

N50092.AR.000299  
JEB FORT STORY, VA  
5090.3a

INITIAL ABATEMENT MEASURES AND SITE CHECK REPORT BUILDING 1081 FORT  
STORY VA  
9/28/1992  
ENVIRONMENTAL RESTORATION COMPANY

**INITIAL ABATEMENT MEASURES AND SITE CHECK REPORT**

**On:**

**DEPARTMENT OF THE ARMY  
FORT STORY, BUILDING 412-1081  
VIRGINIA BEACH, VIRGINIA 23462**

**Prepared For:**

**Mr. William Barnes  
Environmental and Natural Resources Division  
Building 1413  
Fort Eustis, Virginia 23604-5332**

**Prepared By:**

**ENVIRONMENTAL RESTORATION COMPANY  
9700 Ashley Dawn Court  
Fredericksburg, Virginia 22408-9472  
(703 898-5616)**

**Job Number:**

**ERC #519CT**

# INITIAL ABATEMENT MEASURES REPORT CHECKLIST

Site: Fort Story, Bldg. 412 <sup>1081</sup> PC# \_\_\_\_\_ Region Tidewater

The following checklist must be filled out by the Responsible Party and/or his Consultant and included in the Initial Abatement Report. Indicate on the checklist the page and section number where each item is addressed in the attached report. Also indicate on the checklist the section and page number where justification is given for items omitted from the attached report. The contents of the report should reflect and be commensurate with the nature of the release, degree of contamination and complexity of the site investigation.

## 1. RELEASE INVESTIGATION AND CONFIRMATION STEPS

Page /Section

- 1 / A Evidence for suspecting a release has occurred
- 1 / B Monitoring results from release detection used
- 1 / C Results of tank/line tightness test
- 1 / D Actions taken to repair, replace, upgrade UST

## 2. SITE CHECK

- 1 / E Measures taken to identify the source of release
- 1 / F Depth to ground water
- 1 / G Description and justification of sampling
  - 1 / G types (ground water, soil)
  - 1 / G locations (include site map)
  - 1 / G parameters, EPA methods, units, and detection limits

## 3. INITIAL ABATEMENT MEASURES

- 2 / H Release inspection results and measures taken to prevent further migration of contaminants into soils and groundwater
- 2 / I Regulated substance removed from UST system
- 2 / J Efforts to mitigate fire and safety hazards
- 2 / K Efforts to measure for the presence of free product
- 2 / K Efforts to remove free product
- 2 / L Measures taken, as part of Initial Abatement, to address contaminated ground water and soils, tank water and sludges, and debris (i.e. tanks, piping, concrete) Include permits

\_\_\_\_\_/\_\_\_\_ Initial Abatement Measures Report submitted within 20 days of release confirmation or extension granted

FOR OFFICE USE ONLY

COMMENTS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

DEFICIENCIES: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

REVIEWED BY: \_\_\_\_\_ DATE: \_\_\_\_\_

**UST Initial Abatement Measures Report for**  
**the United State Department of the Army/Fort Story**  
**Fort Story, Building 412** 1081

This document is intended to provide information required for an Initial Abatement Measures Report as outlined in the SWCB checklist. Information for this report was provided by Environmental Restoration Company personnel.

On September 28, 1992, Environmental Restoration Company removed one 10,000 gallon UST that contained waste oil from Fort Story, Building 412. Three samples were collected by ERC personnel from the excavation. The analytical results from this sampling event are included as Appendix 1.

Due to the high levels of contamination, ERC was directed by the client to excavate an additional three feet from the sides as well as the bottom. This material was then stockpiled on site and sampled (See Appendix 1).

A site diagram showing the location of the UST is Figure 1. The Notification for Underground Storage Tank Form (7530) is Appendix 2.

The SWCB Initial Abatement Measures Report Checklist is Attachment 3 and is keyed to the responses below.

- a) "Evidence for suspicion a release has occurred." The analytical results from the tank excavation indicate concentrations of Total Petroleum Hydrocarbons (TPH) ranged from 12174 mg/kg to 62823 mg/kg. The action limit set by the state is 100 mg/kg. No inventory records were kept.
- b) "Monitoring results from release detection used." Not applicable, no leak detection devices were used.
- c) "Results of Tank/line testing." Not applicable, no tightness testing was performed.
- d) "Actions taken to repair, replace, upgrade UST." The action taken was to remove the UST.
- e) "Measures taken to identify the source of the release." Sampling and analysis of the soils collected beneath the UST was performed to help identify the source of the release.

- f) "Depth to Groundwater." The upper unconfined aquifer was not intersected during the excavation process removal.
- g) "Description and Justification of Sampling (types, location and parameters)." See above introductory paragraph and Appendix 1.
- h) "Release inspection results and measures taken to prevent further migration of contaminants into soils and ground water." The release inspection resulted in the olfactory observation of petroleum odors. Measures taken to prevent further migration of the contaminants included the removal of the UST.
- i) "Regulated substances removed from UST system." The regulated substances from the UST was pumped out of the UST and placed in 55 gallon drums and staged on site.
- j) "Efforts to mitigate fire and safety hazards." The most severe hazard identified was the open excavation. The excavation was secured by backfilling with sand.
- k) "Efforts to measure for the presence of free product and removal of free product." Free product was not encountered during the removal of the UST's, therefore removal and measurements were not performed.
- l) "Measures taken, as part of initial abatement, to address contaminated ground water and soils, tank water, and sludges and debris." There was not ground water removed from the excavation. The contaminated soil was placed back in the excavation and used as backfill. The contents of the tank were transported to a state approved treatment facility. The UST and related piping were transported to a metal recycling facility for destruction.

**APPENDIX 1**

**ANALYTICAL RESULTS**

# EnviroCompliance Laboratories, Inc.

Consulting Chemists & Laboratory Services

## Certificate of Analysis

1 MAPLE LEAF COURT, SUITE G  
ASHLAND, VIRGINIA 23005  
(804) 550-3971

Project No. : COC#03016  
Project Name : Fort Story  
Submitted by : Joseph Mastin  
Date Received: September 30, 1992  
Date Issued : October 1, 1992

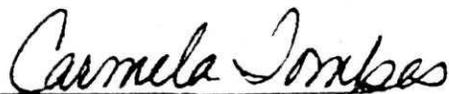
Reference Method: EPA method 418.1

Four soil samples were analyzed for TPH.

<u>Sample I.D.</u>	<u>TPH</u> <u>mg/kg</u>
#1	62823
#2	49451
#3	36353
#4	12173

Detection Limit 25.0

BDL = Below Detection Limit



Carmela Tombes  
Laboratory Manager

92092406

# EnviroCompliance Laboratories, Inc.

## Consulting Chemists & Laboratory Services

1 MAPLE LEAF COURT, SUITE G  
ASHLAND, VIRGINIA 23005  
(804) 550-3971

### Certificate of Analysis

Project No. : COC#03064 5100  
Project Name : Fort Story  
Submitted by : Brett Vaness  
Date Received: October 6, 1992  
Date Issued : October 13, 1992

Reference Method: SW-846 8020.

One sample labeled #1 liquids from Drums and UST was analyzed for BTEX.

Analyte	#1 ug/kg	DL ug/kg
Benzene	178500	2.0
Toluene	1054000	5.0
Ethyl Benzene	548800	5.0
Xylenes (Total)	2138000	10.0

Reference Method: SW-846

Two samples labeled #1 liquids from Drums and UST and #2 Sludges from Drums and UST were analyzed for Extractable Organic Halides.

Analyte	#1 mg/kg	#2 mg/kg	DL mg/kg
EOX	249	8787	10.0

Reference Method: SW-846 Method 8080.

One sample labeled #2 Sludges from Drums and UST was analyzed for PCB's.

Analyte	#2 mg/kg	DL mg/kg
PCB's	BDL	1.0

BDL = Below Detection Limit

*Carmela Tombes*

Carmela Tombes  
Laboratory Manager

92102445

# EnviroCompliance Laboratories, Inc.

## Consulting Chemists & Laboratory Services

### Certificate of Analysis

1 MAPLE LEAF COURT, SUITE G

ASHLAND, VIRGINIA 23005

(804) 550-3971

Project No. : COC#03064  
Project Name : Fort Story  
Submitted by : Brett Vaness  
Date Received: October 6, 1992  
Date Issued : October 13, 1992

Reference Method: SW-846.

One soil sample labeled #2 Sludges UST/Drums was analyzed for the following TCLP Metals by TCLP Extraction Method 1311.

<u>Analyte</u>	#2 mg/l	DL mg/l
Arsenic	BDL	0.01
Selenium	BDL	0.005
Mercury	BDL	0.0002
Barium	BDL	0.5
Cadmium	BDL	0.5
Chromium	BDL	0.5
Silver	BDL	0.05
Lead	BDL	0.5

Reference Method: SW-846 Method 1010.

One sample labeled #1 liquids from UST/Drums was analyzed for the Ignitability.

Analyte #1  
Ignitability >60°C

BDL = Below Detection Limit

*Carmela Tombes*

Carmela Tombes  
Laboratory Manager

92102445

**APPENDIX 2**

**EPA FORM 7530 (REVISED)**

# Notification for Underground Storage Tanks

FORM APPROVED  
 CASE NO. 1000-0000  
 APPROVAL CODES 6-10-88

VIRGINIA WATER CONTROL BOARD - UST PROGRAM  
 2111 NORTH HAMILTON STREET  
 RICHMOND, VIRGINIA 23230

IO Number

STATE USE ONLY

Date Received

## GENERAL INFORMATION

Notification is required by Federal law for all underground tanks that have been used to store regulated substances since January 1, 1974, that are in the ground as of May 8, 1986, or that are brought into use after May 8, 1986. The information requested is required by Section 9002 of the Resource Conservation and Recovery Act (RCRA), as amended.

The primary purpose of this notification program is to locate and evaluate underground tanks that store or have stored petroleum or hazardous substances. It is expected that the information you provide will be based on reasonably available records, or, in the absence of such records, your knowledge, belief, or recollection.

**Who Must Notify?** Section 9002 of RCRA, as amended, requires that, unless exempted, owners of underground tanks that store regulated substances must notify designated State or local agencies of the existence of their tanks. Owner means—  
 (1) in the case of an underground storage tank in use on November 8, 1984, or brought into use after that date, any person who owns an underground storage tank used for the storage, use, or dispensing of regulated substances; and  
 (2) in the case of any underground storage tank in use before November 8, 1984, but no longer in use on that date, any person who owned such tank immediately before the discontinuation of its use.

**What Tanks Are Included?** Underground storage tank is defined as any one or combination of tanks that (1) is used to contain an accumulation of "regulated substances," and (2) whose volume (including connected underground piping) is 10% or more beneath the ground. Some examples are underground tanks storing: 1. gasoline, used oil, or diesel fuel; and 2. industrial solvents, pesticides, herbicides or fumigants.

**What Tanks Are Excluded?** Tanks removed from the ground are not subject to notification. Other tanks excluded from notification are:  
 1. farm or residential tanks of 1,100 gallons or less capacity used for storing motor fuel for noncommercial purposes;  
 2. tanks 5,000 gallons or less capacity used for storing heating oil for consumptive use on the premises where stored;

3. septic tanks;
4. pipeline facilities (including gathering lines) regulated under the Natural Gas Pipeline Safety Act of 1968, or the Hazardous Liquid Pipeline Safety Act of 1979, which is an intrastate pipeline facility regulated under State laws;
5. surface impoundments, pits, ponds, or lagoons;
6. storm water or waste water collection systems;
7. flow-through process tanks;
8. liquid traps or associated gathering lines directly related to oil or gas production and gathering operations;
9. storage tanks situated in an underground area (such as a basement, cellar, mineworking, drift, shaft, or tunnel) if the storage tank is situated upon or above the surface of the floor.

**What Substances Are Covered?** The notification requirements apply to underground storage tanks that contain regulated substances. This includes any substance defined as hazardous in section 301 (34) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), with the exception of those substances regulated as hazardous waste under Subtitle C of RCRA. It also includes petroleum, e.g., crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute).

**Where To Notify?** Completed notification forms should be sent to the address given at the top of this page.

**When To Notify?** 1. Owners of underground storage tanks in use or that have been taken out of operation after January 1, 1974, but still in the ground, must notify by May 8, 1986. 2. Owners who bring underground storage tanks into use after May 8, 1986, must notify within 30 days of bringing the tanks into use.

**Penalties:** Any owner who knowingly fails to notify or submits false information shall be subject to a civil penalty not to exceed \$10,000 for each tank for which notification is not given or for which false information is submitted.

## INSTRUCTIONS

Please type or print in ink all items except "signature" in Section V. This form must be completed for each location containing underground storage tanks. If more than 5 tanks are owned at this location, photocopy the reverse side, and staple continuation sheets to this form.

Indicate number of continuation sheets attached

### I. OWNERSHIP OF TANK(S)

Owner Name (Corporation, Individual, Public Agency, or Other Entity)

U.S. Federal Government

Street Address

Environmental & Water Resources Division

County

Building 1413

City

Fort Eustis

State

VA

ZIP Code

23604-5332

Area Code

(804)

Phone Number

878-3805

Type of Owner (Mark all that apply )

Current

State or Local Gov't

Private or Corporate

Former

Federal Gov't (GSA facility I.D. no. \_\_\_\_\_)

Ownership uncertain

### II. LOCATION OF TANK(S)

(If same as Section I, mark box here )

Facility Name or Company Site Identifier, as applicable

Fort Story

Street Address or State Road, as applicable

Lig Gulf Rel. Bldg. 1081

County

Va Beach

City (nearest)

Va Beach

State

VA

ZIP Code

Indicate number of tanks at this location

1

Mark box here if tank(s) are located on land within an Indian reservation or on other Indian trust lands

### III. CONTACT PERSON AT TANK LOCATION

Name (If same as Section I, mark box here )

William Barnes

Job Title

Environmental Specialist

Area Code

(804)

Phone Number

878-4123

### IV. TYPE OF NOTIFICATION

Mark box here only if this is an amended or subsequent notification for this location

### V. CERTIFICATION (Read and sign after completing Section VI.)

I certify under penalty of law 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 immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete.

Name and official title of owner or owner's authorized representative

William Barnes

Signature

William Barnes

Date Signed

9/28/93

CONTINUE ON REVERSE SIDE

**VI. DESCRIPTION OF UNDERGROUND STORAGE TANKS (Complete one row for each tank at this location)**

Tank Identification No. (e.g., ABC-123), or Arbitrarily Assigned Sequential Number (e.g., 1,2,3...)	Tank No. 1	Tank No.	Tank No.	Tank No.	Tank No.
<b>1. Status of Tank</b> (Mark all that apply <input type="checkbox"/> ) Currently in Use <input type="checkbox"/> Temporarily Out of Use <input type="checkbox"/> Permanently Out of Use <input checked="" type="checkbox"/> Brought into Use after 5/8/86 <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2. Estimated Age (Years)</b>	20 yrs.				
<b>3. Estimated Total Capacity (Gallons)</b>	8,000 gal.				
<b>4. Material of Construction</b> (Mark one <input type="checkbox"/> ) Steel <input checked="" type="checkbox"/> Concrete <input type="checkbox"/> Fiberglass Reinforced Plastic <input type="checkbox"/> Unknown <input type="checkbox"/> Other, Please Specify _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5. Internal Protection</b> (Mark all that apply <input type="checkbox"/> ) Cathodic Protection <input type="checkbox"/> Interior Lining (e.g., epoxy resins) <input type="checkbox"/> None <input checked="" type="checkbox"/> Unknown <input type="checkbox"/> Other, Please Specify _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>6. External Protection</b> (Mark all that apply <input type="checkbox"/> ) Cathodic Protection <input type="checkbox"/> Painted (e.g., asphaltic) <input checked="" type="checkbox"/> Fiberglass Reinforced Plastic Coated <input type="checkbox"/> None <input type="checkbox"/> Unknown <input type="checkbox"/> Other, Please Specify _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>7. Piping</b> (Mark all that apply <input type="checkbox"/> ) Bare Steel <input type="checkbox"/> Galvanized Steel <input type="checkbox"/> Fiberglass Reinforced Plastic <input type="checkbox"/> Cathodically Protected <input type="checkbox"/> Unknown <input type="checkbox"/> Other, Please Specify None	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>8. Substance Currently or Last Stored in Greatest Quantity by Volume</b> (Mark all that apply <input type="checkbox"/> ) a. Empty <input type="checkbox"/> b. Petroleum <input type="checkbox"/> Diesel <input type="checkbox"/> Kerosene <input type="checkbox"/> Gasoline (including alcohol blends) <input type="checkbox"/> Used Oil <input type="checkbox"/> Other, Please Specify _____ c. Hazardous Substance <input type="checkbox"/> Please Indicate Name of Principal CERCLA Substance _____ OR Chemical Abstract Service (CAS) No. _____ Mark box <input checked="" type="checkbox"/> if tank stores a mixture of substances d. Unknown <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>9. Additional Information (for tanks permanently taken out of service)</b> a. Estimated date last used (mo/yr) b. Estimated quantity of substance remaining (gal.) c. Mark box <input type="checkbox"/> if tank was filled with inert material (e.g., sand, concrete)	9/92 0 <input type="checkbox"/>	/	/	/	/

**FIGURE 1**

**SITE DIAGRAM**

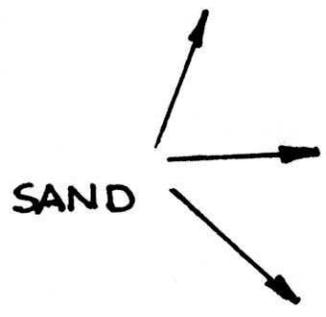
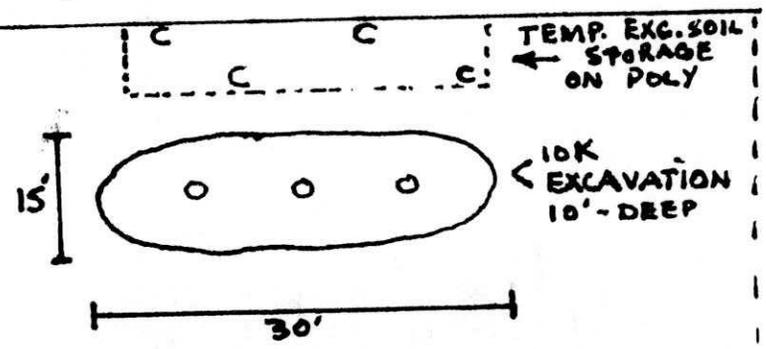
10-K U.S.T. REMOVAL - FT. STORY - VA. BEACH. VA.  
HEAVY MACHINERY MOTOR POOL

N  
(APPROX)



ASPHALT ROAD

EQUIP.  
PARKING  
AREA.  
(ASPHALT)



C = COMPOSITE SAMPLE LOCATION  
O = GRAB SAMPLE LOCATION 2" BELOW TANK BASE