

N61165.AR.005724
CNC CHARLESTON
5090.3a

UNDERGROUND STORAGE TANK (UST) ASSESSMENT REPORT FOR BUILDING 648
CNC CHARLESTON SC
10/07/1996
SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL

South Carolina Department of Health and Environmental Control (S.C.D.H.E.C.)
Underground Storage Tank (UST) Assessment Report

L: 3.11.97
Lo 3.25.97
PLM

RECEIVED

FEB 07 1997
Groundwater Assessment
and Development Section

Date Received
State Use Only

Submit Completed Form to:
UST Regulatory Section
SCDHEC
2600 Bull Street
Columbia, South Carolina 29201
Telephone (803) 734-5331

I OWNERSHIP OF UST(S)

Agency/Owner: Southern Division, Naval Facilities Engineering Command, Caretaker Site Office			
Mailing Address: P.O. Box 190010			
City: N. Charleston	State: SC	Zip Code: 29419-9010	
Area Code: 803	Telephone Number: 743-9985	Contact Person: LCDR Paul Rose	

II SITE IDENTIFICATION AND LOCATION

Site I.D. #:	Unregulated		
Facility Name:	Charleston Naval Base Complex, Bldg 648 17784		
Street Address:	Dyess Avenue		
City:	North Charleston, 29405-2413	County:	Charleston

III CLOSURE INFORMATION

Closure Started: 9 Sept 1996	Closure Completed: 7 Oct 1996
Number of USTs Closed: 1, and 1 AST	
N/A	SPORTENVDETCNASN
Consultant	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.

LCDR Paul Rose

Name (Type or Print)

Signature

V. UST INFORMATION

- A. Product.....
- B. Capacity.....
- C. Age.....
- D. Construction Material.....
- E. Month/Year of Last Use.....
- F. Depth (ft.) To Base of Tank.....
- G. Spill Prevention Equipment Y/N.....
- H. Overfill Prevention Equipment Y/N.....
- I. Method of Closure Removed/Filled.....
- J. Visible Corrosion or Pitting Y/N.....
- K. Visible Holes Y/N.....

Tank 1 AST	Tank 2 UST	Tank 3	Tank 4	Tank 5	Tank 6
Diesel	Fuel oil				
1,000 gal.	2,000 gal.				
+20 yrs.	+20 yrs.				
Steel	Steel				
Unk.	Unk.				
N/A	9'				
Y	N				
N	N				
R	R				
N	N				
N	Y				

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

AST 648 and UST 648B were removed, drained, cut open at both ends, and cleaned with a steam cleaner. They were then cut up for recycling as scrap metal. (See Attachment III.)

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

The residual fuel oil, waste water, and part of the sludge were recycled. Sludge that was too thick to be pumped into our recycling tank was disposed of as non-regulated sludge waste.

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

AST 648 was in good condition and contained no holes or leaks. UST 648B had no significant corrosion, but a 1/4" hole was discovered during steam cleaning. See Attachment I photo.

VI. PIPING INFORMATION

- A. Construction Material.....
- B. Distance from UST to Dispenser.....
- C. Number of Dispensers.....
- D. Type of System P/S.....
- E. Was Piping Removed from the Ground? Y/N....
- F. Visible Corrosion or Pitting Y/N.....
- G. Visible Holes Y/N.....
- H. Age.....

Tank 1 AST	Tank 2 UST	Tank 3	Tank 4	Tank 5	Tank 6
copper	copper & steel				
20'	112' See note 1				
1	1				
S	S				
Y	Y				
N	Y				
N	Y				
+ 20 yrs	+ 20 yrs				

Note 1: The UST provided fuel oil for heating Bldg 648.

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

Both AST 648 and UST 648B used 5/8" copper piping for supply and return lines. This piping was in good condition. The steel vent line was severely corroded and contained numerous holes. When the UST's four copper (supply and return) lines were being removed, four abandoned 1/2" steel lines were discovered beneath them. The steel lines were severely corroded and contained numerous holes. See Attachment I photos.

VII. BRIEF SITE DESCRIPTION AND HISTORY

Building 648 is the former Naval Base brig. The 2000 gallon UST was used for heating the building, while the 1,000 gallon AST was used to fuel an emergency generator. Product was found throughout the UST excavation, probably from holes in the vent line.

VIII. SITE CONDITIONS

Yes No Unk

	Yes	No	Unk
<p>A. Were any petroleum-stained or contaminated soils found in the UST excavation, soil borings, trenches, or monitoring wells? [*Throughout UST excavation, 3' below GSL] If yes, indicate depth and location on the site map.</p>	*X		
<p>B. Were any petroleum odors detected in the excavation, soil borings, trenches, or monitoring wells? [*strong] If yes, indicate location on site map and describe the odor (strong, mild, etc.)</p>	*X		
<p>C. Was water present in the UST excavation, soil borings, or trenches? If yes, how far below land surface (indicate location and depth)? 7.5' below GSL, 1-2 feet deep</p>	X		
<p>D. Did contaminated soils remain stockpiled on site after closure? If yes, indicate the stockpile location on the site map. Name of DHEC representative authorizing soil removal: _____</p>			**X
<p>E. Was a petroleum sheen or free product detected on any excavation or boring waters? [*in excavation, < 1/4" thick] If yes, indicate location and thickness on the site map.</p>	*X		

** Angular rock was used to fill the area covered by the groundwater. Geofabric was laid over the rock and then all soil from the excavation was returned to the tank pit.

X. SAMPLING METHODOLOGY

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

After the removal of AST 648 and UST 648B soil and ground water Sampling was performed in accordance with SC DHEC R.61-92 Part 280 Assessment Guidelines.

The samples are identified as follows:

	Detachment Charleston		General Engineering Lab
Soil Sample	AST648-1	=	SPORT -0157-1
Soil Sample	AST648-1	=	SPORT -0157-2
Soil Sample	UST648-1	=	SPORT -0171-1
Soil Sample	UST648-2	=	SPORT -0171-2
Ground Water Sample	UST648-3	=	SPORT -0171-3
Soil Sample	UST648-4	=	SPORT -0212-1
Soil Sample	UST648-5	=	SPORT -0212-2
Soil Sample	UST648-6	=	SPORT -0212-3
Soil Sample	UST648-7	=	SPORT -0212-4
Soil Sample	UST648-8	=	SPORT -0212-5
Soil Sample	UST648-9	=	SPORT -0212-6
Soil Sample	UST648-10	=	SPORT -0212-7

Sample jars were prepared by the testing laboratory. The grab method was utilized to fill the sample containers leaving as little head space as possible and immediately capped. Soil samples were extracted at the tank ends just above the ground water level. Piping soil samples were taken under the piping at the mechanical connections. Ground water samples were taken from the center of the excavation.

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 SPORTENVDETHASN until they were transferred to General Engineering Laboratories for analysis as documented in the attached Chain-of-Custody Record.

GABE,
This is the
change page
for UST 648

XI. RECEPTORS

Yes No

A.	Are there any lakes, ponds, streams, or wetlands located within 1000 feet of the UST system? <div style="text-align: right; font-size: small;">[*Cooper R. 891']</div> If yes, indicate type of receptor, distance, and direction on site map.	*X	
B.	Are there any public, private, or irrigation water supply wells within 1000 feet of the UST system? If yes, indicate type of well, distance, and direction on site map.		X
C.	Are there any underground structures (e.g., basements) located within 100 feet of the UST system? If yes, indicate the type of structure, distance, and direction on site map.		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? <div style="text-align: right; font-size: small;">[*phone, storm drain]</div> If yes, indicate the type of utility, distance, and direction on the site map.	*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? <div style="text-align: right; font-size: small;">[*Pipe run, at SPORT 0212-2]</div> If yes, indicate the area of contaminated soil on the site map.	*X	

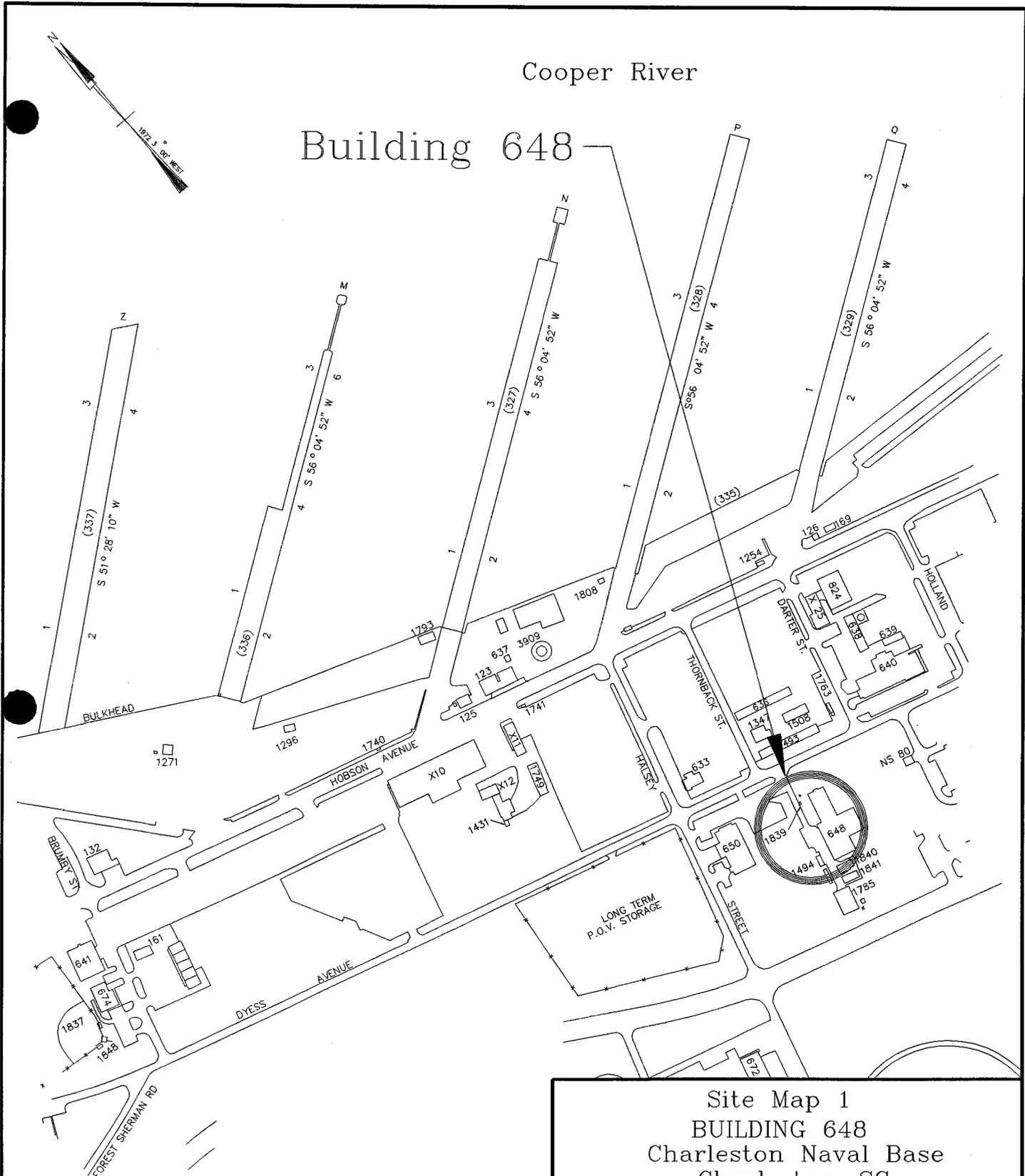
SITE MAP

You must supply a scaled site map. It should include all buildings, road names, utilities, tank and pump island locations, sample locations, extent of excavation, and any other pertinent information.

Site Maps 1 through 5
Photographs 1 through 6

Cooper River

Building 648



CHARLESTON NAVAL BASE
CHARLESTON, SC



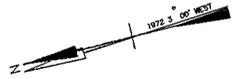
GRAPHIC SCALE

Site Map 1
BUILDING 648
Charleston Naval Base
Charleston, SC

SPORTENVDECHASN
1899 North Hobson Avenue
North Charleston, SC 29405-2106

DWG NAME: 648_1

DWG DATE: 18 Dec 96



BLDG 648

← Cooper R.
891' - UST 648B
1015' - AST 648

FORMER
UST 648B

FORMER
AST 648

Site Map 5

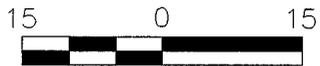
Site Maps 3 & 4

S

S

LEGEND

- x-x Fence
- G Guard shack
- S Storm drain
- P Sump pump



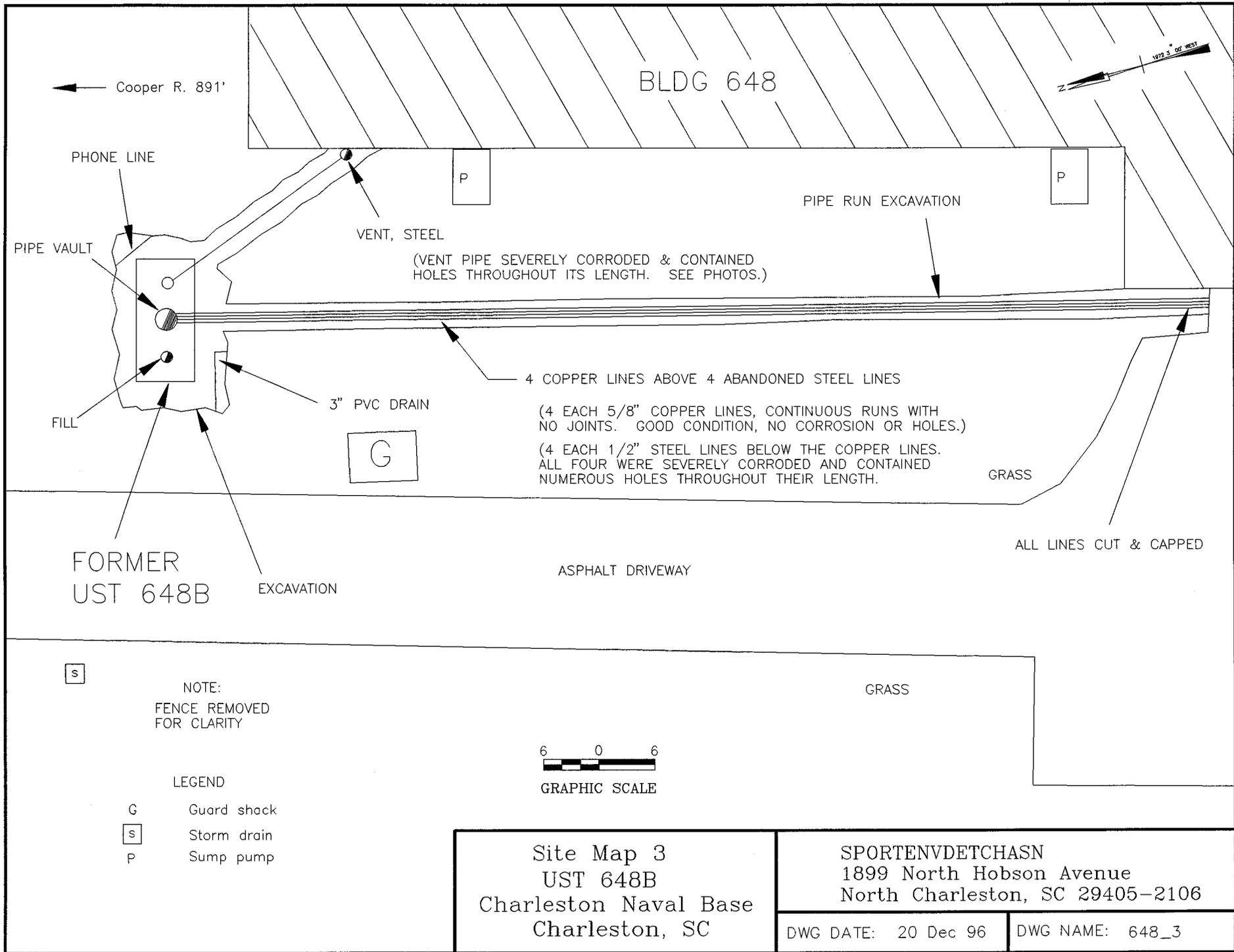
GRAPHIC SCALE

Site Map 2
 AST 648 & UST 648B
 Charleston Naval Base
 Charleston, SC

SPORTENVDETHASN
 1899 North Hobson Avenue
 North Charleston, SC 29405-2106

DWG DATE: 19 Dec 96

DWG NAME: 648_2

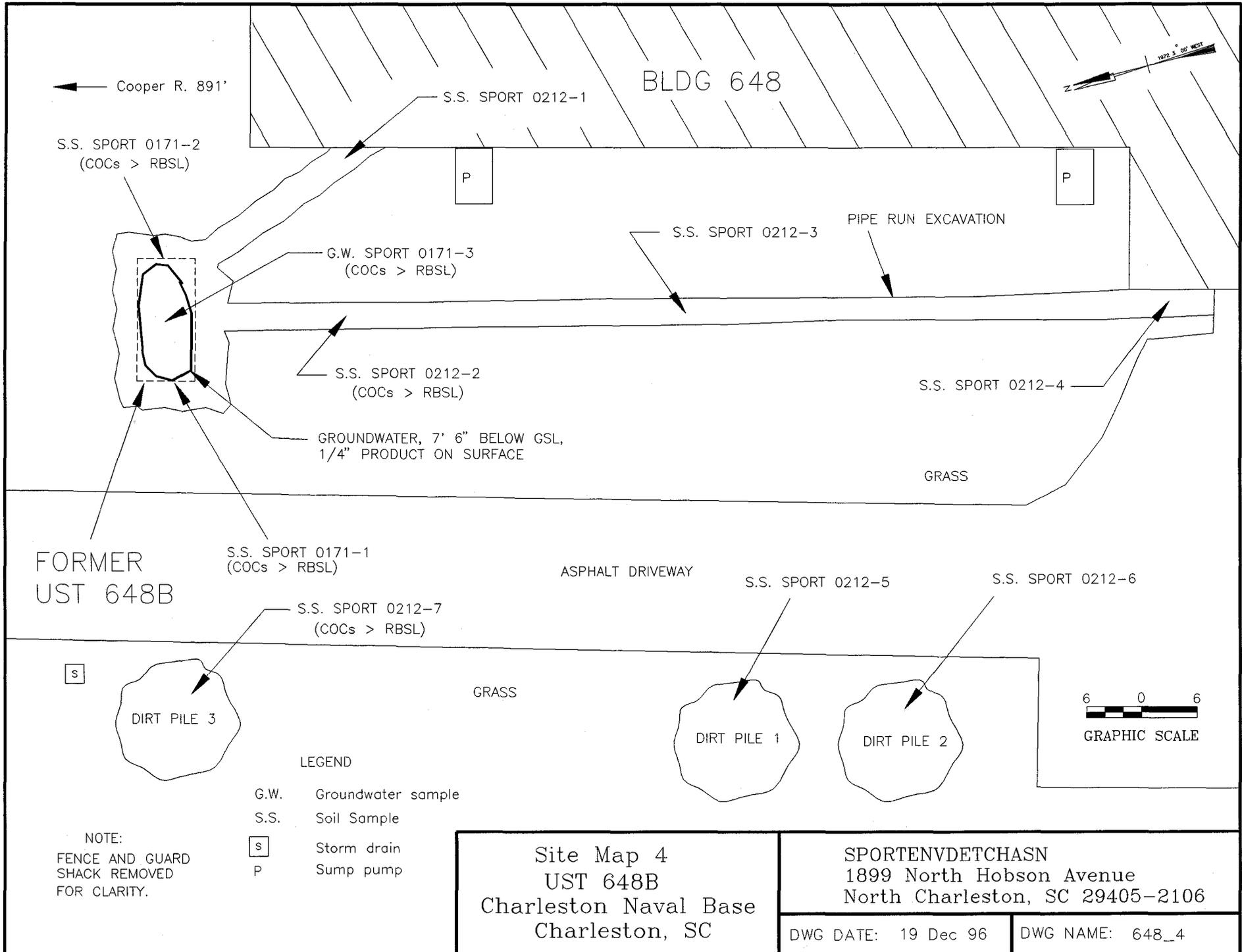


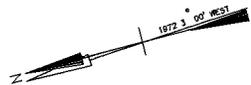
Site Map 3
UST 648B
Charleston Naval Base
Charleston, SC

SPORTENVDETHASN
1899 North Hobson Avenue
North Charleston, SC 29405-2106

DWG DATE: 20 Dec 96

DWG NAME: 648_3





S.S. SPORT 0157-2
(COCs > RBSL)

BLDG 648

FORMER
AST 648

SUPPLY & RETURN
PIPING IN CONDUIT

FILL

MANWAY
COVER

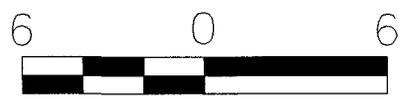
BERM DRAIN

CINDER BLOCK BERM

VENT

S.S. SPORT 0157-1

← Cooper R. 1015'



GRAPHIC SCALE

Site Map 5
AST 648
Charleston Naval Base
Charleston, SC

SPORTENVDETHASN 1899 North Hobson Avenue North Charleston, SC 29405-2106	
DWG DATE: 20 Dec 96	DWG NAME: 648_5

AST 648 & UST 648B



Photo 1: UST 648B being removed from the excavation.



Photo 2: UST 648B excavation. Note black film on water.

AST 648 & UST 648B



Photo 3: UST 648B during cleaning. This is when the indicated hole was found.



Photo 4: UST 648B during cleaning and cutting.

AST 648 & UST 648B



Photo 5: UST 648B vent line holes are being indicated. This is a portion of the pipe.

AST 648 & UST 648B

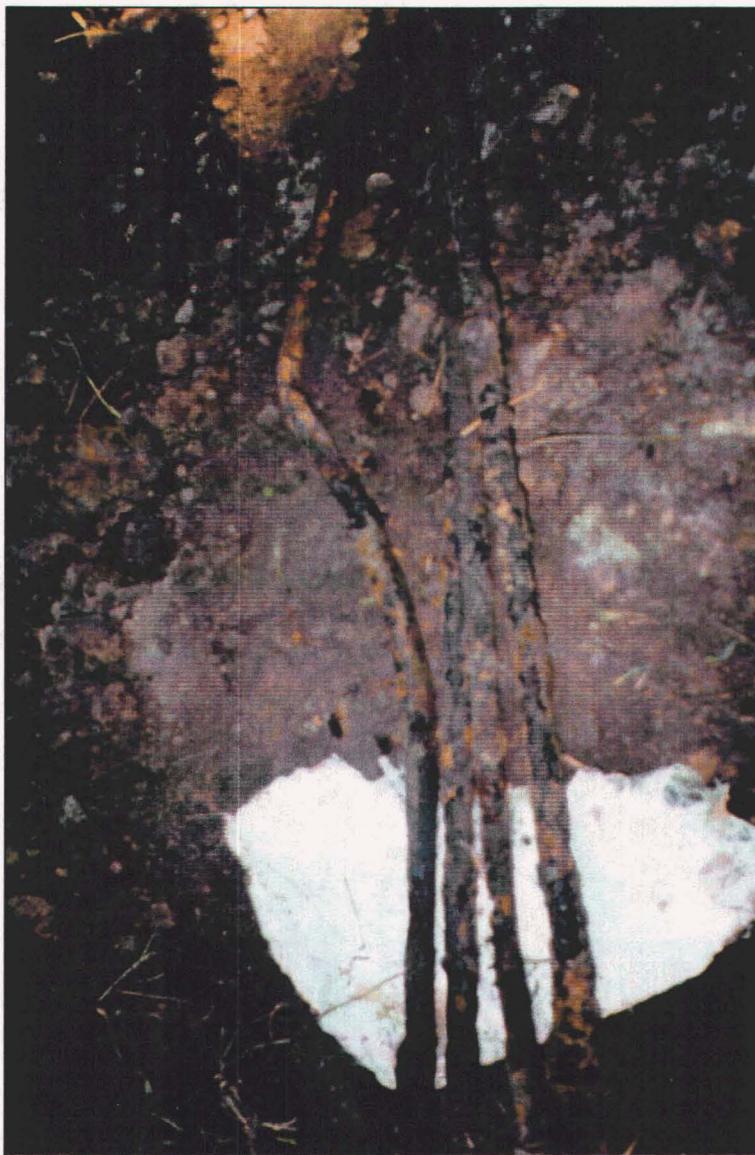
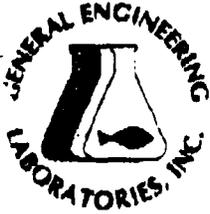


Photo 6: UST 648B abandoned corroded steel piping.

ANALYTICAL RESULTS

You must submit the laboratory report and chain-of-custody form for the samples. These samples must be analyzed by a South Carolina certified laboratory.

Certified Analytical Results
Chain-of-Custody



GENERAL ENGINEERING LABORATORIES

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Laboratory Certifications

STATE	QEL	RPI
FL	287156/17294	287472/27454
NC	233	
SC	10120	10582
TN	02824	02824

Client: Supervisor of Ship Building & Conversion
 SUPSHIP-Portsmouth Detachment-Env.
 1899 North Hobson Ave.
 North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiars

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: September 19, 1996

Page 1 of 3

Sample ID : SPORT0157-1
 Lab ID : 9609147-01
 Matrix : Soil
 Date Collected : 09/09/96
 Date Received : 09/10/96
 Priority : Routine
 Collector : Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
Volatile Organics											
<i>BTEX - 4 items</i>											
Benzene	U	0.00	1.00	2.00	ug/kg	1.0	SHJ	09/17/96	1520	90685	1
Ethylbenzene	U	0.00	1.00	2.00	ug/kg	1.0					
Toluene	U	0.600	1.00	2.00	ug/kg	1.0					
Xylenes (TOTAL)	U	0.00	1.00	4.00	ug/kg	1.0					
Naphthalene	U	0.00	1.00	2.00	ug/kg	1.0					
Extractable Organics											
<i>Polynuclear Aromatic Hydrocarbons - 16 items</i>											
Acenaphthene	U	0.00	16500	33000	ug/kg	100	WAM	09/18/96	0121	90456	2
Acenaphthylene	U	0.00	16500	33000	ug/kg	100					
Anthracene	U	0.00	16500	33000	ug/kg	100					
Benzo(a)anthracene	U	0.00	16500	33000	ug/kg	100					
Benzo(a)pyrene	U	0.00	16500	33000	ug/kg	100					
Benzo(b)fluoranthene	U	0.00	16500	33000	ug/kg	100					
Benzo(ghi)perylene	U	0.00	16500	33000	ug/kg	100					
Benzo(k)fluoranthene	U	0.00	16500	33000	ug/kg	100					
Chrysene	U	0.00	16500	33000	ug/kg	100					
Dibenzo(a,h)anthracene	U	0.00	16500	33000	ug/kg	100					
Fluoranthene	U	0.00	16500	33000	ug/kg	100					
Fluorene	U	0.00	16500	33000	ug/kg	100					
Indeno(1,2,3-c,d)pyrene	U	0.00	16500	33000	ug/kg	100					
Naphthalene	U	0.00	16500	33000	ug/kg	100					
Phenanthrene	U	0.00	16500	33000	ug/kg	100					
Pyrene	U	0.00	16500	33000	ug/kg	100					

The following prep procedures were performed:
 GC/MS Base/Neutral Compounds

TNP 09/13/96 1100 90456 3

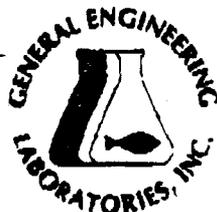
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9609147-01



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Laboratory Certifications

STATE	GEL	EPT
FL	887156/87294	887472/87458
NC	233	
SC	10120	10382
TN	02934	02934

Client: Supervisor of Ship Building & Conversion
 SUPSHIP-Portsmouth Detachment-Env.
 1899 North Hobson Ave.
 North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: September 19, 1996

Page 2 of 3

Sample ID : SPOKTO157-1

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
-----------	-----------	--------	----	----	-------	----	---------	------	------	-------	---

Comments:

A dilution was required for Extractable Organics due to matrix interference. As a result, the detection limits are elevated.

Surrogate Recovery	Test	Percent%	Acceptable Limits
2-Fluorobiphenyl	M610	0.00*	(30.0 - 115.)
Nitrobenzene-d5	M610	0.00*	(23.0 - 120.)
p-Terphenyl-d14	M610	0.00*	(37.3 - 128.)
Bromofluorobenzene	BTEX-8260	159.	(59.7 - 159.)
Dibromofluoromethane	BTEX-8260	93.5	(74.0 - 128.)
Toluene-d8	BTEX-8260	111.	(53.4 - 163.)
Bromofluorobenzene	NAP-8260	159.	(59.7 - 159.)
Dibromofluoromethane	NAP-8260	93.5	(74.0 - 128.)
Toluene-d8	NAP-8260	111.	(53.4 - 163.)

M = Method

Method-Description

M 1	EPA 8260
M 2	EPA 8270
M 3	EPA 3350

Notes:

The qualifiers in this report are defined as follows:

ND indicates that the analyte was not detected at a concentration greater than the detection limit.

J indicates presence of analyte at a concentration less than the reporting limit (RL) and greater than the detection limit (DL).

U indicates that the analyte was not detected at a concentration greater than the detection limit.

* indicates that a quality control analyte recovery is outside of specified acceptance criteria.

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9609147-01





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Laboratory Certifications

STATE	CEL	EPI
FL	287156/87284	287472/87458
NC	233	
SC	10120	10582
TN	02934	02934

Client: Supervisor of Ship Building & Conversion
 SUPSHIP-Portsmouth Detachment-Eav.
 1899 North Hobson Ave.
 North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: September 19, 1996

Page 3 of 3

Sample ID : SPORT0157-1

M = Method Method-Description

This data report has been prepared and reviewed in accordance with General Engineering Laboratories standard operating procedures. Please direct any questions to your Project Manager, Karen Blakeney at (803) 769-7386.

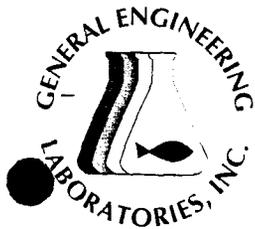
Reviewed By Karen Blakeney

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STATE	GEL	EPI
FL	E87156/87294	E87472/87458
NC	233	
SC	10120	10582
TN	02934	02934

Client: Supervisor of Ship Building & Conversion
 SUPSHIP-Portsmouth Detachment-Env.
 1899 North Hobson Ave.
 North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: September 19, 1996

Page 1 of 2

Sample ID : SPORT0157-2
 Lab ID : 9609147-02
 Matrix : Soil
 Date Collected : 09/09/96
 Date Received : 09/10/96
 Priority : Routine
 Collector : Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
Volatile Organics											
<i>BTEX - 4 items</i>											
Benzene	U	0.00	1.00	2.00	ug/kg	1.0	JLS	09/17/96	1657	90685	1
Ethylbenzene	U	0.00	1.00	2.00	ug/kg	1.0					
Toluene	U	0.00	1.00	2.00	ug/kg	1.0					
Xylenes (TOTAL)	U	0.00	1.00	4.00	ug/kg	1.0					
Naphthalene	U	0.00	1.00	2.00	ug/kg	1.0					
Extractable Organics											
<i>Polynuclear Aromatic Hydrocarbons - 16 items</i>											
Acenaphthene	U	82.5	165	330	ug/kg	1.0	WAM	09/18/96	0253	90456	2
Acenaphthylene	U	0.00	165	330	ug/kg	1.0					
Anthracene	J	185	165	330	ug/kg	1.0					
Benzo(a)anthracene		578	165	330	ug/kg	1.0					
Benzo(a)pyrene		426	165	330	ug/kg	1.0					
Benzo(b)fluoranthene		812	165	330	ug/kg	1.0					
Benzo(ghi)perylene	J	215	165	330	ug/kg	1.0					
Benzo(k)fluoranthene	U	0.00	165	330	ug/kg	1.0					
Chrysene		690	165	330	ug/kg	1.0					
Dibenzo(a,h)anthracene	U	0.00	165	330	ug/kg	1.0					
Fluoranthene		970	165	330	ug/kg	1.0					
Fluorene	U	62.7	165	330	ug/kg	1.0					
Indeno(1,2,3-c,d)pyrene	J	221	165	330	ug/kg	1.0					
Naphthalene	U	0.00	165	330	ug/kg	1.0					
Phenanthrene		581	165	330	ug/kg	1.0					
Pyrene		766	165	330	ug/kg	1.0					

The following prep procedures were performed:

GC/MS Base/Neutral Compounds

TNF 09/13/96 1100 90456 3

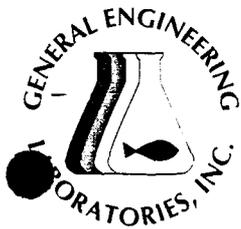
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9609147-02



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Laboratory Certifications

STATE	GEL	EPI
FL	E87156/87294	E87472/87458
NC	233	
SC	10120	10582
TN	02934	02934

Client: Supervisor of Ship Building & Conversion
SUPSHIP-Portsmouth Detachment-Env.
1899 North Hobson Ave.
North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: September 19, 1996

Page 2 of 2

Sample ID : SPORT0157-2

Surrogate Recovery	Test	Percent%	Acceptable Limits
2-Fluorobiphenyl	M610	65.7	(30.0 - 115.)
Nitrobenzene-d5	M610	53.7	(23.0 - 120.)
p-Terphenyl-d14	M610	92.1	(37.3 - 128.)
Bromofluorobenzene	BTEX-8260	123.	(59.7 - 159.)
Dibromofluoromethane	BTEX-8260	109.	(74.0 - 128.)
Toluene-d8	BTEX-8260	89.7	(53.4 - 163.)
Bromofluorobenzene	NAP-8260	123.	(59.7 - 159.)
Bromofluoromethane	NAP-8260	109.	(74.0 - 128.)
Toluene-d8	NAP-8260	89.7	(53.4 - 163.)

M = Method

Method-Description

M 1	EPA 8260
M 2	EPA 8270
M 3	EPA 3550

Notes:

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This data report has been prepared and reviewed in accordance with General Engineering Laboratories standard operating procedures. Please direct any questions to your Project Manager, Karen Blakeney at (803) 769-7386.


Reviewed By



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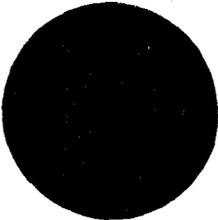
Laboratory Certifications

STATE	GEL	EPI
FL	E87156/87294	E87472/874
NC	233	
SC	10120	10582
TN	02934	02934

Client: Supervisor of Ship Building & Conversion
 SUPSHIP-Portsmouth Detachment-Env.
 1899 North Hobson Ave.
 North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment



cc: NPWC00196

Report Date: September 30, 1996

Page 1 of 3

Sample ID : SPORT0171-1
 Lab ID : 9609409-01
 Matrix : Soil
 Date Collected : 09/20/96
 Date Received : 09/20/96
 Priority : Routine
 Collector : Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
Volatile Organics											
<i>BTEX - 4 items</i>											
Benzene	U	0.00	100	200	ug/kg	100	JLS	09/26/96	2244	91223	
Ethylbenzene	U	0.00	100	200	ug/kg	100					
Toluene	U	58.0	100	200	ug/kg	100					
Xylenes (TOTAL)	U	0.00	100	200	ug/kg	100					
Naphthalene		1200	100	200	ug/kg	100					
Extractable Organics											
<i>Polynuclear Aromatic Hydrocarbons - 16 items</i>											
Acenaphthene	U	0.00	1650	3300	ug/kg	10.	JPA	09/25/96	2115	91051	2
Acenaphthylene	U	0.00	1650	3300	ug/kg	10.					
Anthracene	U	0.00	1650	3300	ug/kg	10.					
Benzo(a)anthracene	U	0.00	1650	3300	ug/kg	10.					
Benzo(a)pyrene	U	0.00	1650	3300	ug/kg	10.					
Benzo(b)fluoranthene	U	0.00	1650	3300	ug/kg	10.					
Benzo(ghi)perylene	U	0.00	1650	3300	ug/kg	10.					
Benzo(k)fluoranthene	U	0.00	1650	3300	ug/kg	10.					
Chrysene	U	0.00	1650	3300	ug/kg	10.					
Dibenzo(a,h)anthracene	U	0.00	1650	3300	ug/kg	10.					
Fluoranthene	U	792	1650	3300	ug/kg	10.					
Fluorene	U	0.00	1650	3300	ug/kg	10.					
Indeno(1,2,3-c,d)pyrene	U	0.00	1650	3300	ug/kg	10.					
Naphthalene	U	0.00	1650	3300	ug/kg	10.					
Phenanthrene	U	0.00	1650	3300	ug/kg	10.					
Pyrene	U	528	1650	3300	ug/kg	10.					

The following prep procedures were performed:

GC/MS Base/Neutral Compounds

TNF 09/24/96 1300 91051 3

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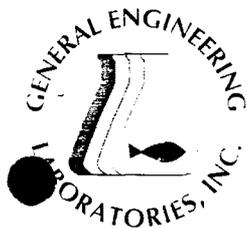
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TN	02934	02934

Client: Supervisor of Ship Building & Conversion
SUPSHIP-Portsmouth Detachment-Env.
1899 North Hobson Ave.
North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: September 30, 1996

Page 2 of 3

Sample ID : SPORT0171-1

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
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Comments:

A dilution was required for Volatile Organics and Extractable Organics due to matrix interferences. As a result, the detection limits are elevated.

Surrogate Recovery	Test	Percent %	Acceptable Limits
Fluorobiphenyl	M610	74.0	(30.0 - 115.)
Nitrobenzene-d5	M610	56.0	(23.0 - 120.)
p-Terphenyl-d14	M610	82.0	(37.3 - 128.)
Bromofluorobenzene	BTEX-8260	111.	(59.7 - 159.)
Dibromofluoromethane	BTEX-8260	94.2	(74.0 - 128.)
Toluene-d8	BTEX-8260	90.6	(53.4 - 163.)
Bromofluorobenzene	NAP-8260	111.	(59.7 - 159.)
Dibromofluoromethane	NAP-8260	94.2	(74.0 - 128.)
Toluene-d8	NAP-8260	90.6	(53.4 - 163.)

M = Method	Method-Description
M 1	EPA 8260
M 2	EPA 8270
M 3	EPA 3550

Notes:

The qualifiers in this report are defined as follows:

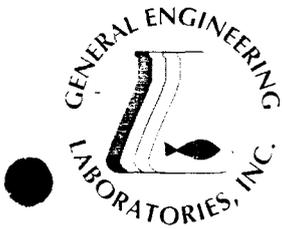
ND indicates that the analyte was not detected at a concentration greater than the detection limit.

J indicates presence of analyte at a concentration less than the reporting limit (RL) and greater than the detection limit (DL).

U indicates that the analyte was not detected at a concentration greater than the detection limit.

* indicates that a quality control analyte recovery is outside of specified acceptance criteria.





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SUPSHIP-Portsmouth Detachment-Env.
1899 North Hobson Ave.
North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: September 30, 1996

Page 3 of 3

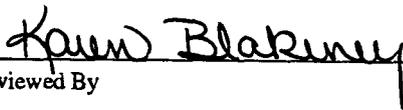
Sample ID : SPORT0171-1

M = Method

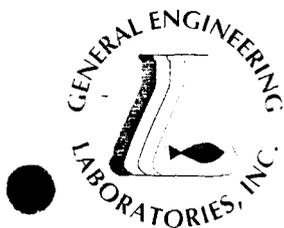
Method-Description

This data report has been prepared and reviewed in accordance with General Engineering Laboratories standard operating procedures. Please direct any questions to your Project Manager, Karen Blakeney at (803) 769-7386.

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NC	233	
SC	10120	10582
TN	02934	02934

Client: Supervisor of Ship Building & Conversion
 SUPSHIP-Portsmouth Detachment-Env.
 1899 North Hobson Ave.
 North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: September 30, 1996

Page 1 of 3

Sample ID : SPORT0171-2
 Lab ID : 9609409-02
 Matrix : Soil
 Date Collected : 09/20/96
 Date Received : 09/20/96
 Priority : Routine
 Collector : Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
Volatile Organics											
<i>BTEX - 4 items</i>											
Benzene	U	0.00	100	200	ug/kg	100	JLS	09/25/96	2307	91223	1
Ethylbenzene	U	96.0	100	200	ug/kg	100					
Toluene	U	0.00	100	200	ug/kg	100					
Xylenes (TOTAL)	U	66.0	100	200	ug/kg	100					
Naphthalene		3540	100	200	ug/kg	100					
Extractable Organics											
<i>Polynuclear Aromatic Hydrocarbons - 16 items</i>											
Acenaphthene	J	2590	1660	3320	ug/kg	10.	JPA	09/25/96	2148	91051	2
Acenaphthylene	U	0.00	1660	3320	ug/kg	10.					
Anthracene	U	598	1660	3320	ug/kg	10.					
Benzo(a)anthracene	J	1830	1660	3320	ug/kg	10.					
Benzo(a)pyrene	U	1060	1660	3320	ug/kg	10.					
Benzo(b)fluoranthene	U	1530	1660	3320	ug/kg	10.					
Benzo(ghi)perylene	U	0.00	1660	3320	ug/kg	10.					
Benzo(k)fluoranthene	U	830	1660	3320	ug/kg	10.					
Chrysene	J	1990	1660	3320	ug/kg	10.					
Dibenzo(a,h)anthracene	U	0.00	1660	3320	ug/kg	10.					
Fluoranthene		8130	1660	3320	ug/kg	10.					
Fluorene	J	2090	1660	3320	ug/kg	10.					
Indeno(1,2,3-c,d)pyrene	U	0.00	1660	3320	ug/kg	10.					
Naphthalene	U	764	1660	3320	ug/kg	10.					
Phenanthrene		12400	1660	3320	ug/kg	10.					
Pyrene		4480	1660	3320	ug/kg	10.					

The following prep procedures were performed:

GC/MS Base/Neutral Compounds

TNF 09/24/96 1300 91051 3

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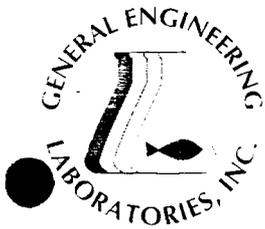
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SC	10120	10582
TN	02934	02934

Client: Supervisor of Ship Building & Conversion
 SUPSHIP-Portsmouth Detachment-Env.
 1899 North Hobson Ave.
 North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: September 30, 1996

Page 2 of 3

Sample ID : SPORT0171-2

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
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Comments:

A dilution was required for Volatile Organics and Extractable Organics due to matrix interferences. As a result, the detection limits are elevated.

Surrogate Recovery	Test	Percent%	Acceptable Limits
-Fluorobiphenyl	M610	96.1	(30.0 - 115.)
Nitrobenzene-d5	M610	84.1	(23.0 - 120.)
p-Terphenyl-d14	M610	98.1	(37.3 - 128.)
Bromofluorobenzene	BTEX-8260	131.	(59.7 - 159.)
Dibromofluoromethane	BTEX-8260	88.1	(74.0 - 128.)
Toluene-d8	BTEX-8260	96.5	(53.4 - 163.)
Bromofluorobenzene	NAP-8260	131.	(59.7 - 159.)
Dibromofluoromethane	NAP-8260	88.1	(74.0 - 128.)
Toluene-d8	NAP-8260	96.5	(53.4 - 163.)

M = Method	Method-Description
M 1	EPA 8260
M 2	EPA 8270
M 3	EPA 3550

Notes:

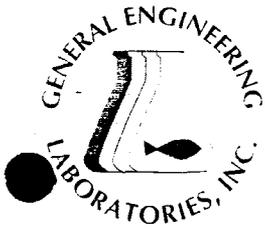
The qualifiers in this report are defined as follows:

ND indicates that the analyte was not detected at a concentration greater than the detection limit.

J indicates presence of analyte at a concentration less than the reporting limit (RL) and greater than the detection limit (DL).

U indicates that the analyte was not detected at a concentration greater than the detection limit.

* indicates that a quality control analyte recovery is outside of specified acceptance criteria.



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1899 North Hobson Ave.
North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: September 30, 1996

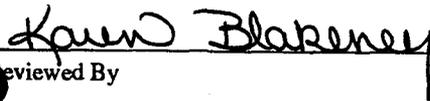
Page 3 of 3

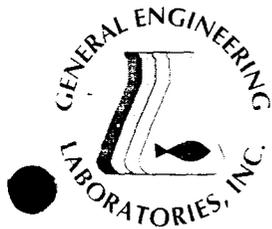
Sample ID : SPORT0171-2

M = Method

Method-Description

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FL	E87156/87294	E87472/87458
NC	233	
SC	10120	10582
TN	02934	02934

Client: Supervisor of Ship Building & Conversion
 SUPSHIP-Portsmouth Detachment-Env.
 1899 North Hobson Ave.
 North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

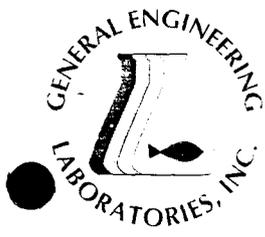
Report Date: October 01, 1996

Page 1 of 3

Sample ID : SPORT0171-3
 Lab ID : 9609409-03
 Matrix : GroundH2O
 Date Collected : 09/20/96
 Date Received : 09/20/96
 Priority : Routine
 Collector : Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
Volatile Organics											
<i>BTEX - 4 items</i>											
Benzene	U	0.00	10000	20000	ug/l	10000	JAC	09/26/96	1546	91205	1
Ethylbenzene	U	0.00	10000	20000	ug/l	10000					
Toluene	U	0.00	10000	20000	ug/l	10000					
Xylenes (TOTAL)	U	0.00	10000	20000	ug/l	10000					
Methyl Tert Butyl Ether	U	0.00	20000	20000	ug/l	10000					
Naphthalene		43600	10000	20000	ug/l	10000					
Extractable Organics											
<i>Polynuclear Aromatic Hydrocarbons - 16 items</i>											
Acenaphthene		1210000	500000	1000000	ug/l	100	BDG	09/24/96	0409	90989	2
Acenaphthylene	U	0.00	500000	1000000	ug/l	100					
Anthracene		1680000	500000	1000000	ug/l	100					
Benzo(a)anthracene		1730000	500000	1000000	ug/l	100					
Benzo(a)pyrene	J	990000	500000	1000000	ug/l	100					
Benzo(b)fluoranthene		1260000	500000	1000000	ug/l	100					
Benzo(ghi)perylene	U	0.00	500000	1000000	ug/l	100					
Benzo(k)fluoranthene	U	0.00	500000	1000000	ug/l	100					
Chrysene		1780000	500000	1000000	ug/l	100					
Dibenzo(a,h)anthracene	U	0.00	500000	1000000	ug/l	100					
Fluoranthene		5760000	500000	1000000	ug/l	100					
Fluorene		1790000	500000	1000000	ug/l	100					
Indeno(1,2,3-c,d)pyrene	U	0.00	500000	1000000	ug/l	100					
Naphthalene		1330000	500000	1000000	ug/l	100					
Phenanthrene		7110000	500000	1000000	ug/l	100					
Pyrene		3500000	500000	1000000	ug/l	100					





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Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

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Report Date: October 01, 1996

Page 2 of 3

Sample ID : SPORT0171-3

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
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The following prep procedures were performed:

GC/MS Base/Neutral Compounds

JWF 09/23/96 1300 90989 3

Comments:

This sample consisted of two layers. The oil layer was analyzed for the requested tests, therefore the results reflect the concentrations found in the oil layer only.

A dilution was required for Volatile Organics and Extractable Organics due to matrix interferences. As a result, the detection limits are elevated.

Surrogate Recovery	Test	Percent%	Acceptable Limits
2-Fluorobiphenyl	M610	0.00*	(43.0 - 108.)
Nitrobenzene-d5	M610	0.00*	(35.0 - 111.)
p-Terphenyl-d14	M610	0.00*	(33.0 - 125.)
Bromofluorobenzene	BTEX-8260	96.4	(80.0 - 128.)
Dibromofluoromethane	BTEX-8260	107.	(67.7 - 135.)
Toluene-d8	BTEX-8260	98.5	(76.8 - 122.)
Bromofluorobenzene	MTBE-8260	96.4	(80.0 - 128.)
Dibromofluoromethane	MTBE-8260	107.	(67.7 - 135.)
Toluene-d8	MTBE-8260	98.5	(76.8 - 122.)
Bromofluorobenzene	NAP-8260	96.4	(80.0 - 128.)
Dibromofluoromethane	NAP-8260	107.	(67.7 - 135.)
Toluene-d8	NAP-8260	98.5	(76.8 - 122.)

M = Method

Method-Description

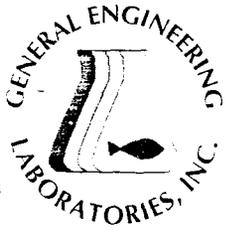
M 1	EPA 8260
M 2	EPA 8270
M 3	EPA 3510

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TN	02934	02934

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Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

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Report Date: October 01, 1996

Page 3 of 3

Sample ID : SPORT0171-3

M = Method Method-Description

Notes:

The qualifiers in this report are defined as follows:

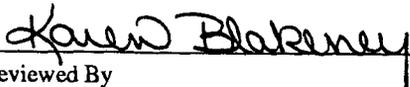
ND indicates that the analyte was not detected at a concentration greater than the detection limit.

J indicates presence of analyte at a concentration less than the reporting limit (RL) and greater than the detection limit (DL).

U indicates that the analyte was not detected at a concentration greater than the detection limit.

* indicates that a quality control analyte recovery is outside of specified acceptance criteria.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories standard operating procedures. Please direct any questions to your Project Manager, Karen Blakeney at (803) 769-7386.


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 North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: October 29, 1996

Page 1 of 2

Sample ID : SPORT0212-1
 Lab ID : 9610416-01
 Matrix : Soil
 Date Collected : 10/17/96
 Date Received : 10/18/96
 Priority : Routine
 Collector : Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
Volatile Organics											
<i>BTEX - 4 items</i>											
Benzene	U	0.00	1.00	2.00	ug/kg	1.0	JGS2	10/22/96	1535	92667	1
Ethylbenzene	U	0.00	1.00	2.00	ug/kg	1.0					
Toluene	U	0.00	1.00	2.00	ug/kg	1.0					
Xylenes (TOTAL)	U	0.00	1.00	4.00	ug/kg	1.0					
Naphthalene	U	0.00	1.00	2.00	ug/kg	1.0					
Extractable Organics											
<i>Polynuclear Aromatic Hydrocarbons - 16 items</i>											
Acenaphthene	U	0.00	164	330	ug/kg	1.0	BDG	10/23/96	0022	92556	2
Acenaphthylene	U	0.00	164	330	ug/kg	1.0					
Anthracene	U	0.00	164	330	ug/kg	1.0					
Benzo(a)anthracene	U	144	164	330	ug/kg	1.0					
Benzo(a)pyrene	U	157	164	330	ug/kg	1.0					
Benzo(b)fluoranthene	J	269	164	330	ug/kg	1.0					
Benzo(ghi)perylene	U	118	164	330	ug/kg	1.0					
Benzo(k)fluoranthene	U	0.00	164	330	ug/kg	1.0					
Chrysene	J	174	164	330	ug/kg	1.0					
Dibenzo(a,h)anthracene	U	0.00	164	330	ug/kg	1.0					
Fluoranthene	J	315	164	330	ug/kg	1.0					
Fluorene	U	0.00	164	330	ug/kg	1.0					
Indeno(1,2,3-c,d)pyrene	U	121	164	330	ug/kg	1.0					
Naphthalene	U	0.00	164	330	ug/kg	1.0					
Phenanthrene	U	0.00	164	330	ug/kg	1.0					
Pyrene	J	246	164	330	ug/kg	1.0					

The following prep procedures were performed:
 GC/MS Base/Neutral Compounds

TNF 10/21/96 1530 92556 3

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NC	233	
SC	10120	10582
TN	02934	02934

Client: Supervisor of Ship Building & Conversion
 SUPSHIP-Portsmouth Detachment-Env.
 1899 North Hobson Ave.
 North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: October 29, 1996

Page 2 of 2

Sample ID : SPORT0212-1

Surrogate Recovery	Test	Percent%	Acceptable Limits
2-Fluorobiphenyl	M610	59.4	(30.0 - 115.)
Nitrobenzene-d5	M610	46.6	(23.0 - 120.)
p-Terphenyl-d14	M610	86.4	(37.3 - 128.)
Bromofluorobenzene	BTEX-8260	103.	(59.7 - 159.)
Dibromofluoromethane	BTEX-8260	79.2	(74.0 - 128.)
Toluene-d8	BTEX-8260	93.2	(53.4 - 163.)
Bromofluorobenzene	NAP-8260	103.	(59.7 - 159.)
Dibromofluoromethane	NAP-8260	79.2	(74.0 - 128.)
Toluene-d8	NAP-8260	93.2	(53.4 - 163.)

M = Method	Method-Description
M 1	EPA 8260
M 2	EPA 8270
M 3	EPA 3550

Notes:

The qualifiers in this report are defined as follows:

ND indicates that the analyte was not detected at a concentration greater than the detection limit.

J indicates presence of analyte at a concentration less than the reporting limit (RL) and greater than the detection limit (DL).

U indicates that the analyte was not detected at a concentration greater than the detection limit.

* indicates that a quality control analyte recovery is outside of specified acceptance criteria.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories standard operating procedures. Please direct any questions to your Project Manager, Karen Blakeney at (803) 769-7386.

Karen Blakeney

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NC	233	
SC	10120	10582
TN	02934	02934

Client: Supervisor of Ship Building & Conversion
 SUPSHIP-Portsmouth Detachment-Env.
 1899 North Hobson Ave.
 North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: October 29, 1996

Page 1 of 2

Sample ID : SPORT0212-2
 Lab ID : 9610416-02
 Matrix : Soil
 Date Collected : 10/17/96
 Date Received : 10/18/96
 Priority : Routine
 Collector : Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
Volatile Organics											
<i>BTEX - 4 items</i>											
Benzene	U	0.00	1.00	2.00	ug/kg	1.0	JGS2	10/22/96	1606	92667	
Ethylbenzene	U	0.00	1.00	2.00	ug/kg	1.0					
Toluene	U	0.00	1.00	2.00	ug/kg	1.0					
Xylenes (TOTAL)	U	0.00	1.00	4.00	ug/kg	1.0					
Naphthalene	J	1.28	1.00	2.00	ug/kg	1.0					
Extractable Organics											
<i>Polynuclear Aromatic Hydrocarbons - 16 items</i>											
Acenaphthene	U	0.00	163	330	ug/kg	1.0	BDG	10/23/96	0056	92556	2
Acenaphthylene	U	0.00	163	330	ug/kg	1.0					
Anthracene	U	0.00	163	330	ug/kg	1.0					
Benzo(a)anthracene		367	163	330	ug/kg	1.0					
Benzo(a)pyrene		575	163	330	ug/kg	1.0					
Benzo(b)fluoranthene		1100	163	330	ug/kg	1.0					
Benzo(ghi)perylene		429	163	330	ug/kg	1.0					
Benzo(k)fluoranthene	U	0.00	163	330	ug/kg	1.0					
Chrysene		611	163	330	ug/kg	1.0					
Dibenzo(a,h)anthracene	U	117	163	330	ug/kg	1.0					
Fluoranthene		543	163	330	ug/kg	1.0					
Fluorene	U	0.00	163	330	ug/kg	1.0					
Indeno(1,2,3-c,d)pyrene		452	163	330	ug/kg	1.0					
Naphthalene	U	0.00	163	330	ug/kg	1.0					
Phenanthrene	U	0.00	163	330	ug/kg	1.0					
Pyrene		465	163	330	ug/kg	1.0					

The following prep procedures were performed:
 GC/MS Base/Neutral Compounds

TNF 10/21/96 1530 92556 3

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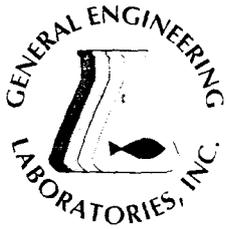
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SC	10120	10582
TN	02934	02934

Client: Supervisor of Ship Building & Conversion
 SUPSHIP-Portsmouth Detachment-Env.
 1899 North Hobson Ave.
 North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers
 Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: October 29, 1996

Page 2 of 2

Sample ID : SPORT0212-2

Surrogate Recovery	Test	Percent%	Acceptable Limits
2-Fluorobiphenyl	M610	69.3	(30.0 - 115.)
Nitrobenzene-d5	M610	55.9	(23.0 - 120.)
p-Terphenyl-d14	M610	96.4	(37.3 - 128.)
Bromofluorobenzene	BTEX-8260	109.	(59.7 - 159.)
Dibromofluoromethane	BTEX-8260	82.4	(74.0 - 128.)
Toluene-d8	BTEX-8260	97.5	(53.4 - 163.)
Bromofluorobenzene	NAP-8260	109.	(59.7 - 159.)
Dibromofluoromethane	NAP-8260	82.4	(74.0 - 128.)
Toluene-d8	NAP-8260	97.5	(53.4 - 163.)

M = Method	Method-Description
M 1	EPA 8260
M 2	EPA 8270
M 3	EPA 3550

Notes:

The qualifiers in this report are defined as follows:

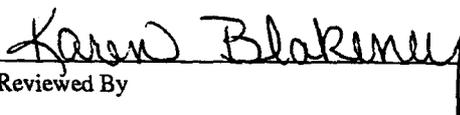
ND indicates that the analyte was not detected at a concentration greater than the detection limit.

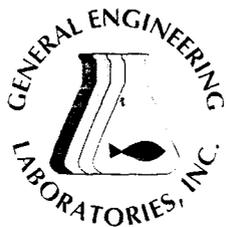
J indicates presence of analyte at a concentration less than the reporting limit (RL) and greater than the detection limit (DL).

U indicates that the analyte was not detected at a concentration greater than the detection limit.

* indicates that a quality control analyte recovery is outside of specified acceptance criteria.

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TN	02934	02934

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 SUPSHIP-Portsmouth Detachment-Env.
 1899 North Hobson Ave.
 North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: October 29, 1996

Page 1 of 2

Sample ID : SPORT0212-3
 Lab ID : 9610416-03
 Matrix : Soil
 Date Collected : 10/17/96
 Date Received : 10/18/96
 Priority : Routine
 Collector : Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
Volatile Organics											
<i>BTEX - 4 items</i>											
Benzene	U	0.00	1.00	2.00	ug/kg	1.0	JGS2	10/22/96	1637	92667	a
Ethylbenzene	U	0.00	1.00	2.00	ug/kg	1.0					
Toluene	U	0.00	1.00	2.00	ug/kg	1.0					
Xylenes (TOTAL)	U	0.00	1.00	4.00	ug/kg	1.0					
Naphthalene	U	0.00	1.00	2.00	ug/kg	1.0					
Extractable Organics											
<i>Polynuclear Aromatic Hydrocarbons - 16 items</i>											
Acenaphthene	U	0.00	162	330	ug/kg	1.0	BDG	10/23/96	0129	92556	2
Acenaphthylene	U	0.00	162	330	ug/kg	1.0					
Anthracene	U	0.00	162	330	ug/kg	1.0					
Benzo(a)anthracene	U	67.8	162	330	ug/kg	1.0					
Benzo(a)pyrene	U	90.4	162	330	ug/kg	1.0					
Benzo(b)fluoranthene	U	162	162	330	ug/kg	1.0					
Benzo(ghi)perylene	U	0.00	162	330	ug/kg	1.0					
Benzo(k)fluoranthene	U	0.00	162	330	ug/kg	1.0					
Chrysene	U	103	162	330	ug/kg	1.0					
Dibenzo(a,h)anthracene	U	0.00	162	330	ug/kg	1.0					
Fluoranthene	J	181	162	330	ug/kg	1.0					
Fluorene	U	0.00	162	330	ug/kg	1.0					
Indeno(1,2,3-c,d)pyrene	U	0.00	162	330	ug/kg	1.0					
Naphthalene	U	0.00	162	330	ug/kg	1.0					
Phenanthrene	U	0.00	162	330	ug/kg	1.0					
Pyrene	U	162	162	330	ug/kg	1.0					

The following prep procedures were performed:

GC/MS Base/Neutral Compounds

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TN	02934	02934

Client: Supervisor of Ship Building & Conversion
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 North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: October 29, 1996

Page 2 of 2

Sample ID : SPORT0212-3

Surrogate Recovery	Test	Percent%	Acceptable Limits
2-Fluorobiphenyl	M610	73.4	(30.0 - 115.)
Nitrobenzene-d5	M610	61.6	(23.0 - 120.)
p-Terphenyl-d14	M610	95.5	(37.3 - 128.)
Bromofluorobenzene	BTEX-8260	119.	(59.7 - 159.)
Dibromofluoromethane	BTEX-8260	90.5	(74.0 - 128.)
Toluene-d8	BTEX-8260	106.	(53.4 - 163.)
Bromofluorobenzene	NAP-8260	119.	(59.7 - 159.)
Dibromofluoromethane	NAP-8260	90.5	(74.0 - 128.)
Toluene-d8	NAP-8260	106.	(53.4 - 163.)

M = Method	Method-Description
M 1	EPA 8260
M 2	EPA 8270
M 3	EPA 3550

Notes:

The qualifiers in this report are defined as follows:

ND indicates that the analyte was not detected at a concentration greater than the detection limit.

J indicates presence of analyte at a concentration less than the reporting limit (RL) and greater than the detection limit (DL).

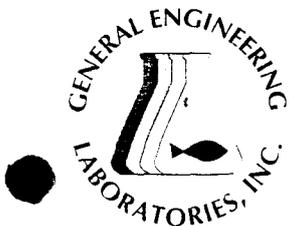
U indicates that the analyte was not detected at a concentration greater than the detection limit.

* indicates that a quality control analyte recovery is outside of specified acceptance criteria.

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 standard operating procedures. Please direct
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 North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

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Report Date: October 29, 1996

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Sample ID : SPORT0212-4
 Lab ID : 9610416-04
 Matrix : Soil
 Date Collected : 10/17/96
 Date Received : 10/18/96
 Priority : Routine
 Collector : Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
Volatile Organics											
<i>BTEX - 4 items</i>											
Benzene	U	0.00	1.00	2.00	ug/kg	1.0	JGS2	10/22/96	1708	92667	1
Ethylbenzene	U	0.00	1.00	2.00	ug/kg	1.0					
Toluene	U	0.00	1.00	2.00	ug/kg	1.0					
Xylenes (TOTAL)	U	0.00	1.00	4.00	ug/kg	1.0					
Naphthalene	U	0.660	1.00	2.00	ug/kg	1.0					
Extractable Organics											
<i>Polynuclear Aromatic Hydrocarbons - 16 items</i>											
Acenaphthene		530	246	491	ug/kg	1.0	JCB	10/23/96	1118	92556	2
Acenaphthylene	U	0.00	246	491	ug/kg	1.0					
Anthracene	J	255	246	491	ug/kg	1.0					
Benzo(a)anthracene	J	427	246	491	ug/kg	1.0					
Benzo(a)pyrene	J	285	246	491	ug/kg	1.0					
Benzo(b)fluoranthene		516	246	491	ug/kg	1.0					
Benzo(ghi)perylene	U	0.00	246	491	ug/kg	1.0					
Benzo(k)fluoranthene	U	0.00	246	491	ug/kg	1.0					
Chrysene	J	447	246	491	ug/kg	1.0					
Dibenzo(a,h)anthracene	U	0.00	246	491	ug/kg	1.0					
Fluoranthene		1930	246	491	ug/kg	1.0					
Fluorene	J	442	246	491	ug/kg	1.0					
Indeno(1,2,3-c,d)pyrene	U	0.00	246	491	ug/kg	1.0					
Naphthalene	U	0.00	246	491	ug/kg	1.0					
Phenanthrene		1270	246	491	ug/kg	1.0					
Pyrene		1220	246	491	ug/kg	1.0					

The following prep procedures were performed:
 GC/MS Base/Neutral Compounds

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SC	10120	10582
TN	02934	02934

Client: Supervisor of Ship Building & Conversion
 SUPSHIP-Portsmouth Detachment-Env.
 1899 North Hobson Ave.
 North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: October 29, 1996

Page 2 of 2

Sample ID : SPORT0212-4

Surrogate Recovery	Test	Percent%	Acceptable Limits
2-Fluorobiphenyl	M610	85.0	(30.0 - 115.)
Nitrobenzene-d5	M610	63.4	(23.0 - 120.)
p-Terphenyl-d14	M610	90.4	(37.3 - 128.)
Bromofluorobenzene	BTEX-8260	122.	(59.7 - 159.)
Dibromofluoromethane	BTEX-8260	82.6	(74.0 - 128.)
Toluene-d8	BTEX-8260	104.	(53.4 - 163.)
Bromofluorobenzene	NAP-8260	122.	(59.7 - 159.)
Dibromofluoromethane	NAP-8260	82.6	(74.0 - 128.)
Toluene-d8	NAP-8260	104.	(53.4 - 163.)

M = Method	Method-Description
M 1	EPA 8260
M 2	EPA 8270
M 3	EPA 3550

Notes:

The qualifiers in this report are defined as follows:

ND indicates that the analyte was not detected at a concentration greater than the detection limit.

J indicates presence of analyte at a concentration less than the reporting limit (RL) and greater than the detection limit (DL).

U indicates that the analyte was not detected at a concentration greater than the detection limit.

* indicates that a quality control analyte recovery is outside of specified acceptance criteria.

This data report has been prepared and reviewed
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 standard operating procedures. Please direct
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Karen Blakeney

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SC	10120	10582
TN	02934	02934

Client: Supervisor of Ship Building & Conversion
 SUPSHIP-Portsmouth Detachment-Env.
 1899 North Hobson Ave.
 North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: October 29, 1996

Page 1 of 3

Sample ID : SPORT0212-5
 Lab ID : 9610416-05
 Matrix : Soil
 Date Collected : 10/17/96
 Date Received : 10/18/96
 Priority : Routine
 Collector : Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
Volatile Organics											
<i>BTEX - 4 items</i>											
Benzene	U	0.00	1.00	2.00	ug/kg	1.0	JGS2	10/22/96	1738	92667	.
Ethylbenzene	U	0.00	1.00	2.00	ug/kg	1.0					
Toluene	U	0.00	1.00	2.00	ug/kg	1.0					
Xylenes (TOTAL)	U	0.00	1.00	4.00	ug/kg	1.0					
Naphthalene	U	0.00	1.00	2.00	ug/kg	1.0					
Extractable Organics											
<i>Polynuclear Aromatic Hydrocarbons - 16 items</i>											
Acenaphthene	U	0.00	244	487	ug/kg	1.0	JCB	10/23/96	1229	92556	2
Acenaphthylene	U	0.00	244	487	ug/kg	1.0					
Anthracene	U	0.00	244	487	ug/kg	1.0					
Benzo(a)anthracene	U	0.00	244	487	ug/kg	1.0					
Benzo(a)pyrene	U	0.00	244	487	ug/kg	1.0					
Benzo(b)fluoranthene	J	248	244	487	ug/kg	1.0					
Benzo(ghi)perylene	U	0.00	244	487	ug/kg	1.0					
Benzo(k)fluoranthene	U	0.00	244	487	ug/kg	1.0					
Chrysene	U	0.00	244	487	ug/kg	1.0					
Dibenzo(a,h)anthracene	U	0.00	244	487	ug/kg	1.0					
Fluoranthene	U	0.00	244	487	ug/kg	1.0					
Fluorene	U	0.00	244	487	ug/kg	1.0					
Indeno(1,2,3-c,d)pyrene	U	0.00	244	487	ug/kg	1.0					
Naphthalene	U	0.00	244	487	ug/kg	1.0					
Phenanthrene	U	0.00	244	487	ug/kg	1.0					
Pyrene	U	0.00	244	487	ug/kg	1.0					

The following prep procedures were performed:
 GC/MS Base/Neutral Compounds

TNF 10/21/96 1530 92556 3

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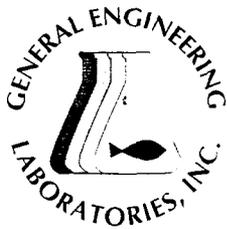
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TN	02934	02934

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 SUPSHIP-Portsmouth Detachment-Env.
 1899 North Hobson Ave.
 North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: October 29, 1996

Page 2 of 3

Sample ID : SPORT0212-5

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
-----------	-----------	--------	----	----	-------	----	---------	------	------	-------	---

Comments:

Volatile Organics contained matrix interferences.

Surrogate Recovery	Test	Percent%	Acceptable Limits
2-Fluorobiphenyl	M610	97.4	(30.0 - 115.)
Nitrobenzene-d5	M610	84.8	(23.0 - 120.)
p-Terphenyl-d14	M610	111.	(37.3 - 128.)
Bromofluorobenzene	BTEX-8260	134.	(59.7 - 159.)
Dibromofluoromethane	BTEX-8260	88.4	(74.0 - 128.)
Toluene-d8	BTEX-8260	117.	(53.4 - 163.)
Bromofluorobenzene	NAP-8260	134.	(59.7 - 159.)
Dibromofluoromethane	NAP-8260	88.4	(74.0 - 128.)
Toluene-d8	NAP-8260	117.	(53.4 - 163.)

M = Method	Method-Description
M 1	EPA 8260
M 2	EPA 8270
M 3	EPA 3550

Notes:

The qualifiers in this report are defined as follows:

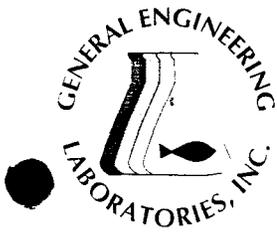
ND indicates that the analyte was not detected at a concentration greater than the detection limit.

J indicates presence of analyte at a concentration less than the reporting limit (RL) and greater than the detection limit (DL).

U indicates that the analyte was not detected at a concentration greater than the detection limit.

* indicates that a quality control analyte recovery is outside of specified acceptance criteria.





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Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: October 29, 1996

Page 3 of 3

Sample ID : SPORT0212-5

M = Method

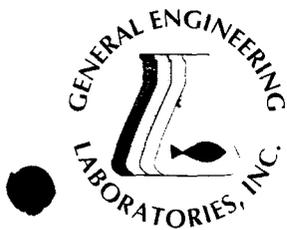
Method-Description

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TN	02934	02934

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Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: October 29, 1996

Page 1 of 3

Sample ID : SPORT0212-6
 Lab ID : 9610416-06
 Matrix : Soil
 Date Collected : 10/17/96
 Date Received : 10/18/96
 Priority : Routine
 Collector : Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
Volatile Organics											
<i>BTEX - 4 items</i>											
Benzene	U	0.00	1.00	2.00	ug/kg	1.0	JAC	10/24/96	1215	92798	
Ethylbenzene	U	0.00	1.00	2.00	ug/kg	1.0					
Toluene	U	0.00	1.00	2.00	ug/kg	1.0					
Xylenes (TOTAL)	U	0.00	1.00	4.00	ug/kg	1.0					
Naphthalene	U	0.00	1.00	2.00	ug/kg	1.0					
Extractable Organics											
<i>Polynuclear Aromatic Hydrocarbons - 16 items</i>											
Acenaphthene	U	0.00	162	330	ug/kg	1.0	JCB	10/23/96	1302	92556	2
Acenaphthylene	U	0.00	162	330	ug/kg	1.0					
Anthracene	U	0.00	162	330	ug/kg	1.0					
Benzo(a)anthracene	U	0.00	162	330	ug/kg	1.0					
Benzo(a)pyrene	U	0.00	162	330	ug/kg	1.0					
Benzo(b)fluoranthene	J	.269	162	330	ug/kg	1.0					
Benzo(ghi)perylene	U	0.00	162	330	ug/kg	1.0					
Benzo(k)fluoranthene	U	0.00	162	330	ug/kg	1.0					
Chrysene	J	165	162	330	ug/kg	1.0					
Dibenzo(a,h)anthracene	U	0.00	162	330	ug/kg	1.0					
Fluoranthene	J	272	162	330	ug/kg	1.0					
Fluorene	U	0.00	162	330	ug/kg	1.0					
Indeno(1,2,3-c,d)pyrene	U	0.00	162	330	ug/kg	1.0					
Naphthalene	U	0.00	162	330	ug/kg	1.0					
Phenanthrene	U	0.00	162	330	ug/kg	1.0					
Pyrene	J	227	162	330	ug/kg	1.0					

The following prep procedures were performed:
 GC/MS Base/Neutral Compounds

TNF 10/21/96 1530 92556 3

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9610416-06



GENERAL ENGINEERING LABORATORIES

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Laboratory Certifications

STATE	GEL	EPI
FL	E87156/87294	E87472/87...
NC	233	
SC	10120	10582
TN	02934	02934

Client: Supervisor of Ship Building & Conversion
 SUPSHIP-Portsmouth Detachment-Env.
 1899 North Hobson Ave.
 North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: October 29, 1996

Page 2 of 3

Sample ID : SPORT0212-6

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
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Comments:

Volatile Organics contained matrix interferences.

Surrogate Recovery	Test	Percent%	Acceptable Limits
2-Fluorobiphenyl	M610	67.9	(30.0 - 115.)
Nitrobenzene-d5	M610	62.7	(23.0 - 120.)
p-Terphenyl-d14	M610	80.3	(37.3 - 128.)
Bromofluorobenzene	BTEX-8260	118.	(59.7 - 159.)
Dibromofluoromethane	BTEX-8260	79.2	(74.0 - 128.)
Toluene-d8	BTEX-8260	118.	(53.4 - 163.)
Bromofluorobenzene	NAP-8260	118.	(59.7 - 159.)
Dibromofluoromethane	NAP-8260	79.2	(74.0 - 128.)
Toluene-d8	NAP-8260	118.	(53.4 - 163.)

M = Method	Method-Description
M 1	EPA 8260
M 2	EPA 8270
M 3	EPA 3550

Notes:

The qualifiers in this report are defined as follows:

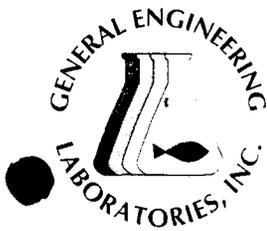
ND indicates that the analyte was not detected at a concentration greater than the detection limit.

J indicates presence of analyte at a concentration less than the reporting limit (RL) and greater than the detection limit (DL).

U indicates that the analyte was not detected at a concentration greater than the detection limit.

* indicates that a quality control analyte recovery is outside of specified acceptance criteria.





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Laboratory Certifications

STATE	GEL	EPI
FL	E87156/87294	E87472/87456
NC	233	
SC	10120	10582
TN	02934	02934

Client: Supervisor of Ship Building & Conversion
SUPSHIP-Portsmouth Detachment-Env.
1899 North Hobson Ave.
North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: October 29, 1996

Page 3 of 3

Sample ID : SPORT0212-6

M = Method

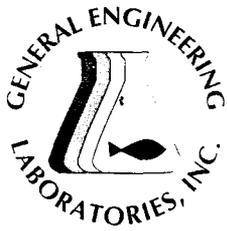
Method-Description

This data report has been prepared and reviewed in accordance with General Engineering Laboratories standard operating procedures. Please direct any questions to your Project Manager, Karen Blakeney at (803) 769-7386.

Reviewed By







GENERAL ENGINEERING LABORATORIES

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Laboratory Certifications

STATE	GEL	EPI
FL	E87156/87294	E87472/874
NC	233	
SC	10120	10582
TN	02934	02934

Client: Supervisor of Ship Building & Conversion
 SUPSHIP-Portsmouth Detachment-Env.
 1899 North Hobson Ave.
 North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: October 29, 1996

Page 1 of 3

Sample ID : SPORT0212-7
 Lab ID : 9610416-07
 Matrix : Soil
 Date Collected : 10/17/96
 Date Received : 10/18/96
 Priority : Routine
 Collector : Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
Volatile Organics											
<i>BTEX - 4 items</i>											
Benzene	U	0.00	40.0	80.0	ug/kg	40.	JAC	10/25/96	1235	92798	
Ethylbenzene	U	0.00	40.0	80.0	ug/kg	40.					
Toluene	U	0.00	40.0	80.0	ug/kg	40.					
Xylenes (TOTAL)	U	0.00	40.0	80.0	ug/kg	40.					
Naphthalene	U	0.00	40.0	80.0	ug/kg	40.					
Extractable Organics											
<i>Polynuclear Aromatic Hydrocarbons - 16 items</i>											
Acenaphthene	U	0.00	24700	49400	ug/kg	100	JCB	10/23/96	1334	92556	2
Acenaphthylene	U	0.00	24700	49400	ug/kg	100					
Anthracene	U	0.00	24700	49400	ug/kg	100					
Benzo(a)anthracene	U	0.00	24700	49400	ug/kg	100					
Benzo(a)pyrene	U	0.00	24700	49400	ug/kg	100					
Benzo(b)fluoranthene	U	0.00	24700	49400	ug/kg	100					
Benzo(ghi)perylene	U	0.00	24700	49400	ug/kg	100					
Benzo(k)fluoranthene	U	0.00	24700	49400	ug/kg	100					
Chrysene	U	0.00	24700	49400	ug/kg	100					
Dibenzo(a,h)anthracene	U	0.00	24700	49400	ug/kg	100					
Fluoranthene		49400	24700	49400	ug/kg	100					
Fluorene	U	0.00	24700	49400	ug/kg	100					
Indeno(1,2,3-c,d)pyrene	U	0.00	24700	49400	ug/kg	100					
Naphthalene	U	0.00	24700	49400	ug/kg	100					
Phenanthrene	U	0.00	24700	49400	ug/kg	100					
Pyrene	J	36100	24700	49400	ug/kg	100					

The following prep procedures were performed:
 GC/MS Base/Neutral Compounds

TNF 10/21/96 1530 92556 3

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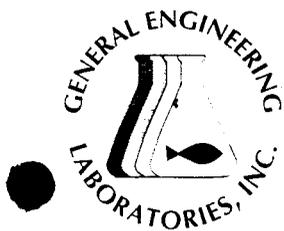
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9610416-07



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Laboratory Certifications

STATE	GEL	EPI
FL	E87156/87294	E87472/874...
NC	233	
SC	10120	10582
TN	02934	02934

Client: Supervisor of Ship Building & Conversion
 SUPSHIP-Portsmouth Detachment-Env.
 1899 North Hobson Ave.
 North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: October 29, 1996

Page 2 of 3

Sample ID : SPORT0212-7

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
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Comments:

A dilution was required for Volatile Organics due to a high concentration of hydrocarbons. A dilution was required for Extractable Organics due to matrix interference.

As a result, the detection limits are elevated.

Surrogate Recovery	Test	Percent%	Acceptable Limits
2-Fluorobiphenyl	M610	0.00*	(30.0 - 115.)
Nitrobenzene-d5	M610	0.00*	(23.0 - 120.)
p-Terphenyl-d14	M610	0.00*	(37.3 - 128.)
Bromofluorobenzene	BTEX-8260	111.	(59.7 - 159.)
Dibromofluoromethane	BTEX-8260	80.4	(74.0 - 128.)
Toluene-d8	BTEX-8260	108.	(53.4 - 163.)
Bromofluorobenzene	NAP-8260	111.	(59.7 - 159.)
Dibromofluoromethane	NAP-8260	80.4	(74.0 - 128.)
Toluene-d8	NAP-8260	108.	(53.4 - 163.)

M = Method	Method-Description
M 1	EPA 8260
M 2	EPA 8270
M 3	EPA 3550

Notes:

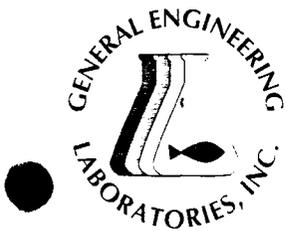
The qualifiers in this report are defined as follows:

ND indicates that the analyte was not detected at a concentration greater than the detection limit.

J indicates presence of analyte at a concentration less than the reporting limit (RL) and greater than the detection limit (DL).

U indicates that the analyte was not detected at a concentration greater than the detection limit.

* indicates that a quality control analyte recovery is outside of specified acceptance criteria.



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Laboratory Certifications

STATE	GEL	EPI
FL	E87156/87294	E87472/874...
NC	233	
SC	10120	10582
TN	02934	02934

Client: Supervisor of Ship Building & Conversion
SUPSHIP-Portsmouth Detachment-Env.
1899 North Hobson Ave.
North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: October 29, 1996

Page 3 of 3

Sample ID : SPORT0212-7

M = Method

Method-Description

This data report has been prepared and reviewed in accordance with General Engineering Laboratories standard operating procedures. Please direct any questions to your Project Manager, Karen Blakeney at (803) 769-7386.



Reviewed By

1700C 00196

General Engineering Laboratories, Inc.
 2040 Savage Road
 Charleston, South Carolina 29414
 P.O. Box 30712
 Charleston, South Carolina 29417
 (803) 556-8171

CHAIN OF CUSTODY RECORD

Page 1 of 1 9609147

KBB

Client Name/Facility Name				SAMPLE ANALYSIS REQUIRED (x) - use remarks area to specify specific compounds or methods																	Use F or P in the boxes to indicate whether sample was filtered and/or preserved							
SPORTENVDETHASN				# OF CONTAINERS	pH, conductivity	TOC/DOC	TOX	Chloride, Fluoride, Sulfide	Nitrite/Nitrate	VOC - Specify Method required	METALS - specify	Pesticide	Herbicide	Total Phenol	Acid Extractables	B/N Extractables	PCB's	Cyanide	Coliform - specify type	PAH	BTEX/NAPTH	Remarks						
Collected by/Company																												
SAMPLE ID	DATE	TIME	WELL	SOIL	COMP	GRAB																						
-01	SPORT0157-1	09/09/96	1345	X	X	2																	X	X	AST 64B-1 SOIL	-1		
-02	SPORT0157-2	09/09/96	1400	X	X	2																			X	X	AST 64B-2 SOIL	-1
-03	SPORT0157-3	09/09/96	1345			X																			X		UOA TRIP BLANK	.2
Relinquished by:				Date:	Time:	Received by:				Relinquished by:				Date:	Time:	Received by:												
C. W. Wannamaker				09/09/96	1432	Fred S. Moore				W. K. Hiers Jr				9/10/96	1540	Cathy Roberts												
Relinquished by:				Date:	Time:	Received by lab by:				Date:	Time:	Remarks:																
						Regina Desroche				9-10-96	1540																	

White = sample collector Yellow = file Pink = with report

CHAIN OF CUSTODY RECORD

Page 1 of 1 9609409

Client Name/Facility Name <u>SPORTENYDETHASN</u>				SAMPLE ANALYSIS REQUIRED (x) - use remarks area to specify specific compounds or methods																	Use F or P in the boxes to indicate whether sample was filtered and/or preserved CCL 23340				
Collected by/Company <u>SPORTENYDETHASN</u>				# OF CONTAINERS	pH, conductivity	TOC/DOC	TOX	Chloride, Fluoride, Sulfide	Nitrite/Nitrate	VOC - Specify Method required	METALS - specify	Pesticide	Herbicide	Total Phenol	Acid Extractables	B/N Extractables	PAH	Cyanide	Coliform - specify type	BTEX PLUS NAPTHALENE		BTEX+NAPHTHALENE + MITBL	Remarks		
SAMPLE ID	DATE	TIME	WELL SOIL																		COMP GRAB				
-01	SPORT0171-1	9/20/96	1015	X	X	2																	X	X	UST NS 648-1 w/mt -2 soil .1
-02	SPORT0171-2	9/20/96	1037	X	X	2																	X	X	UST NS 648-2 soil .1
-03	SPORT0171-3	9/20/96	0959			5																			UST NS 648-3 GW .2
-04	SPORT0171-4	9/20/96	0730			3																			UST NS 648 VOA TRIP BLANK .3

Relinquished by: <u>William R. Hiers, Jr.</u>	Date: <u>9/20/96</u>	Time: <u>1257</u>	Received by: <u>W.R. Hiers, Jr.</u>	Relinquished by: <u>W.R. Hiers, Jr.</u>	Date: <u>9/20/96</u>	Time: <u>1405</u>	Received by: <u>DeR. Moore</u>
Relinquished by:	Date:	Time:	Received by lab by: <u>R. Demaree</u>	Date: <u>9-20-96</u>	Time: <u>1745</u>	Remarks:	

White = sample collector Yellow = file Pink = with report

MWC 00196

General Engineering Laboratories, Inc.
 2040 Savage Road
 Charleston, South Carolina 29414
 P.O. Box 30712
 Charleston, South Carolina 29417
 (803) 556-8171

CHAIN OF CUSTODY RECORD

Page 1 of 1

KBB *9610416*

Client Name/Facility Name		SAMPLE ANALYSIS REQUIRED (X) - use remarks area to specify specific compounds or methods										Use F or P in the boxes to indicate whether sample was filtered and/or preserved						
SPORTSENVDETCNASN		pH, conductivity	TOC/DOC	TOX	Chloride, Fluoride, Sulfide	Nitrite/Nitrate	VOC - Specify Method required	METALS - specify	Pesticide	Herbicide	Total Phenol	Acid Extractables	B/N Extractables	PCB's	Cyanide	Coliform - specify type	STEXT	PAH
Collected by/Company		WELL	SOIL	COMP	GRAB	# OF CONTAINERS											Remarks	
SPORTSENVDETCNASN																	CCL 23803	
SAMPLE ID	DATE	TIME																
01 SPORTΦZ12-1	1Φ/17/96	13ΦΦ	X	X	2											X	X	UST NS-648-4 Soil .1
02 SPORTΦZ12-2	1Φ/17/96	133Φ	X	X	2											X	X	UST NS-648-5 Soil .1
03 SPORTΦZ12-3	1Φ/17/96	1356	X	X	2											X	X	UST NS-648-6 Soil .1
04 SPORTΦZ12-4	1Φ/17/96	1418	X	X	2											X	X	UST NS-648-7 Soil .1
05 SPORTΦZ12-5	1Φ/17/96	1433	X	X	2											X	X	UST NS-648-8 Soil .1
06 SPORTΦZ12-6	1Φ/17/96	1458	X	X	2											X	X	UST NS-648-9 Soil .1
07 SPORTΦZ12-7	1Φ/17/96	1516	X	X	2											X	X	UST NS-648-10 Soil .1
08 SPORTΦZ12-8	1Φ/17/96	1Φ55	X	X	1											X		UST NS-648 VOA SOIL TRIP BLANK .2
09 SPORTΦZ12-9	1Φ/17/96	1Φ55			3											X		UST NS-648 TRIP BLANK .3

Relinquished by: <i>[Signature]</i>	Date: <i>1Φ/18/96</i>	Time: <i>1Φ42</i>	Received by: <i>W.R. Hiers, Jr.</i>	Relinquished by: <i>W.R. Hiers, Jr.</i>	Date: <i>1Φ/18/96</i>	Time: <i>1438</i>	Received by: <i>Lee R. McCall</i>
Relinquished by: <i>Lee R. McCall</i>	Date: <i>10/18/96</i>	Time: <i>15:05</i>	Received by lab by: <i>Dwaine France</i>	Date: <i>10/18/96</i>	Time: <i>15:05</i>	Remark: <i>Temp 7°C</i>	

White = sample collector Yellow = file Pink = with report

Attachment III

Certificate of Disposal (tanks)

AST 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

AST 648; Charleston Naval Base, Bldg 648, Dyess Ave., N. Charleston, SC

DISPOSAL LOCATION

Bldg. 1601 Tank Cleaning
& Disposal Area
Charleston Naval Complex

TYPE OF TANK

Fuel oil

SIZE (GAL)

1,000 gal.

CLEANING/DISPOSAL METHOD

The tank was cut open on both ends, cleaned with a steam cleaner, cut into sections, and disposed of as recyclable scrap metal.

DISPOSAL CERTIFICATION

I certify that the above tank has been properly cleaned and disposed of as recyclable scrap metal.

O. S. Utheim 1/12/16/196
O. S. Utheim (Name) (Date)

