

N61165.AR.005255  
CNC CHARLESTON  
5090.3a

NO FURTHER ACTION (NFA) UNDERGROUND STORAGE TANK (UST) ASSESSMENT  
REPORT DATED 5 AUGUST 1998 FOR QUARTERS AA HOUSING CNC CHARLESTON SC  
09/02/1998  
SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL



2 September 1998

2600 Bull Street  
Columbia, SC 29201-1708

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Department of the Navy  
Southern Division NFEC  
P.O. Box 190010  
North Charleston, SC 29419-9010  
Attn: Mr. Gabriel Magwood

Re: Underground Storage Tank Assessment Report dated 5 August 1998  
Quarters "AA" Housing (Site Identification # 15405-General File)  
Charleston Naval Complex/Charleston Naval Base  
Charleston, SC  
Charleston County

Dear Mr. Magwood:

The author has completed technical review of the referenced document. As submitted, the report provides a narrative describing closure activities and analytical results of environmental sampling conducted to determine if releases have occurred as a result of operation of the referenced vessel and/or associated piping system. The analytical results provided indicate that concentrations of BTEX and PAH compounds were not detected above established method detection limits in soil grab samples obtained from the UST excavation and/or piping run excavations. In this regard, the employed closure activities and sampling results appear to indicate that no additional endeavors for remedial actions and/or contaminant characterization are warranted for Quarters "AA" at this time.

With consideration to the above comments, the Department has reviewed the referenced environmental data. Based on the information and analytical data submitted, the Department recognizes that the Department of the Navy and Charleston Naval Complex/Charleston Naval Base has adequately addressed the known environmental contamination identified on the property to date in accordance with the approved scope of work. Please note, this statement pertains only to the portion of the site addressed in the referenced report and does not apply to other areas of the site and/or any other potential regulatory violations. Further, the Department retains the right to request further investigation if deemed necessary.

Charleston Naval Complex/Charleston Naval Base  
2 September 1998  
page 2

Should you have any questions please contact me at (803) 734-5328.

Sincerely,  
  
Paul L. Bristol, Hydrogeologist  
Groundwater Quality Section  
Bureau of Water

  
Tom Knight, Manager  
Groundwater Quality Section  
Bureau of Water

cc: Trident District EQC



DEPARTMENT OF THE NAVY

SOUTHERN DIVISION  
NAVAL FACILITIES ENGINEERING COMMAND  
P.O. BOX 190010  
2155 EAGLE DRIVE  
NORTH CHARLESTON, S.C. 29419-9010

Li 8.20.98  
Lu 8.27.98

5090  
Code 1849  
5 August 1998

Mr. Paul Bristol  
South Carolina Department of Health  
And Environmental Control  
Groundwater Quality Section  
Bureau of Water  
2600 Bull Street  
Columbia, SC 29201

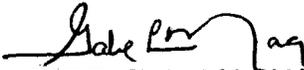
**UST ASSESSMENT REPORTS FOR CHARLESTON NAVAL COMPLEX,  
CHARLESTON, SC**

Dear Mr. Bristol:

Enclosed are the Assessment Reports for the closure of Underground Storage Tanks AA and BB located at the Charleston Naval Complex, Charleston, SC.

If you have any questions please contact me at (843) 820-7307.

Sincerely,

  
GABRIEL L. MAGWOOD  
Petroleum/UST

Encl:  
(1) Assessment Reports

**RECEIVED**  
**RECEIVED**

AUG 5 1998  
AUG 6 1998

Water Monitoring, Assessment &  
Water Monitoring, Assessment &  
Protection Division

L: 8.20.98  
Lo 8.24.98

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

Submit Completed Form to:

Date Received  
  
State Use Only

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: 843 Telephone Number: 743-9985 Contact Person: Henry N. Shepard II, P. E.

**II SITE IDENTIFICATION AND LOCATION**

Site I.D. #: Unregulated  
Facility Name: Charleston Naval Base Complex, Quarters AA  
Street Address: 1345 Avenue "G"  
City: North Charleston, 29405-2413 County: Charleston

**NFA**

**III CLOSURE INFORMATION**

Closure Started: 26 May 1998 Closure Completed: 26 May 1998  
Number of USTs Closed: 1  
N/A Consultant SPORTENVDETCNASN 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.  
Henry Shepard II, P. E.  
Name (Type or Print)  
*W. L. Gray* FOR  
Signature

**RECEIVED**  
AUG 6 1998

Water Monitoring, Assessment & Protection Division

**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	Tank 2	Tank 3	Tank 4	Tank 5
Fuel oil					
1,000 gal					
Unk.					
Steel					
3/98					
7'					
N					
N					
R					
N					
N					

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

UST Quarters AA was removed, drained, cut open at both ends, and cleaned with a steam cleaner. It was 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 sludge, waste water, and residual fuel oil from UST Quarters AA were recycled.

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

UST Quarters AA was covered with a protective coating. The tank was in good condition. No corrosion, pitting or holes were found on the tank.

## 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.....

Note 1: UST Quarters AA provided heating fuel oil to Quarters AA & LL.

	Tank 1	Tank 2	Tank 3	Tank 4	Tank 5
Copper & Steel					
35' & 50' See note 1					
2 see note 1					
S					
Y					
Y					
N					
Unk.					

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

The steel fill pipe and the steel ventilation pipe were corroded throughout their length, but no holes were found in either pipe. The copper supply and return lines were in good condition.

## VII. BRIEF SITE DESCRIPTION AND HISTORY

Double housing Quarters AA and LL was built in the 1940s, and served as housing for Naval families until base closure. UST Quarters AA provided heating fuel oil to both units.

## 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?</p> <p>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?</p> <p>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?</p> <p>If yes, how far below land surface (indicate location and depth)?</p> <p>_____</p>		X	
<p>D. Did contaminated soils remain stockpiled on site after closure?</p> <p>If yes, indicate the stockpile location on the site map.</p> <p>Name of DHEC representative authorizing soil removal:</p> <p>_____</p>		X*	
<p>E. Was a petroleum sheen or free product detected on any excavation or boring waters?</p> <p>If yes, indicate location and thickness.</p>		X**	

\* All excavated soil was returned to the tank pit.

\*\* No groundwater was encountered.



## X. SAMPLING METHODOLOGY

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

After the removal of UST Quarters AA, soil samples were taken. Sampling was performed in accordance with SC DHEC R.61-92 Part 280 and SC DHEC UST Assessment Guidelines.

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. Samples were extracted at the tank ends and from beneath the piping at the mechanical connections.

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 General Engineering Laboratories for analysis as documented in the attached Chain-of-Custody Record.

## XI. RECEPTORS

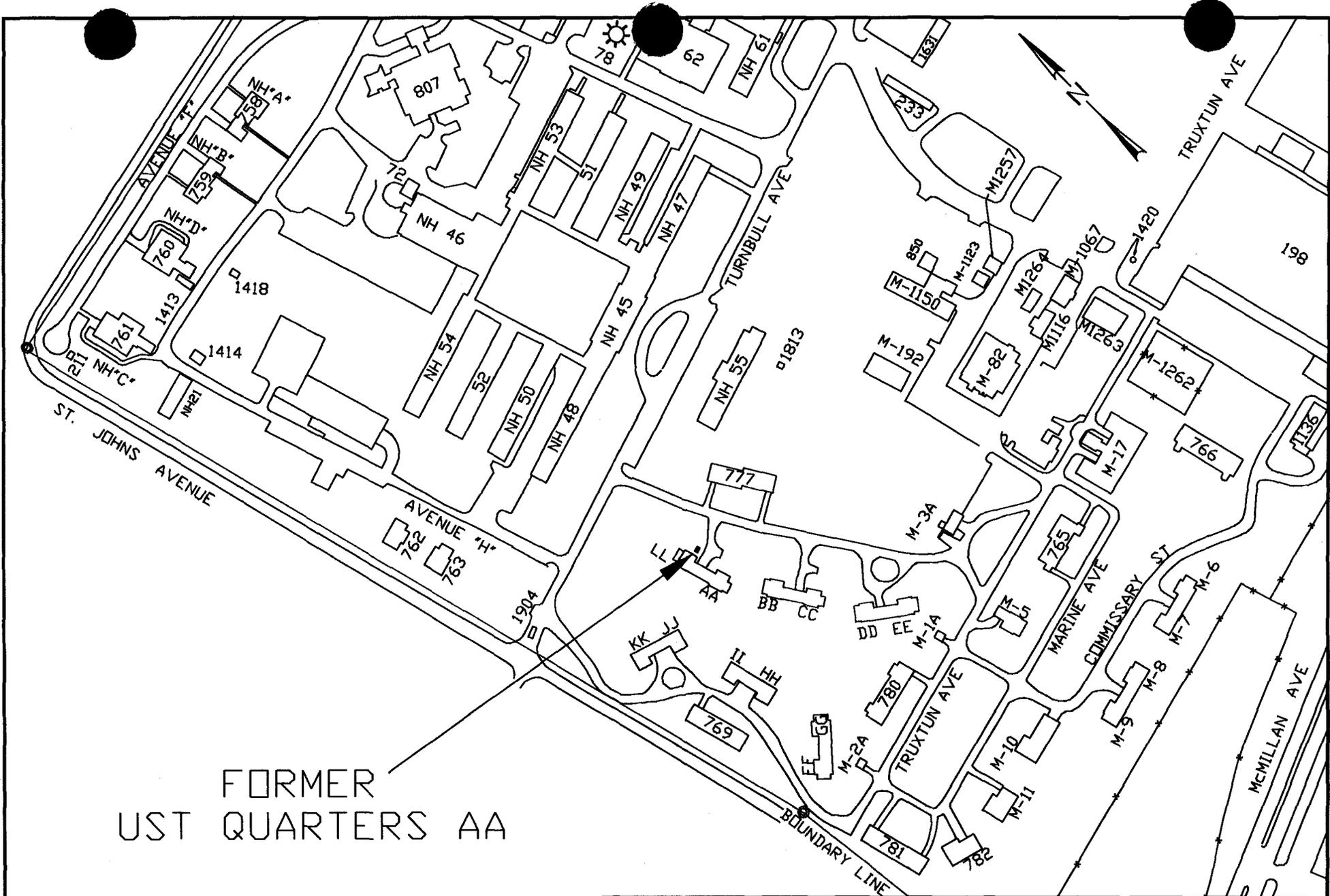
Yes No

<p>A. Are there any lakes, ponds, streams, or wetlands located within 1000 feet of the UST system?</p> <p>If yes, indicate type of receptor, distance, and direction on site map.</p>		X
<p>B. Are there any public, private, or irrigation water supply wells within 1000 feet of the UST system?</p> <p>If yes, indicate type of well, distance, and direction on site map.</p>		X
<p>C. Are there any underground structures (e.g., basements) located within 100 feet of the UST system?</p> <p>If yes, indicate the type of structure, distance, and direction on site map.</p>		X
<p>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?</p> <p>If yes, indicate the type of utility, distance, and direction on the site map.</p> <p style="text-align: center;">[ water ]</p>	X	
<p>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?</p> <p>If yes, indicate the area of contaminated soil on the site map.</p>		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 and 2  
Photographs 1 and 2



FORMER  
UST QUARTERS AA



GRAPHIC SCALE

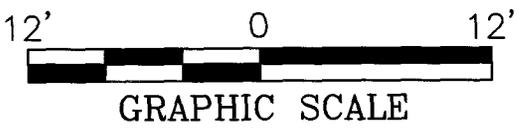
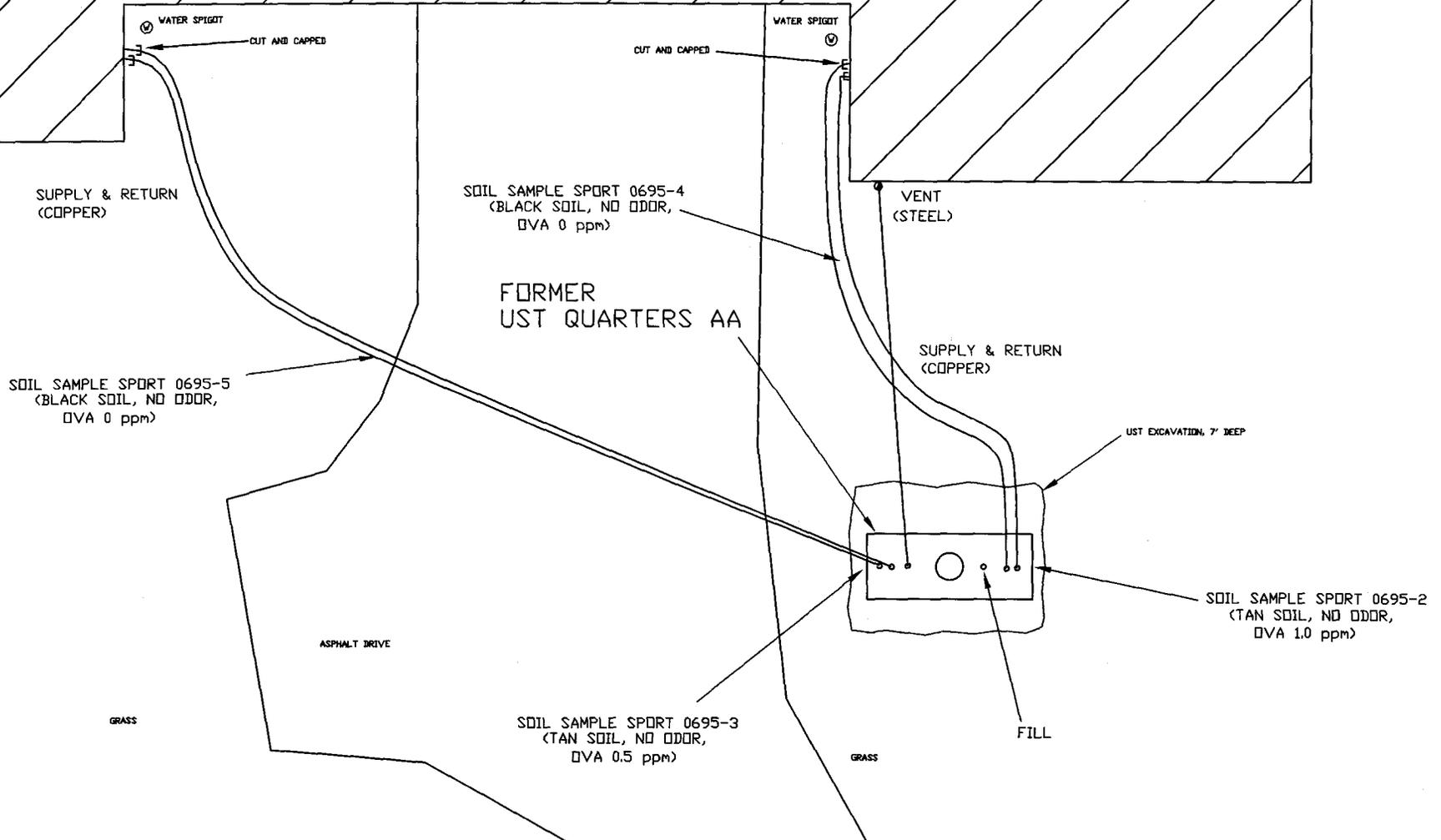
SPORTENVDETHASN  
1899 North Hobson Ave.  
North Charleston, SC  
29405-2106  
Ph. (803) 743-6777

Site Map 1  
UST Quarters AA  
Charleston Naval Base  
Charleston, SC

DWG DATE: 29 MAY 98    DWG NAME: QTRS-AA\_1

QUARTERS AA  
1345 AVENUE 'G'

QUARTERS LL  
1351 AVENUE 'G'



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

Site Map 2  
UST Quarters AA  
Charleston Naval Base  
Charleston, SC  
DWG DATE: 4 JUNE 98 | DWG NAME: QTR-AA\_2

## UST Quarters AA

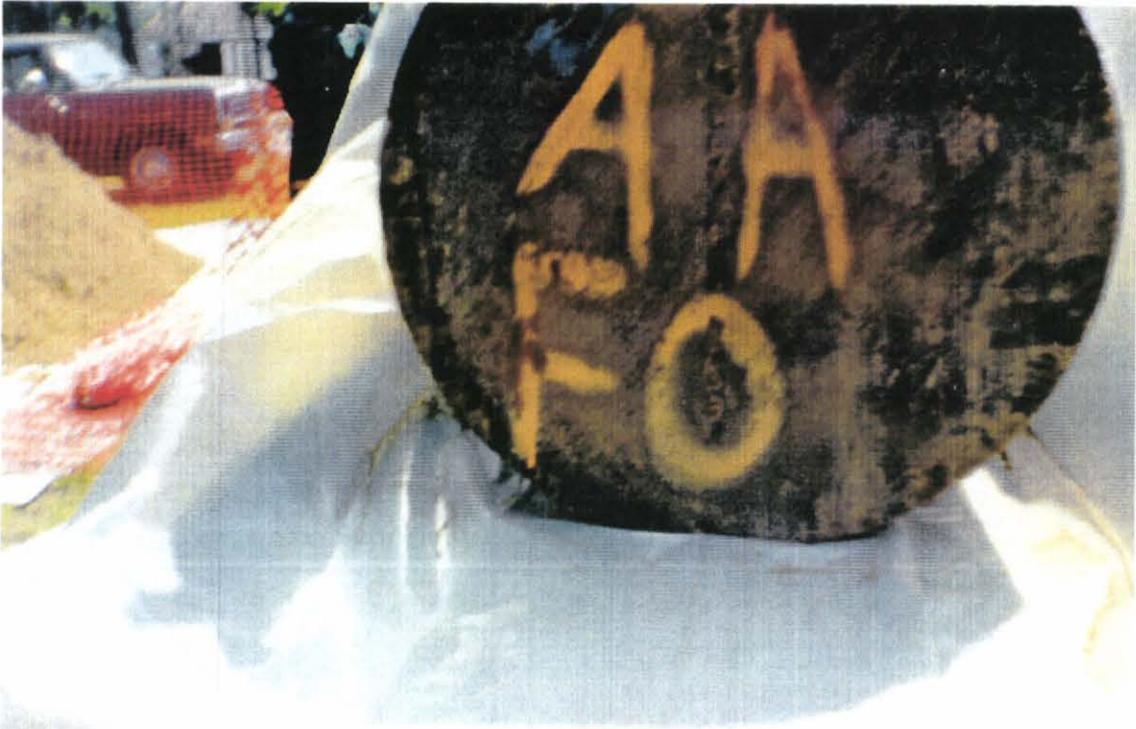


Photo 1: UST Quarters AA being readied for transport the cleaning and cutting pad.

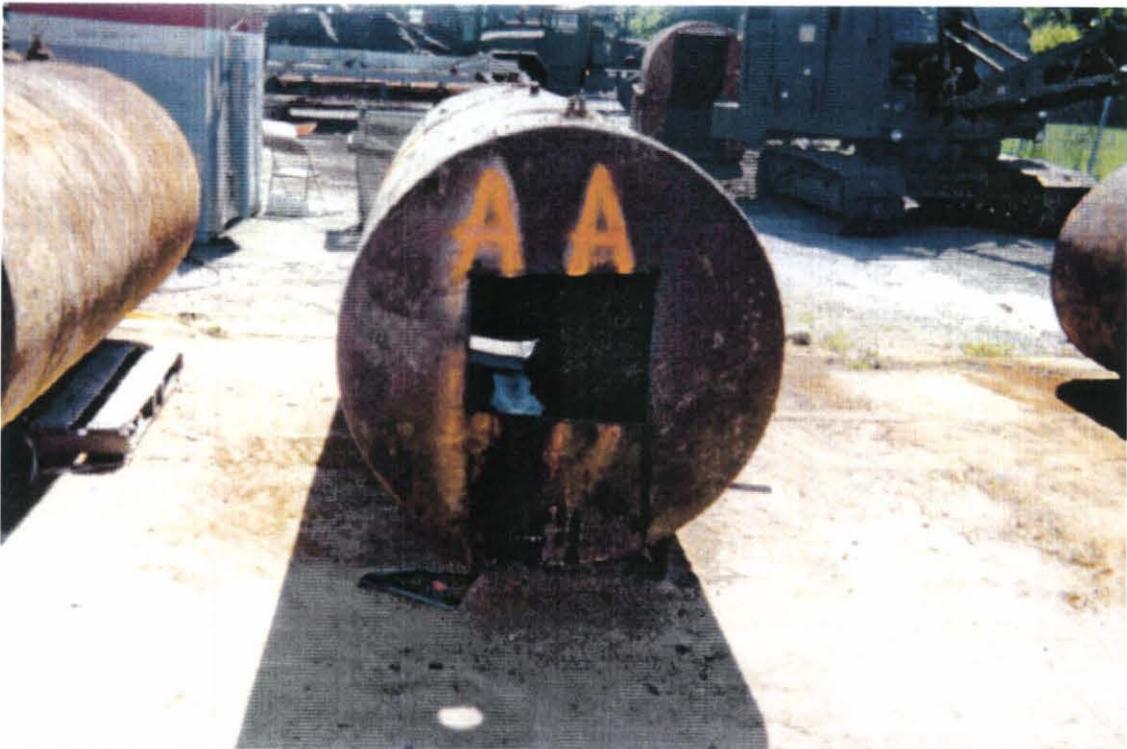
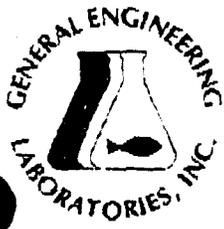


Photo 2: UST Quarters AA during cutting and cleaning.

**Attachment II**  
**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

*Meeting today's needs with a vision for tomorrow.*

### Laboratory Certifications

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

AA

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: NPWC00197

Report Date: June 08, 1998

Page 1 of 2

Sample ID : SPORT0695-1  
 Lab ID : 9805784-01  
 Matrix : SOIL  
 Date Collected : 05/26/98  
 Date Received : 05/28/98  
 Priority : Routine  
 Collector : Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
<b>Volatile Organics</b>											
<i>BTEX - 4 items</i>											
Benzene	U	0.00	0.250	1.00	ug/kg	1.0	TCL	06/01/98	1409	123258	1
Ethylbenzene	U	0.00	0.230	1.00	ug/kg	1.0					
Toluene	U	0.00	0.220	1.00	ug/kg	1.0					
Xylenes (TOTAL)	U	0.00	0.620	2.00	ug/kg	1.0					
Naphthalene	U	0.00	0.420	1.00	ug/kg	1.0					

Surrogate Recovery	Test	Percent%	Acceptable Limits
Bromofluorobenzene	BTEX-8260	81.3	(53.5 - 154.)
Dibromofluoromethane	BTEX-8260	73.0	(63.4 - 136.)
Toluene-d8	BTEX-8260	74.5	(72.1 - 137.)
Bromofluorobenzene	NAP-8260	81.3	(53.5 - 154.)
Dibromofluoromethane	NAP-8260	73.0	(63.4 - 136.)
Toluene-d8	NAP-8260	74.5	(72.1 - 137.)

M = Method	Method-Description
M 1	EPA 8260

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(803) 556-8171 • Fax (803) 766-1178



\*9805784-01\*

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# GENERAL ENGINEERING LABORATORIES

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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: NPWC00197

Report Date: June 08, 1998

Page 2 of 2

Sample ID : SPORT0695-1

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.

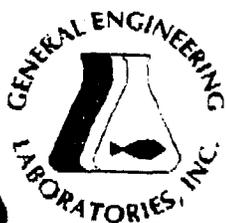
Karen Blakeney  
 Reviewed By

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# GENERAL ENGINEERING LABORATORIES

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### Laboratory Certifications

STATE	GEL	EPI
FL	E87156/87294	E87472/87458
NC	233	
SC	16120	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: NPWC00197

Report Date: June 08, 1998

Page 1 of 2

Sample ID : SPORT0695-2  
 Lab ID : 9805784-02  
 Matrix : SOIL  
 Date Collected : 05/26/98  
 Date Received : 05/28/98  
 Priority : Routine  
 Collector : Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
<b>Volatile Organics</b>											
<i>BTEX - 4 items</i>											
Benzene	U	0.00	0.250	1.00	ug/kg	1.0	TCL	06/05/98	1117	123258	1
Ethylbenzene	U	0.00	0.230	1.00	ug/kg	1.0					
Toluene	U	0.00	0.220	1.00	ug/kg	1.0					
Xylenes (TOTAL)	U	0.00	0.620	2.00	ug/kg	1.0					
Naphthalene	U	0.00	0.420	1.00	ug/kg	1.0					
<b>Extractable Organics</b>											
<i>Polynuclear Aromatic Hydrocarbons - 16 items</i>											
Acenaphthene	U	0.00	86.6	333	ug/kg	1.0	RLC	06/03/98	1010	123205	2
Acenaphthylene	U	0.00	93.2	333	ug/kg	1.0					
Anthracene	U	0.00	63.3	333	ug/kg	1.0					
Benzo(a)anthracene	U	0.00	59.9	333	ug/kg	1.0					
Benzo(a)pyrene	U	0.00	56.6	333	ug/kg	1.0					
Benzo(b)fluoranthene	U	0.00	103	333	ug/kg	1.0					
Benzo(ghi)perylene	U	0.00	59.9	333	ug/kg	1.0					
Benzo(k)fluoranthene	U	0.00	86.6	333	ug/kg	1.0					
Chrysene	U	0.00	46.6	333	ug/kg	1.0					
Dibenzo(a,h)anthracene	U	0.00	56.6	333	ug/kg	1.0					
Fluoranthene	U	0.00	79.9	333	ug/kg	1.0					
Fluorene	U	0.00	79.9	333	ug/kg	1.0					
Indeno(1,2,3-c,d)pyrene	U	0.00	140	333	ug/kg	1.0					
Naphthalene	U	0.00	76.6	333	ug/kg	1.0					
Phenanthrene	U	0.00	76.6	333	ug/kg	1.0					
Pyrene	U	0.00	63.3	333	ug/kg	1.0					

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

CPU 06/01/98 2050 123205 3

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\*9805784-02\*



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P. 004

TEL: 803-852-5812

GEN. ENGINEERING

JUN -08 98 (MON) 09:24



# GENERAL ENGINEERING LABORATORIES

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### Laboratory Certifications

STATE	QEL	EPI
FL	ES7156/R7294	ES7472/R745R
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: NPWC00197

Report Date: June 08, 1998

Page 2 of 2

Sample ID : SPORT0695-2

Surrogats Recovery	Test	Percent%	Acceptable Limits
2-Fluorobiphenyl	M610	73.5	(30.0 - 115.)
Nitrobenzene-d5	M610	72.5	(23.0 - 120.)
p-Terphenyl-d14	M610	80.2	(37.3 - 128.)
Bromofluorobenzene	BTEX-8260	91.8	(53.5 - 154.)
Dibromofluoromethane	BTEX-8260	81.4	(63.4 - 136.)
Toluene-d8	BTEX-8260	84.8	(72.1 - 137.)
Bromofluorobenzene	NAP-8260	91.8	(53.5 - 154.)
Dibromofluoromethane	NAP-8260	81.4	(63.4 - 136.)
Toluene-d8	NAP-8260	84.8	(72.1 - 137.)

**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.

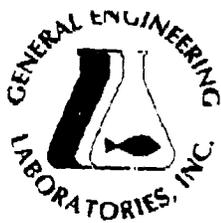
*Karen Blakeney*  
 Reviewed By

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\*9805784-02\*





# GENERAL ENGINEERING LABORATORIES

Meeting today's needs with a vision for tomorrow.

### Laboratory Certifications

STATE	GEL	EPI
FL	EB7156/87294	EB7472/87458
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: NPWC00197

Report Date: June 08, 1998

Page 1 of 2

Sample ID : SPORT0695-3  
 Lab ID : 9805784-03  
 Matrix : SOIL  
 Date Collected : 05/26/98  
 Date Received : 05/28/98  
 Priority : Routine  
 Collector : Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
<b>Volatile Organics</b>											
<i>BTEX - 4 items</i>											
Benzene	U	0.00	0.250	1.00	ug/kg	1.0	TCL	06/05/98	1149	123258	1
Ethylbenzene	U	0.00	0.230	1.00	ug/kg	1.0					
Toluene	U	0.00	0.220	1.00	ug/kg	1.0					
Xylenes (TOTAL)	U	0.00	0.620	2.00	ug/kg	1.0					
Naphthalene	U	0.00	0.420	1.00	ug/kg	1.0					
<b>Extractable Organics</b>											
<i>Polynuclear Aromatic Hydrocarbons - 16 items</i>											
Acenaphthene	U	0.00	86.6	333	ug/kg	1.0	RLC	06/03/98	1040	123205	2
Acenaphthylene	U	0.00	93.2	333	ug/kg	1.0					
Anthracene	U	0.00	63.3	333	ug/kg	1.0					
Benzo(a)anthracene	U	0.00	59.9	333	ug/kg	1.0					
Benzo(a)pyrene	U	0.00	56.6	333	ug/kg	1.0					
Benzo(b)fluoranthene	U	0.00	103	333	ug/kg	1.0					
Benzo(ghi)perylene	U	0.00	59.9	333	ug/kg	1.0					
Benzo(k)fluoranthene	U	0.00	86.6	333	ug/kg	1.0					
Chrysene	U	0.00	46.6	333	ug/kg	1.0					
Dibenzo(a,h)anthracene	U	0.00	56.6	333	ug/kg	1.0					
Fluoranthene	U	0.00	79.9	333	ug/kg	1.0					
Fluorene	U	0.00	79.9	333	ug/kg	1.0					
Indeno(1,2,3-c,d)pyrene	U	0.00	140	333	ug/kg	1.0					
Naphthalene	U	0.00	76.6	333	ug/kg	1.0					
Phenanthrene	U	0.00	76.6	333	ug/kg	1.0					
Pyrene	U	0.00	63.3	333	ug/kg	1.0					

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

CPU 06/01/98 2050 123205 3

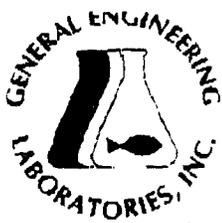
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\*9805784-03\*

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# GENERAL ENGINEERING LABORATORIES

Meeting today's needs with a vision for tomorrow.

### 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: NPWC00197

Report Date: June 08, 1998

Page 2 of 2

Sample ID : SPORT0695-3

Surrogate Recovery	Test	Percent %	Acceptable Limits
2-Fluorobiphenyl	M610	62.2	(30.0 - 115.)
Nitrobenzene-d5	M610	59.1	(23.0 - 120.)
p-Terphenyl-d14	M610	72.7	(37.3 - 128.)
Bromofluorobenzene	BTEX-8260	88.6	(53.5 - 154.)
Dibromofluoromethane	BTEX-8260	82.4	(63.4 - 136.)
Toluene-d8	BTEX-8260	86.8	(72.1 - 137.)
Bromofluorobenzene	NAP-8260	88.6	(53.5 - 154.)
Dibromofluoromethane	NAP-8260	82.4	(63.4 - 136.)
Toluene-d8	NAP-8260	86.8	(72.1 - 137.)

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:

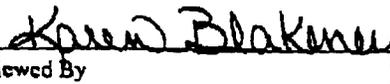
ND indicates that the analyte was not detected at a concentration greater than the detection limit.

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.

  
 Reviewed By

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# GENERAL ENGINEERING LABORATORIES

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### Laboratory Certifications

STATE	GEL	EP:
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: NPWC00197

Report Date: June 08, 1998

Page 1 of 2

Sample ID : SPORT0695-4  
 Lab ID : 9805784-04  
 Matrix : SOIL  
 Date Collected : 05/26/98  
 Date Received : 05/28/98  
 Priority : Routine  
 Collector : Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
<b>Volatile Organics</b>											
<i>BTEX - 4 items</i>											
Benzene	U	0.00	0.250	1.00	ug/kg	1.0	TCL	06/01/98	1705	123258	1
Ethylbenzene	U	0.00	0.230	1.00	ug/kg	1.0					
Toluene	U	0.00	0.220	1.00	ug/kg	1.0					
Xylenes (TOTAL)	U	0.00	0.620	2.00	ug/kg	1.0					
Naphthalene	U	0.00	0.420	1.00	ug/kg	1.0					
<b>Extractable Organics</b>											
<i>Polynuclear Aromatic Hydrocarbons - 16 items</i>											
Acenaphthene	U	0.00	86.6	333	ug/kg	1.0	RLC	06/03/98	1110	123205	2
Acenaphthylene	U	0.00	93.2	333	ug/kg	1.0					
Anthracene	U	0.00	63.3	333	ug/kg	1.0					
Benzo(a)anthracene	U	0.00	59.9	333	ug/kg	1.0					
Benzo(a)pyrene	U	0.00	56.6	333	ug/kg	1.0					
Benzo(b)fluoranthene	U	0.00	103	333	ug/kg	1.0					
Benzo(ghi)perylene	U	0.00	59.9	333	ug/kg	1.0					
Benzo(k)fluoranthene	U	0.00	86.6	333	ug/kg	1.0					
Chrysene	U	0.00	46.6	333	ug/kg	1.0					
Dibenzo(a,h)anthracene	U	0.00	56.6	333	ug/kg	1.0					
Fluoranthene	U	0.00	79.9	333	ug/kg	1.0					
Fluorene	U	0.00	79.9	333	ug/kg	1.0					
Indeno(1,2,3-c,d)pyrene	U	0.00	140	333	ug/kg	1.0					
Naphthalene	U	0.00	76.6	333	ug/kg	1.0					
Phenanthrene	U	0.00	76.6	333	ug/kg	1.0					
Pyrene	U	0.00	63.3	333	ug/kg	1.0					

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

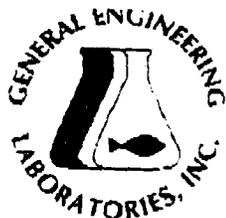
CPU 06/01/98 2050 123205 3

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# GENERAL ENGINEERING LABORATORIES

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### Laboratory Certifications

STATE	CEL	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: NPWC00197

Report Date: June 08, 1998

Page 2 of 2

Sample ID : SPORT0695-4

Surrogate Recovery	Test	Percent %	Acceptable Limits
2-Fluorobiphenyl	M610	57.7	(30.0 - 115.)
Nitrobenzene-d5	M610	54.2	(23.0 - 120.)
p-Terphenyl-d14	M610	85.8	(37.3 - 128.)
Bromofluorobenzene	BTEX-8260	78.4	(53.5 - 154.)
Dibromofluoromethane	BTEX-8260	75.2	(63.4 - 136.)
Toluene-d8	BTEX-8260	82.3	(72.1 - 137.)
Bromofluorobenzene	NAP-8260	78.4	(53.5 - 154.)
Dibromofluoromethane	NAP-8260	75.2	(63.4 - 136.)
Toluene-d8	NAP-8260	82.3	(72.1 - 137.)

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.

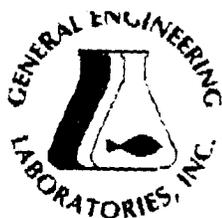
*Karen Blakeney*  
 Reviewed By

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# GENERAL ENGINEERING LABORATORIES

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Laboratory Certification

STATE	QGL	EPI
FL	E87156/87294	UR7472/87458
NC	223	
SC	10120	10582
IN	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: NPWC00197

Report Date: June 08, 1998

Page 1 of 3

Sample ID : SPORT0695-5  
 Lab ID : 9805784-05  
 Matrix : SOIL  
 Date Collected : 05/26/98  
 Date Received : 05/28/98  
 Priority : Routine  
 Collector : Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
<b>Volatile Organics</b>											
<i>BTEX - 4 items</i>											
Benzene	U	0.00	0.250	1.00	ug/kg	1.0	TCL	06/01/98	1739	123258	1
Ethylbenzene	U	0.00	0.230	1.00	ug/kg	1.0					
Toluene	U	0.00	0.220	1.00	ug/kg	1.0					
Xylenes (TOTAL)	U	0.00	0.620	2.00	ug/kg	1.0					
Naphthalene	U	0.00	0.420	1.00	ug/kg	1.0					
<b>Extractable Organics</b>											
<i>Polynuclear Aromatic Hydrocarbons - 16 items</i>											
Acenaphthene	U	0.00	346	1330	ug/kg	4.0	RLC	06/04/98	1154	123205	2
Acenaphthylene	U	0.00	373	1330	ug/kg	4.0					
Anthracene	U	0.00	253	1330	ug/kg	4.0					
Benzo(a)anthracene	U	0.00	240	1330	ug/kg	4.0					
Benzo(a)pyrene	U	0.00	226	1330	ug/kg	4.0					
Benzo(b)fluoranthene	U	0.00	413	1330	ug/kg	4.0					
Benzo(ghi)perylene	U	0.00	240	1330	ug/kg	4.0					
Benzo(k)fluoranthene	U	0.00	346	1330	ug/kg	4.0					
Chrysene	U	0.00	186	1330	ug/kg	4.0					
Dibenzo(a,h)anthracene	U	0.00	225	1330	ug/kg	4.0					
Fluoranthene	U	0.00	320	1330	ug/kg	4.0					
Fluorene	U	0.00	320	1330	ug/kg	4.0					
Indeno(1,2,3-c,d)pyrene	U	0.00	559	1330	ug/kg	4.0					
Naphthalene	U	0.00	306	1330	ug/kg	4.0					
Phenanthrene	U	0.00	306	1330	ug/kg	4.0					
Pyrene	U	0.00	253	1330	ug/kg	4.0					

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

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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: NPWCC00197

Report Date: June 08, 1998

Page 2 of 3

Sample ID : SPORT0695-5

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	58.9	(30.0 - 115.)
Nitrobenzene-d5	M610	52.8	(23.0 - 120.)
p-Terphenyl-d14	M610	101.	(37.3 - 128.)
Bromofluorobenzene	BTEX-8260	68.8	(53.5 - 154.)
Dibromofluoromethane	BTEX-8260	76.9	(63.4 - 136.)
Toluene-d8	BTEX-8260	86.0	(72.1 - 137.)
Bromofluorobenzene	NAP-8260	68.8	(53.5 - 154.)
Dibromofluoromethane	NAP-8260	76.9	(63.4 - 136.)
Toluene-d8	NAP-8260	86.0	(72.1 - 137.)

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).

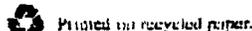
U indicates that the analyte was not detected at a concentration greater than the detection limit.

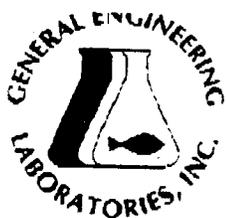
\* indicates that a quality control analyte recovery is outside of specified acceptance criteria.

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### Laboratory Certifications

STATE	GEL	EPI
FL	687156/87294	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: NPWC00197

Report Date: June 08, 1998

Page 3 of 3

Sample ID : SPORT0695-5

### 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.

*Karen Blakeney*  
 Reviewed By

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**Attachment III**

Certificate of Disposal (tank)

# UST Certificate of Disposal

## CONTRACTOR

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

Telephone (843) 743-6482

## TANK ID & LOCATION

UST Quarters AA; Quarters AA, 1345 Avenue "G", North 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, 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.

  
Sidney C. Ladson

106/10/98  
(Date)