel		
B. Distance from UST to Dispenser.....	10' see note 1	30' see note 1		
C. Number of Dispensers.....	1 see note 1	1 see note 1		
D. Type of System P/S/G.....	Gravity	Gravity		
E. Was Piping Removed from the Ground? Y/N....	Y See Note 2	Y See Note 2		
F. Visible Corrosion or Pitting Y/N.....	N	N		
G. Visible Holes Y/N.....	N	N		
H. Age.....	Unk	Unk		

Note 1: The OWS received waste oil/water from Building 200 floor drains. Inlet piping from the building to the separator was blanked prior to our arrival. The waste oil from the separator was held in UST 200.

Note 2: All piping was removed from the tank. As for the separator, the inlet piping from the building and the outlet piping to the sanitary sewer were the only ones left in place. All other piping was removed.

I. If any corrosion, pitting, or holes were observed, describe the location and extent for each line.

All piping was in good condition with little or no corrosion.

VII. BRIEF SITE DESCRIPTION AND HISTORY

Building 200 is the base Hobby Shop located on "C" Avenue at NAS Cecil Field. The building had a 150 gallon oil/water separator (OWS 200) with a connecting 300 gallon underground storage tank (UST 200) which collected waste oil after separation. The oil/water separator was supplied by fluids generated during vehicle and equipment maintenance. The fluids entered the floor drains inside the hobby shop and gravity fed to the oil/water separator. Prior to the DET's arrival, the floor drains had been blanked by personnel unknown. The underground storage tank measured 38" dia. x 5' long and the o/w separator measured 3'6" x 2'10" x 2' 3" deep and was located inside a concrete block vault. Both were located beneath grass on the east side of the building near the maintenance bays.

After the removal of UST 200 & OWS 200, a visual inspection was performed of the excavations and no signs of contamination were noted. There was no ground water in either excavation after tank removal. After soil sampling was completed, the excavation was backfilled with clean soil removed from the excavation and clean fill dirt from DT Services, Jacksonville, Florida. There was no excessively contaminated soil found at this site. Temporary wells were installed at the former tank sites and sampled.

VIII. SITE CONDITIONS

		Yes	No	Unk
A.	Were any petroleum-stained or contaminated soils found in the UST excavation, soil borings, trenches, or monitoring wells?		X	
B.	Were any petroleum odors detected in the excavation, soil borings, trenches, or monitoring wells?		X	
C.	Was water present in the UST excavation, soil borings, or trenches?		X	
D.	Did contaminated soils remain stockpiled on site after closure?		X	
E.	Was a petroleum sheen or free product detected on any excavation or boring waters? _____		X	

IX. SAMPLE INFORMATION

See Site Map 3

X. SAMPLING METHODOLOGY

Provide a detailed description of the methods used to collect and store (preserve) the samples.

After the removal of UST 200 & OWS 200, a visual inspection was performed of the excavations and no signs of contamination were noted. There was no ground water in either excavation after tank removal. Sampling was performed in accordance with the FDEP Pollutant Storage Tank Closure Assessment Requirements and the FDEP Quality Assurance Standard Operating Procedures for Petroleum Storage System Closure Assessments.

Sample jars were prepared by the testing laboratory. The sample containers were filled leaving no head space and immediately capped.

The samples were marked, logged, and immediately placed in sample coolers packed with ice to maintain an approximate temperature of 4° C. Tools were thoroughly cleaned and decontaminated with organic-free soap and water after each sample.

The samples remained in the custody of SPORTENVDETCHASN until they were transferred to NPWC Pensacola Environmental Laboratory for analysis as documented in the attached Chain-of-Custody Record.

XI. RECEPTORS

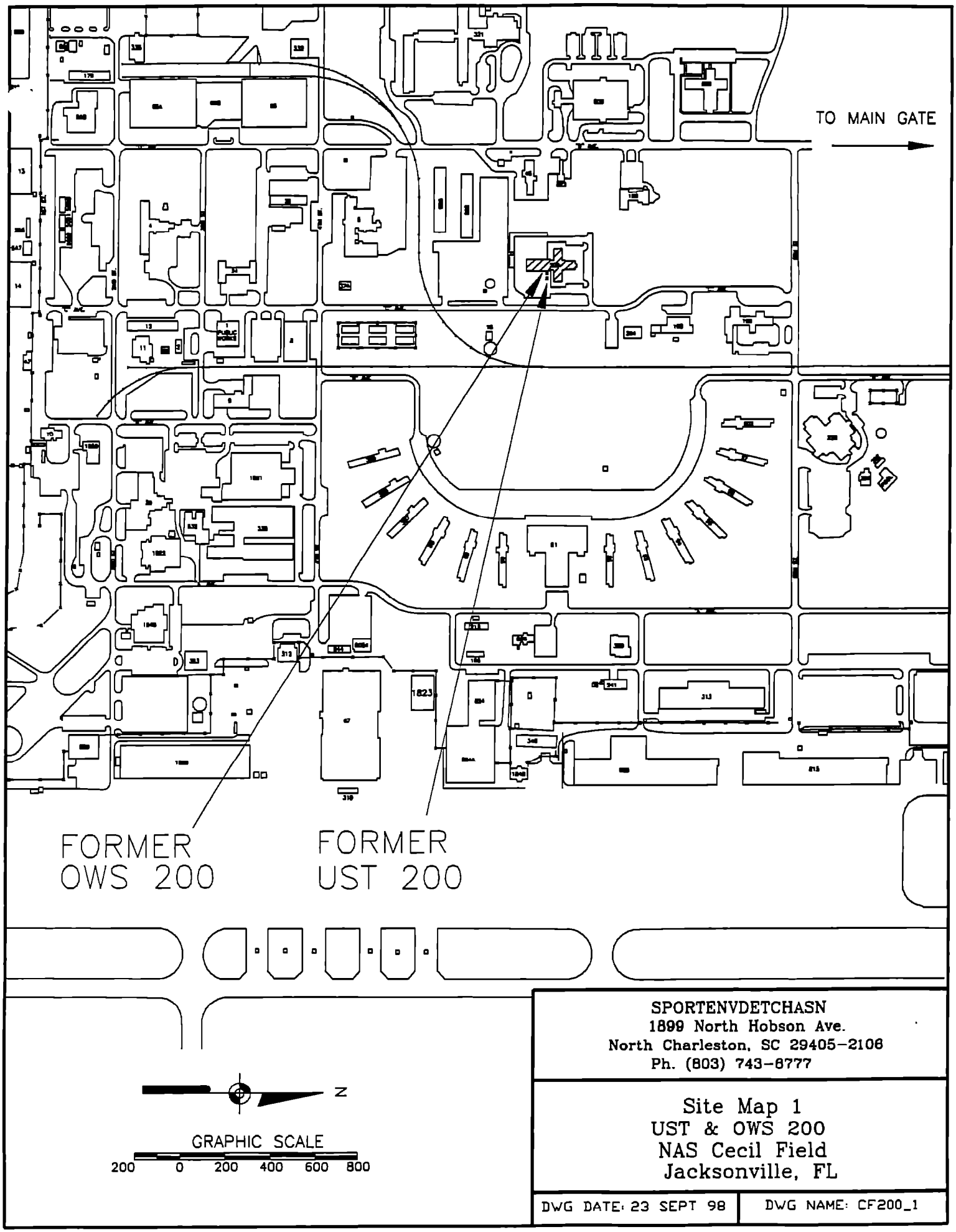
		Yes	No
A.	Are there any lakes, ponds, streams, or wetlands located within 1000 feet of the UST system?		X
B.	Are there any public, private, or irrigation water supply wells within 1000 feet of the UST system?		X
C.	Are there any underground structures (e.g., basements) located within 100 feet of the UST system?		X
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? **[electrical, sanitary sewer, telephone & water]**	X	
E.	Has contaminated soil been identified at a depth of less than 3 feet below land surface in an area that is not capped by asphalt or concrete?		X

Attachment I

SITE MAPS AND PHOTOGRAPHS

Site Maps 1, 2 and 3

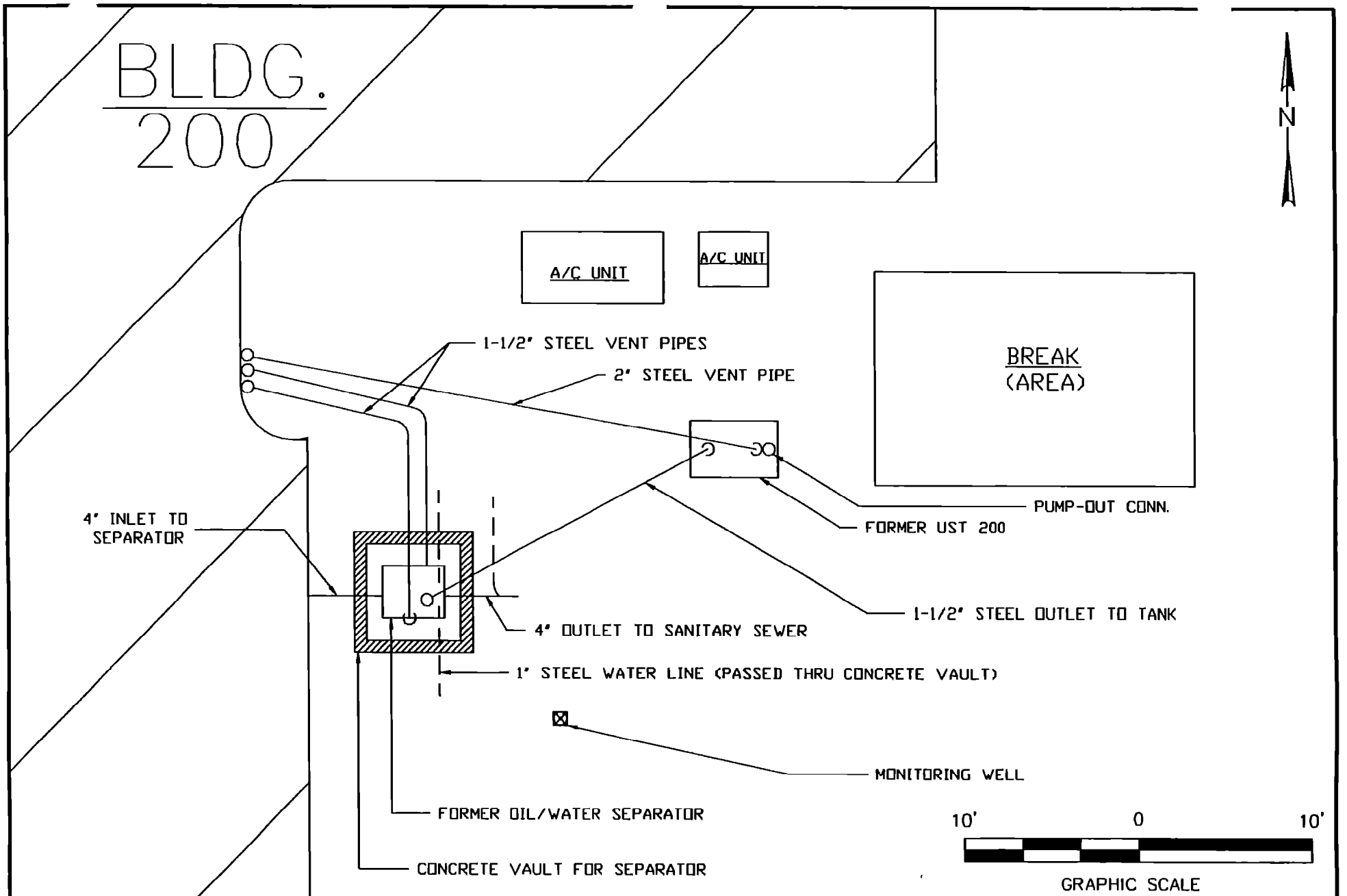
Photographs 1 thru 11



SPORTENVDETCHASN
1899 North Hobson Ave.
North Charleston, SC 29405-2106
Ph. (803) 743-8777

Site Map 1
UST & OWS 200
NAS Cecil Field
Jacksonville, FL

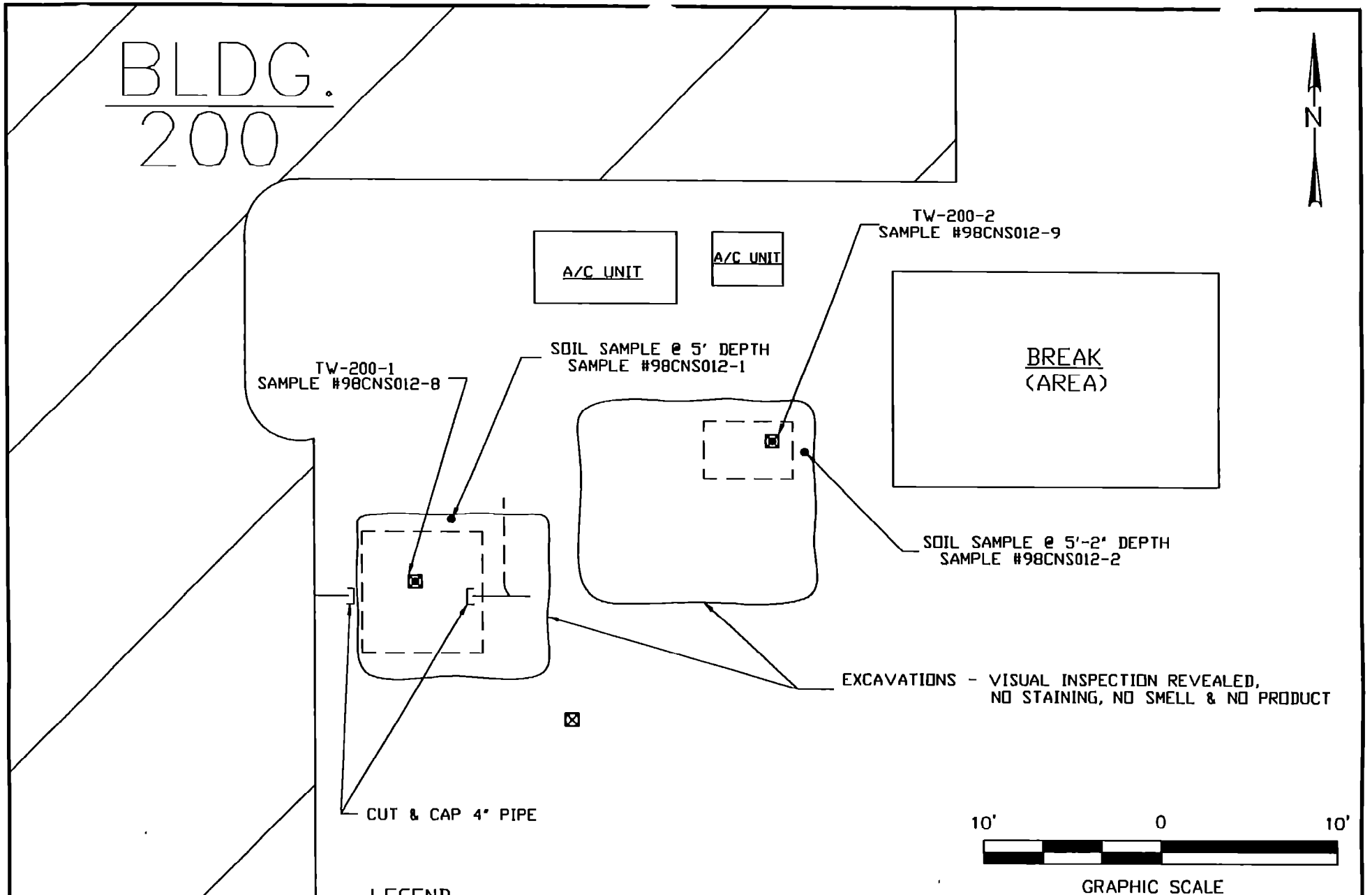
DWG DATE: 23 SEPT 98 | DWG NAME: CF200_1



SPORTENVDETCHASN
1899 North Hobson Ave.
North Charleston, SC
29405-2106
Ph. (803) 743-6777

Site Map 2
BUILDING 200 SITE LAYOUT
NAS Cecil Field
Jacksonville, FL.

DWG DATE:05 OCT 98 | DWG NAME: 200_2



SPORTENVDETCHASN
1899 North Hobson Ave.
North Charleston, SC
29405-2106
Ph. (803) 743-6777

Site Map 3
BLDG. 200 EXCAVATIONS & WELL LOCATIONS
NAS Cecil Field
Jacksonville, FL.

DWG DATE:05 OCT 98 | DWG NAME: 200_3

BUILDING 200 TANK REMOVALS

Photo 1: UST 200 & OWS 200 prior to excavation.

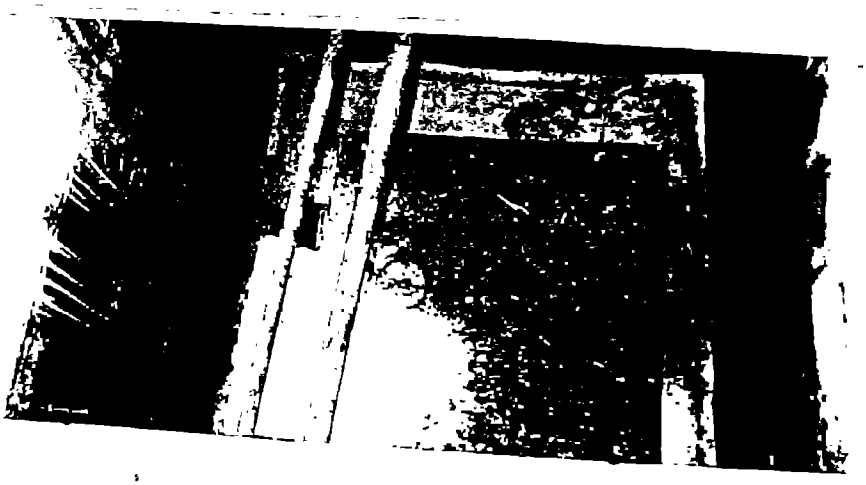


Photo 2: Oil/Water Separator inside concrete block vault prior to removal.

BUILDING 200 TANK REMOVALS

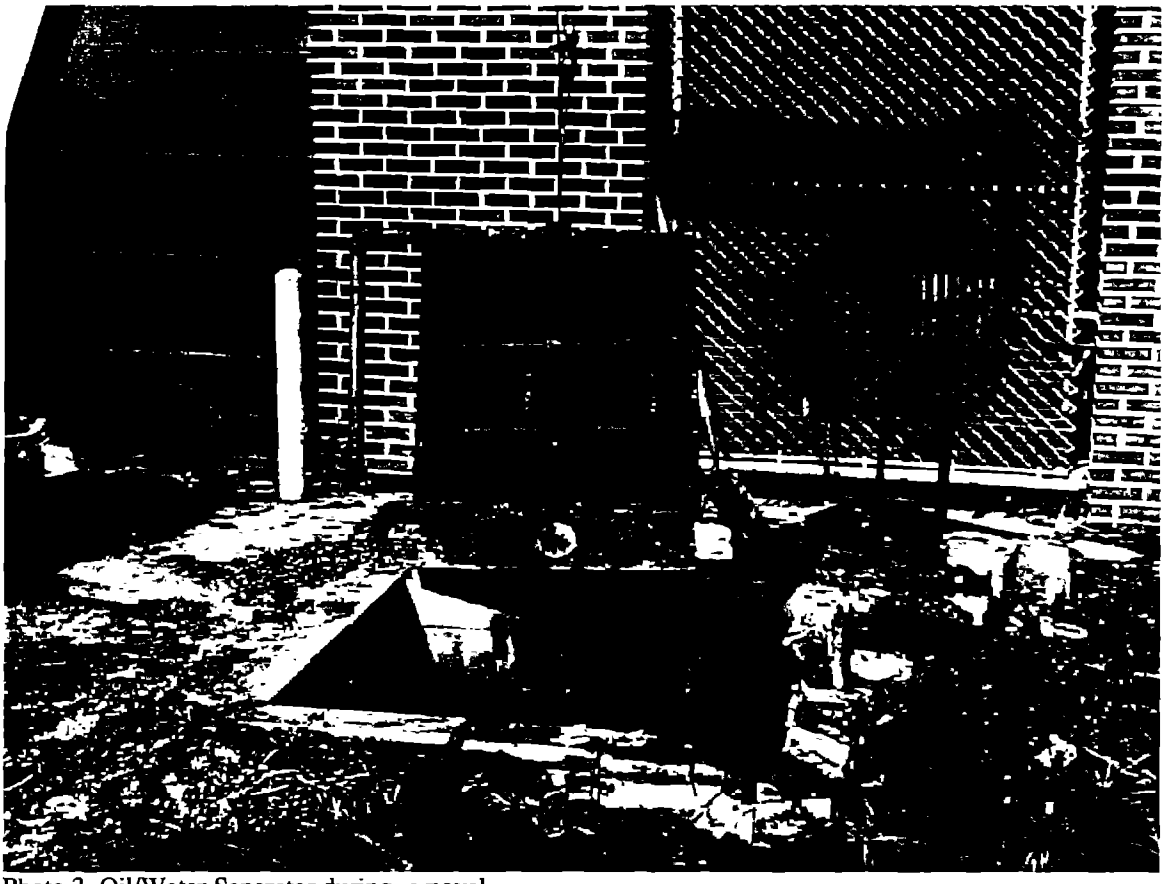


Photo 3: Oil/Water Separator during removal.

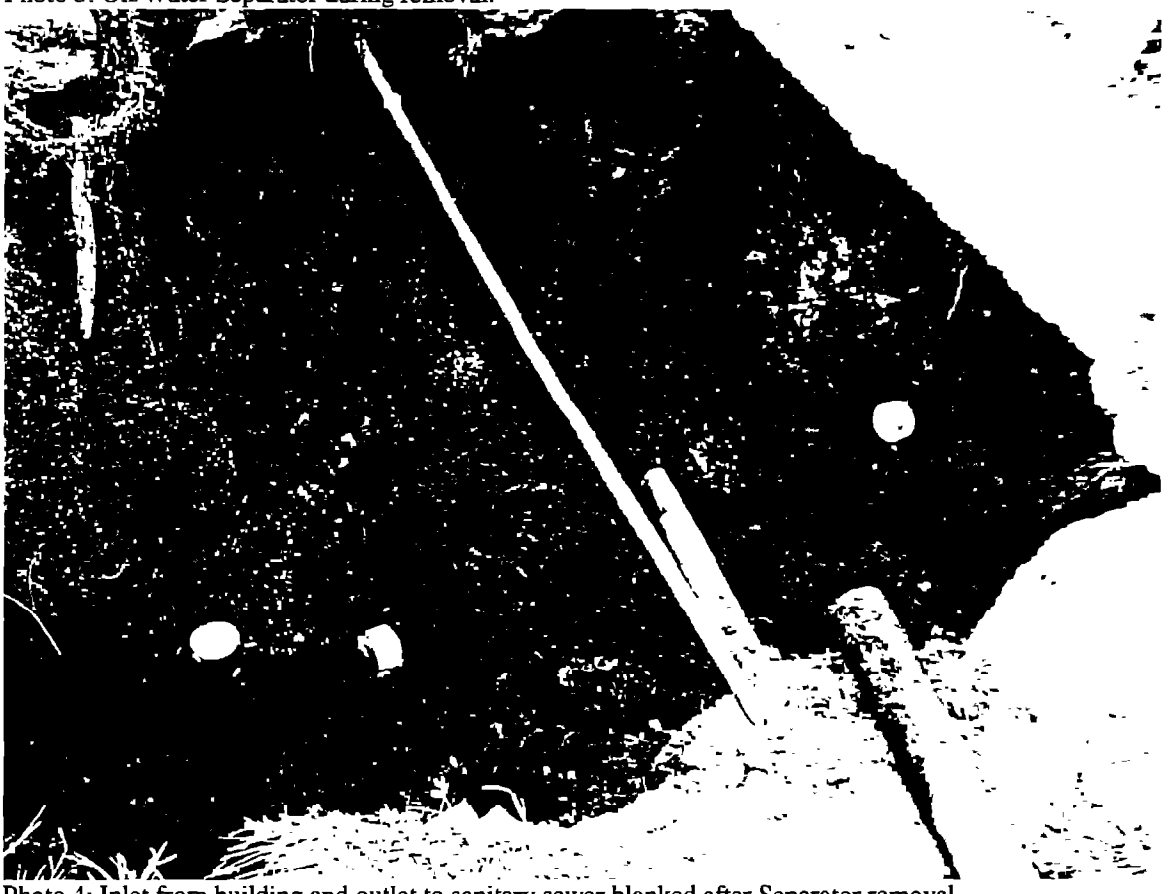


Photo 4: Inlet from building and outlet to sanitary sewer blanked after Separator removal.

BUILDING 200 TANK REMOVALS

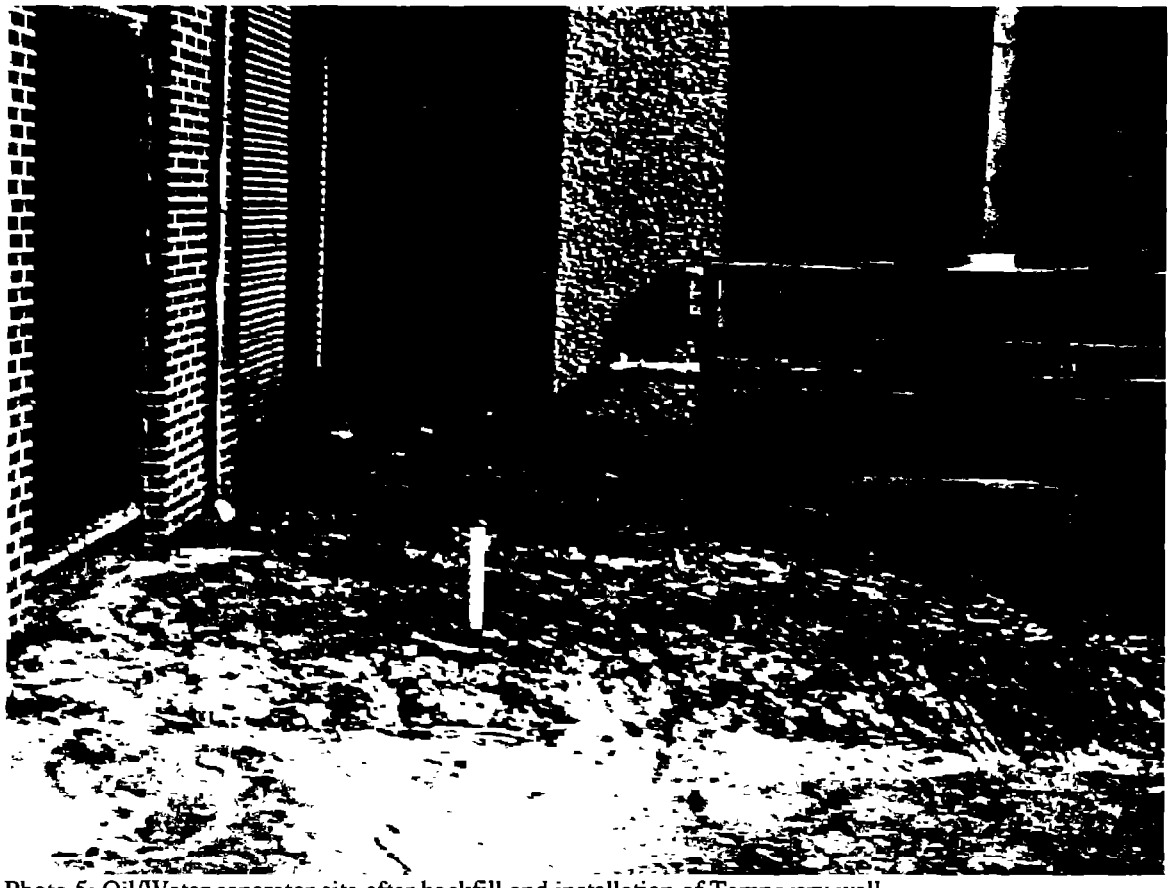


Photo 5: Oil/Water separator site after backfill and installation of Temporary well.

Photo 6: UST 200 prior to excavation.

BUILDING 200 TANK REMOVALS

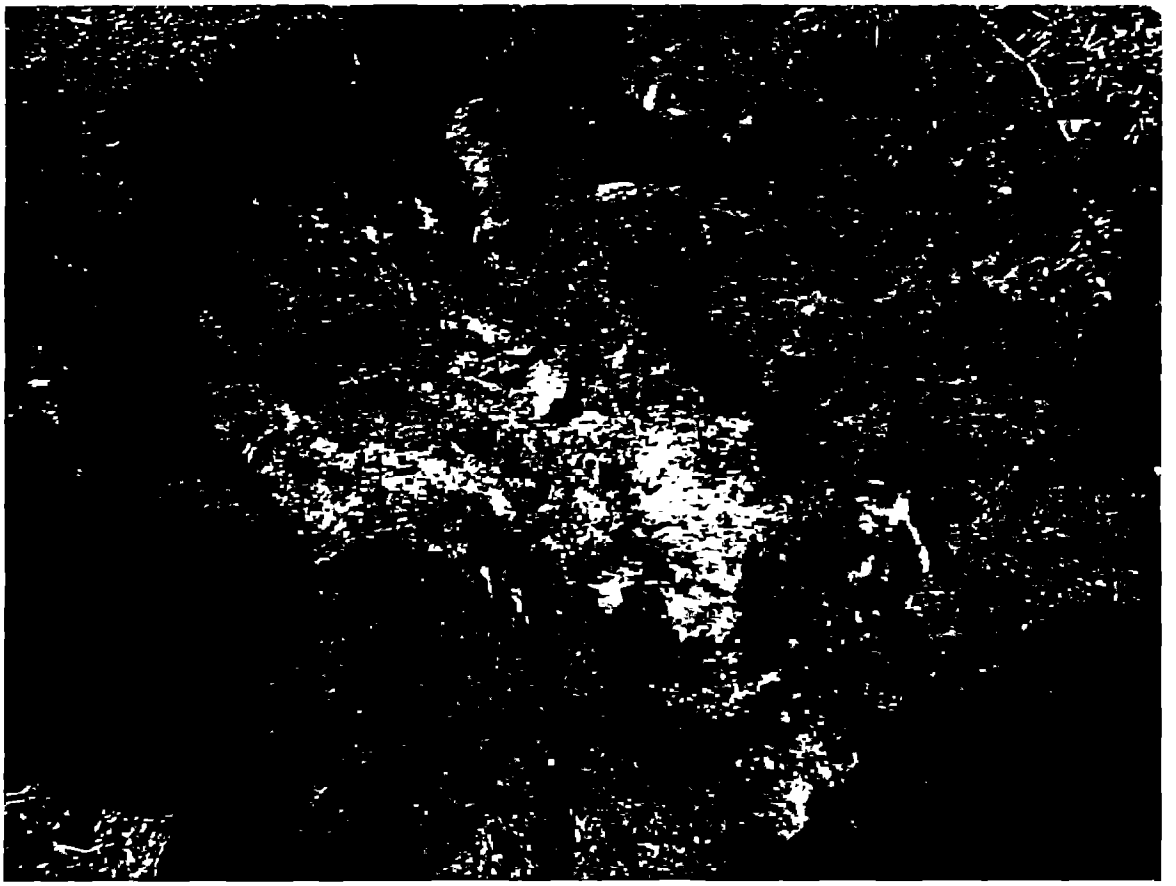


Photo 7: UST 200 excavation.

Photo 8: UST 200 after removal.

BUILDING 200 TANK REMOVALS

Photo 9: UST 200 & OWS 200 after cleaning and cutting.

Photo 10: UST 200 site after backfill and installation of Temporary well.

BUILDING 200 TANK REMOVALS

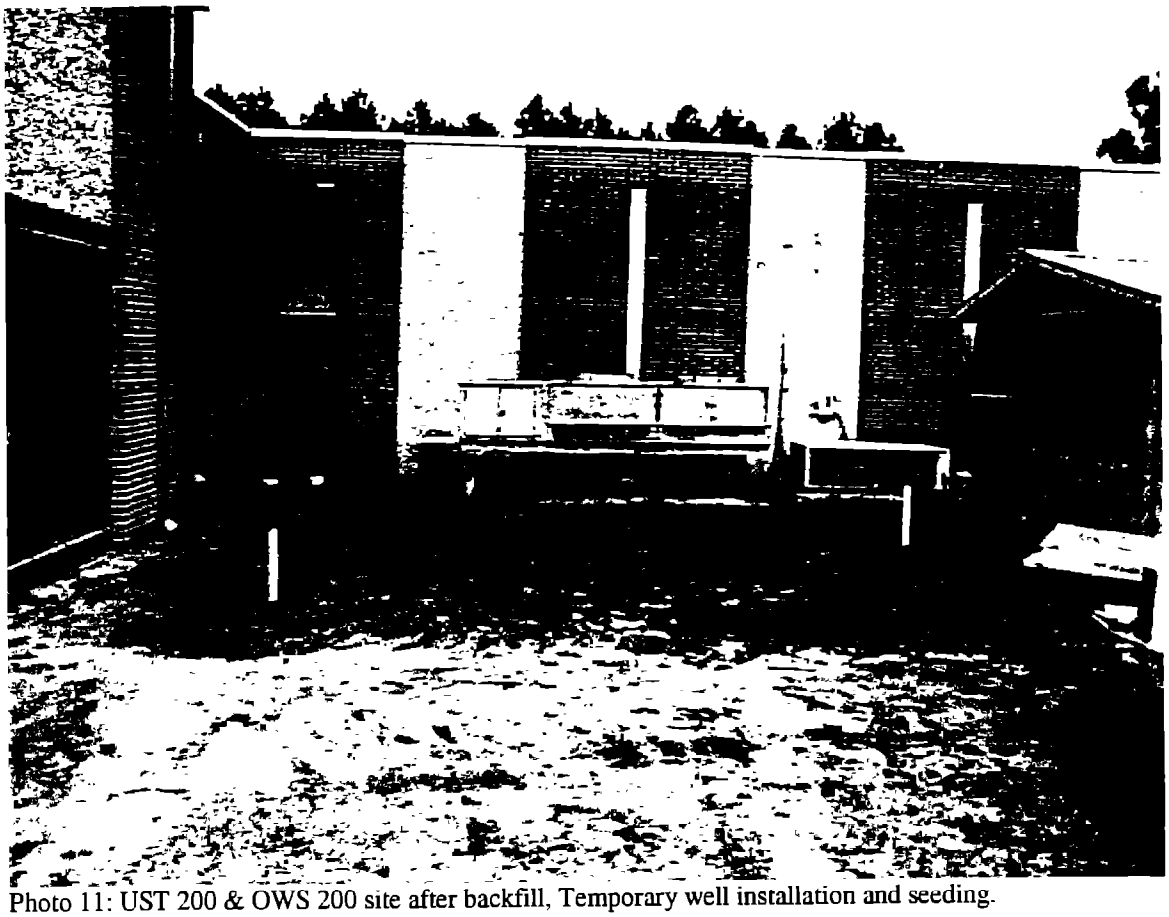


Photo 11: UST 200 & OWS 200 site after backfill, Temporary well installation and seeding.

Attachment II

ANALYTICAL RESULTS

NOTE:

Sample Number **98CNS012-6** was inadvertently used on two different Chain of Custody sheets for two different samples (see enclosed). The first use was for a VOA soil trip blank and the second use was the ground water sample from the temporary monitoring well at UST 808 site. The Laboratory tracking numbers and the sample matrix will serve to distinguish the two samples from each other.

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

Analytical Report

Priority Pollutant Volatiles by Method 8260

Client: SPORTENVDETCHASN Lab
Address: 1899 No. Hobson Ave.
N. Charleston, SC 29405-2106
Phone #: (843) 743-3239 x124
Contact: Bill Hiers

Lab Report Number: 83319
Sample Date: 31 Aug 98
Received Date: 1 Sep 98
Sample Site: NAS Cecil Field
Job Order No.: 127 4021

LAB Sample ID#	1- **83319**
Sample Name / Location	98CNS012-1 O/W Sep. BLDG 200
Collector's Name	Nesbitt
Date & Time Collected	31 Aug 98 @ 1600
Sample Type (composite or grab)	Grab
Analyst	J. Moore
Date of Extraction / Initials	3 Sep 98 JM Method 5030/8260
Date of Analysis	3 Sep 98
Sample Matrix	Soil
Dilution	X 1

Compound Name	1- 83319	units	Det. Limit	Flags
Acrolein	BDL	ug/Kg	25	
Acrylonitrile	BDL	ug/Kg	5	
Benzene	BDL	ug/Kg	1	
Bromodichloromethane	BDL	ug/Kg	1	
Bromoform	BDL	ug/Kg	2	
Bromomethane	BDL	ug/Kg	4	
Carbon Tetrachloride	BDL	ug/Kg	1	
Chlorobenzene	BDL	ug/Kg	2	
Chloroethane	BDL	ug/Kg	4	
Chloroform	BDL	ug/Kg	1	
Chloromethane	BDL	ug/Kg	1	
2-Chloroethylvinylether	BDL	ug/Kg	3	
Dibromochloromethane	BDL	ug/Kg	2	
1,1-Dichloroethane	BDL	ug/Kg	1	
1,2-Dichloroethane	BDL	ug/Kg	1	
1,1-Dichloroethene	BDL	ug/Kg	2	
trans-1,2-Dichloroethene	BDL	ug/Kg	1	
1,2-Dichloropropane	BDL	ug/Kg	2	
1,3-Dichloropropene	BDL	ug/Kg	2	
Ethylbenzene	BDL	ug/Kg	2	
Methylene Chloride	BDL	ug/Kg	1	
1,1,2,2-Tetrachloroethane	BDL	ug/Kg	3	
Tetrachloroethene	BDL	ug/Kg	2	
Toluene	BDL	ug/Kg	2	
1,1,1-Trichloroethane	BDL	ug/Kg	1	
1,1,2-Trichloroethane	BDL	ug/Kg	2	
Trichloroethene	BDL	ug/Kg	2	
Vinyl Chloride	BDL	ug/Kg	1	

SURROGATE SPIKE RECOVERIES

	Acceptance Limits	Percent Recovery
1,2-Dichloroethane-d4	75-1120	105
Toluene-d8	81-117	100
Bromofluorobenzene	74-121	91

COMMENTS :

Navy Public Works Center

Environmental Laboratory

Analytical Report

Priority Pollutant Volatiles by Method 8260

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

Client: SPORTENVDETCHASN Lab
Address: 1899 No. Hobson Ave.
N. Charleston, SC 29405-2106
Phone #: (843) 743-3239 x124
Contact: Bill Hiers

Lab Report Number: 83319
Sample Date: 31 Aug 98
Received Date: 1 Sep 98
Sample Site: NAS Cecil Field
Job Order No.: 127 4021

LAB Sample ID#	1- **83319**
Sample Name / Location	98CNS012-1 O/W Sep. BLDG 200
Collector's Name	Nesbitt
Date & Time Collected	31 Aug 98 @ 1600
Sample Type (composite or grab)	Grab
Analyst	M. Chambers
Date of Extraction / Initials	3 Sep 98 MC
Date of Analysis	4 Sep 98
Sample Matrix	Soil
Dilution	X 1

Additional Compounds Identified	Estimated Concentration	Units
2-ethyl Dodecane	26	ug/Kg
Naphthalene	2	ug/Kg
and no others.		ug/Kg
		ug/Kg
		ug/Kg
		ug/Kg
		ug/Kg
		ug/Kg
		ug/Kg
		ug/Kg
		ug/Kg
		ug/Kg
		ug/Kg

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

Approved by : _____
Jerry Dees, Laboratory Director

Date: 10/13/98
Report Generated

End of Report

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

Analytical Report

Priority Pollutant Acid Extractables by Method 8270

Client:	SPORTENVDETCHASN Lab	Lab Report Number:	83319
Address:	1899 No. Hobson Ave.	Sample Date:	31 Aug 98
	N. Charleston, SC 29405-2106	Received Date:	1 Sep 98
Phone #:	(843) 743-3239 x124	Sample Site:	NAS Cecil Field
Contact:	Bill Hiers	Job Order No.:	127 4021

LAB Sample ID#	1- 83319
Sample Name / Location	98CNS012-1 O/W Sep. BLDG 200
Collector's Name	Nesbitt
Date & Time Collected	31 Aug 98 @ 1600
Sample Type (composite or grab)	Grab
Analyst	M. Chambers
Date of Extraction / Initials	3 Sep 98 MC
Date of Analysis	4 Sep 98
Sample Matrix	Soil
Dilution	X 1

Compound Name	1- 83319	units	Det. Limit	Flags
2-Chlorophenol	BDL	ug/Kg	150	
2,4-Dichlorophenol	BDL	ug/Kg	170	
2,4-Dimethylphenol	BDL	ug/Kg	150	
2,4-Dinitrophenol	BDL	ug/Kg	110	
4,6-Dinitro-2-methylphenol	BDL	ug/Kg	170	
2-Nitrophenol	BDL	ug/Kg	160	
4-Nitrophenol	BDL	ug/Kg	110	
4-Chloro-3-methylphenol	BDL	ug/Kg	150	
Pentachlorophenol	BDL	ug/Kg	140	
Phenol	BDL	ug/Kg	190	
2,4,6-Trichlorophenol	BDL	ug/Kg	150	

SURROGATE SPIKE RECOVERIES

	Acceptance Limits	Percent Recovery
2-Fluorophenol	25-121	84
Phenol d-5	24-113	75
2,4,6-Tribromophenol	19-122	85

COMMENTS :

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

Approved by : Perry Dees, Laboratory Director

Date: 10/13/98
Report Generated

End of Report

Navy Public Works Center
Environmental Laboratory

Analytical Report
Priority Pollutant B/N Extractables by Method 8270

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

Client: SPORTENVDETCHASN Lab
Address: 1899 No. Hobson Ave.
N. Charleston, SC 29405-2106
Phone #: (843) 743-3239 x124
Contact: Bill Hiers

Lab Report Number: 83319
Sample Date: 31 Aug 98
Received Date: 1 Sep 98
Sample Site: NAS Cecil Field
Job Order No.: 127 4021

LAB Sample ID#	1- 83319			
Sample Name / Location	98CNS012-1 O/W Sep. BLDG 200			
Collector's Name	Nesbitt			
Date & Time Collected	31 Aug 98 @ 1600			
Sample Type (composite or grab)	Grab			
Analyst	M. Chambers			
Date of Extraction / Initials	3 Sep 98 MC			
Date of Analysis	4 Sep 98			
Sample Matrix	Soil			
Dilution	X 1			
Compound Name	1- 83319	units	Det. Limit	Flags
Acenaphthene	BDL	ug/Kg	160	
Acenaphthylene	BDL	ug/Kg	190	
Anthracene	BDL	ug/Kg	170	
Benzidine	BDL	ug/Kg	720	
Benzo(a)anthracene	BDL	ug/Kg	160	
Benzo(b)fluoranthene	BDL	ug/Kg	160	
Benzo(k)fluoranthene	BDL	ug/Kg	210	
Benzo(g,h,i)perylene	BDL	ug/Kg	180	
Benzo(a)pyrene	BDL	ug/Kg	180	
Benzylbutyl phthalate	BDL	ug/Kg	210	
Bis(2-chloroethoxy)methane	BDL	ug/Kg	170	
Bis(2-chloroethyl)ether	BDL	ug/Kg	200	
Bis(2-chloroisopropyl)ether	BDL	ug/Kg	180	
Bis(2-Ethylhexyl) phthalate	BDL	ug/Kg	210	
4-Bromophenyl-phenylether	BDL	ug/Kg	160	
2-Chloronaphthalene	BDL	ug/Kg	170	
4-Chlorophenyl-phenylether	BDL	ug/Kg	170	
Chrysene	BDL	ug/Kg	190	
Dibenz(a,h)anthracene	BDL	ug/Kg	170	
Di-n-butyl phthalate	BDL	ug/Kg	170	
Di-n-octyl phthalate	BDL	ug/Kg	190	
1,2-Dichlorobenzene	BDL	ug/Kg	160	
1,3-Dichlorobenzene	BDL	ug/Kg	150	
1,4-Dichlorobenzene	BDL	ug/Kg	150	
3,3'-Dichlorobenzidine	BDL	ug/Kg	120	
Diethylphthalate	BDL	ug/Kg	170	
Dimethylphthalate	BDL	ug/Kg	160	
2,4-Dinitrotoluene	BDL	ug/Kg	150	
2,6-Dinitrotoluene	BDL	ug/Kg	150	
1,2-Diphenylhydrazine	BDL	ug/Kg	230	
Fluoranthene	BDL	ug/Kg	180	
Fluorene	BDL	ug/Kg	160	
Hexachlorobenzene	BDL	ug/Kg	170	
Hexachlorobutadiene	BDL	ug/Kg	160	
Hexachlorocyclopentadiene	BDL	ug/Kg	80	
Hexachloroethane	BDL	ug/Kg	150	
Indeno(1,2,3-cd)pyrene	BDL	ug/Kg	180	
Isophorone	BDL	ug/Kg	190	
Naphthalene	BDL	ug/Kg	160	

Approved by : _____
Jerry Dees, Laboratory Director

Date: 10/13/98
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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

Analytical Report
Total RCRA Metals by SW-846 Methods

Client: SPORTENVDETCHASN Lab
Address: 1899 No. Hobson Ave.
N. Charleston, SC 29405-2106
Phone #: (843) 743-3239 x124
Contact: Bill Hiers

Lab Report Number: 83319
Sample Date: 31 Aug 98
Received Date: 1 Sep 98
Sample Site: NAS Cecil Field
Job Order No.: 127 4021

LAB Sample ID#	1- **83319**
Sample Name / Location	98CNS012-1 O/W Sep. BLDG 200
Collector's Name	Nesbitt
Date & Time Collected	31 Aug 98 @ 1600
Sample Type (composite or grab)	Grab
Analyst	B. Nelson
Date of Digestion / Initials	2 Sep 98 BH
Date of Analysis	3 Sep 98
Sample Matrix	Soil

Element	Method #	Result	units	Detection Limit	Flags
Arsenic (As)	EPA SW 6010	BDL	mg/Kg	20	
Barium (Ba)	EPA SW 6010	1	mg/Kg	1	
Cadmium (Cd)	EPA SW 6010	BDL	mg/Kg	1	
Chromium (Cr)	EPA SW 6010	1	mg/Kg	1	
Lead (Pb)	EPA SW 6010	BDL	mg/Kg	5	
Mercury (Hg)	EPA SW 7471	BDL	mg/Kg	0.02	
Selenium (Se)	EPA SW 6010	BDL	mg/Kg	20	
Silver (Ag)	EPA SW 6010	BDL	mg/Kg	1	

COMMENTS :

BDL = Below Detection Limit. mg/Kg = Milligram per kilogram.

Approved by : Jerry Dees, Laboratory Director

Date: 10/13/98

Navy Public Works Center
Environmental Laboratory

Analytical Report
Priority Pollutant B/N Extractables by Method 8270

Bldg. 3887, Code 440
NAS Pensacola, FL 32508
Phone (850) 452-3180/3642
SN 322-3180/3642
FAX (850) 452-2799/2387

Client: SPORTENVDETCHASN Lab
Address: 1899 No. Hobson Ave.
N. Charleston, SC 29405-2106
Phone #: (843) 743-3239 x124
Contact: Bill Hiers

Lab Report Number: 83319
Sample Date: 31 Aug 98
Received Date: 1 Sep 98
Sample Site: NAS Cecil Field
Job Order No.: 127 4021

LAB Sample ID#	1- **83319**
Sample Name / Location	98CNS012-1 O/W Sep. BLDG 200
Collector's Name	Nesbitt
Date & Time Collected	31 Aug 98 @ 1600
Sample Type (composite or grab)	Grab
Analyst	M. Chambers
Date of Extraction / Initials	3 Sep 98 MC
Date of Analysis	4 Sep 98
Sample Matrix	Soil
Dilution	X 1

Compound Name	1- 83319	units	Det. Limit	Flags
Nitrobenzene	BDL	ug/Kg	200	
N-Nitrosodi-n-propylamine	BDL	ug/Kg	180	
N-Nitrosodimethylamine	BDL	ug/Kg	180	
N-Nitrosodiphenylamine	BDL	ug/Kg	190	
Phenanthrene	BDL	ug/Kg	180	
Pyrene	BDL	ug/Kg	200	
1,2,4-Trichlorobenzene	BDL	ug/Kg	150	

SURROGATE SPIKE RECOVERIES

	Acceptance Limits	Percent Recovery
Nitrobenzene-d5	23-120	74
2-Flourobiphenyl	30-115	80
Terphenyl-d14	18-137	103

Additional Compounds Identified	Estimated Concentration	Units
2,3-dimethyl-1-Butene	1200	ug/Kg
2,4-dimethyl Heptane	940	ug/Kg
2,6-dimethyl Heptane	1400	ug/Kg
and no others.		ug/Kg
		ug/Kg
		ug/Kg
		ug/Kg
		ug/Kg
		ug/Kg
		ug/Kg
		ug/Kg
		ug/Kg
		ug/Kg

COMMENTS :

Approved by : Jerry Dees, Laboratory Director

Date: 10/13/98
Report Generated

End of Report

Navy Public Works Center

Environmental Laboratory

Analytical Report

FL-Petroleum Range Organics in Soil

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

Client: SPORTENVDETCHASN Lab
Address: 1899 No. Hobson Ave.
N. Charleston, SC 29405-2106
Phone #: (843) 743-3239 x124
Contact: Bill Hiers

Lab Report Number: 83319
Sample Date: 31 Aug 98
Received Date: 1 Sep 98
Sample Site: NAS Cecil Field
Job Order No.: 127 4021

LAB Sample ID#	1- 83319			
Sample Name / Location	98CNS012-1 O/W Sep. BLDG 200			
Collector's Name	Nesbitt			
Date & Time Collected	31 Aug 98 @ 1600			
Sample Type (composite or grab)	Grab			
Analyst	J. Moore			
Date of Extraction / Initials	3 Sep 98 MC			
Date of Analysis	4 Sep 98			
Sample Matrix	Soil			
Dilution	X 1			
Parameter	1- 83319	units	Det. Limit	Flags
Petroleum Range Organics by FLPRO	BDL	mg/L	5.0	

SURROGATE SPIKE RECOVERIES

	Acceptance Limits	Percent Recovery
ortho-Terphenyl	82-142	101
Nonatriacontane (C-39)	42-193	89

COMMENTS :

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

Approved by : Jerry Dees, Laboratory Director

Date: 10/13/98

Navy Public Works Center
Environmental Laboratory

Analytical Report
Priority Pollutant Volatiles by Method 8260

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

Client: SPORTENVDETCHASN Lab
Address: 1899 No. Hobson Ave.
N. Charleston, SC 29405-2106
Phone #: (843) 743-3239 x124
Contact: Bill Hiers

Lab Report Number: 83320
Sample Date: 31 Aug 98
Received Date: 1 Sep 98
Sample Site: NAS Cecil Field
Job Order No.: 127 4021

LAB Sample ID#	1- **83320**
Sample Name / Location	98CNS012-2 O/W Sep. BLDG 200
Collector's Name	Nesbitt
Date & Time Collected	31 Aug 98 @ 1600
Sample Type (composite or grab)	Grab
Analyst	J. Moore
Date of Extraction / Initials	3 Sep 98 JM Method 5030/8260
Date of Analysis	3 Sep 98
Sample Matrix	Soil
Dilution	X 1

Compound Name	1- 83320	units	Det. Limit	Flags
Acrolein	BDL	ug/Kg	25	
Acrylonitrile	BDL	ug/Kg	5	
Benzene	BDL	ug/Kg	1	
Bromodichloromethane	BDL	ug/Kg	1	
Bromoform	BDL	ug/Kg	2	
Bromomethane	BDL	ug/Kg	4	
Carbon Tetrachloride	BDL	ug/Kg	1	
Chlorobenzene	BDL	ug/Kg	2	
Chloroethane	BDL	ug/Kg	4	
Chloroform	BDL	ug/Kg	1	
Chloromethane	BDL	ug/Kg	1	
2-Chloroethylvinylether	BDL	ug/Kg	3	
Dibromochloromethane	BDL	ug/Kg	2	
1,1-Dichloroethane	BDL	ug/Kg	1	
1,2-Dichloroethane	BDL	ug/Kg	1	
1,1-Dichloroethene	BDL	ug/Kg	2	
trans-1,2-Dichloroethene	BDL	ug/Kg	1	
1,2-Dichloropropane	BDL	ug/Kg	2	
1,3-Dichloropropene	BDL	ug/Kg	2	
Ethylbenzene	BDL	ug/Kg	2	
Methylene Chloride	BDL	ug/Kg	1	
1,1,2,2-Tetrachloroethane	BDL	ug/Kg	3	
Tetrachloroethene	BDL	ug/Kg	2	
Toluene	4	ug/Kg	2	
1,1,1-Trichloroethane	BDL	ug/Kg	1	
1,1,2-Trichloroethane	BDL	ug/Kg	2	
Trichloroethene	BDL	ug/Kg	2	
Vinyl Chloride	BDL	ug/Kg	1	

SURROGATE SPIKE RECOVERIES

	Acceptance Limits	Percent Recovery
1,2-Dichloroethane-d4	75-1120	106
Toluene-d8	81-117	96
Bromoflourobenzene	74-121	87

COMMENTS :

Navy Public Works Center
Environmental Laboratory

Analytical Report
Priority Pollutant Volatiles by Method 8260

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

Client: SPORTENVDETCHASN Lab
Address: 1899 No. Hobson Ave.
N. Charleston, SC 29405-2106
Phone #: (843) 743-3239 x124
Contact: Bill Hiers

Lab Report Number: 83320
Sample Date: 31 Aug 98
Received Date: 1 Sep 98
Sample Site: NAS Cecil Field
Job Order No.: 127 4021

LAB Sample ID#	1- **83320**
Sample Name / Location	98CNS012-2 O/W Sep. BLDG 200
Collector's Name	Nesbitt
Date & Time Collected	31 Aug 98 @ 1600
Sample Type (composite or grab)	Grab
Analyst	M. Chambers
Date of Extraction / Initials	3 Sep 98 MC
Date of Analysis	4 Sep 98
Sample Matrix	Soil
Dilution	X 1

Additional Compounds Identified	Estimated Concentration	Units
Carbon Disulfide**	3	ug/Kg
Methylene Chloride**	2	ug/Kg
m p-Xylene	1	ug/Kg
Naphthalene	12	ug/Kg
and no others.		ug/Kg
		ug/Kg
		ug/Kg
		ug/Kg
		ug/Kg
		ug/Kg
		ug/Kg
		ug/Kg
		ug/Kg

Results may be due to contamination within the laboratory.

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

Approved by : _____
Jerry Dees, Laboratory Director

Date: 10/13/98
Report Generated

End of Report

Navy Public Works Center
Environmental Laboratory

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

Analytical Report
Priority Pollutant Acid Extractables by Method 8270

Client: SPORTENVDETCHASN Lab
Address: 1899 No. Hobson Ave.
N. Charleston, SC 29405-2106
Phone #: (843) 743-3239 x124
Contact: Bill Hiers

Lab Report Number: 83320
Sample Date: 31 Aug 98
Received Date: 1 Sep 98
Sample Site: NAS Cecil Field
Job Order No.: 127 4021

LAB Sample ID#	1- 83320			
Sample Name / Location	98CNS012-2 O/W Sep. BLDG 200			
Collector's Name	Nesbitt			
Date & Time Collected	31 Aug 98 @ 1600			
Sample Type (composite or grab)	Grab			
Analyst	M Chambers			
Date of Extraction / Initials	3 Sep 98 MC			
Date of Analysis	4 Sep 98			
Sample Matrix	Soil			
Dilution	X 1			
Compound Name	1- 83320	units	Det. Limit	Flags
2-Chlorophenol	BDL	ug/Kg	150	
2,4-Dichlorophenol	BDL	ug/Kg	170	
2,4-Dimethylphenol	BDL	ug/Kg	150	
2,4-Dinitrophenol	BDL	ug/Kg	110	
4,6-Dinitro-2-methylphenol	BDL	ug/Kg	170	
2-Nitrophenol	BDL	ug/Kg	160	
4-Nitrophenol	BDL	ug/Kg	110	
4-Chloro-3-methylphenol	BDL	ug/Kg	150	
Pentachlorophenol	BDL	ug/Kg	140	
Phenol	BDL	ug/Kg	190	
2,4,6-Trichlorophenol	BDL	ug/Kg	150	

SURROGATE SPIKE RECOVERIES

	Acceptance Limits	Percent Recovery
2-Fluorophenol	25-121	74
Phenol d-5	24-113	68
2,4,6-Tribromophenol	19-122	85

COMMENTS :

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

Approved by : Jerry Dees Laboratory Director

Date: 10/13/98
Report Generated

End of Report

Navy Public Works Center

Environmental Laboratory

Analytical Report

Priority Pollutant B/N Extractables by Method 8270

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

Client: SPORTENVDETCHASN Lab
Address: 1899 No. Hobson Ave.
N. Charleston, SC 29405-2106
Phone #: (843) 743-3239 x124
Contact: Bill Hiers

Lab Report Number: 83320
Sample Date: 31 Aug 98
Received Date: 1 Sep 98
Sample Site: NAS Cecil Field
Job Order No.: 127 4021

LAB Sample ID#	1- **83320**
Sample Name / Location	98CNS012-2 O/W Sep. BLDG 200
Collector's Name	Nesbitt
Date & Time Collected	31 Aug 98 @ 1600
Sample Type (composite or grab)	Grab
Analyst	M Chambers
Date of Extraction / Initials	3 Sep 98 MC
Date of Analysis	4 Sep 98
Sample Matrix	Soil
Dilution	X 1

Compound Name	1- 83320	units	Det. Limit	Flags
Acenaphthene	BDL	ug/Kg	160	
Acenaphthylene	BDL	ug/Kg	190	
Anthracene	BDL	ug/Kg	170	
Benzidine	BDL	ug/Kg	720	
Benzo(a) anthracene	BDL	ug/Kg	160	
Benzo[b]fluoranthene	BDL	ug/Kg	160	
Benzo(k)fluoranthene	BDL	ug/Kg	210	
Benzo(g,h,i)perylene	BDL	ug/Kg	180	
Benzo(a)pyrene	BDL	ug/Kg	180	
Benzylbutyl phthalate	BDL	ug/Kg	210	
Bis(2-chloroethoxy)methane	BDL	ug/Kg	170	
s(2-chloroethyl)ether	BDL	ug/Kg	200	
s(2-chloroisopropyl)ether	BDL	ug/Kg	180	
Bis(2-Ethylhexyl) phthalate	BDL	ug/Kg	210	
4-Bromophenyl-phenylether	BDL	ug/Kg	160	
2-Chloronaphthalene	BDL	ug/Kg	170	
4-Chlorophenyl-phenylether	BDL	ug/Kg	170	
Chrysene	BDL	ug/Kg	190	
Dibenz(a,h)anthracene	BDL	ug/Kg	170	
Di-n-butyl phthalate	BDL	ug/Kg	170	
Di-n-octylphthalate	BDL	ug/Kg	190	
1,2-Dichlorobenzene	BDL	ug/Kg	160	
1,3-Dichlorobenzene	BDL	ug/Kg	150	
1,4-Dichlorobenzene	BDL	ug/Kg	150	
3,3'-Dichlorobenzidine	BDL	ug/Kg	120	
Diethylphthalate	BDL	ug/Kg	170	
Dimethylphthalate	BDL	ug/Kg	160	
2,4-Dinitrotoluene	BDL	ug/Kg	150	
2,6-Dinitrotoluene	BDL	ug/Kg	150	
1,2-Diphenylhydrazine	BDL	ug/Kg	230	
Fluoranthene	BDL	ug/Kg	180	
Fluorene	BDL	ug/Kg	160	
Hexachlorobenzene	BDL	ug/Kg	170	
Hexachlorobutadiene	BDL	ug/Kg	160	
Hexachlorocyclopentadiene	BDL	ug/Kg	80	
Hexachloroethane	BDL	ug/Kg	150	
Indeno(1,2,3-cd)pyrene	BDL	ug/Kg	180	
Isophorone	BDL	ug/Kg	190	
Naphthalene	BDL	ug/Kg	160	

Approved by : _____
Jerry Dees, Laboratory Director

Date: 10/13/98
Report Generated

Navy Public Works Center
Environmental Laboratory

Analytical Report
Priority Pollutant B/N Extractables by Method 8270

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

Client: SPORTENVDETCHASN Lab
Address: 1899 No. Hobson Ave.
N. Charleston, SC 29405-2106
Phone #: (843) 743-3239 x124
Contact: Bill Hiers

Lab Report Number: 83320
Sample Date: 31 Aug 98
Received Date: 1 Sep 98
Sample Site: NAS Cecil Field
Job Order No.: 127 4021

LAB Sample ID#	1- **83320**
Sample Name / Location	98CNS012-2 O/W Sep BLDG 200
Collector's Name	Nesbitt
Date & Time Collected	31 Aug 98 @ 1600
Sample Type (composite or grab)	Grab
Analyst	M. Chambers
Date of Extraction / Initials	3 Sep 98 MC
Date of Analysis	4 Sep 98
Sample Matrix	Soil
Dilution	X 1

Compound Name	1- 83320	units	Det. Limit	Flags
Nitrobenzene	BDL	ug/Kg	200	
N Nitroso-di-n-propylamine	BDL	ug/Kg	180	
N-Nitrosodimethylamine	BDL	ug/Kg	180	
N-Nitrosodiphenylamine	BDL	ug/Kg	190	
Phenanthrene	BDL	ug/Kg	180	
Pyrene	BDL	ug/Kg	200	
1,2,4-Trichlorobenzene	BDL	ug/Kg	150	

SURROGATE SPIKE RECOVERIES

	Acceptance Limits	Percent Recovery
Nitrobenzene-d5	23-120	65
2-Flourobiphenyl	30-115	79
Terphenyl-d14	18-137	100

Additional Compounds Identified	Estimated Concentration	Units
4-methyl-2-Pentene	810	ug/Kg
2,4-dimethyl Heptane	700	ug/Kg
and no others.		ug/Kg
		ug/Kg
		ug/Kg
		ug/Kg
		ug/Kg
		ug/Kg
		ug/Kg
		ug/Kg
		ug/Kg
		ug/Kg
		ug/Kg

COMMENTS :

Approved by : Jerry Dees, Laboratory Director

Date: 10/13/98
Report Generated

End of Report

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

Analytical Report

Total RCRA Metals by SW-846 Methods

Client: SPORTENVDETCHASN Lab
Address: 1899 No. Hobson Ave.
N. Charleston, SC 29405-2106
Phone #: (843) 743-3239 x124
Contact: Bill Hiers

Lab Report Number: 83320
Sample Date: 31 Aug 98
Received Date: 1 Sep 98
Sample Site: NAS Cecil Field
Job Order No.: 127 4021

LAB Sample ID#	1- **83320**
Sample Name / Location	98CNS012-2 O/W Sep. BLDG 200
Collector's Name	Nesbitt
Date & Time Collected	31 Aug 98 @ 1600
Sample Type (composite or grab)	Grab
Analyst	B. Nelson
Date of Digestion / Initials	2 Sep 98 BH
Date of Analysis	3 Sep 98
Sample Matrix	Soil

Element	Method #	Result	units	Detection Limit	Flags
Arsenic (As)	EPA SW 6010	BDL	mg/Kg	20	
Barium (Ba)	EPA SW 6010	2	mg/Kg	1	
Cadmium (Cd)	EPA SW 6010	BDL	mg/Kg	1	
Chromium (Cr)	EPA SW 6010	3	mg/Kg	1	
Lead (Pb)	EPA SW 6010	8	mg/Kg	5	
Mercury (Hg)	EPA SW 7471	BDL	mg/Kg	0.02	
Selenium (Se)	EPA SW 6010	BDL	mg/Kg	20	
Silver (Ag)	EPA SW 6010	BDL	mg/Kg	1	

COMMENTS .

BDL = Below Detection Limit. mg/Kg = Milligram per kilogram.

Approved by : Jerry Dees, Laboratory Director

Date: 10/13/98

Navy Public Works Center

Environmental Laboratory

Analytical Report

FL-Petroleum Range Organics in Soil

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

Client: SPORTENVDETCHASN Lab
Address: 1899 No. Hobson Ave.
N. Charleston, SC 29405-2106
Phone #: (843) 743-3239 x124
Contact: Bill Hiers

Lab Report Number: 83320
Sample Date: 31 Aug 98
Received Date: 1 Sep 98
Sample Site: NAS Cecil Field
Job Order No.: 127 4021

LAB Sample ID#	1- 83320			
Sample Name / Location	98CNS012-2 O/W Sep. BLDG 200			
Collector s Name	Nesbitt			
Date & Time Collected	31 Aug 98 @ 1600			
Sample Type (composite or grab)	Grab			
Analyst	J. Moore			
Date of Extraction / Initials	3 Sep 98 MC			
Date of Analysis	4 Sep 98			
Sample Matrix	Soil			
Dilution	X 1			
Parameter	1- 83320	units	Det. Limit	Flags
Petroleum Range Organics by FLPRO	BDL	mg/L	5 0	

SURROGATE SPIKE RECOVERIES

	Acceptance Limits	Percent Recovery
ortho-Terphenyl	82-142	91
Nonatriacontane (C-39)	42-193	91

COMMENTS

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

Approved by : Jerry Deas, Laboratory Director

Date: 10/13/98

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: SPORTENVDETCHASN Lab
Address: 1899 No. Hobson Ave.
N. Charleston, SC 29405-2106
Phone #: (843) 743-3239 x124
Contact: Bill Hiers

Analytical Report
BETX + MTBE by Method 8260

Lab Report Number: 83324
Sample Date: 31 Aug 98
Received Date: 1 Sep 98
Sample Site: NAS Cecil Field
Job Order No.: 127 4021

LAB Sample ID#	1- 83324
Sample Name / Location	98CNS012-6 VOA Soil Trip Blank
Collector's Name	NS
Date & Time Collected	31 Aug 98 @ 1630
Sample Type (composite or grab)	Grab
Analyst	J. Moore
Date of Extraction / Initials	12 Sep 98 JM Method 5030/8260
Date of Analysis	12 Sep 98
Sample Matrix	Soil
Dilution	X 1

Compound Name	1- 83324	units	Det. Limit	Flags
Benzene	BDL	ug/Kg	1	
Ethylbenzene	BDL	ug/Kg	2	
Toluene	BDL	ug/Kg	2	
m,p-Xylene	BDL	ug/Kg	4	
o-Xylene	BDL	ug/Kg	2	
Methyl-tert-butyl ether (MTBE)	BDL	ug/Kg	2	

SURROGATE SPIKE RECOVERIES

	Acceptance Limits	Percent Recovery
1,2-Dichloroethane-d4	75-133	109
Toluene-d8	86-119	102
Bromofluorobenzene	85-116	99

Explanation of Flags:

COMMENTS :

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

Approved by : Jerry Dees, Laboratory Director

Date: 10/13/98
Report Generated

End of Report

HAZARDOUS WASTE CHAIN OF CUSTODY/REQUEST FOR ANALYSIS

NPWC Environmental Laboratory
Bldg. 3887, Code 920
NAS Pensacola, Fl. 32508
Ph#: (904) 452-4728/2642
SN: 922-4728/2642
FAX: (904) 452-2799/2287

Report Required? (Yes) No DEP? (Yes) No

Requester: SPORTENVDETCHASN LAB
Address: 1899 N. HOBSON AVE
N. CHARLESTON, SC 29405-2106
Phone #: 843-743-3239 ext 124
Contact: MR. BILL HIERS
Job Order #: 1274102

Lab ID Number:
Sample Date:
Received Date: 9/1/98
Sample Site: NAS CECIL FIELD
Lab Due Date:

Sample ID #	Lab	#1-8-3319	#2-8-3320	#3-8-3321	#4-8-3322
Sample Name or Location		98CNS012-1 O/W Sep BLDG 200	98CNS012-2 O/W SEP TANK BLDG 200	98CNS012-3 F/O TANK NORTH BLDG 80	98CNS012-4 F/O TANK-SW BLDG 80
Sampled by		NESBITT	NESBITT	MCELWEE	MCELWEE
Collection	Date	8/31/98	8/31/98	8/31/98	8/31/98
Date/Time	Time	1600	1600	1630	1630
Sample Matrix		SOIL	SOIL	SOIL	SOIL

Notes: *3 DAY TURN-AROUND ON ALL 4 SAMPLES.*

GROUP PARAMETERS by Method Name	METHOD #	X	Bottle ID #'s	X	Bottle ID #'s	X	Bottle ID #'s	X	Bottle ID #'s	FY97 Units	Containers Required (L/S)	Preservatives Used (Liquids)
HW Charact. (complete)	EPA SW 846									56	See below	See below
Ignitability (Flashpoint)	SW 846 1010									2	250ml/4 oz.	4° C
Reactivity (Cyanide & Sulfide)	EPA SW-846									4	1L/4 oz.	4° C
Corrosivity (pH)	SW 846 9040/9045									2.5	250ml/4 oz.	4° C
Toxicity (TCLP complete)	EPA SW-846									50	See below	See below
Toxicity (TCLP) complete	EPA SW-846									50	See below	See below
TCLP Non Volatile Extraction	SW 846 1311									4	40 ml/1/4 oz.	4° C
TCLP Volatile ZHE Extraction	SW 846 1311									-	1Lx4/32 oz.	HCl to pH<2/4° C
TCLP BNA Extractables	SW 846 8270									9	1Lx3/4 oz.	4° C
TCLP Acid Extractables	SW 846 8270									9	1Lx3/4 oz.	4° C
TCLP B/N Extractables	SW 846 8270									9	1Lx3/4 oz.	4° C
TCLP Pesticides	SW 846 8080									9	1Lx3/4 oz.	4° C
TCLP Herbicides	SW 846 8150									9	1Lx3/4 oz.	4° C
TCLP Volatiles	SW 846 8260									9	40 ml x 3/4 oz.	HCl to pH<2/4° C
TCLP Metals (8)	EPA SW-846									5.5	500 ml/4 oz.	HNO_3 to pH<2
Multiphasic Samples	EPA SW-846									~50%	See above	See above
Complete Priority Pollutants	EPA SW-846									40	See below	See below
PP Acid Extractables	SW 846 8270									9	1Lx3/4 oz.	4° C
PP B/N Extractables	SW 846 8270									9	1Lx3/4 oz.	4° C
PP Pesticide/PCB's	SW 846 8080									9	1Lx3/4 oz.	4° C
PP Volatiles	SW 846 8260									9	40 ml x 3/4 oz.	HCl to pH<2/4° C
PP Metals (13)	EPA SW-846									9	500 ml/4 oz.	HNO_3 to pH<2
PP Cyanide/Phenol	EPA SW-846									-	1L Plastic/1L Glass	NaOH/H_2SO_4
Toxicity (TCLP less Fed/Haz)	EPA SW-846									28	See below	See below
F001 - F005 Solvents	EPA SW-846									24	1Lx3&40ml/4/16 oz.	4° C
Kerosene (Heat Group) (PLOSP)	SW-846/PLOSP									24	Multiple	As Required
PLOSP	PLOSP	X		X		X		X		5	1Lx3/16 oz.	H_2SO_4 to pH<2/4° C
Total Volatiles + TIC	SW 846 8260	X		X						9	40 ml/3/4 oz.	HCl to pH<2/4° C
Total BNA Extractables + TIC	SW 846 8270	X		X						9	1Lx2/16 oz.	4° C
Total RCRA Metals (8)	EPA SW-846	X		X						3.5	500 ml/4 oz.	HNO_3 to pH<2
Shore Metals	EPA SW-846									-	500 ml/4 oz.	HNO_3 to pH<2
PCB's in Oil	SW 846 8080									3	40 ml/4 oz.	None
PCB's in Water/Soil/Wipes	SW 846 8080									4	1L/4 oz.	None
Other*												
BTEX						X		X				
PAH						X		X				

Comments: TOTAL VOLATILES AND BTEX SAMPLES INCLUDE 3 ENCORE SAMPLERS EACH AND ONE 8 OZ JAR EACH.

3 DAY TURNAROUND-ALL SAMPLES.

Relinquished by: T.Q. L-Ellee FEDEX
Date/Time: 8/31/98 1900 Overnight

Received by: [signature]
Date/Time: 9/1/98 0925

17 8oz 15 5gram Bags
14 oz

HAZARDOUS WASTE CHAIN OF CUSTODY/REQUEST FOR ANALYSIS

vironmental Laboratory
37, Code 920
Pensacola, Fl. 32508
(904) 452-4728/3642
DSN: 922-4728/3642
FAX: (904) 452-2799/2387

Requester: SPORTENVDETCHASN LAB
Address: 1899 N. HOBSON AVE
N. CHARLESTON, S.C 29405-2106
Phone #: 843-743-3239 ext 124
Contact: MR. BILL HICKS
Job Order #:

Report Required? (Yes) No DEP? (Yes) No
Lab ID Number:
Sample Date:
Received Date: 9/1/98
Sample Site: NAS CECIL FIELD
Lab Due Date:

Sample ID #	Lab	#1- 8-3323	#2- 8-3324	#3-	#4-	Notes:
Sample Name	----------	98CNS012-5	98CNS012-6			
		F/C TANK	VOA-SOIL			
or Location	----------	BLDG 808	TRIP BLANK			
Sampled by	----------	NESBITT				
Collection	Date	8/31/98	8/31/98			
Date/Time	Time	1330	1630			
Sample Matrix	----------	SOIL	SOIL			

GROUP PARAMETERS by Method Name	METHOD #	X	Bottle ID #'s	X	Bottle ID #'s	X	Bottle ID #'s	X	Bottle ID #'s	FY97 Units	Containers Required (L/S)	Preservative(s) Used (Liquids)
HW Charact. (complete)	EPA SW 846									56	See below	See below
Ignitability (Flashpoint)	SW 846 1010									2	250ml/4 oz.	4° C
Reactivity (Cyanide & Sulfide)	EPA SW-846									4	1L/4 oz.	4° C
Corrosivity (pH)	SW 846 9040/9045I									2.5	250ml/4 oz.	4° C
Toxicity (TCLP) complete	EPA SW-846									50	See below	See below
Toxicity (TCLP) complete	EPA SW-846									50	See below	See below
TCLP Non Volatile Extraction	SW 846 1311									4	40 ml/1/4 oz.	4° C
TCLP Volatile ZHE Extraction	SW 846 1311									4	1Lx4/32 oz.	HCl to pH<2/4° C
TCLP BNA Extractables	SW 846 8270									16	1Lx1/4 oz.	4° C
TCLP Acid Extractables	SW 846 8270									9	1Lx3/4 oz.	4° C
TCLP B/N Extractables	SW 846 8270									9	1Lx3/4 oz.	4° C
TCLP Pesticides	SW 846 8080									9	1Lx3/4 oz.	4° C
TCLP Herbicides	SW 846 8150									9	1Lx3/4 oz.	4° C
TCLP Volatiles	SW 846 8260									9	40 ml x 3/4 oz.	HCl to pH<2/4° C
TCLP Metals (8)	EPA SW-846									8.5	500 ml/4 oz.	HNO_3 to pH<2
Multiphasic Samples	EPA SW-846									~50%	See above	See above
Complete Priority Pollutants	EPA SW-846									40	See below	See below
PP Acid Extractables	SW 846 8270									9	1Lx3/4 oz.	4° C
PP B/N Extractables	SW 846 8270									9	1Lx3/4 oz.	4° C
PP Pesticides/PCB's	SW 846 8080									9	1Lx3/4 oz.	4° C
PP Volatiles	SW 846 8260									9	40 ml x 3/4 oz.	HCl to pH<2/4° C
PP Metals (13)	EPA SW-846									9	500 ml/4 oz.	HNO_3 to pH<2
PP Cyanide/Phenol	EPA SW-846									2	1L Plastic/1L Glass	NaOH/H_2SO_4
Toxicity (TCLP) less Pest/Herb	EPA SW-846									36	See below	See below
F001 - F005 Solvents	EPA SW-846									24	1Lx3/40ml x4/16 oz.	4° C
Kerosene Anal. Group (FL-PRC)	SW-846/FL DEP									24	Multiple	As Required
FL-PRC	FL DEP	X								5	1Lx3/16 oz.	H_2SO_4 to pH<2/4°C
Total Volatiles	SW 846 8260									9	40 ml x 3/4 oz.	HCl to pH<2/4° C
Total BNA Extractables	SW 846 8270									16	1Lx2/16 oz.	4° C
Total RCRA Metals (8)	EPA SW-846									8.5	500 ml/4 oz.	HNO_3 to pH<2
Single Metals	EPA SW-846									1	500 ml/4 oz.	HNO_3 to pH<2
PCB's in Oil	SW 846 8080									3	40 ml/4 oz.	None
PCB's in Water/Soil/Wipes	SW 846 8080									4	1L/4 oz.	None
Other												
BTEX		X		X								
PAH		X										

Comments: BTEX SAMPLE INCLUDES 3 ENCORE SAMPLERS AND ONE 8OZ JAR. This sample DOES NOT REQUIRE A 3 DAY TURNAROUND

Relinquished by: T.R. LeTroe
Date/Time: 8/31/98 1900

Received by: [illegible]
Date/Time: 9/1/98 0915

12Dr2/Norma [illegible] Rev 1 mv 10/2/98

Navy Public Works Center

Environmental Laboratory

Analytical Report

Priority Pollutant Volatiles by Method 8260

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

Client:	SPORTENVDETCHASN Lab	Lab Report Number:	83386
Address:	1899 N. Hobson Ave	Sample Date:	5 Sep 98
	N. Charleston SC 29405-2100	Received Date:	9 Sep 98
Phone #:	(843) 743-3239 Ext. 124	Sample Site:	NAS Cecil Field
Contact:	Mr. Bill Hiers	Job Order No.:	127 4021

LAB Sample ID#	1- 83386
Sample Name / Location	98CNS012-8 TW-200-1 Bldg 200
Collector's Name	McElwee
Date & Time Collected	5 Sep 98 @ 1405
Sample Type (composite or grab)	Grab
Analyst	M. Chambers
Date of Extraction / Initials	9 Sep 98 MC
Date of Analysis	9 Sep 98
Sample Matrix	Groundwater
Dilution	X 1

Compound Name	1- 83386	units	Det. Limit	Flags
Acrolein	BDL	ug/L	5	
Acrylonitrile	BDL	ug/L	1	
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	
roform	BDL	ug/L	1	
Chloromethane	BDL	ug/L	1	
2-Chloroethylvinylether	BDL	ug/L	1	
Dibromochloromethane	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	
1 3-Dichloropropene	BDL	ug/L	1	
Ethylbenzene	BDL	ug/L	1	
Methylene Chloride	BDL	ug/L	5	
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	
Vinyl Chloride	BDL	ug/L	1	

SURROGATE SPIKE RECOVERIES

	Acceptance Limits	Percent Recovery
1,2-Dichloroethane-d4	75-133	105
Toluene-d8	86-119	101
Bromoflourobenzene	85-116	102

COMMENTS :
BDL = Below Detection Limit. ug/L = Microgram per liter, ug/Kg = Microgram per kilogram.

Approved by : _____ Date: 10/1/98
Jerry Dees, Laboratory Director
Report Generated

End of Report

Navy Public Works Center
Environmental Laboratory

Analytical Report
Priority Pollutant Acid Extractables by Method 8270

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

Client: SPORTENVDETCHASN Lab
Address: 1899 N. Hobson Ave
N. Charleston SC 29405-2100
Phone #: (843) 743-3239 Ext. 124
Contact: Mr. Bill Hiers

Lab Report Number: 83386
Sample Date: 5 Sep 98
Received Date: 9 Sep 98
Sample Site: NAS Cecil Field
Job Order No.: 127 4021

LAB Sample ID#	1- 83386
Sample Name / Location	98CNS012-8 TW-200-1 Bldg 200
Collector's Name	McElwee
Date & Time Collected	5 Sep 98
Sample Type (composite or grab)	Grab
Analyst	J. Moore
Date of Extraction / Initials	11 Sep 98 JJ
Date of Analysis	25 Sep 98
Sample Matrix	Groundwater
Dilution	X 1

Compound Name	1- 83386	units	Det. Limit	Flags
2-Chlorophenol	BDL	ug/L	10	
2,4-Dichlorophenol	BDL	ug/L	15	
2,4-Dimethylphenol	BDL	ug/L	10	
2,4-Dinitrophenol	BDL	ug/L	15	
4,6-Dinitro-2-methylphenol	BDL	ug/L	10	
2-Nitrophenol	BDL	ug/L	10	
4-Nitrophenol	BDL	ug/L	10	
4-Chloro-3-methylphenol	BDL	ug/L	10	
Pe [illegible] hlorophenol	BDL	ug/L	15	
Pl [illegible]	BDL	ug/L	5	
2,4,6-Trichlorophenol	BDL	ug/L	15	

SURROGATE SPIKE RECOVERIES

	Acceptance Limits	Percent Recovery
2-Flourophenol	21-112	52
Phenol d-5	12-110	25
2,4,6-Tribromophenol	22-168	91

COMMENTS :

BDL = Below Detection Limit ug/L = Microgram per liter. ug/Kg = Microgram per kilogram.

Approved by : Jerry Beck, Laboratory Director

Date: 10/5/98
Report Generated

End of Report

Navy Public Works Center
Environmental Laboratory

Analytical Report
Priority Pollutant B/N Extractables by Method 8270

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

Client: SPORTENVDETCHASN Lab
Address: 1899 N. Hobson Ave
N. Charleston SC 29405-2100
Phone #: (843) 743-3239 Ext. 124
Contact: Mr. Bill Hiers

Lab Report Number: 83386
Sample Date: 5 Sep 98
Received Date: 9 Sep 98
Sample Site: NAS Cecil Field
Job Order No.: 127 4021

LAB Sample ID#	1- 83386
Sample Name / Location	98CNS012-8 TW-200-1 Bldg 200
Collector's Name	McElwee
Date & Time Collected	5 Sep 98
Sample Type (composite or grab)	Grab
Analyst	J. Moore
Date of Extraction / Initials	11 Sep 98 JJ
Date of Analysis	25 Sep 98
Sample Matrix	Groundwater
Dilution	X 1

Compound Name	1- 83386	units	Det. Limit	Flags
Acenaphthene	BDL	ug/L	5	
Acenaphthylene	BDL	ug/L	5	
Anthracene	BDL	ug/L	5	
Benzidine	BDL	ug/L	100	
Benzo(a) anthracene	BDL	ug/L	5	
Benzo[b]fluoranthene	BDL	ug/L	5	
Benzo[k]fluoranthene	BDL	ug/L	5	
Benzo[g,h,i]perylene	BDL	ug/L	5	
P[illegible]o[a]pyrene	BDL	ug/L	5	
[illegible]ylbutyl phthalate	BDL	ug/L	5	
Bis(2-chloroethoxy)methane	BDL	ug/L	10	
Bis(2-chloroethyl)ether	BDL	ug/L	10	
Bis(2-chloroisopropyl)ether	BDL	ug/L	10	
Bis(2-Ethylhexyl) phthalate	BDL	ug/L	10	
4-Bromophenyl-phenylether	BDL	ug/L	5	
2-Chloronaphthalene	BDL	ug/L	10	
4-Chlorophenyl-phenylether	BDL	ug/L	5	
Chrysene	BDL	ug/L	5	
Dibenz[a,h]anthracene	BDL	ug/L	5	
Di-n-butyl phthalate	BDL	ug/L	5	
Di-n-octylphthalate	BDL	ug/L	5	
1,2-Dichlorobenzene	BDL	ug/L	10	
1,3-Dichlorobenzene	BDL	ug/L	10	
1,4-Dichlorobenzene	BDL	ug/L	10	
3,3'-Dichlorobenzidine	BDL	ug/L	10	
Diethylphthalate	BDL	ug/L	5	
Dimethylphthalate	BDL	ug/L	5	
2,4-Dinitrotoluene	BDL	ug/L	5	
2,6-Dinitrotoluene	BDL	ug/L	5	
1,2-Diphenylhydrazine	BDL	ug/L	5	
Fluoranthene	BDL	ug/L	5	
Fluorene	BDL	ug/L	5	
Hexachlorobenzene	BDL	ug/L	5	
Hexachlorobutadiene	BDL	ug/L	5	
Hexachlorocyclopentadiene	BDL	ug/L	10	
Hexachloroethane	BDL	ug/L	5	
Indeno[1,2,3-cd]pyrene	BDL	ug/L	5	
I[illegible]rone	BDL	ug/L	10	
Naphthalene	BDL	ug/L	10	

Navy Public Works Center

Environmental Laboratory

Analytical Report

Priority Pollutant B/N Extractables by Method 8270

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

Client: SPORTENVDETCHASN Lab
Address: 1899 N. Hobson Ave
N. Charleston SC 29405-2100
Phone #: (843) 743-3239 Ext. 124
Contact: Mr. Bill Hiers

Lab Report Number: 83386
Sample Date: 5 Sep 98
Received Date: 9 Sep 98
Sample Site: NAS Cecil Field
Job Order No.: 127 4021

LAB Sample ID#	1- 83386			
Sample Name / Location	98CNS012-8 TW-200-1 Bldg 200			
Collector's Name	McElwee			
Date & Time Collected	5 Sep 98 @ 1405			
Sample Type (composite or grab)	Grab			
Analyst	J. Moore			
Date of Extraction / Initials	11 Sep 98 JJ			
Date of Analysis	25 Sep 98			
Sample Matrix	Groundwater			
Dilution	X 1			
Compound Name	**1- 83386**	**units**	**Det. Limit**	**Flags**
Nitrobenzene	BDL	ug/L	10	
N-Nitroso-di-n-propylamine	BDL	ug/L	10	
N-Nitrosodimethylamine	BDL	ug/L	10	
N-Nitrosodiphenylamine	BDL	ug/L	5	
Phenanthrene	BDL	ug/L	5	
Pyrene	BDL	ug/L	5	
1,2,4-Trichlorobenzene	BDL	ug/L	10	

SURROGATE SPIKE RECOVERIES

	Acceptance Limits	Percent Recovery
Nitrobenzene-d5	51-140	77
2-Flourobiphenyl	49-132	78
Terphenyl-d14	50-154	88

COMMENTS :

Approved by : Jerry Dees, Laboratory Director

Date: 10/1/98
Report Generated
End of Report

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: SPORTENVDETCHASN Lab
Address: 1899 N. Hobson Ave
N. Charleston SC 29405-2100
Phone #: (843) 743-3239 Ext. 124
Contact: Mr. Bill Hiers

Analytical Report
Total RCRA Metals

Lab Report Number: 83386
Sample Date: 5 Sep 98
Received Date: 9 Sep 98
Sample Site: NAS Cecil Field
Job Order No.: 127 4021

LAB Sample ID#	1- **83386**
Sample Name / Location	98-CNS012-8 TW-200-1 Bldg 200
Collector's Name	McElwee
Date & Time Collected	5 Sep 98 @ 1405
Sample Type (composite or grab)	Grab
Analyst	B. Nelson
Date of Analysis	10, 11 Sep 98
Sample Matrix	Groundwater

Element	Method #	Result	units	Detection Limit
Arsenic (As)	EPA SW 6010	BDL	mg/L	0.2
Barium (Ba)	EPA SW 6010	0.3	mg/L	0.01
Cadmium (Cd)	EPA SW 6010	BDL	mg/L	0.01
Chromium (Cr)	EPA SW 6010	0.2	mg/L	0.01
Lead (Pb)	EPA SW 6010	BDL	mg/L	0.05
Mercury (Hg)	EPA SW 7470	BDL	mg/L	0.0002
Selenium (Se)	EPA SW 6010	BDL	mg/L	0.2
Silver (Ag)	EPA SW 6010	BDL	mg/L	0.01

COMMENTS :

BDL = Below Detection Limit. mg/L = Milligram per liter. mg/Kg = Milligram per kilogram.

Approved by : Jerry Dees, Laboratory Director

Date: 10/1/98

Navy Public Works Center

Environmental Laboratory

Analytical Report

Petroleum Range Organics by FLPRO

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

Client: SPORTENVDETCHASN Lab
Address: 1899 N. Hobson Ave
N. Charleston SC 29405-2100
Phone #: (843) 743-3239 Ext. 124
Contact: Mr. Bill Hiers

Lab Report Number: 83386
Sample Date: 5 Sep 98
Received Date: 9 Sep 98
Sample Site: NAS Cecil Field
Job Order No.: 127 4021

LAB Sample ID#	1- 83386			
Sample Name / Location	98CNS012-8 TW-200-1 Bldg 200			
Collector's Name	McElwee			
Date & Time Collected	5 Sep 98 @ 1405			
Sample Type (composite or grab)	Grab			
Analyst	J. Moore			
Date of extraction / Initials	11 Sep 98 JJ			
Date of Analysis	11 Sep and 6 Oct 98			
Sample Matrix	Groundwater			
Dilution	x 5			
Parameter	**1- 83386**	**units**	**Det. Limit**	**Flags**
Petroleum Range Organics by FLPRO	26	mg/L	1.25	

SURROGATE SPIKE RECOVERIES

	Acceptance Limits	Percent Recovery
ortho-Terphenyl	82-142	131
Nonatriacontane (C-39)	42-193	128

COMMENTS :

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

Approved by : Jerry Dees, Laboratory Director

Date: 10/7/98

Navy Public Works Center
Environmental Laboratory

Analytical Report
Priority Pollutant Volatiles by Method 8260

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

Client: SPORTENVDETCHASN Lab
Address: 1899 N. Hobson Ave
N. Charleston SC 29405-2100
Phone #: (843) 743-3239 Ext. 124
Contact: Mr. Bill Hiers

Lab Report Number: 83387
Sample Date: 5 Sep 98
Received Date: 9 Sep 98
Sample Site: NAS Cecil Field
Job Order No.: 127 4021

LAB Sample ID#	1- **83387**
Sample Name / Location	98CNS012-9 TW-200-2 Bldg 200
Collector's Name	McElwee
Date & Time Collected	5 Sep 98 @ 1345
Sample Type (composite or grab)	Grab
Analyst	M. Chambers
Date of Extraction / Initials	9 Sep 98 MC
Date of Analysis	9 Sep 98
Sample Matrix	Groundwater
Dilution	X 1

Compound Name	1- 83387	units	Det. Limit	Flags
Acrolein	BDL	ug/L	5	
Acrylonitrile	BDL	ug/L	1	
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	
Chloroform	BDL	ug/L	1	
Chloromethane	BDL	ug/L	1	
2-Chloroethylvinylether	BDL	ug/L	1	
Dibromochloromethane	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	
1,3-Dichloropropene	BDL	ug/L	1	
Ethylbenzene	BDL	ug/L	1	
Methylene Chloride	BDL	ug/L	5	
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	
Vinyl Chloride	BDL	ug/L	1	

SURROGATE SPIKE RECOVERIES

	Acceptance Limits	Percent Recovery
1,2-Dichloroethane-d4	75-133	103
Toluene-d8	86-119	101
Bromoflourobenzene	85-116	103

COMMENTS :
BDL = Below Detection Limit. ug/L = Microgram per liter. ug/Kg = Microgram per kilogram.

Approved by : Jerry Deds, Laboratory Director

Date: 10/1/98
Report Generated

End of Report

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

Analytical Report

Priority Pollutant B/N Extractables by Method 8270

Client:	SPORTENVDETCHASN Lab	Lab Report Number:	83387
Address:	1899 N. Hobson Ave N. Charleston SC 29405-2100	Sample Date:	5 Sep 98
		Received Date:	9 Sep 98
Phone #:	(843) 743-3239 Ext. 124	Sample Site:	NAS Cecil Field
Contact:	Mr. Bill Hiers	Job Order No.:	127 4021

LAB Sample ID#	1- 83387			
Sample Name / Location	98CNS012-9 TW-200-2 Bldg 200			
Collector's Name	McElwee			
Date & Time Collected	5 Sep 98			
Sample Type (composite or grab)	Grab			
Analyst	J. Moore			
Date of Extraction / Initials	11 Sep 98 JJ			
Date of Analysis	25 Sep 98			
Sample Matrix	Groundwater			
Dilution	X 1			
Compound Name	1- 83387	units	Det. Limit	Flags
Acenaphthene	BDL	ug/L	5	
Acenaphthylene	BDL	ug/L	5	
Anthracene	BDL	ug/L	5	
Benzidine	BDL	ug/L	100	
Benzo(a) anthracene	BDL	ug/L	5	
Benzo[b]fluoranthene	BDL	ug/L	5	
Benzo[k]fluoranthene	BDL	ug/L	5	
Benzo[g,h,i]perylene	BDL	ug/L	5	
Benzo[a]pyrene	BDL	ug/L	5	
[illegible]ibutyl phthalate	BDL	ug/L	5	
Bis(2-chloroethoxy)methane	BDL	ug/L	10	
Bis(2-chloroethyl)ether	BDL	ug/L	10	
Bis(2-chloroisopropyl)ether	BDL	ug/L	10	
Bis(2-Ethylhexyl) phthalate	BDL	ug/L	10	
4-Bromophenyl-phenylether	BDL	ug/L	5	
2-Chloronaphthalene	BDL	ug/L	10	
4-Chlorophenyl-phenylether	BDL	ug/L	5	
Chrysene	BDL	ug/L	5	
Dibenz[a,h]anthracene	BDL	ug/L	5	
Di-n-butyl phthalate	BDL	ug/L	5	
Di-n-octylphthalate	BDL	ug/L	5	
1,2-Dichlorobenzene	BDL	ug/L	10	
1,3-Dichlorobenzene	BDL	ug/L	10	
1,4-Dichlorobenzene	BDL	ug/L	10	
3,3'-Dichlorobenzidine	BDL	ug/L	10	
Diethylphthalate	BDL	ug/L	5	
Dimethylphthalate	BDL	ug/L	5	
2,4-Dinitrotoluene	BDL	ug/L	5	
2,6-Dinitrotoluene	BDL	ug/L	5	
1,2-Diphenylhydrazine	BDL	ug/L	5	
Fluoranthene	BDL	ug/L	5	
Fluorene	BDL	ug/L	5	
Hexachlorobenzene	BDL	ug/L	5	
Hexachlorobutadiene	BDL	ug/L	5	
Hexachlorocyclopentadiene	BDL	ug/L	10	
Hexachloroethane	BDL	ug/L	5	
Indeno[1,2,3-cd]pyrene	BDL	ug/L	5	
I[illegible]rone	BDL	ug/L	10	
N[illegible]nalene	BDL	ug/L	10	

Navy Public Works Center
Environmental Laboratory

Analytical Report
Priority Pollutant B/N Extractables by Method 8270

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

Client: SPORTENVDETCHASN Lab
Address: 1899 N. Hobson Ave
N. Charleston SC 29405-2100
Phone #: (843) 743-3239 Ext. 124
Contact: Mr. Bill Hiers

Lab Report Number: 83387
Sample Date: 5 Sep 98
Received Date: 9 Sep 98
Sample Site: NAS Cecil Field
Job Order No.: 127 4021

LAB Sample ID#	1- 83387			
Sample Name / Location	98CNS012-9 TW-200-2 Bldg 200			
Collector's Name	McElwee			
Date & Time Collected	5 Sep 98 @ 1345			
Sample Type (composite or grab)	Grab			
Analyst	J. Moore			
Date of Extraction / Initials	11 Sep 98 JJ			
Date of Analysis	25 Sep 98			
Sample Matrix	Groundwater			
Dilution	X 1			
Compound Name	**1- 83387**	**units**	**Det. Limit**	**Flags**
Nitrobenzene	BDL	ug/L	10	
N-Nitroso-di-n-propylamine	BDL	ug/L	10	
N-Nitrosodimethylamine	BDL	ug/L	10	
N-Nitrosodiphenylamine	BDL	ug/L	5	
Phenanthrene	BDL	ug/L	5	
Pyrene	BDL	ug/L	5	
1,2,4-Trichlorobenzene	BDL	ug/L	10	

SURROGATE SPIKE RECOVERIES

	Acceptance Limits	Percent Recovery
Nitrobenzene-d5	51-140	89
2-Flourobiphenyl	49-132	85
Terphenyl-d14	50-154	90

COMMENTS :

Approved by : Jerry Dees, Laboratory Director

Date: 10/1/98
Report Generated
End of Report

Navy Public Works Center

Environmental Laboratory

Analytical Report

Priority Pollutant Acid Extractables by Method 8270

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

Client: SPORTENVDETCHASN Lab
Address: 1899 N. Hobson Ave
N. Charleston SC 29405-2100
Phone #: (843) 743-3239 Ext. 124
Contact: Mr. Bill Hiers

Lab Report Number: 83387
Sample Date: 5 Sep 98
Received Date: 9 Sep 98
Sample Site: NAS Cecil Field
Job Order No.: 127 4021

LAB Sample ID#	1- 83387			
Sample Name / Location	98CNS012-9 TW-200-2 Bldg 200			
Collector's Name	McElwee			
Date & Time Collected	5 Sep 98			
Sample Type (composite or grab)	Grab			
Analyst	J. Moore			
Date of Extraction / Initials	11 Sep 98 JJ			
Date of Analysis	25 Sep 98			
Sample Matrix	Groundwater			
Dilution	X 1			
Compound Name	**1- 83387**	**units**	**Det. Limit**	**Flags**
2-Chlorophenol	BDL	ug/L	10	
2,4-Dichlorophenol	BDL	ug/L	15	
2,4-Dimethylphenol	BDL	ug/L	10	
2,4-Dinitrophenol	BDL	ug/L	15	
4,6-Dinitro-2-methylphenol	BDL	ug/L	10	
2-Nitrophenol	BDL	ug/L	10	
4-Nitrophenol	BDL	ug/L	10	
4-Chloro-3-methylphenol	BDL	ug/L	10	
[illegible]chlorophenol	BDL	ug/L	15	
[illegible]ol	BDL	ug/L	5	
2,4,6-Trichlorophenol	BDL	ug/L	15	

SURROGATE SPIKE RECOVERIES

	Acceptance Limits	Percent Recovery
2-Flourophenol	21-112	57
Phenol d-5	12-110	41
2,4,6-Tribromophenol	22-168	88

COMMENTS :

BDL = Below Detection Limit. ug/L = Microgram per liter. ug/Kg = Microgram per kilogram.

Approved by : Jerry Dees, Laboratory Director

Date: 10/1/98
Report Generated
End of Report

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

Analytical Report
Total RCRA Metals

Client: SPORTENVDETCHASN Lab
Address: 1899 N. Hobson Ave
N. Charleston SC 29405-2100
Phone #: (843) 743-3239 Ext. 124
Contact: Mr. Bill Hiers

Lab Report Number: 83387
Sample Date: 5 Sep 98
Received Date: 9 Sep 98
Sample Site: NAS Cecil Field
Job Order No.: 127 4021

LAB Sample ID#	1- **83387**
Sample Name / Location	98CNS012-9 TW-200-2 Bldg 200
Collector's Name	McElwee
Date & Time Collected	5 Sep 98 @ 1345
Sample Type (composite or grab)	Grab
Analyst	B. Nelson
Date of Analysis	10, 11 Sep 98
Sample Matrix	Groundwater

Element	Method #	Result	units	Detection Limit
Arsenic (As)	EPA SW 6010	BDL	mg/L	0.2
Barium (Ba)	EPA SW 6010	0. 02	mg/L	0.01
Cadmium (Cd)	EPA SW 6010	BDL	mg/L	0.01
Chromium (Cr)	EPA SW 6010	BDL	mg/L	0.01
Lead (Pb)	EPA SW 6010	BDL	mg/L	0.05
Mercury (Hg)	EPA SW 7470	BDL	mg/L	0.0002
Selenium (Se)	EPA SW 6010	BDL	mg/L	0.2
Silver (Ag)	EPA SW 6010	BDL	mg/L	0.01

COMMENTS :

BDL = Below Detection Limit. mg/L = Milligram per liter. mg/Kg = Milligram per kilogram.

Approved by : Jerry Dees, Laboratory Director

Date: 10/1/98

Navy Public Works Center

Environmental Laboratory

Analytical Report

Petroleum Range Organics by FLPRO

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

Client: SPORTENVDETCHASN Lab
Address: 1899 N. Hobson Ave
N. Charleston SC 29405-2100
Phone #: (843) 743-3239 Ext. 124
Contact: Mr. Bill Hiers

Lab Report Number: 83387
Sample Date: 5 Sep 98
Received Date: 9 Sep 98
Sample Site: NAS Cecil Field
Job Order No.: 127 4021

LAB Sample ID#	1- 83387			
Sample Name / Location	98CNS012-9 TW-200-2 Bldg 200			
Collector's Name	McElwee			
Date & Time Collected	5 Sep 98 @ 1345			
Sample Type (composite or grab)	Grab			
Analyst	J. Moore			
Date of extraction / Initials	11 Sep 98 JJ			
Date of Analysis	11 Sep 98			
Sample Matrix	Groundwater			
Dilution		x	1	
Parameter	**1- 83387**	**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	99
Nonatriacontane (C-39)	42-193	99

COMMENTS :

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

Approved by : Jerry Dees, Laboratory Director

Date: 10/1/98

HAZARDOUS WASTE CHAIN OF CUSTODY/REQUEST FOR ANALYSIS

NPWC Environmental Laboratory

Bldg. 3887, Code 920
NAS Pensacola, Fl. 32508
Ph#: (904) 452-4728/3842
DSN: 922-4728/3842
FAX: (904) 452-2799/2387

Requestor: FORTENVDETCHASN LAB
Address: 1899 N. HOBSON AVE N. CHARLESTON S.C 29405-2106
Phone #: 843-743-3239 ext 124
Contact: MR. BILL HIGGS
Job Order #:

Repeat Required? Yes No DEP? Yes No
Lab ID Number:
Sample Date:
Received Date:
Sample Site: NAS CECIL FIELD
Lab Due Date:

Sample ID #	Lab	83384	83385	83386	83387	Notes:
Sample Name	----------	98CNS012-6 TW-80	98CNS012-7 TW-808	98CNS012-8 TW-200-1	98CNS012-9 TW-200-2	
SP Location	----------	BLDG 80	BLDG 808	BLDG 200	BLDG 200	
Sampled by	----------	MCELWEE	MCELWEE	MCELWEE	MCELWEE	
Collection	Date	9/5/98	9/5/98	9/5/98	9/5/98	
Date/Time	Time	1000	1100	1405	1345	
Sample Matrix	----------	GW	GW	GW	GW	

GROUP PARAMETERS by Method Name	METHOD #	X Bottle ID #	X Bottle ID #	X Bottle ID #	X Bottle ID #	FY97 Units	Containers Required (L/S)	Preservatives Used (Liquids)
HW Charact. (complete)	EPA SW 846					58	See above	See above
Ignitability (Flashpoint)	SW 846 1010					2	250ml/4 oz.	4° C
Reactivity (Cyanide & Sulfide)	EPA SW-846					4	1L/4 oz.	4° C
Corrosivity (pH)	SW 846 9040/9045					2.5	250ml/4 oz.	4° C
Toxicity (TCLP) complete	EPA SW-846					50	See above	See above
Toxicity (TCLP) complete	EPA SW-846					50	See above	See above
TCLP Non Volatile Extraction	SW 846 1311					4	40 ml/1/4 oz.	4° C
TCLP Volatile ZHE Extraction	SW 846 1311					4	1Lx4/32 oz.	HCl to pH<2
TCLP SNA Extractables	SW 846 8270					15	1Lx1/4 oz.	4° C
TCLP Acid Extractables	SW 846 8270					3	1Lx1/4 oz.	4° C
TCLP B/N Extractables	SW 846 8270					3	1Lx1/4 oz.	4° C
TCLP Pesticides	SW 846 8080					3	1Lx1/4 oz.	4° C
TCLP Herbicides	SW 846 8150					3	1Lx1/4 oz.	4° C
TCLP Volatiles	SW 846 8260					3	40 ml x 2/4 oz.	HCl to pH<2
TCLP Metals (8)	EPA SW-846					35	500 ml/4 oz.	HNO3 to pH<2
Multiphasic Samples	EPA SW-846					~50%	See above	See above
Complete Priority Pollutants	EPA SW-846					40	See above	See above
PP Acid Extractables	SW 846 8270					3	1Lx1/4 oz.	4° C
PP B/N Extractables	SW 846 8270					3	1Lx1/4 oz.	4° C
PP Pesticides PCB's	SW 846 8080					3	1Lx1/4 oz.	4° C
PP Volatiles	SW 846 8260					3	40 ml x 2/4 oz.	HCl to pH<2
PP Metals (13)	EPA SW-846					3	500 ml/4 oz.	HNO3 to pH<2
PP Cyanide/Phenol	EPA SW-846					4	1L Plastic/1L Glass	NaOH+H2SO4
Toxicity (TCLP) less Pesticides	EPA SW-846					38	See above	See above
F001 - F005 Solvents	EPA SW-846					24	1Lx40ml/16 oz.	4° C
Kerosene and Grease (R-280)	SW-846/FL DEP					24	Applicable	As Required
R-280	FL DEP	X	X	X	X	5	1Lx3/16 oz.	H2SO4 to pH<2
Total Volatiles w/TIC	SW 846 8260			X	X	3	40 ml/1/4 oz.	HCl to pH<2
Total SNA Extractables w/TIC	SW 846 8270			X	X	16	1Lx2/16 oz.	4° C
Total RCRA Metals (8)	EPA SW-846			X 4-11-98	X 4-11-98	35	500 ml/4 oz.	HNO3 to pH<2
Sieve Metals	EPA SW-846					1	500 ml/4 oz.	HNO3 to pH<2
PCB's in Oil	SW 846 8080					3	40 ml/4 oz.	None
PCB's in Water/Soil/Wipes	SW 846 8080					4	1L/4 oz.	None

Other

BTEX, NAPTH, MTBE	X	X		
PAH	X	X		

Comments:

Relinquished by: T. R. LeBlanc
Date/Time: 9/6/98 1218 hrs

Received by: [illegible]
Date/Time: [illegible]

Attachment III

Certificate of Disposal (tank)

UST Certificate of Disposal

CONTRACTOR

Supervisor of Shipbuilding, Conversion and Repair, USN
Portsmouth, VA
Environmental Detachment Charleston
1899 North Hobson Avenue
North Charleston 29405-2106

Telephone (803) 743-6482

TANK ID & LOCATION

Building 200, UST 200 & OWS 200, NAS Cecil Field, Jacksonville, Florida

DISPOSAL LOCATION

Recycling Center
NAS Cecil Field, Jacksonville

TYPE OF TANKS	SIZE (GAL)
Steel	300 & 150

CLEANING/DISPOSAL METHOD

The tanks were removed from the Building 200 site, cut open, cleaned with a steam cleaner, cut into sections, and recycled through Commercial Metals.

DISPOSAL CERTIFICATION

I certify that the above tanks have been properly cleaned and disposed of.

T. R. McElhee / 12/16/98
(Name) (Date)

APPENDIX B

MONITORING WELL INSTALLATION DETAIL

PROJECT: NAS Cecil Field		**LOG of WELL:** CEF-200-1S	**BORING NO.** CEF-200-1S
CLIENT: SOUTHDIVNAVFACENGCOM	**PROJECT NO:** 8542-03	**DATE STARTED:** 3-4-97	**COMPLETED:** 3-4-97
DRILLING SUBCONTRACTOR: GEOTEK		**SITE:** Building 200	**MONITOR INST.** FID
METHOD: 8.25" HSA	**WELL CASE DIAM.:** 2"	**SCREEN INT.:** 4-14 FT.	**SCREEN SLOT SIZE:** 0
TOC ELEVATION: FT. NGVD	**GROUND ELEV.:** FT. NGVD	**NORTHING:** 2144089	**EASTING:** 375782.8
WELL DEVELOP. DATE: 3-5-97	**TOTAL DEPTH:** 15 FT. BLS	**DEPTH TO ∇** 5.90 FT. BLS	**LOGGED BY:** J Koch

DEPTH FT.	SAMPLE INTERVAL	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN
			0	SILTY SAND: Dark brown to black, fine grain, no petroleum odor.		SM	posthole
			0	SILTY SAND: Dark brown to black, fine grain, no petroleum odor.			posthole
5		0%	N/A	No Recovery			No Recovery
		50%	10	SILTY SAND. Light brown to grey, fine grain, no petroleum odor.			3,5,5,5
10		100%	11	SILTY SAND. Dark brown, fine grain, saturated, no petroleum odor.			8,14,15,22
15							
20							

WELL DATA

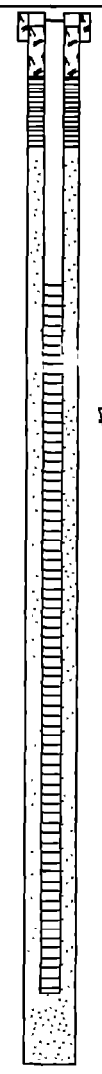

 ABB ENVIRONMENTAL SERVICES, INC.

APPENDIX C

ANALYTICAL DATA

NAS CECIL FIELD -- FACILITY 200
GROUNDWATER -- ANALYTICAL DATA -- REPORT REQUEST NO. 11035

Lab Sample Number:	JR59981				JR59982			
Site	UST GREY				UST GREY			
Locator	CEF-200-TW1				CEF-200-TW1F			
Collect Date:	23-MAR-99				23-MAR-99			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
RCRA 8								
Arsenic	.01	U	mg/l	.01	.01	U	mg/l	.01
Barium	.1	U	mg/l	.1	.1	U	mg/l	.1
Cadmium	.001	U	mg/l	.001	.001	U	mg/l	.001
Chromium	.01	U	mg/l	.01	.01	U	mg/l	.01
Lead	.005	U	mg/l	.005	.005	U	mg/l	.005
Mercury	.0002	U	mg/l	.0002	.0002	U	mg/l	.0002
Selenium	.01	U	mg/l	.01	.01	U	mg/l	.01
Silver	.01	U	mg/l	.01	.01	U	mg/l	.01
FLA PRO								
TPH C8-C40	.2	U	mg/l	.2	-			

U = NOT DETECTED J = ESTIMATED VALUE
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R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- FACILITY 200
SURFACE WATER -- VOLATILES -- REPORT REQUEST NO. 10093

Lab Sample Number:	C4WN5
Site	CECILBRAC2
Locator	60W00101
Collect Date:	19-JUL-96

	VALUE	QUAL	UNITS	DL
CLP VOLATILES 90-SOW				
Chloromethane	2	U	ug/l	2
Bromomethane	2	U	ug/l	2
Vinyl chloride	2	U	ug/l	2
Chloroethane	2	U	ug/l	2
Methylene chloride	1	U	ug/l	1
Acetone	2	U	ug/l	2
Carbon disulfide	1	U	ug/l	1
1,1-Dichloroethene	1	U	ug/l	1
1,1-Dichloroethane	1	U	ug/l	1
1,2-Dichloroethene (total)	1	U	ug/l	1
Chloroform	1	U	ug/l	1
1,2-Dichloroethane	1	U	ug/l	1
2-Butanone	2	U	ug/l	2
1,1,1-Trichloroethane	1	U	ug/l	1
Carbon tetrachloride	1	U	ug/l	1
Bromodichloromethane	1	U	ug/l	1
1,2-Dichloropropane	1	U	ug/l	1
cis-1,3-Dichloropropene	1	U	ug/l	1
Trichloroethene	1	U	ug/l	1
Dibromochloromethane	1	U	ug/l	1
1,1,2-Trichloroethane	1	U	ug/l	1
Benzene	1	U	ug/l	1
trans-1,3-Dichloropropene	1	U	ug/l	1
Bromoform	1	U	ug/l	1
4-Methyl-2-pentanone	2	U	ug/l	2
2-Hexanone	2	U	ug/l	2
Tetrachloroethene	1	U	ug/l	1
Toluene	1	U	ug/l	1
1,1,2,2-Tetrachloroethane	1	U	ug/l	1
Chlorobenzene	1	U	ug/l	1
Ethylbenzene	1	U	ug/l	1
Styrene	1	U	ug/l	1
Xylenes (total)	1	U	ug/l	1

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NAS CECIL FIELD -- FACILITY 200
SURFACE WATER -- SEMIVOLATILES -- REPORT REQUEST NO. 10094

Lab Sample Number:	C4WN5			
Site	CECILBRAC2			
Locator	60W00101			
Collect Date:	19-JUL-96			
	VALUE	QUAL	UNITS	DL
CLP SEMIVOLATILES 90-SOW				
Phenol	10	U	ug/l	10
bis(2-Chloroethyl) ether	10	U	ug/l	10
2-Chlorophenol	10	U	ug/l	10
1,3-Dichlorobenzene	10	U	ug/l	10
1,4-Dichlorobenzene	10	U	ug/l	10
1,2-Dichlorobenzene	10	U	ug/l	10
2-Methylphenol	10	U	ug/l	10
2,2-oxybis(1-Chloropropane)	10	U	ug/l	10
4-Methylphenol	10	U	ug/l	10
N-Nitroso-di-n-propylamine	10	U	ug/l	10
Hexachloroethane	10	U	ug/l	10
Nitrobenzene	10	U	ug/l	10
Isophorone	10	U	ug/l	10
2-Nitrophenol	10	U	ug/l	10
2,4-Dimethylphenol	10	U	ug/l	10
bis(2-Chloroethoxy) methane	10	U	ug/l	10
2,4-Dichlorophenol	10	U	ug/l	10
1,2,4-Trichlorobenzene	10	U	ug/l	10
Naphthalene	10	U	ug/l	10
4-Chloroaniline	10	U	ug/l	10
Hexachlorobutadiene	10	U	ug/l	10
4-Chloro-3-methylphenol	10	U	ug/l	10
2-Methylnaphthalene	10	U	ug/l	10
Hexachlorocyclopentadiene	10	U	ug/l	10
2,4,6-Trichlorophenol	10	U	ug/l	10
2,4,5-Trichlorophenol	25	U	ug/l	25
2-Chloronaphthalene	10	U	ug/l	10
2-Nitroaniline	25	U	ug/l	25
Dimethylphthalate	10	U	ug/l	10
Acenaphthylene	10	U	ug/l	10
2,6-Dinitrotoluene	10	U	ug/l	10
3-Nitroaniline	25	U	ug/l	25
Acenaphthene	10	U	ug/l	10
2,4-Dinitrophenol	25	U	ug/l	25
4-Nitrophenol	25	U	ug/l	25
Dibenzofuran	10	U	ug/l	10
2,4-Dinitrotoluene	10	U	ug/l	10
Diethylphthalate	10	U	ug/l	10
4-Chlorophenyl-phenylether	10	U	ug/l	10
Fluorene	10	U	ug/l	10
4-Nitroaniline	25	U	ug/l	25
4,6-Dinitro-2-methylphenol	25	U	ug/l	25
N-Nitrosodiphenylamine	10	U	ug/l	10
4-Bromophenyl-phenylether	10	U	ug/l	10
Hexachlorobenzene	10	U	ug/l	10
Pentachlorophenol	25	U	ug/l	25
Phenanthrene	10	U	ug/l	10
Anthracene	10	U	ug/l	10
Carbazole	10	U	ug/l	10
Di-n-butylphthalate	10	U	ug/l	10

NAS CECIL FIELD -- FACILITY 200
SURFACE WATER -- SEMIVOLATILES -- REPORT REQUEST NO. 10094

Lab Sample Number:	C4WN5		
Site	CECILBRAC2		
Locator	60W00101		
Collect Date:	19-JUL-96		
	VALUE QUAL	UNITS	DL
Fluoranthene	10 U	ug/l	10
Pyrene	10 U	ug/l	10
Butylbenzylphthalate	10 U	ug/l	10
3,3-Dichlorobenzidine	10 U	ug/l	10
Benzo (a) anthracene	10 U	ug/l	10
Chrysene	10 U	ug/l	10
bis(2-Ethylhexyl) phthalate	10 U	ug/l	10
Di-n-octylphthalate	10 U	ug/l	10
Benzo (b) fluoranthene	10 U	ug/l	10
Benzo (k) fluoranthene	10 U	ug/l	10
Benzo (a) pyrene	10 U	ug/l	10
Indeno (1,2,3-cd) pyrene	10 U	ug/l	10
Dibenzo (a,h) anthracene	10 U	ug/l	10
Benzo (g,h,i) perylene	10 U	ug/l	10

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NAS CECIL FIELD -- FACILITY 200
SURFACE WATER -- PESTICIDES & PCBs -- REPORT REQUEST NO. 10095

Lab Sample Number:	C4WN5
Site	CECILBRAC2
Locator	60W00101
Collect Date:	19-JUL-96

	VALUE	QUAL	UNITS	DL
CLP PESTICIDES/PCBS 90-SOW				
alpha-BHC	.05	U	ug/l	.05
beta-BHC	.05	U	ug/l	.05
delta-BHC	.05	U	ug/l	.05
gamma-BHC (Lindane)	.05	U	ug/l	.05
Heptachlor	.05	U	ug/l	.05
Aldrin	.05	U	ug/l	.05
Heptachlor epoxide	.05	U	ug/l	.05
Endosulfan I	.05	U	ug/l	.05
Dieldrin	.1	U	ug/l	.1
4,4-DDE	.1	U	ug/l	.1
Endrin	.1	U	ug/l	.1
Endosulfan II	.1	U	ug/l	.1
4,4-DDD	.1	U	ug/l	.1
Endosulfan sulfate	.1	U	ug/l	.1
4,4-DDT	.1	U	ug/l	.1
Methoxychlor	.5	U	ug/l	.5
Endrin ketone	.1	U	ug/l	.1
Endrin aldehyde	.1	U	ug/l	.1
alpha-Chlordane	.05	U	ug/l	.05
gamma-Chlordane	.05	U	ug/l	.05
Toxaphene	5	U	ug/l	5
Aroclor-1016	1	U	ug/l	1
Aroclor-1221	2	U	ug/l	2
Aroclor-1232	1	U	ug/l	1
Aroclor-1242	1	U	ug/l	1
Aroclor-1248	1	U	ug/l	1
Aroclor-1254	1	U	ug/l	1
Aroclor-1260	1	U	ug/l	1

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NAS CECIL FIELD -- FACILITY 200
SURFACE WATER -- INORGANICS -- REPORT REQUEST NO. 10096

Lab Sample Number:	C4WN5			
Site	CECILBRAC2			
Locator	60W00101			
Collect Date:	19-JUL-96			
	VALUE	QUAL	UNITS	DL
CLP METALS AND CYANIDE				
Aluminum	105	J	ug/l	200
Antimony	2	U	ug/l	60
Arsenic	3	U	ug/l	10
Barium	28.2	J	ug/l	200
Beryllium	1	U	ug/l	5
Cadmium	1	U	ug/l	5
Calcium	51700		ug/l	5000
Chromium	2	U	ug/l	10
Cobalt	1	U	ug/l	50
Copper	26.7		ug/l	25
Iron	126		ug/l	100
Lead	2	U	ug/l	3
Magnesium	19000		ug/l	5000
Manganese	11.7	J	ug/l	15
Mercury	.1	U	ug/l	.2
Nickel	2	U	ug/l	40
Potassium	13300		ug/l	5000
Selenium	4	U	ug/l	5
Silver	1	U	ug/l	10
Sodium	14300	J	ug/l	5000
Thallium	2.5	J	ug/l	10
Vanadium	1.8	J	ug/l	50
Zinc	25.4		ug/l	20
Cyanide	3	U	ug/l	10

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NAS CECIL FIELD -- FACILITY 200
SURFACE WATER -- TRPH -- REPORT REQUEST NO. 10097

Lab Sample Number:	A6G2001050
Site	CECILBRAC2
Locator	60W00101
Collect Date:	19-JUL-96

	VALUE	QUAL	UNITS	DL
TPH				
Total petroleum hydrocarbons	.5	U	mg/l	.5

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NAS CECIL FIELD -- TANK 200-OW
UST GREY ANALYTICAL PARAMETERS -- REPORT NO. 9419

Lab Sample Number:	B7C2501210			
Site	BRACGREY			
Locator	CEF2001S			
Collect Date:	24-MAR-97			
	VALUE	QUAL	UNITS	DL
BRACGREY ANAYLTICAL 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	10	U	ug/l	10
1,3-Dichlorobenzene	1	U	ug/l	1
1,4-Dichlorobenzene	10	U	ug/l	10
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	10	U	ug/l	10
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	10	U	ug/l	10
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
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	10	U	ug/l	10
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	10	U	ug/l	10
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	1	U	ug/l	1
Naphthalene	2	U	ug/l	2
Phenanthrene	2	U	ug/l	2
Pyrene	10	U	ug/l	10
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
Vinyl chloride	1	U	ug/l	1

NAS CECIL FIELD -- TANK 200-OW
UST GREY ANALYTICAL PARAMETERS -- REPORT NO. 9419

Lab Sample Number:	B7C2501210			
Site	BRACGREY			
Locator	CEF2001S			
Collect Date:	24-MAR-97			
	VALUE	QUAL	UNITS	DL
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
Lead-DISS	-			

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