

N61165.AR.005030  
CNC CHARLESTON  
5090.3a

ABOVEGROUND STORAGE TANK (AST) ASSESSMENT REPORT FOR BUILDING M-1123  
CNC CHARLESTON SC  
08/30/1999  
NAVFAC SOUTHERN

Aboveground Storage Tank (AST) Assessment Report

Date Received  
State Use Only

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

I. OWNERSHIP OF AST(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. #: M1123, Unregulated  
Facility Name: Charleston Naval Base Complex, M1123  
Street Address: Truxtun Avenue  
City: North Charleston, 29405-2413 County: Charleston

III. CLOSURE INFORMATION

Closure Started: 16 July 99 Closure Completed: 30 August 99  
Number of ASTs Closed: 1  
N/A Consultant SPORTENVDETCNASN  
AST 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)  
Signature *Henry N. Shepard II* 3/10/2000

**V. AST INFORMATION**

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

| Tank 1   | Tank 2 | Tank 3 | Tank 4 | Tank 5 |
|----------|--------|--------|--------|--------|
| Fuel Oil |        |        |        |        |
| 300 gal. |        |        |        |        |
| Unk.     |        |        |        |        |
| Steel    |        |        |        |        |
| Unk      |        |        |        |        |
| N        |        |        |        |        |
| N        |        |        |        |        |
| R        |        |        |        |        |
| Y        |        |        |        |        |
| N        |        |        |        |        |

- L. Method of disposal for any ASTs removed.

AST M1123 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 ASTs.

AST M1123 was dry. All waste water from cleaning was recycled.

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

Corrosion of the painted AST M1123 was limited to a few localized areas of surface rust where the paint had deteriorated. No pitting or holes were observed.

**VI. PIPING INFORMATION**

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

| Tank 1       | Tank 2 | Tank 3 | Tank 4 | Tank 5 |
|--------------|--------|--------|--------|--------|
| Copper       |        |        |        |        |
| See Para VII |        |        |        |        |
| Unk.         |        |        |        |        |
| S            |        |        |        |        |
| Y            |        |        |        |        |
| N            |        |        |        |        |
| N            |        |        |        |        |
| Unk.         |        |        |        |        |

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

No corrosion, pitting, or holes were observed.

**VII. BRIEF SITE DESCRIPTION AND HISTORY**

M1123 is a boiler house for building M-1150. Building M1123 was constructed in 1938. AST M1123 provided fuel oil for the boiler. The tank was found clean and dry. The copper supply and return piping had been previously disconnected and blanked at an unknown date.

**VIII. SITE CONDITIONS**

Yes No Unk

|   |  |   |  |
|---|--|---|--|
| A. Were any petroleum-stained or contaminated soils found near the AST?   |  | N |  |
| B. Were any petroleum odors detected?<br><br>If yes, indicate location on site map and describe the odor (strong, mild, etc.) |  | N |  |

**IX. SAMPLE INFORMATION**

A. SCDHEC Lab Certification Number 10120

B.

| Sample #            | Location                                 | Sample Type<br>(Soil/Water) | Soil Type<br>(Sand/Clay) | Depth* | Date/Time of<br>Collection | Collected<br>By | OVA#      |
|---------------------|--|-----------------------------|--------------------------|--------|----------------------------|-----------------|-----------|
| 99 SPORT<br>0261-02 | East end of tank under<br>the tank stand | Soil                        | Sand                     | 1'     | 30 August 99<br>0945       | Rusty Cope      | Not taken |
|                     |  |                             |                          |        |                            |                 |           |
|                     |  |                             |                          |        |                            |                 |           |
|                     |  |                             |                          |        |                            |                 |           |
|                     |  |                             |                          |        |                            |                 |           |
|                     |  |                             |                          |        |                            |                 |           |
|                     |  |                             |                          |        |                            |                 |           |
|                     |  |                             |                          |        |                            |                 |           |
|                     |  |                             |                          |        |                            |                 |           |
|                     |  |                             |                          |        |                            |                 |           |
|                     |  |                             |                          |        |                            |                 |           |

\* = Depth Below the Surrounding Land Surface

## **X. SAMPLING METHODOLOGY**

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

After the removal of AST M1123 a soil sample was 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. The soil sample was extracted at the tank end under the stand at one foot depth. The location of the soil sample was under the stand where the piping mechanical connections were made to the AST. Samples for volatiles were taken using the Encore sampler and T-handle.

The sample was 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 sample remained in the custody of SPORTENVDETCHASN until it was transferred to General Engineering Laboratories for analysis as documented in the attached Chain-of-Custody Record.

# XI. RECEPTORS

Yes      No

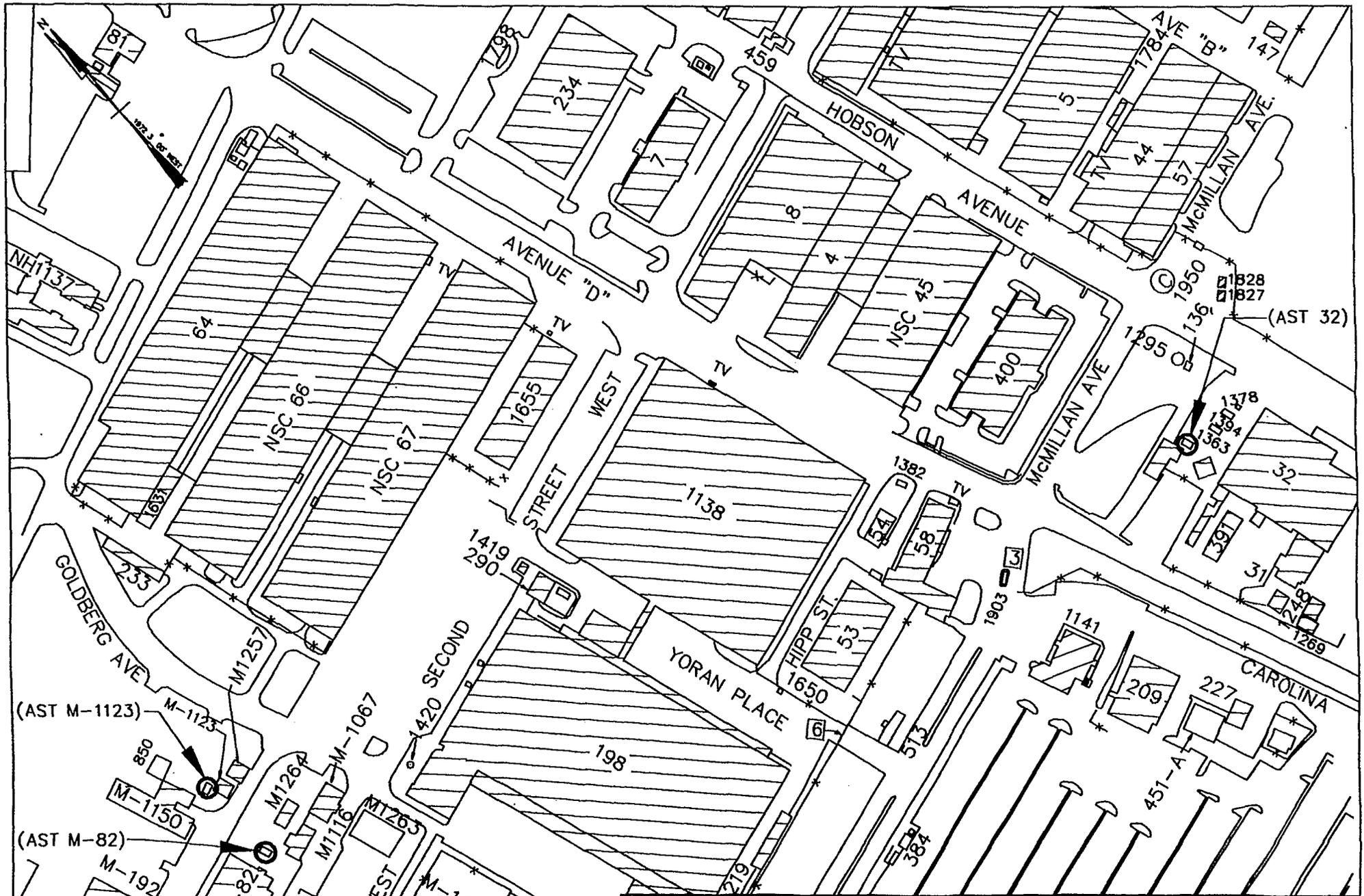
|  |   |    |   |
|--|---|----|---|
| A.   | Are there any lakes, ponds, streams, or wetlands located within 1000 feet of the AST system?  |    | X |
| If yes, indicate type of receptor, distance, and direction on site map.        |   |    |   |
| B.   | Are there any public, private, or irrigation water supply wells within 1000 feet of the AST system?   |    | X |
| If yes, indicate type of well, distance, and direction on site map.            |   |    |   |
| C.   | Are there any underground structures (e.g., basements) located within 100 feet of the AST system?   |    | X |
| If yes, indicate the type of structure, distance, and direction on site map.   |   |    |   |
| D.   | Are there any underground utilities (e.g., telephone, electricity, gas, water, sewer, storm drain) located within 100 feet of the AST system that could potentially come in contact with the contamination? | X* |   |
| If yes, indicate the type of utility, distance, and direction on the site map. |   |    |   |

\* Electrical Lines

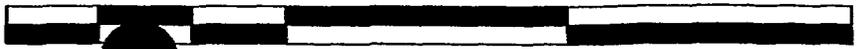
**SITE MAP**

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 A, B and C



300 0 300 600



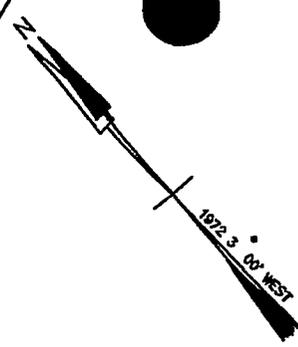
GRAPHIC SCALE

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

Site Map 1  
 AST SITE MAP  
 Charleston Naval Base  
 Charleston,

DWG DATE: 30 SEP 99

DWG NAME: SITE MAP 1



BLDG.  
M-1257

BLDG.  
M-1123

SECOND ST.

1-1/2" VENT W/TANK

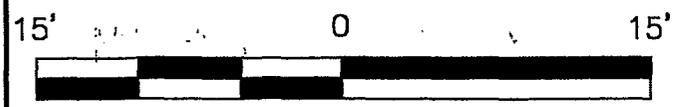
3/8" OD COPPER TUBE

SOIL SAMPLE  
99SPORT0261-02

FULL  
CONN.

AST M1123  
300 GAL.  
(5' x 5' x 27")  
LEGS ON CONCRETE  
SLAB

ELECTRICAL LINES



GRAPHIC SCALE

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

Site Map 1  
AST M1123  
Charleston Naval Base  
Charleston, SC

DWG DATE: 16 OCT 98

DWG NAME: B-M1123\_1

AST M1123



Photo A: Prior to removal



Photo B: AST removed

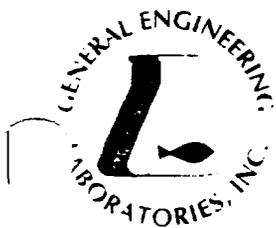


Photo C: AST M1123 cleaned and cutup

**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.*

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: September 02, 1999

Page 1 of 3

Sample ID : 99SPORT0261-02  
 Lab ID : 9908E33-02  
 Matrix : Soil  
 Date Collected : 08/30/99  
 Date Received : 08/30/99  
 Priority : Rush  
 Collector : Client

| Parameter   | Qualifier | Result | DL    | RL   | Units | DF  | Analyst | Date     | Time | Batch  | M |
|---|-----------|--------|-------|------|-------|-----|---------|----------|------|--------|---|
| <b>atile Organics</b>                               |           |        |       |      |       |     |         |          |      |        |   |
| <i>EX + NAPTH. - 5 items</i>                        |           |        |       |      |       |     |         |          |      |        |   |
| Benzene   | U         | ND     | 0.505 | 1.01 | ug/kg | 1.0 | TCL     | 08/31/99 | 1043 | 157375 | 1 |
| Ethylbenzene  | U         | ND     | 0.303 | 1.01 | ug/kg | 1.0 |         |          |      |        |   |
| Naphthalene   | U         | ND     | 0.606 | 1.01 | ug/kg | 1.0 |         |          |      |        |   |
| Toluene   |           | 1.65   | 0.909 | 1.01 | ug/kg | 1.0 |         |          |      |        |   |
| Xylenes (TOTAL)                                     | U         | ND     | 0.707 | 2.02 | ug/kg | 1.0 |         |          |      |        |   |
| <b>Extractable Organics</b>                         |           |        |       |      |       |     |         |          |      |        |   |
| <i>Polynuclear Aromatic Hydrocarbons - 16 items</i> |           |        |       |      |       |     |         |          |      |        |   |
| Acenaphthene  | U         | ND     | 66.6  | 333  | ug/kg | 10. | JPA     | 08/31/99 | 1412 | 157320 | 2 |
| Acenaphthylene                                      | U         | ND     | 66.6  | 333  | ug/kg | 10. |         |          |      |        |   |
| Anthracene  | U         | ND     | 66.6  | 333  | ug/kg | 10. |         |          |      |        |   |
| Benzo(a)anthracene                                  | U         | ND     | 66.6  | 333  | ug/kg | 10. |         |          |      |        |   |
| Benzo(a)pyrene                                      | U         | ND     | 66.6  | 333  | ug/kg | 10. |         |          |      |        |   |
| Benzo(b)fluoranthene                                | U         | ND     | 66.6  | 333  | ug/kg | 10. |         |          |      |        |   |
| Benzo(ghi)perylene                                  | U         | ND     | 66.6  | 333  | ug/kg | 10. |         |          |      |        |   |
| Benzo(k)fluoranthene                                | U         | ND     | 66.6  | 333  | ug/kg | 10. |         |          |      |        |   |
| Chrysene  | U         | ND     | 66.6  | 333  | ug/kg | 10. |         |          |      |        |   |
| Dibenzo(a,h)anthracene                              | U         | ND     | 266   | 333  | ug/kg | 10. |         |          |      |        |   |
| Fluoranthene  | U         | ND     | 66.6  | 333  | ug/kg | 10. |         |          |      |        |   |
| Fluorene  | U         | ND     | 66.6  | 333  | ug/kg | 10. |         |          |      |        |   |
| Indeno(1,2,3-c,d)pyrene                             | U         | ND     | 233   | 333  | ug/kg | 10. |         |          |      |        |   |
| Naphthalene   | U         | ND     | 66.6  | 333  | ug/kg | 10. |         |          |      |        |   |
| Phenanthrene  | U         | ND     | 66.6  | 333  | ug/kg | 10. |         |          |      |        |   |
| Pyrene  | U         | ND     | 66.6  | 333  | ug/kg | 10. |         |          |      |        |   |

The following prep procedures were performed:  
 Volatiles 8260 High Level

TCL 08/31/99 0840 157375 3

P O Box 30712 • Charleston, SC 29417 • 2040 Savage Road • 29407

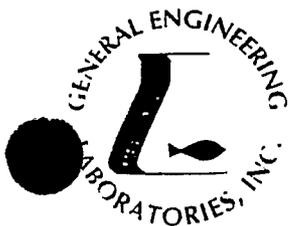
(843) 556-8171 • Fax (843) 766-1178



Printed on recycled paper.



\*9908E33-02\*



# GENERAL ENGINEERING LABORATORIES

Meeting today's needs with a vision for tomorrow.

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: September 02, 1999

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Sample ID : 99SPORT0261-02

| Parameter                    | Qualifier | Result | DL | RL | Units | DF | Analyst | Date     | Time | Batch  | M |
|------------------------------|-----------|--------|----|----|-------|----|---------|----------|------|--------|---|
| GC/MS Base/Neutral Compounds |           |        |    |    |       |    | HDB     | 08/31/99 | 0915 | 157320 | 3 |

#### Comments:

Surrogate recovery failed due to dilution(s).

| Surrogate Recovery   | Test           | Percent % | Acceptable Limits |
|----------------------|----------------|-----------|-------------------|
| 2-Fluorobiphenyl     | M610-NPWC      | 0.00*     | (44.7 - 110.)     |
| Nitrobenzene-d5      | M610-NPWC      | 0.00*     | (42.4 - 107.)     |
| p-Terphenyl-d14      | M610-NPWC      | 0.00*     | (45.5 - 104.)     |
| Bromofluorobenzene   | BTEX+NAP-8260B | 98.0      | (73.0 - 129.)     |
| Dibromofluoromethane | BTEX+NAP-8260B | 109.      | (66.0 - 117.)     |
| Toluene-d8           | BTEX+NAP-8260B | 115.      | (73.0 - 122.)     |

| M = Method | Method-Description |
|------------|--------------------|
| M 1        | SW846 8260B        |
| M 2        | EPA 8270           |
| M 3        | EPA 3550           |

#### Notes:

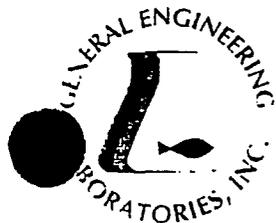
The qualifiers in this report are defined as follows:

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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Report Date: September 02, 1999

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Sample ID : 99SPORT0261-02

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**M = Method**

**Method-Description**

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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, Elise Hanson at 843-556-8171.

  
Reviewed By





**Attachment III**

Certificate of Disposal (tank)

# 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 (843) 743-6482

## TANK ID & LOCATION

M1123; Building M-1123, Truxtun Ave., Charleston Naval Complex, N. Charleston, SC

## DISPOSAL LOCATION

Bldg. 1601 Tank Cleaning  
& Disposal Area  
Charleston Naval Complex

### TYPE OF TANK

### SIZE (GAL)

Fuel oil

300

## 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.

Charles C. Wannamaker, II | 9/27/99  
Charles C. Wannamaker (Date)