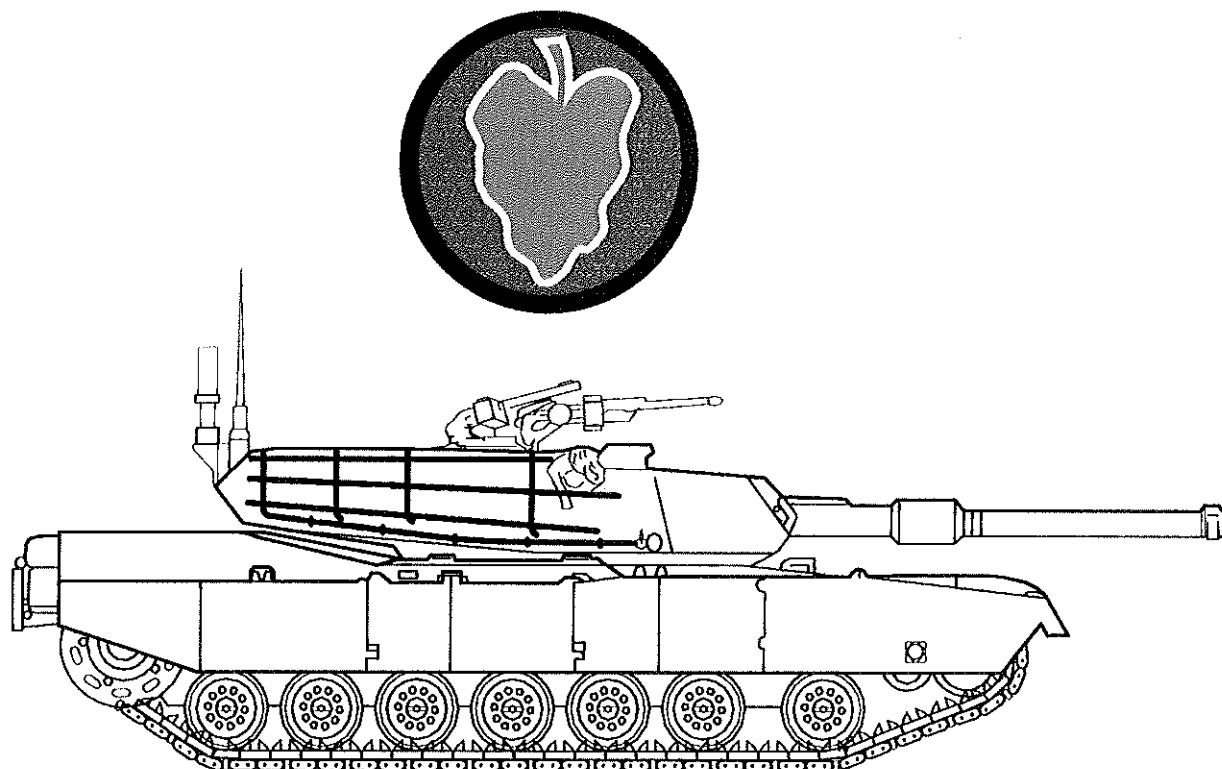


**Corrected Final  
Phase I RCRA Facility Investigation Report  
For 24 Solid Waste Management Units  
At Fort Stewart, Georgia**

**Volume I of III**



**May 1996**

**Job No. 87528.000**

Prepared For



**US Army Corps  
of Engineers**  
Savannah District

Prepared By

**RUST** ENVIRONMENT &  
INFRASTRUCTURE

**DOCUMENT 4**

**CORRECTED FINAL**

**PHASE I  
RCRA FACILITY INVESTIGATION REPORT  
FOR 24 SOLID WASTE MANAGEMENT UNITS  
AT FORT STEWART, GEORGIA  
VOLUME I OF III**

**Prepared For**

**UNITED STATES ARMY CORPS OF ENGINEERS  
SAVANNAH DISTRICT**

**Contract DACA21-93-D-0029  
Delivery Order 0005  
Rust Project No. 87528.000  
May 1996**

**Prepared By  
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2694 Lake Park Drive  
Charleston, South Carolina 29406  
803/572-5600**

## 1.0 INTRODUCTION

This Corrected Final Phase I Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI) Report for 24 Solid Waste Management Units (SWMUs) provides the results of implementation of the Phase I RFI Work Plan performed at Fort Stewart, Georgia. This Corrected Final Phase I RFI Report has been prepared by RUST Environment and Infrastructure, Inc. (RUST E&I) for the United States Army Corps of Engineers (USACE), Savannah District, Contract No. DACA21-93-D-0029, Delivery No. 0005.

The information provided in this report is based upon data provided by the USACE and Geraghty and Miller, Inc. Environmental Services (G&M). The field activities were completed in accordance with the Corrected Final Phase I RFI Work Plan (April, 1993) prepared by G&M. The Corrected Final Phase I RFI Report has been prepared in accordance with the USACE Scope of Work dated August 17, 1993 and is presented in the same format as the Corrected Final Phase I RFI Work Plan.

Twenty-four (24) SWMUs are discussed in this report. Two (2) SWMUs not included in this report are SWMU8 EOD Area (FST-008) and SWMU13 Fire Training Pit (FST-013) which are being addressed under other contracts.

The G&M field activities included the installation of 30 new ground-water monitoring wells at various SWMUs throughout the installation. During well drilling, G&M collected soil samples for analysis. The USACE completed all other sampling (ground-water, soil, sediment, surface soil, surface water, wastewater and sludge).

The soil samples for the G&M field investigations were analyzed by Savannah Laboratories in Savannah, Georgia and the Quality Assurance (QA) soil samples were analyzed by the USACE South Atlantic Division (SAD) Laboratory in Marietta, Georgia. The soil samples for the USACE field investigations were analyzed by James H. Carr and Associates, Inc.

(Carr Laboratory) in Columbia, South Carolina and International Technology Corporation Analytical Services (IT Laboratory) in Knoxville, Tennessee. The USACE QA samples were also submitted to the SAD Laboratory. All raw data from the laboratories has been included in Volume III, Appendix U of this Corrected Final Phase I RFI Report.

A Quality Control Summary Report (QCSR) and Analytical Package was prepared by G&M for the work completed by G&M in one (1) 3-ring notebook (1994). A QCSR was also prepared by USACE for the work completed by USACE in three (3) 3-ring notebooks (Volumes I, II and III)(1994).

With the exception of the following changes, the sampling program adhered to the approved Corrected Final Phase I RFI Work Plan (1993).

- Two (2) up-gradient surface water samples were collected at SWMU1, instead of the proposed one (1) up-stream and one (1) down-stream samples. The proposed down-gradient surface water sample was mistakenly taken in an up-gradient location.
- Due to drought, one (1) surface soil sample was collected at the Tac-X Landfill SWMU3 in lieu of surface water and leachate samples.
- Based on the field records, soil samples were not collected below six feet below land surface or to the water table in the location chosen for soil boring MW4 at Burn Pit SWMU4B because of sustained OVA readings above the health and safety action levels. This soil boring was abandoned and the monitoring well SWMU4B, MW4(b) was later installed by the USACE.
- Four (4) extra surface soil samples were taken at EOD Area SWMU12.
- One (1) extra surface water sample and one (1) extra QA surface water sample were collected at the Industrial Wastewater Treatment Plant SWMU18.
- No sludge sample was available at the Radiator Shop SWMU24A.
- Five (5) extra ground-water samples and five (5) extra soil samples were collected at the Waste Oil Tanks SWMU25.

- Two (2) extra soil samples and two (2) surface soil samples were collected at the 724th Tanker Purgung Station SWMU26.
- Field duplicated soil samples were mistakenly collected and submitted by G&M for laboratory analysis by pH and specific conductance at SWMU2, SWMU4A through 4F, and SWMU14.
- The analytical methods used to analyze the ground-water samples were inadvertently switched by the laboratory from SW-846 Method 8080 to Method 608. During all future sampling and analyses, it will be ensured that only SW-846 methods will be utilized.
- The detection limits for vinyl chloride and toxaphene were inadvertently higher than their MCLs, SMCLs, and/or action levels. During all future sample analyses, it will be ensured that the detection limits for all parameters are less than, or equal to, their MCLs, SMCLs, and/or action levels.

## **5.16 724th Tanker Purging Station SWMU26 (FST-026)**

### **5.16.1 Site Description**

The 724th Tanker Purging Station SWMU26(FST-026) is located in the western cantonment area, at the western end of the fuel truck parking area of the McFarland Avenue 1800 block (Figure 5-152). The purging station facility is located between the chain-link fence at the parking area (western end) and a shallow ditch approximately 25 feet to the west. The purging station includes an underground waste oil tank and oil/water separator, an above ground storage tank which receives water after oil/water phase separation, and underground/surface accessible pump and pumping controls for pumping water into the above ground storage tank. A PVC pipe for directing water overflow extends from the concrete manhole containing the water pump and pump controls to the nearby ditch. The purging station facility includes an area approximately 25 feet by 25 feet.

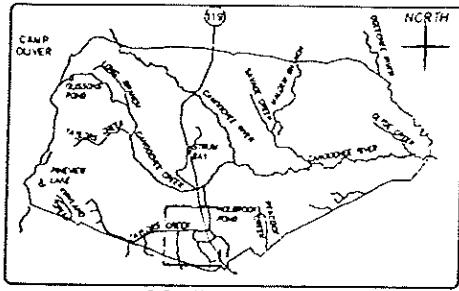
A soil boring location map is provided in Figure 5-153. Photographs from a site reconnaissance (November 8, 1993) are shown in Figure 5-154. A temporary monitoring well was located on-site. USACE workers on-site stated an approximate hydrocarbon thickness of 2.5 feet was present in the temporary monitoring well. Black-stained soils and vegetation are present near the ditch. A yellow to orange floating layer (apparent oil/water emulsion layer) was observed within both the ditch and the pump controls manhole. A petroleum hydrocarbon odor was noted. The odor appeared to be originate on-site.

### **5.16.2 Work Completed**

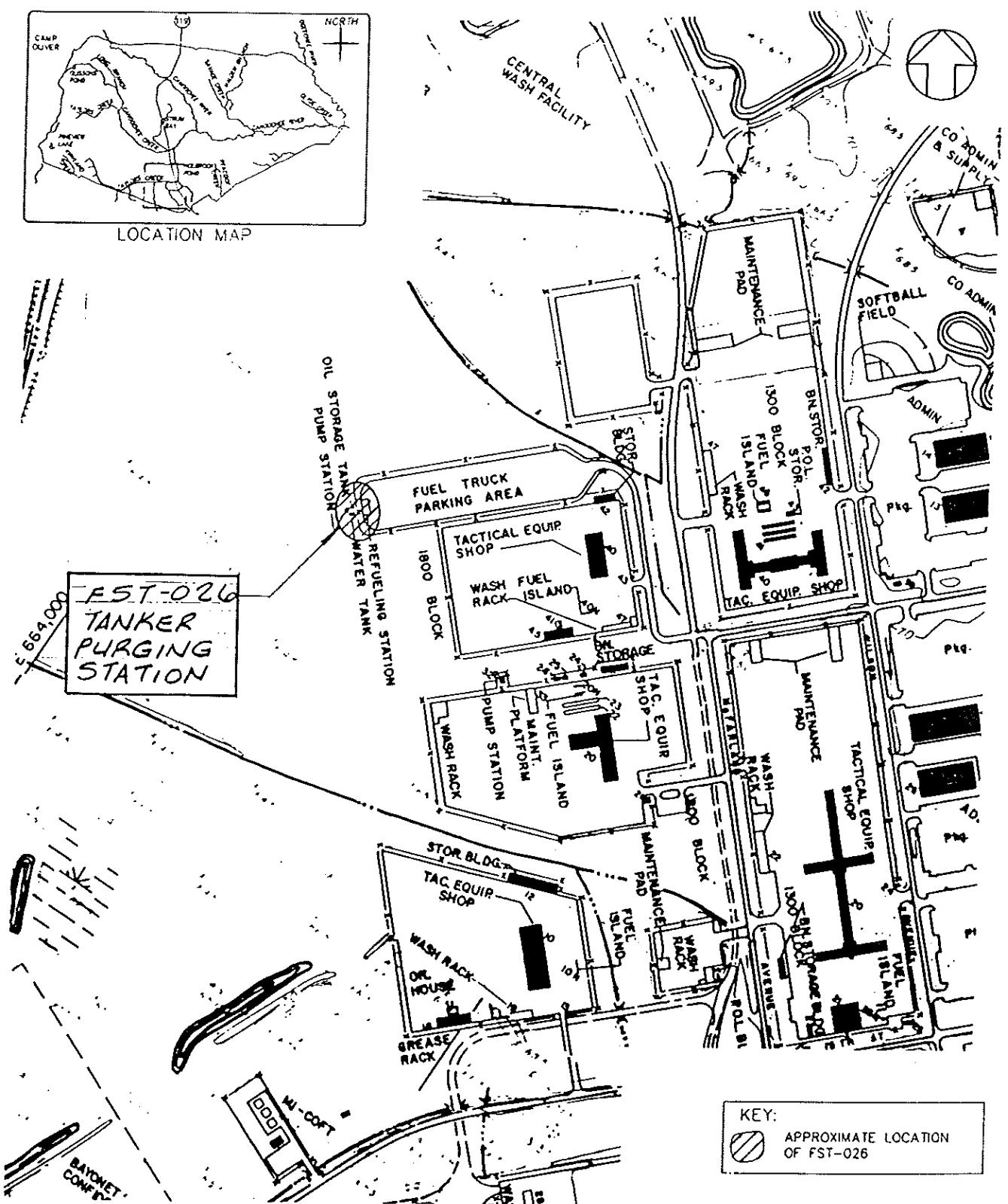
The 724th Tanker Purging Station (SWMU26) was also investigated as part of SWMU25 Waste Oil Tanks. Eight (8) soil samples were collected at the SWMU26 site. Analytical results for VOCs, full TCLP constituents, TPH (light fuel and heavy fuel), and pH are summarized in Section 5.16.5. UST tightness-testing was performed as part of SWMU25.

### **5.16.3 Site Characterization**

The 724th Tanker Purging Station (SWMU26) soil boring location map is provided in Figure



## LOCATION MAP



SOURCE:  
GERAGHTY & MILLER, INC., 1993

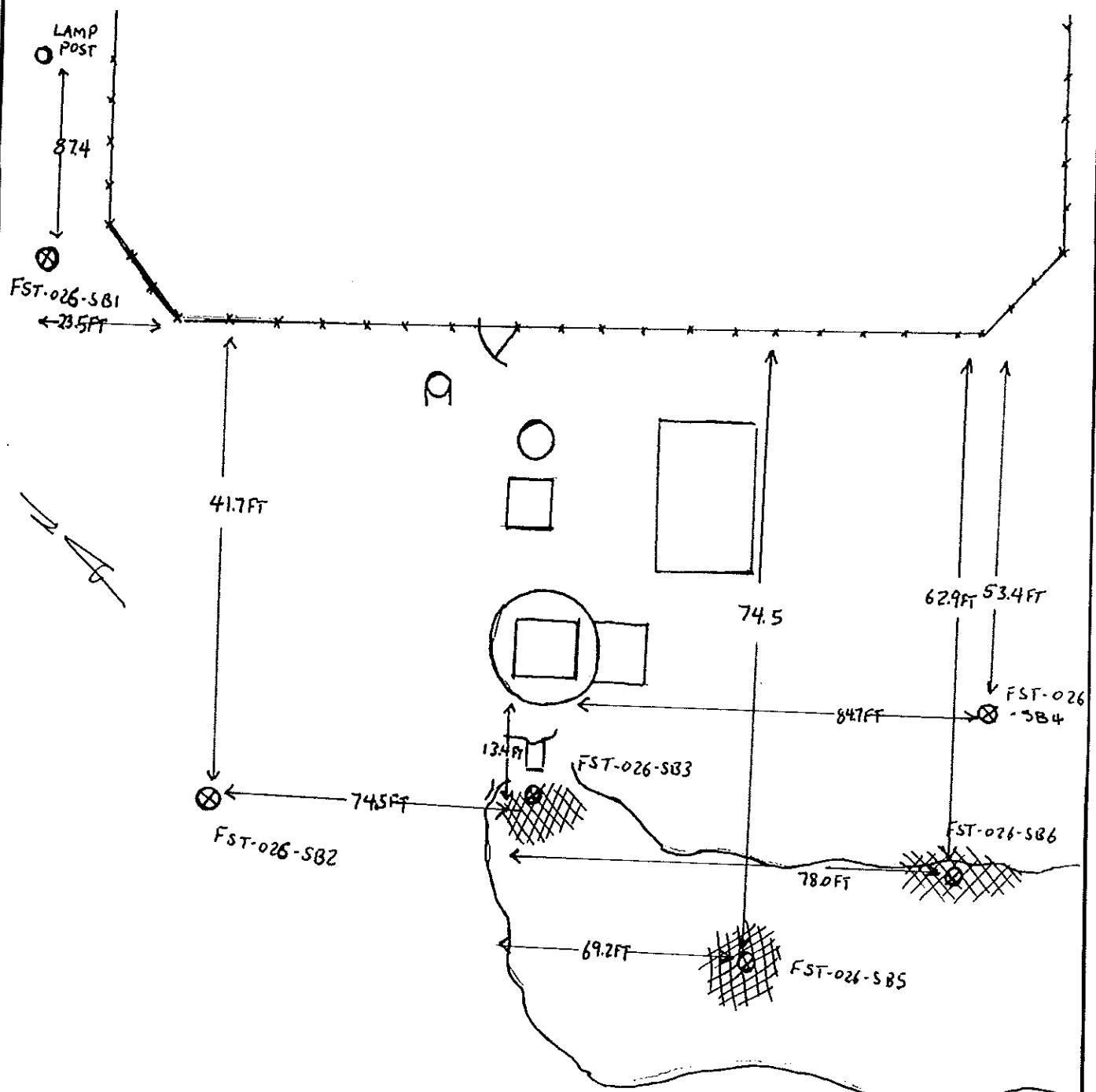
**FIGURE 5-152**

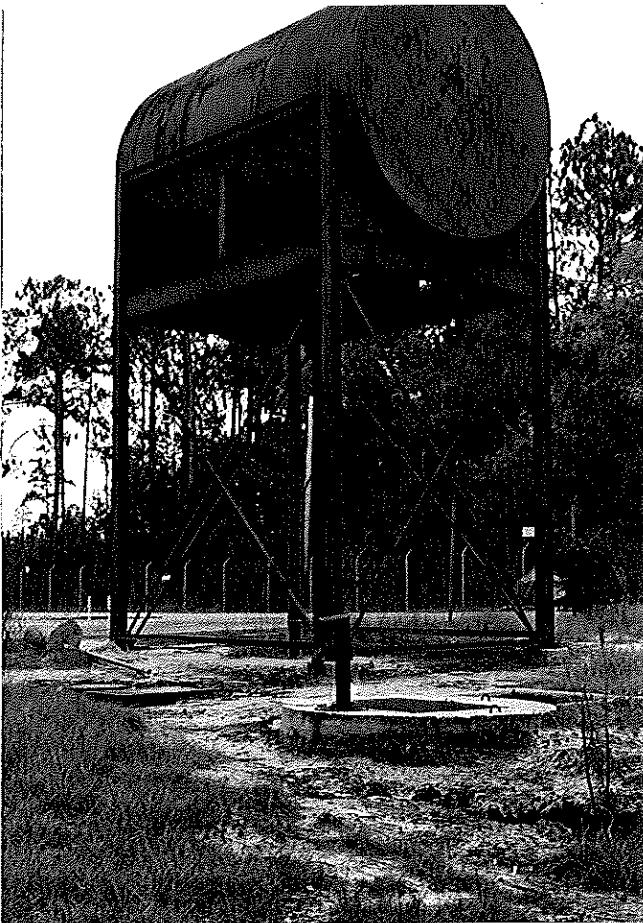
**LOCATION MAP  
SWMU-26 (FST-026)**

**TANKER PURGING STATION, FORT STEWART, GEORGIA**  
**PROJECT NO. 87528.000**

# RUST ENVIRONMENT & INFRASTRUCTURE

# 724TH TANKER PURGING STATION





AST IN CENTER,  
OIL WATER SEPARATOR  
IN LEFT FOREGROUND,  
OVERFLOW & PUMP  
IN CENTER FOREGROUND



PHOTO SOUTHWESTWARD, FLOATING LAYER ON WATER IN DITCH

**RUST** ENVIRONMENT &  
INFRASTRUCTURE

**FIGURE 5-154**

PHOTOGRAPHS  
SWMU-26 (FST-026)

TANKER PURGING STATION, FORT STEWART, GEORGIA  
PROJECT NO. 87528.000

5-153. The soil boring logs are provided in Appendix P1. Soils reported underlying the site are predominantly sands and sandy clays. Maximum soil boring FID/PID measurements are reported at 16/39.9 (SB-1), 14/26.5 (SB-2), +1000/801 (SB-3), 23/18.2 (SB-4), 780/446 (SB-5), and +1000/28.8 (SB-6). Fuel odors are reported from soil borings SB-3, SB-4, SB-5 and SB-6. Contaminant distributions are discussed in Section 5.16.5.

A tank tightness test was completed as part of SWMU25, Waste Oil Tanks. The tank is identified as tank 004A at facility number 1840 and according to the Tracer Research Corporation report (1994), tank 004A failed the tightness test.

#### **5.16.4 Waste Characterization**

Material characterization for the 724th Tanker Purging Station SWMU26(FST-026) includes waste liquids from purging of tanker trailers. These waste liquids contained assorted petroleum hydrocarbons such as JP-4, No. 2 fuel oil, and mogas (G&M, 1993).

#### **5.16.5 Analytical Results**

The following section presents a brief summary of the results of the laboratory analyses of the soil samples collected at the 724th Tanker Purging Station. Soil samples were collected from six (6) boring locations and are shown in Figure 5-153. In addition, two (2) surface soil samples were collected at SB5 (5A-0.0 to 0.5 feet) and SB6 (6A-0.0 to 0.5 feet). The soil samples were collected by the USACE on September 16, 1993 and November 9, 1993 and analyzed for VOCs, full TCLP, TPH and pH.

##### **5.16.5.1 Action Levels and Clean-Up Standards**

Table 5-45 summarizes the analytical results for the soil samples collected at the 724th Tanker Purging Station. The table highlights (in bold) the parameters detected above the TC regulatory levels and GAEVD guidelines or site-specific background concentrations (for unregulated parameters) in each soil sample. The complete analytical results are included in the USACE QCSR (February, 1994) and Appendix U of this report.

**TABLE 5-45**  
**SUMMARY OF SOIL ANALYTICAL RESULTS**  
**SWMU26(FST-026) - 724TH TANKER PURGING STATION**  
**SEPTEMBER 16 AND NOVEMBER 9, 1993**

| ID                  | Volatile Organic Compounds (mg/kg)   | TCLP (ppm) | TPH (mg/kg)                                       | pH      |
|---------------------|--|------------|---|---------|
| SB1<br>(Background) | BDL  | BDL        | BDL   | 5.82    |
| SB2                 | BDL  | BDL        | BDL   | 5.50    |
| SB3/SB3 DUP         | Benzene = 0.125/0.0375<br>1,1,2,2-Tetrachloroethane = 0.313/0.092<br>Toluene = 0.205/0.079<br>Ethylbenzene = 0.415/0.207<br>Xylene = 1.213/0.643 | BDL/BDL    | Light Fuel = 13.2/BDL<br>Heavy Fuel = 140.0/0.140 | 6.33/ND |
| SB4                 | BDL  | BDL        | BDL   | 5.71    |
| SB5A                | Methylene Chloride = 0.120<br>Toluene = 0.0352<br>Ethylbenzene = 0.141<br>Acetone = 0.144<br>Xylene = 0.170                                      | BDL        | Heavy Fuel = 25600                                | 4.87    |
| SB5B                | Toluene = 0.390<br>Ethylbenzene = 2.040<br>Acetone = 0.189<br>Xylene = 1.910   | BDL        | Light Fuel = 201<br>Heavy Fuel = 4120             | 5.58    |
| SB6A                | BDL  | BDL        | Heavy Fuel = 38.9                                 | 5.57    |
| SB6B                | BDL  | BDL        | Heavy Fuel = 23.4                                 | 5.89    |
| GAEPD<br>GUIDELINES | Total BTEX = 20  | NA         | 100   | NA      |

NOTES:

Dup = Duplicate  
ND = No Data  
BDL = Below Detection Level  
TPH = Total Petroleum Hydrocarbons

### **5.16.5.2 Soil**

#### **Volatile Organic Compounds**

BTEX concentrations were reported in soil samples SB3, SB5A and SB5B, but were below the GAEPD guideline for total BTEX of 20 mg/kg. VOC contaminants in soil samples are shown in Figure 5-155. As summarized in Table 5-45, 1,1,2,2-Tetrachloroethene, methylene chloride, and/or acetone were detected above site-specific background (SB1) in soil samples SB3, SB5A, and SB5B. Although detected above background, methylene chloride and acetone are common laboratory artifacts.

#### **TCLP**

TCLP parameters concentrations were not reported above the detection limit in soil samples at the site.

#### **Total Petroleum Hydrocarbons**

A light fuel TPH concentration was reported in soil sample SB5B, which was in excess of the GAEPD guideline of 100 mg/kg. Heavy fuel TPH was reported in soil samples SB3, SB5A, and SB5B which were also in excess of the GAEPD guideline of 100 mg/kg. TPH contaminants in soil samples are shown in Figure 5-155A.

#### **pH**

The pH of the soil ranged from 4.87 to 6.33.

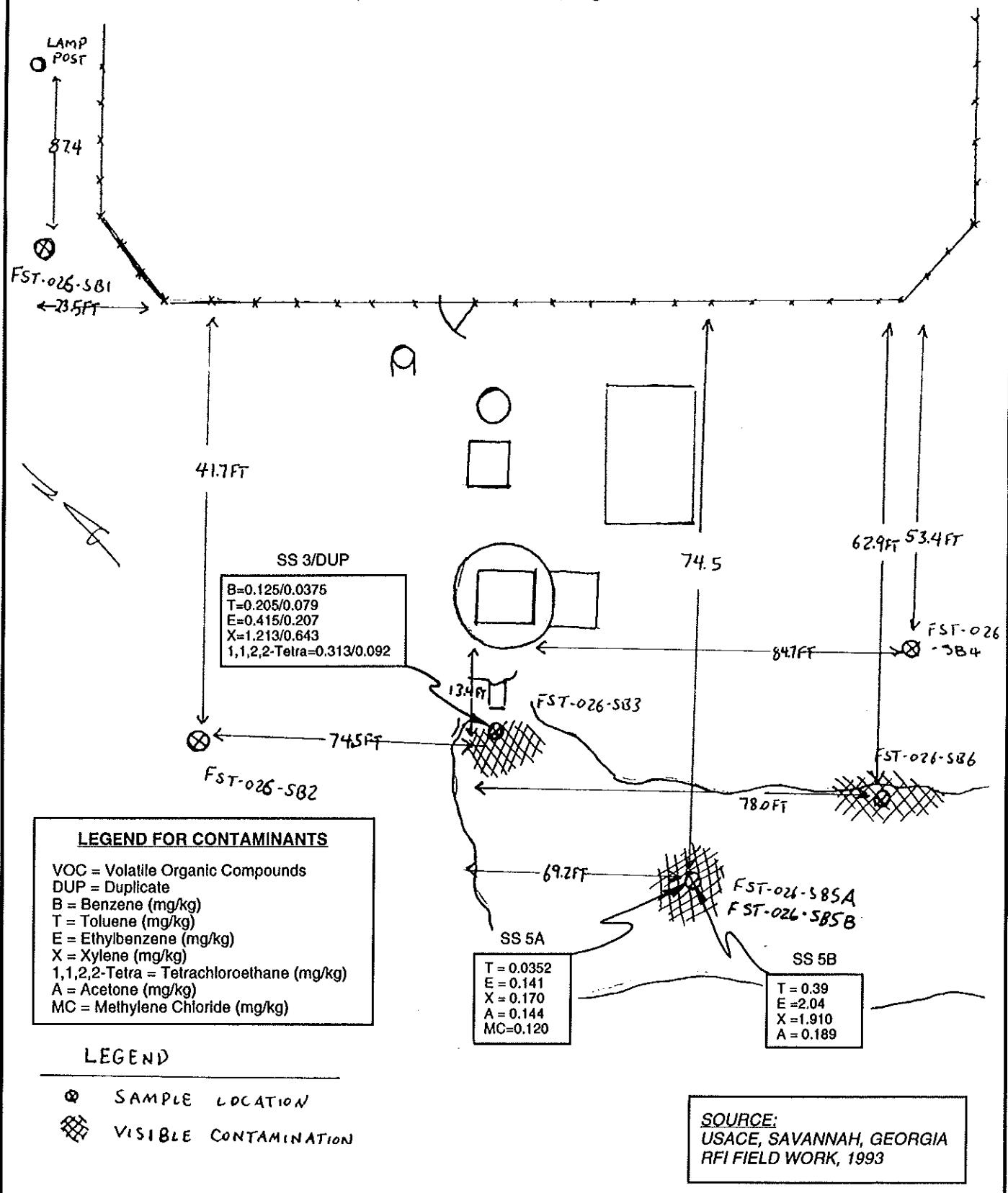
### **5.16.5.3 Data Evaluation**

The USACE QCSR (February, 1994) states that both the data quality objectives and completeness criteria were met in SWMU26, and that the data met the project objectives.

### **5.16.6 Evidence of Release from the Site**

The analytical results indicate that TPH concentrations of heavy fuels were reported in soil samples SB3, SB5A, and SB5B and light fuels were reported in soil sample SB5B, all of which were in excess of the GAEPD guideline of 100 mg/kg for TPH at the 724th Tanker

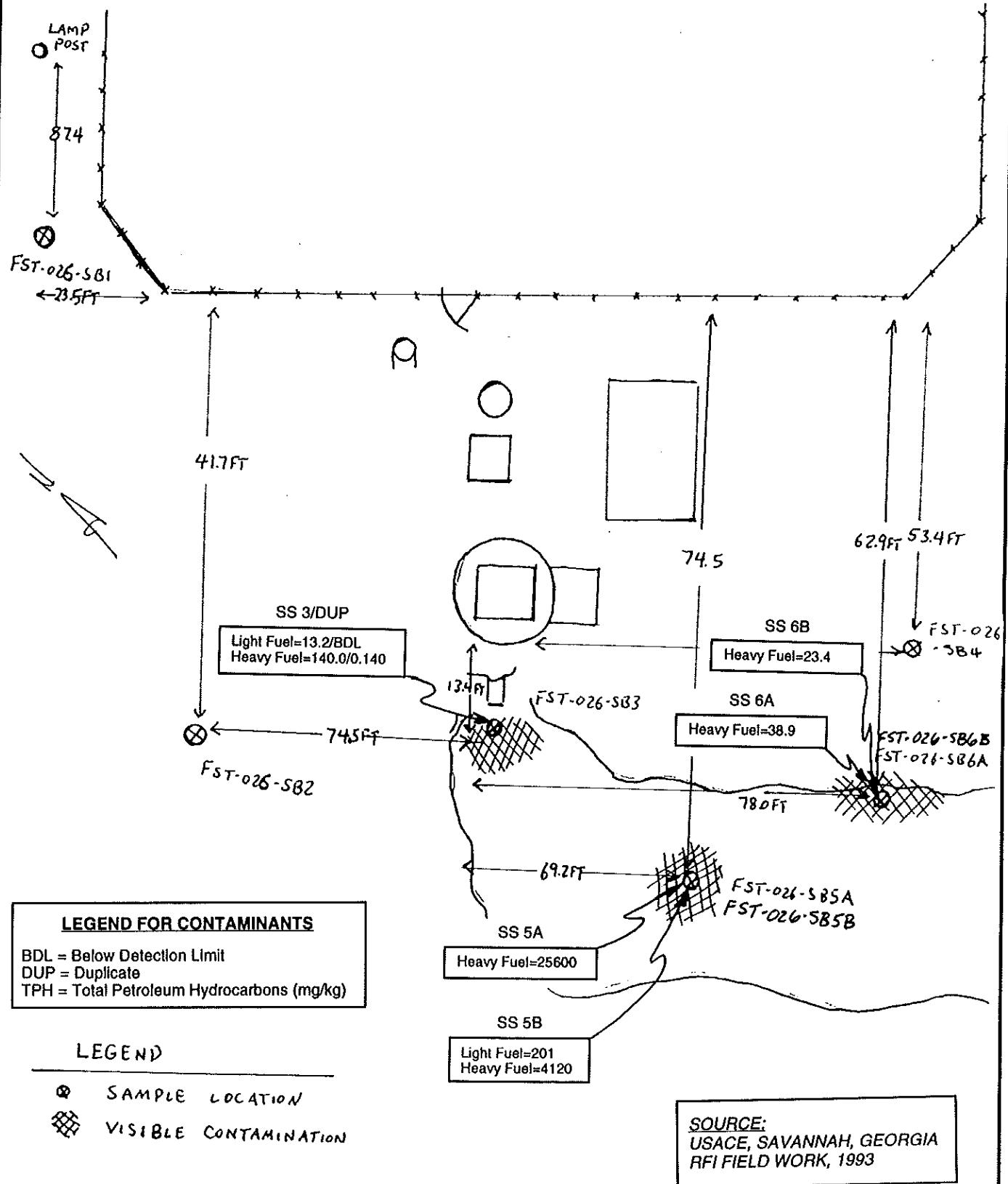
724TH TANKER PURGING STATION



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**FIGURE 5-155**  
VOC CONTAMINANT DISTRIBUTION  
IN SOILS  
SWMU-26 (FST-026)  
TANKER PURGING STATION, FORT STEWART, GEORGIA  
PROJECT NO. 87528.000

724TH TANKER PURGING STATION



**RUST** ENVIRONMENT & INFRASTRUCTURE

**FIGURE 5-155A**  
TPH CONTAMINANT DISTRIBUTION  
IN SOILS  
SWMU-26 (FST-026)  
TANKER PURGING STATION, FORT STEWART, GEORGIA  
PROJECT NO. 87528.000

Purging Station SWMU26. These results indicate that a release may have occurred at the site. Also, 1,1,2,2-tetrachloroethene, methylene chloride, and acetone were detected above site-specific background concentrations and therefore, may be indicative of a release at the site.

### **5.16.7 Health and Environmental Assessment**

The objective of the Health and Environmental Assessment (HEA) is to provide information necessary to evaluate the need for appropriate interim corrective measures or for a Corrective Measures Study (CMS). The following sections describe transport pathways and potential exposure routes for the receiving media of concern, human health and environmental toxicity criteria, and the preliminary risk evaluation for constituents and media of potential concern. Following the identification of exposure routes, constituent concentrations detected in each medium were compared to exposure-limit criteria developed for selected exposure pathways. Human and ecological exposure criteria were developed using procedures described in Chapter 8 of the *Interim Final RCRA Facility Investigation (RFI) Guidance - Development of an RFI Work Plan and General Considerations for RCRA Facility Investigations* (USEPA, 1989a).

#### **5.17.7.1 Human Health Assessment**

##### **Transport Mechanisms and Exposure Pathways**

Following release from a source, contaminants may migrate in environmental media by any of several transport mechanisms, including:

- Resuspension and airborne dispersal of contaminated soil particulates,
- Volatilization of organics from soil, surface water, or ground-water,
- Uptake of contaminants by biota,
- Stormwater runoff to surface water and sediments,
- Infiltration/percolation of soil contaminants to ground-water, and
- Discharge of ground-water to surface water and sediments.

For the purposes of this assessment, all potentially contaminated media were considered, however, only those media considered to present the most significant exposure potential were quantitatively evaluated. At SWMU26, soil samples were collected from areas of probable contamination.

A complete exposure pathway includes a contaminant source, a transport mechanism, an exposure point where contact by a receptor with the contaminated medium may occur, and a route of intake of the contaminated medium at the exposure point. Potential human exposure pathways at SWMU26 include ingestion of and dermal contact with soil, ground-water, surface water, and sediment; inhalation of vapor and contaminated soil particulates. All pathways considered to be complete were addressed and those that represented the greatest potential for risk were quantitatively evaluated. The potential exposure pathway that was quantitatively evaluated for human receptors was ingestion of soil.

#### Toxicity Criteria

The primary element of the human health assessment is the set of criteria (risk-based constituent concentrations) used to evaluate constituent concentrations associated with SWMU26. Human health criteria were based on EPA-established chronic exposure limits.

The health-based criteria for carcinogens, calculated from the Risk-Specific Doses (RSDs), were developed in accordance with EPA RCRA Facility Investigation (RFI) Guidance (USEPA, 1989a). The RSD is an upper bound estimate of the average daily dose of a carcinogen corresponding to an excess concern risk for lifetime exposure of  $10^{-6}$  for Class A and B carcinogens, or  $10^{-5}$  for Class C carcinogens. The criteria, presented in Appendix T, were calculated from RSDs as follows:

$$C_i = (R/SF) \times (W/I) \quad (\text{Equation 1})$$

where:

$C_i$  = criterion concentration for the constituent of concern,

- R = risk level ( $10^{-6}$  for Class A and B,  $10^{-5}$  for Class C carcinogens),
- SF = carcinogenic slope factor (mg/kg-day) $^{-1}$ ,
- (R/SF) = the RSD,
- W = assumed weight of the exposed individual (receptor), and
- I = intake amount for a given time period.

The most current slope factors (SFs) were obtained from EPA's Integrated Risk Information System (IRIS) database (USEPA, 1994). When SFs were not available in IRIS, they were selected from the Health Effects Assessment Summary Tables (HEAST) (USEPA, 1993). If SFs could not be obtained from HEAST, provisional values supplied by the Superfund Health Risk Technical Support Center of the EPA Environmental Criteria and Assessment Office (SHRTSC-ECAO) were used.

The human health-based criteria for noncarcinogens, calculated from the Reference Dose (RfD), are estimates of the daily exposure that an individual (including sensitive individuals) can experience without appreciable risk of adverse health effects during a lifetime exposure. The criteria, shown in Appendix T, were calculated using the following equation:

$$C_i = (RfD) \times (W/I) \quad (\text{Equation 2})$$

where:

- $C_i$  = criterion concentration for the constituent of concern,
- RfD = reference dose in mg/kg-day,

W = assumed weight of the exposed individual (receptor), and

I = intake amount for a given time period.

The most current RfDs were obtained, in order of priority, from EPA's IRIS, HEAST, or SHRTSC-ECAO. The values used for the assumed weight (W) and intake rate (I) were the same as those used in calculating the carcinogen criteria, with the exception of soil ingestion. For soil ingestion, the assumed intake rate of 0.2 g/day was based on a 5-year exposure period for a 16-kg child.

For a given constituent of potential concern associated with systemic health effects, the noncarcinogen criteria for soil (ingestion) were used unless lower carcinogen criteria existed.

#### Preliminary Risk Evaluation

Following the calculation of exposure-limit criteria ("action levels"), comparisons were made between the action levels and the constituent concentrations present at the SWMU. Maximum detected concentrations were used for the comparison. Concentrations that exceeded human health exposure action levels are shown in Table 5-45A.

Soil samples collected at SWMU26 were analyzed for volatile organic compounds (VOCs) and total petroleum hydrocarbons (TPH). Seven VOCs and two TPHs (heavy fuel and light fuel) were detected. Only TPH-heavy fuel exceeded the human health criterion value.

The exposure pathway used to develop the criteria for soil was ingestion, which was considered to represent the greatest potential for human health risk. Other potential pathways for the constituents detected in soil are dermal absorption, inhalation of airborne vapor and soil particulates, and ingestion of biota that have taken up those constituents from the soil. Constituents in soil at SWMU26 may also be transported by stormwater runoff to surface water and by infiltration/percolation to ground-water, with subsequent discharge to

**TABLE 5-45A**  
**COMPARISON OF INDIVIDUAL CONSTITUENT CONCENTRATIONS**  
**WITH HUMAN HEALTH CRITERIA**  
**SWMU26(FST-026) - TANKER PURGING STATION**

| Exposure Medium   | Constituent Released      | Release Concentration | Criterion Type Used | Criterion Value | Release Concentrations Exceed Criterion? |
|-------------------|---------------------------|-----------------------|---------------------|-----------------|--|
| <b>SOIL</b> mg/kg | Acetone                   | 1.89E-01              | NC                  | 8.00E+03        | No                                       |
|                   | Benzene                   | 1.25E-01              | C                   | 2.41E+01        | No                                       |
|                   | Ethylbenzene              | 2.04E+00              | NC                  | 8.00E+03        | No                                       |
|                   | Methylene chloride        | 1.20E-01              | C                   | 9.33E+01        | No                                       |
|                   | 1,1,2,2-Tetrachloroethane | 3.13E-01              | C                   | 3.50E+01        | No                                       |
|                   | Toluene                   | 3.90E-01              | NC                  | 1.60E+04        | No                                       |
|                   | Xylene                    | 1.91E+00              | NC                  | 7.00E+01        | No                                       |
|                   | TPH - Heavy Fuel          | 2.56E+04              | NC                  | 4.80E+03 a      | Yes                                      |
|                   | TPH - Light Fuel          | 2.01E+02              | NC                  | 4.80E+03 a      | No                                       |

\* Release concentration represents the maximum detected concentration for each constituent.

a Criterion value used is the value for the constituent n-hexane.

C - Carcinogen

NC - Noncarcinogen

surface water. Potentially complete exposure pathways include ingestion of and dermal contact with the ground-water, surface water, and sediment.

#### **5.17.7.2 Environmental Assessment**

##### **Transport Mechanisms and Exposure Pathways**

Potential transport mechanisms and complete exposure pathways for ecological receptors are the same as those described in Section 5.16.7.1 for human receptors, except for direct exposure to ground-water. All potentially complete exposure pathways were considered. Those that represented the greatest potential for risk were quantitatively evaluated unless the human health assessment had already indicated that further SWMU assessment for that pathway would be required.

##### **Preliminary Risk Evaluation**

The human health assessment showed that no further evaluation was indicated for the soil exposure pathway. Therefore, this pathway also was quantitatively evaluated for potential ecological risk based on ingestion of soil by terrestrial organisms.

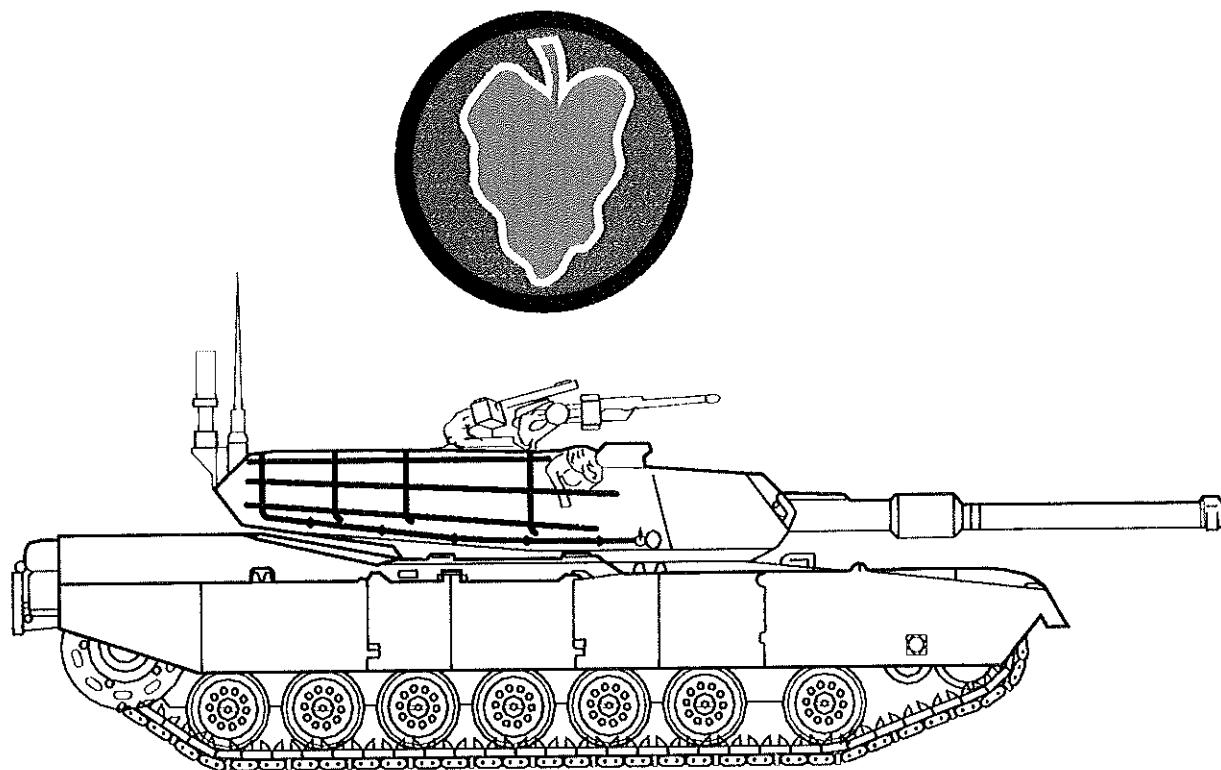
Contaminants in soil at SWMU26 were found to be of concern based on comparison to human toxicity criteria, therefore, these media were considered likely to be concern for ecological receptors as well, and ecological toxicity was not evaluated separately. The available human toxicity criteria are generally better substantiated, more consistent, and more reliable than the toxicity data available for ecological receptors, resulting in less uncertainty associated with the validity of conclusions based on human toxicity. Also, ecological receptors may be more susceptible than humans to the toxic effects of contaminants due to greater sensitivity or extent of exposure. Therefore, where human health was found to be of concern, potential ecological effects should be quantitatively evaluated as part of additional risk evaluation at the unit, to include uptake from soil by biota and contact with surface water and sediment of nearby Mill Creek.

#### **5.16.8 Potential for Phase II Investigation**

As stated in Section 5.16.6, the analytical results indicate that a release may have occurred at SWMU26. Based on these results, a Phase II Investigation is recommended. The Phase II investigation would include installation of three (3) or four (4) monitoring wells, collecting soil samples during drilling, collecting ground-water samples and collecting surface water samples in the ditch. The soil, ground-water and surface water samples would be analyzed for VOCs, RCRA metals, TPH, pH and specific conductance. It is also recommended that an HEA of the site be completed.

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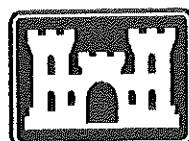
**Volume II of III**



**May 1996**

**Job No. 87528.000**

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**Appendix P**

**SWMU26(FST-026) 724th Tanker Purging Station**

**Appendix P1**  
**Soil Boring Logs**

| DRILLING LOG   |               | DIVISION<br>SOUTH ATLANTIC |  | INSTALLATION<br>FORT STEWART, GA.                     |          | SHEET 1<br>OF 1 SHEETS    |  |
|--|---------------|----------------------------|--|---|----------|---------------------------|--|
| 1. PROJECT<br>PHASE 1 RCRA FACILITY INVESTIGATION  |               |                            |  | 10. SIZE AND TYPE OF BIT<br>4" AUGER                  |          |                           |  |
| 2. LOCATION (Coordinates or Station) SWMU-026<br>74TH TANKER PURGING STATION   |               |                            |  | 11. DATUM FOR ELEVATION SHOWN (TBM or MSL)<br>N/A     |          |                           |  |
| 3. DRILLING AGENCY<br>SAVANNAH DISTRICT  |               |                            |  | 12. MANUFACTURER'S DESIGNATION OF DRILL<br>CME 550    |          |                           |  |
| 4. HOLE NO. (As shown on drawing title<br>and file number)   |               | FST-026-SB1                |  | 13. TOTAL NO. OF SOIL<br>SAMPLES TAKEN                |          | DISTURBED<br>1            | UNDISTURBED<br>0   |
| 5. NAME OF DRILLER<br>DOUGLAS LAROUCHE   |               |                            |  | 14. TOTAL NUMBER CORE BOXES 0                         |          |                           |  |
| 6. DIRECTION OF HOLE<br><input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED DEG. FROM VERT. |               |                            |  | 15. GROUND WATER ELEVATION 8.0                        |          |                           |  |
| 7. THICKNESS OF OVERBURDEN 8.0'  |               |                            |  | 16. DATE HOLE STARTED 15 SEPT 93 COMPLETED 16 SEPT 93 |          |                           |  |
| 8. DEPTH DRILLED INTO ROCK 0.0'  |               |                            |  | 17. ELEVATION TOP OF HOLE N/A                         |          |                           |  |
| 9. TOTAL DEPTH OF HOLE 8.0'  |               |                            |  | 18. TOTAL CORE RECOVERY FOR BORING N/A                |          |                           |  |
|  |               |                            |  | 19. SIGNATURE OF INSPECTOR<br>JUDSON D. SMITH         |          |                           |  |
| ELEVATION<br>(FT)  | DEPTH<br>(FT) | SYMBOLS                    | CLASSIFICATION OF MATERIALS<br>(Description) |   | FID/PID  | JAR<br>SAMPLE<br>NO.<br>1 | REMARKS<br>(Drilling time, water loss, depth of<br>weathering, etc., if significant) |
|  |               |                            | (SM) White, gray silty SAND.                 |   | 12/43.8  |                           | Dry, no odor.  |
| 1  |               |                            | With white clay.                             |   | 12/42.0  |                           | Lightly moist, no odor.  |
| 2  |               |                            | Gray.  |   | 11/35.9  |                           | Moist, no odor.  |
| 3  |               |                            |  |   | 11/36.4  |                           |  |
| 4  |               |                            | Tan with gray clay.                          |   | 10/35.9  |                           |  |
| 5  |               |                            | Tan with gray fat clay.                      |   | 10/36.9  |                           |  |
| 6  |               |                            |  |   | 10/36.6  |                           |  |
| 7  |               |                            | (SC) Gray sandy CLAY.                        |   | 8.8/37.3 |                           |  |
| 8  |               |                            | BOTTOM OF BORING: 8.0',<br>GROUNDWATER       |   | 6.9/38.4 |                           | Damp, no odor.   |
| 9  |               |                            |  |   | 6.5/36.4 |                           |  |
| 10   |               |                            |  |   | 12/37.6  |                           |  |
| 11   |               |                            |  |   | 12/38.4  |                           |  |
| 12   |               |                            |  |   | 12/34.5  |                           |  |
| 13   |               |                            |  |   | 14/34.5  |                           |  |
| 14   |               |                            |  |   | 16/39.9  | 1                         | Wet, no odor, lab sample taken.  |
| 15   |               |                            |  |   | 21/43.9  |                           |  |
| NOTE: SOILS VISUALLY<br>FIELD CLASSIFIED IN<br>ACCORDANCE WITH THE<br>UNIFIED SOIL CLASS-<br>IFICATION SYSTEM.         |               |                            |  |   |          |                           |  |

| DRILLING LOG   |               | DIVISION<br>SOUTH ATLANTIC |  | INSTALLATION<br>FORT STEWART, GA.                     |          | SHEET 1<br>OF 1 SHEETS |  |
|--|---------------|----------------------------|--|---|----------|------------------------|--|
| 1. PROJECT<br>PHASE 1 RCRA FACILITY INVESTIGATION  |               |                            |  | 10. SIZE AND TYPE OF BIT 4" AUGER                     |          |                        |  |
| 2. LOCATION (Coordinates or Station) SWMU-026<br>74TH TANKER PURGING STATION   |               |                            |  | 11. DATUM FOR ELEVATION SHOWN (TBM or NSL)<br>N/A     |          |                        |  |
| 3. DRILLING AGENCY<br>SAVANNAH DISTRICT  |               |                            |  | 12. MANUFACTURER'S DESIGNATION OF DRILL<br>CME 550    |          |                        |  |
| 4. HOLE NO. (As shown on drawing title<br>and file number)   |               | FST-026-SB2                |  | 13. TOTAL NO. OF SOIL<br>SAMPLES TAKEN                |          | DISTURBED<br>1         | UNDISTURBED<br>0   |
| 5. NAME OF DRILLER<br>DOUGLAS LAROUCHE   |               |                            |  | 14. TOTAL NUMBER CORE BOXES 0                         |          |                        |  |
| 6. DIRECTION OF HOLE<br><input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED DEG. FROM VERT. |               |                            |  | 15. GROUND WATER ELEVATION 8.5                        |          |                        |  |
| 7. THICKNESS OF OVERBURDEN 8.5'  |               |                            |  | 16. DATE HOLE STARTED 15 SEPT 93 COMPLETED 16 SEPT 93 |          |                        |  |
| 8. DEPTH DRILLED INTO ROCK 0.0'  |               |                            |  | 17. ELEVATION TOP OF HOLE N/A                         |          |                        |  |
| 9. TOTAL DEPTH OF HOLE 8.5'  |               |                            |  | 18. TOTAL CORE RECOVERY FOR BORING N/A                |          |                        |  |
|  |               |                            |  | 19. SIGNATURE OF INSPECTOR<br>JUDSON D. SMITH         |          |                        |  |
| ELEVATION<br>(FT)  | DEPTH<br>(FT) | SYMBOLS                    | CLASSIFICATION OF MATERIALS<br>(Description)   |   | FID/PID  | JAR<br>SAMPLE<br>NO.   | REMARKS<br>(Drilling time, water loss, depth of<br>weathering, etc., if significant) |
|  |               |                            | (SM) Gray and white silty SAND.  |   | 9.1/30.7 |                        | Lightly moist, no odor.  |
| 1  |               |                            | (SW) Orange tan fine grain<br>SAND.  |   | 8.1/33.7 |                        |  |
|  |               |                            | (SM) Black silty SAND.   |   | 4.1/32.5 |                        |  |
|  |               |                            | Gray.  |   | 3.1/29.7 |                        |  |
|  |               |                            |  |   | 2.9/29.0 |                        |  |
|  |               |                            | (SC) Gray sandy CLAY.  |   | 3.1/29.2 |                        | Moist, no odor.  |
|  |               |                            | Orange and gray.   |   | 3.2/27.7 |                        |  |
|  |               |                            |  |   | 3.1/23.0 |                        | Damp, no odor.   |
|  |               |                            |  |   | 3.3/28.1 |                        |  |
|  |               |                            | With gray silt.  |   | 2.9/28.6 |                        |  |
|  |               |                            |  |   | 2.8/27.0 |                        |  |
|  |               |                            | White and orange.  |   | 12/36.7  | 1                      | Lab sample taken.  |
|  |               |                            |  |   | 14/26.5  |                        |  |
|  |               |                            |  |   | 13/26.8  |                        |  |
|  |               |                            |  |   | 9.8/25.8 |                        |  |
|  |               |                            |  |   | 8.2/26.8 |                        |  |
|  |               |                            | With red.  |   | 7.2/28.5 |                        | Wet, no odor.  |
|  |               |                            | BOTTOM OF BORING: 8.5',<br>GROUNDWATER   |   |          |                        |  |
| 10   |               |                            | NOTE: SOILS VISUALLY<br>FIELD CLASSIFIED IN<br>ACCORDANCE WITH THE<br>UNIFIED SOIL CLASS-<br>IFICATION SYSTEM. |   |          |                        |  |
| 11   |               |                            |  |   |          |                        |  |
| 12   |               |                            |  |   |          |                        |  |
| 13   |               |                            |  |   |          |                        |  |
| 14   |               |                            |  |   |          |                        |  |
| 15   |               |                            |  |   |          |                        |  |

| DRILLING LOG   |                    | DIVISION<br>SOUTH ATLANTIC |  | INSTALLATION<br>FORT STEWART, GA.                                   |                           | SHEET 1<br>OF 1 SHEETS  |
|--|--------------------|----------------------------|--|---|---------------------------|---|
| 1. PROJECT<br>PHASE 1 RCRA FACILITY INVESTIGATION  |                    |                            |  | 10. SIZE AND TYPE OF BIT<br>4" AUGER                                |                           |   |
| 2. LOCATION (Coordinates or Station)<br>SWMU-026<br>74TH TANKER PURGING STATION  |                    |                            |  | 11. DATUM FOR ELEVATION SHOWN (TBM or MSL)<br>N/A                   |                           |   |
| 3. DRILLING AGENCY<br>SAVANNAH DISTRICT  |                    |                            |  | 12. MANUFACTURER'S DESIGNATION OF DRILL<br>CME 550                  |                           |   |
| 4. HOLE NO. (As shown on drawing title<br>and file number)   |                    | FST-026-SB3                |  | 13. TOTAL NO. OF SOIL<br>SAMPLES TAKEN<br>DISTURBED 1 UNDISTURBED 0 |                           |   |
| 5. NAME OF DRILLER<br>DOUGLAS LAROUCHE   |                    |                            |  | 14. TOTAL NUMBER CORE BOXES 0                                       |                           |   |
| 6. DIRECTION OF HOLE<br><input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED DEG. FROM VERT. |                    |                            |  | 15. GROUND WATER ELEVATION 8.0                                      |                           |   |
| 7. THICKNESS OF OVERTBURDEN 8.0'   |                    |                            |  | 16. DATE HOLE STARTED 15 SEPT 93 COMPLETED 16 SEPT 93               |                           |   |
| 8. DEPTH DRILLED INTO ROCK 0.0'  |                    |                            |  | 17. ELEVATION TOP OF HOLE N/A                                       |                           |   |
| 9. TOTAL DEPTH OF HOLE 8.0'  |                    |                            |  | 18. TOTAL CORE RECOVERY FOR BORING N/A                              |                           |   |
|  |                    |                            |  | 19. SIGNATURE OF INSPECTOR JUDSON D. SMITH                          |                           |   |
| ELEVATION<br>(FT)<br>a   | DEPTH<br>(FT)<br>b | SYMBOLS<br>c               | CLASSIFICATION OF MATERIALS<br>(Description)<br>d  | FID/PID<br>e  | JAR<br>SAMPLE<br>NO.<br>f | REMARKS<br>(Drilling time, water loss, depth of<br>weathering, etc., if significant)<br>g |
|  |                    |                            | (SM) Tan silty SAND.   | 34/44.6   |                           | Moist, fuel odor.   |
| 1  |                    |                            |  | 140/388   |                           |   |
| 2  |                    |                            |  | 460/601   |                           | Damp, fuel odor.  |
|  |                    |                            |  | 800/684   |                           |   |
| 2  |                    |                            | (CL) Tan and gray fat CLAY.  | 1000/801  | 1                         | Lab sample taken.   |
| 3  |                    |                            | (SC) Tan and gray sandy CLAY.  | 990/586   |                           |   |
| 4  |                    |                            |  | 450/591   |                           |   |
| 5  |                    |                            |  | 360/575   |                           |   |
| 6  |                    |                            |  | 420/379   |                           |   |
| 7  |                    |                            |  | 520/461   |                           |   |
|  |                    |                            |  | 420/334   |                           |   |
|  |                    |                            |  | 220/310   |                           |   |
|  |                    |                            |  | 600/278   |                           |   |
|  |                    |                            |  | 200/320   |                           |   |
|  |                    |                            |  | 895/370   |                           |   |
|  |                    |                            | Gray.  | 740/352   |                           | Wet, fuel odor.   |
|  |                    |                            | BOTTOM OF BORING: 8.0',<br>GROUNDWATER   |   |                           |   |
| 9  |                    |                            |  |   |                           |   |
| 10   |                    |                            | NOTE: SOILS VISUALLY<br>FIELD CLASSIFIED IN<br>ACCORDANCE WITH THE<br>UNIFIED SOIL CLASS-<br>IFICATION SYSTEM. |   |                           |   |
| 11   |                    |                            |  |   |                           |   |
| 12   |                    |                            |  |   |                           |   |
| 13   |                    |                            |  |   |                           |   |
| 14   |                    |                            |  |   |                           |   |
| 15   |                    |                            |  |   |                           |   |

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| DRILLING LOG   |               | DIVISION<br>SOUTH ATLANTIC                                    | INSTALLATION<br>FORT STEWART, GA.            | SHEET 1<br>OF 1 SHEETS |                      |  |
|--|---------------|---|--|------------------------|----------------------|--|
| 1. PROJECT<br>PHASE 1 RCRA FACILITY INVESTIGATION  |               | 10. SIZE AND TYPE OF BIT 4" AUGER                             |  |                        |                      |  |
| 2. LOCATION (Coordinates or Station) SWMU-026<br>74TH TANKER PURGING STATION   |               | 11. DATUM FOR ELEVATION SHOWN (TBM or NSL) N/A                |  |                        |                      |  |
| 3. DRILLING AGENCY<br>SAVANNAH DISTRICT  |               | 12. MANUFACTURER'S DESIGNATION OF DRILL CME 550               |  |                        |                      |  |
| 4. HOLE NO. (As shown on drawing title<br>and file number) FST-026-SB4   |               | 13. TOTAL NO. OF SOIL SAMPLES TAKEN DISTURBED UNDISTURBED 1 0 |  |                        |                      |  |
| 5. NAME OF DRILLER<br>DOUGLAS LAROUCHE   |               | 14. TOTAL NUMBER CORE BOXES 0                                 |  |                        |                      |  |
| 6. DIRECTION OF HOLE<br><input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED DEG. FROM VERT. |               | 15. GROUND WATER ELEVATION 4.0                                |  |                        |                      |  |
| 7. THICKNESS OF OVERBURDEN 4.0'  |               | 16. DATE HOLE STARTED 16 SEPT 93 COMPLETED 16 SEPT 93         |  |                        |                      |  |
| 8. DEPTH DRILLED INTO ROCK 0.0'  |               | 17. ELEVATION TOP OF HOLE N/A                                 |  |                        |                      |  |
| 9. TOTAL DEPTH OF HOLE 4.0'  |               | 18. TOTAL CORE RECOVERY FOR BORING N/A                        |  |                        |                      |  |
|  |               | 19. SIGNATURE OF INSPECTOR JUDSON D. SMITH                    |  |                        |                      |  |
| ELEVATION<br>(FT)  | DEPTH<br>(FT) | SYMBOLS   | CLASSIFICATION OF MATERIALS<br>(Description) | FID/PID                | JAR<br>SAMPLE<br>NO. | REMARKS<br>(Drilling time, water loss, depth of<br>weathering, etc., if significant) |
|  |               |   | (SC) Red and white sandy CLAY.               | 3.2/15.1               |                      | Lightly moist, no odor.  |
| 1  |               |   | (SW) Gray fine grain SAND.                   | 3.0/14.4               |                      | Moist, no odor.  |
|  |               |   | Tan.   | 4.0/15.8               |                      | Damp, no odor.   |
| 2  |               |   |  | 5.0/15.8               |                      | Damp, fuel odor.   |
|  |               |   | Yellow tan.                                  | 6.0/16.9               |                      |  |
| 3  |               |   | (CL) Gray fat CLAY.                          | 23/18.2                | 1                    | Lab sample taken.  |
|  |               |   | With pebbles.                                | 12/16.9                |                      |  |
| 4  |               |   |  | 8.0/15.0               |                      | Wet, fuel odor.  |
| BOTTOM OF BORING: 4.0',<br>GROUNDWATER   |               |   |  |                        |                      |  |
| 5  |               |   |  |                        |                      |  |
| 6  |               |   |  |                        |                      |  |
| 7  |               |   |  |                        |                      |  |
| 8  |               |   |  |                        |                      |  |
| 9  |               |   |  |                        |                      |  |
| 10   |               |   |  |                        |                      |  |
| 11   |               |   |  |                        |                      |  |
| 12   |               |   |  |                        |                      |  |
| 13   |               |   |  |                        |                      |  |
| 14   |               |   |  |                        |                      |  |
| 15   |               |   |  |                        |                      |  |

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| DRILLING LOG   |                    | DIVISION<br>SOUTH ATLANTIC |  | INSTALLATION<br>FORT STEWART, GA.                  |                  | SHEET 1<br>OF 1 SHEETS    |   |
|--|--------------------|----------------------------|--|--|------------------|---------------------------|---|
| 1. PROJECT<br>PHASE 1 RCRA FACILITY INVESTIGATION  |                    |                            |  | 10. SIZE AND TYPE OF BIT<br>4" AUGER               |                  |                           |   |
| 2. LOCATION (Coordinates or Station)<br>SWMU-026<br>74TH TANKER PURGING STATION  |                    |                            |  | 11. DATUM FOR ELEVATION SHOWN (TBM or MSL)<br>N/A  |                  |                           |   |
| 3. DRILLING AGENCY<br>SAVANNAH DISTRICT  |                    |                            |  | 12. MANUFACTURER'S DESIGNATION OF DRILL<br>CME 550 |                  |                           |   |
| 4. HOLE NO. (As shown on drawing title<br>and file number)   |                    | FST-026-SB5                |  | 13. TOTAL NO. OF SOIL<br>SAMPLES TAKEN             |                  | DISTURBED<br>2            | UNDISTURBED<br>0  |
| 5. NAME OF DRILLER<br>J. BIDDLE  |                    |                            |  | 14. TOTAL NUMBER CORE BOXES 0                      |                  |                           |   |
| 6. DIRECTION OF HOLE<br><input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED DEG. FROM VERT. |                    |                            |  | 15. GROUND WATER ELEVATION 3.5                     |                  |                           |   |
| 7. THICKNESS OF OVERTBURDEN 3.5'   |                    |                            |  | 16. DATE HOLE STARTED 8 NOV 93 COMPLETED 8 NOV 93  |                  |                           |   |
| 8. DEPTH DRILLED INTO ROCK 0.0'  |                    |                            |  | 17. ELEVATION TOP OF HOLE N/A                      |                  |                           |   |
| 9. TOTAL DEPTH OF HOLE 3.5'  |                    |                            |  | 18. TOTAL CORE RECOVERY FOR BORING N/A %           |                  |                           |   |
|  |                    |                            |  | 19. SIGNATURE OF INSPECTOR JUDSON D. SMITH         |                  |                           |   |
| ELEVATION<br>(FT)<br>a   | DEPTH<br>(FT)<br>b | SYMBOLS<br>c               | CLASSIFICATION OF MATERIALS<br>(Description)<br>d  |  | FID/PID<br>e     | JAR<br>SAMPLE<br>NO.<br>f | REMARKS<br>(Drilling time, water loss, depth of<br>weathering, etc., if significant)<br>g |
|  |                    |                            | (SM) Tan and light gray fine<br>silty SAND with organic matter.  |  | 300/405          | 5A                        | Fuel odor.  |
| 1  |                    |                            |  |  | 780/446          |                           | Sweet fuel odor to 1.5'.  |
|  |                    |                            |  |  | 210/198          |                           |   |
| 2  |                    |                            | (SP) Tan and gray fine SAND,<br>wet oilsheen on sample.<br>With organic material.                              |  | 250/282          |                           | Fuel odor to 3.0', wet at 1.5'.   |
|  |                    |                            |  |  | 352/337          |                           |   |
| 3  |                    |                            | Light tan, trace of clay.  |  | 380/54           | 5B                        |   |
|  |                    |                            |  |  | -                | NO SAMPLE                 | Water at 3.5'.  |
| BOTTOM OF BORING: 3.5'.  |                    |                            |  |  |                  |                           |   |
| 4  |                    |                            |  |  | Chemical Samples |                           |   |
| 5  |                    |                            |  |  | 5A               | 0.0'-0.5'                 |   |
| 6  |                    |                            | NOTE: SOILS VISUALLY<br>FIELD CLASSIFIED IN<br>ACCORDANCE WITH THE<br>UNIFIED SOIL CLASS-<br>IFICATION SYSTEM. |  | 5B               | 2.5'-3.0'                 |   |
| 7  |                    |                            |  |  |                  |                           |   |
| 8  |                    |                            |  |  |                  |                           |   |
| 9  |                    |                            |  |  |                  |                           |   |
| 10   |                    |                            |  |  |                  |                           |   |
| 11   |                    |                            |  |  |                  |                           |   |
| 12   |                    |                            |  |  |                  |                           |   |
| 13   |                    |                            |  |  |                  |                           |   |
| 14   |                    |                            |  |  |                  |                           |   |
| 15   |                    |                            |  |  |                  |                           |   |

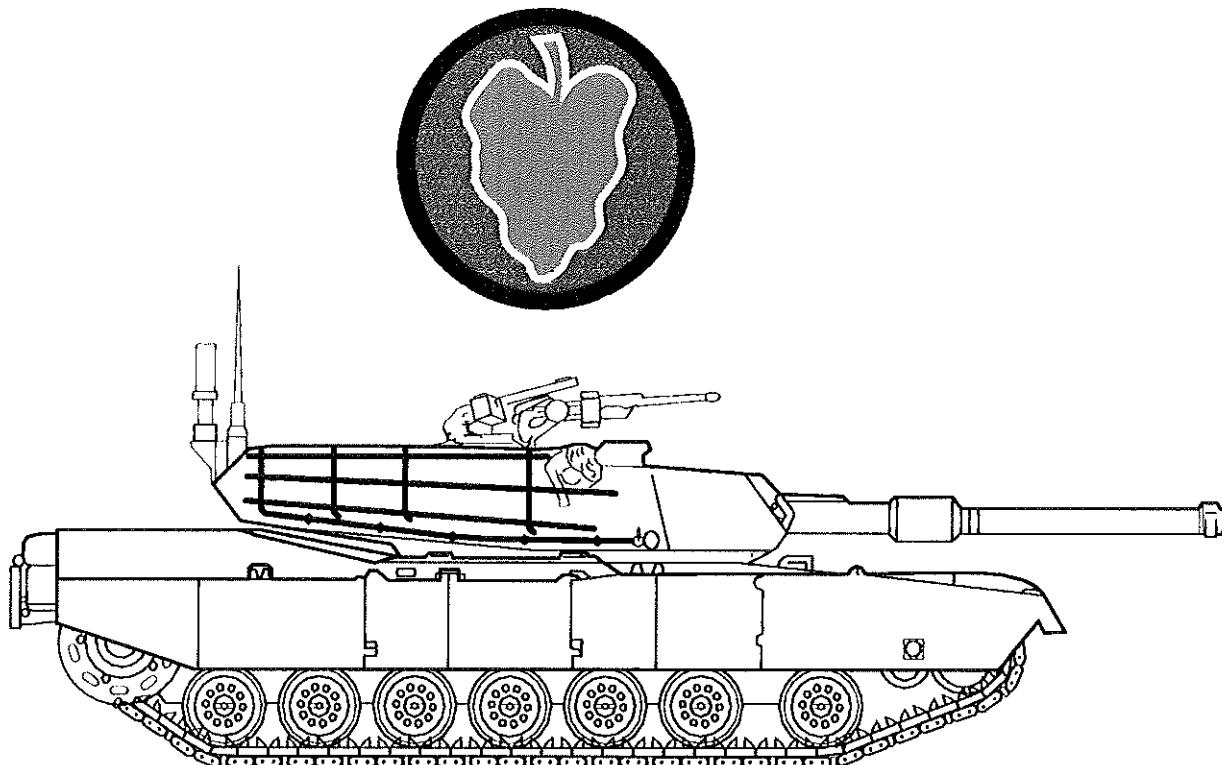
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| DRILLING LOG   |                    | DIVISION<br>SOUTH ATLANTIC |  | INSTALLATION<br>FORT STEWART, GA.                  |                                   |                           | SHEET 1<br>OF 1 SHEETS   |
|--|--------------------|----------------------------|--|--|-----------------------------------|---------------------------|--|
| 1. PROJECT<br>PHASE 1 RCRA FACILITY INVESTIGATION  |                    |                            |  | 10. SIZE AND TYPE OF BIT<br>4" AUGER               |                                   |                           |  |
| 2. LOCATION (Coordinates or Station) SWMU-026<br>74TH TANKER PURGING STATION   |                    |                            |  | 11. DATUM FOR ELEVATION SHOWN (TBM or MSL)<br>N/A  |                                   |                           |  |
| 3. DRILLING AGENCY<br>SAVANNAH DISTRICT  |                    |                            |  | 12. MANUFACTURER'S DESIGNATION OF DRILL<br>CME 550 |                                   |                           |  |
| 4. HOLE NO. (As shown on drawing title<br>and file number)   |                    | FST-026-SB6                |  | 13. TOTAL NO. OF SOIL<br>SAMPLES TAKEN             |                                   | DISTURBED<br>2            | UNDISTURBED<br>0   |
|  |                    |                            |  | 14. TOTAL NUMBER CORE BOXES 0                      |                                   |                           |  |
| 5. NAME OF DRILLER<br>J. BIDDLE  |                    |                            |  | 15. GROUND WATER ELEVATION 2.3                     |                                   |                           |  |
| 6. DIRECTION OF HOLE<br><input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED DEG. FROM VERT. |                    |                            |  | 16. DATE HOLE STARTED 8 NOV 93 COMPLETED 8 NOV 93  |                                   |                           |  |
| 7. THICKNESS OF OVERTBURDEN 2.5'   |                    |                            |  | 17. ELEVATION TOP OF HOLE N/A                      |                                   |                           |  |
| 8. DEPTH DRILLED INTO ROCK 0.0'  |                    |                            |  | 18. TOTAL CORE RECOVERY FOR BORING N/A %           |                                   |                           |  |
| 9. TOTAL DEPTH OF HOLE 2.5'  |                    |                            |  | 19. SIGNATURE OF INSPECTOR JUDSON D. SMITH         |                                   |                           |  |
| ELEVATION<br>(FT)<br>a   | DEPTH<br>(FT)<br>b | SYMBOLS<br>c               | CLASSIFICATION OF MATERIALS<br>(Description)<br>d  |  | FID/PID<br>e                      | JAR<br>SAMPLE<br>NO.<br>f | REMARKS<br>(Drilling time, water loss, depth of<br>weathering, etc. if significant)<br>g |
|  |                    |                            | (ML) Black organic SILT, moist<br>with slight fuel odor.<br>Dark grayish-brown.                                |  | 39/46.7<br>600/42.8<br>X1000/40.8 | 6A                        | Slight fuel odor.<br>Slight sweet odor to 2.5'.  |
| 1  |                    |                            | (SM) Tan and dark brown fine<br>silty SAND.<br>Tan to medium brown, organic<br>material.                       |  | X1000/28.8<br>521/22.7            | 6B                        | Very damp.<br>Surface water encountered<br>at approximately 2.3'.                        |
| BOTTOM OF BORING: 2.5'.  |                    |                            |  |  |                                   |                           |  |
| 3  |                    |                            | Chemical Samples   |  |                                   |                           |  |
| 4  |                    |                            | 6A 0.0'-0.5'<br>6B 1.5'-2.0'   |  |                                   |                           |  |
| 5  |                    |                            | NOTE: SOILS VISUALLY<br>FIELD CLASSIFIED IN<br>ACCORDANCE WITH THE<br>UNIFIED SOIL CLASS-<br>IFICATION SYSTEM. |  |                                   |                           |  |
| 6  |                    |                            |  |  |                                   |                           |  |
| 7  |                    |                            |  |  |                                   |                           |  |
| 8  |                    |                            |  |  |                                   |                           |  |
| 9  |                    |                            |  |  |                                   |                           |  |
| 10   |                    |                            |  |  |                                   |                           |  |
| 11   |                    |                            |  |  |                                   |                           |  |
| 12   |                    |                            |  |  |                                   |                           |  |
| 13   |                    |                            |  |  |                                   |                           |  |
| 14   |                    |                            |  |  |                                   |                           |  |
| 15   |                    |                            |  |  |                                   |                           |  |

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**Corrected Final  
Phase I RCRA Facility Investigation Report  
For 24 Solid Waste Management Units  
At Fort Stewart, Georgia**

**Volume III of III**



**May 1996**

**Job No. 87528.000**

**Prepared For**



**US Army Corps  
of Engineers  
Savannah District**

**Prepared By**

**RUST ENVIRONMENT &  
INFRASTRUCTURE**

**CORRECTED FINAL**

**PHASE I  
RCRA FACILITY INVESTIGATION REPORT  
FOR 24 SOLID WASTE MANAGEMENT UNITS  
AT FORT STEWART, GEORGIA  
VOLUME III OF III**

**Prepared For**

**UNITED STATES ARMY CORPS OF ENGINEERS  
SAVANNAH DISTRICT**

**Contract DACA21-93-D-0029  
Delivery Order 0005  
Rust Project No. 87528.000  
May 1996**

**Prepared By  
RUST ENVIRONMENT AND INFRASTRUCTURE  
2694 Lake Park Drive  
Charleston, South Carolina 29406  
803/572-5600**

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 Columbia, SC 29290  
 (803) 776-7789  
 (800) 435-3995

10/01/93

Ms. Toni Nicholson  
 US Army Engr. Dist., Sav.  
 P.O. Box 889  
 Savannah, GA 31402

Dear Ms. Nicholson:

The following are the results of the parameters you requested we check on your FST-026 samples listed below.

| Parameter                                   | Analyst | Analysis         |   | Results        | Units | Lowest Detectable Level | Method Number |
|---|---------|------------------|---|----------------|-------|-------------------------|---------------|
|   |         | Date -- Time     |   |                |       |                         |               |
| Sample Date: 09/16/93 In House # 09-6201-93 |         | Source: SB1-9-93 |   | Location:      |       |                         |               |
| Metals Sample Preparation - water           | JAG     | 09/23/93 17:00   |   | 0.000          |       | 0.00                    |               |
| TCLP Extraction, excluding Volatile cpds    | JDW     | 09/22/93 18:00   |   | 0.000          |       | 0.00                    |               |
| TCLP Extraction, Volatile cpds. only        | JDW     | 09/22/93 18:00   | < | 0.000          |       | 0.00                    |               |
| TPH (heavy fuels) sample preparation        | SS      | 09/21/93 09:00   |   | 0.000          |       | 0.00                    |               |
| Pesticide extraction - TCLP                 | MR      | 09/29/93 09:00   |   | 0.000          |       | 0.00                    |               |
| Herbicide extraction - TCLP                 | SB      | 09/27/93 10:00   |   | 0.000          |       | 0.00                    |               |
| Base Neutrals - TCLP extraction             | SB      | 09/28/93 08:00   |   | 0.000          |       | 0.00                    |               |
| Acid - TCLP extraction                      | SB      | 09/28/93 08:00   |   | 0.000          |       | 0.00                    |               |
| Lab pH                                      | TW      | 09/20/93 11:10   |   | 5.820 pH Units |       | 0.00 pH Units           | 150.1         |
| Arsenic - TCLP                              | KAH     | 09/28/93 22:09   | < | 0.500 ppm      |       | 0.50 ppm                | 206.2         |
| Selenium - TCLP                             | KAH     | 09/29/93 03:21   | < | 0.100 ppm      |       | 0.10 ppm                | 270.2         |
| Barium - TCLP                               | CW      | 09/24/93 16:00   | < | 10.000 ppm     |       | 10.00 ppm               | 200.7         |
| Cadmium - TCLP                              | CW      | 09/24/93 16:00   | < | 0.100 ppm      |       | 0.10 ppm                | 200.7         |
| Chromium - TCLP                             | CW      | 09/24/93 16:00   | < | 0.500 ppm      |       | 0.50 ppm                | 200.7         |
| Lead - TCLP                                 | KAH     | 09/29/93 08:36   | < | 0.500 ppm      |       | 0.50 ppm                | 239.2         |
| Mercury - TCLP                              | CMP     | 09/28/93 14:00   | < | 0.050 ppm      |       | 0.05 ppm                | 245.1         |
| Silver - TCLP                               | CW      | 09/24/93 16:00   | < | 0.500 ppm      |       | 0.50 ppm                | 200.7         |
| Benzene - TCLP                              | KG      | 09/28/93 10:47   | < | 0.500 mg/l     |       | 0.50 mg/l               | 624.          |
| Carbon Tetrachloride - TCLP                 | KG      | 09/28/93 10:47   | < | 0.500 mg/l     |       | 0.50 mg/l               | 624.          |
| Chlorobenzene - TCLP                        | KG      | 09/28/93 10:47   | < | 100.000 mg/l   |       | 100.00 mg/l             | 624.          |
| Chloroform - TCLP                           | KG      | 09/28/93 10:47   | < | 6.000 mg/l     |       | 6.00 mg/l               | 624.          |
| 1,4-Dichlorobenzene - TCLP                  | KG      | 09/28/93 10:47   | < | 7.500 mg/l     |       | 7.50 mg/l               | 624.          |
| 1,2-Dichloroethane - TCLP                   | KG      | 09/28/93 10:47   | < | 0.500 mg/l     |       | 0.50 mg/l               | 624.          |
| 1,1-Dichloroethylene - TCLP                 | KG      | 09/28/93 10:47   | < | 0.700 mg/l     |       | 0.70 mg/l               | 624.          |
| Methyl Ethyl Ketone - TCLP                  | KG      | 09/28/93 10:47   | < | 200.000 mg/l   |       | 200.00 mg/l             | 624.          |
| Tetrachloroethylene - TCLP                  | KG      | 09/28/93 10:47   | < | 0.700 mg/l     |       | 0.70 mg/l               | 624.          |
| Trichloroethylene - TCLP                    | KG      | 09/28/93 10:47   | < | 0.500 mg/l     |       | 0.50 mg/l               | 624.          |
| Vinyl Chloride - TCLP                       | KG      | 09/28/93 10:47   | < | 0.200 mg/l     |       | 0.20 mg/l               | 624.          |
| O-Cresol - TCLP                             | AT      | 09/29/93 18:13   | < | 200.000 mg/l   |       | 200.00 mg/l             | 625.          |
| H-Cresol - TCLP                             | AT      | 09/29/93 18:13   | < | 200.000 mg/l   |       | 200.00 mg/l             | 625.          |
| P-Cresol - TCLP                             | AT      | 09/29/93 18:13   | < | 200.000 mg/l   |       | 200.00 mg/l             | 625.          |
| Pentachlorophenol - TCLP                    | AT      | 09/29/93 18:13   | < | 100.000 mg/l   |       | 100.00 mg/l             | 625.          |
| 2,4,5-Trichlorophenol - TCLP                | AT      | 09/29/93 18:13   | < | 400.000 mg/l   |       | 400.00 mg/l             | 625.          |
| 2,4,6-Trichlorophenol - TCLP                | AT      | 09/29/93 18:13   | < | 2.000 mg/l     |       | 2.00 mg/l               | 625.          |
| 2,4-Dinitrotoluene - TCLP                   | AT      | 09/29/93 18:13   | < | 0.130 mg/l     |       | 0.13 mg/l               | 625.          |
| Hexachlorobenzene - TCLP                    | AT      | 09/29/93 18:13   | < | 0.130 mg/l     |       | 0.13 mg/l               | 625.          |
| Hexachlorobutadiene - TCLP                  | AT      | 09/29/93 18:13   | < | 0.500 mg/l     |       | 0.50 mg/l               | 625.          |
| Hexachloroethane - TCLP                     | AT      | 09/29/93 18:13   | < | 3.000 mg/l     |       | 3.00 mg/l               | 625.          |
| Nitrobenzene - TCLP                         | AT      | 09/29/93 18:13   | < | 0.130 mg/l     |       | 0.13 mg/l               | 625.          |
| Pyridine - TCLP                             | AT      | 09/29/93 18:13   | < | 5.000 mg/l     |       | 5.00 mg/l               | 625.          |
| TPH light fuel, 5030/8015 - solid           | KG      | 09/30/93 09:15   | < | 10.000 mg/kg   |       | 10.00 mg/kg             | 8015          |
| TPH heavy fuel, 3550/8015 - solid           | RK      | 09/23/93 14:33   | < | 10.000 mg/kg   |       | 10.00 mg/kg             | 8015          |

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| Parameter                                   | Analyst | Date -- Time     | Results | Units        | Lowest Detectable Level | Method Number |
|---|---------|------------------|---------|--------------|-------------------------|---------------|
| Sample Date: 09/16/93 In House # 09-6201-93 |         | Source: SB1-9-93 |         | Location:    |                         |               |
| - CONTINUED -                               |         |                  |         |              |                         |               |
| Toxaphene TCLP - liquid                     | RMK     | 09/29/93 19:08   | <       | 0.500 mg/l   | 0.50 mg/l               | 608           |
| 2,4-D TCLP - liquid                         | RMK     | 09/30/93 14:26   | <       | 10.000 mg/l  | 10.00 mg/l              | 509.          |
| Silvex TCLP - liquid                        | RMK     | 09/30/93 14:26   | <       | 1.000 mg/l   | 1.00 mg/l               | 509.          |
| Chlordane TCLP - liquid                     | RMK     | 09/29/93 19:08   | <       | 0.030 mg/l   | 0.03 mg/l               | 608.          |
| Endrin TCLP - liquid                        | RMK     | 09/29/93 19:08   | <       | 0.020 mg/l   | 0.02 mg/l               | 608.          |
| Heptachlor YCLP - liquid                    | RMK     | 09/29/93 19:08   | <       | 8.000 ug/l   | 8.00 ug/l               | 608.          |
| Heptachlor Epoxide TCLP - liquid            | RMK     | 09/29/93 19:08   | <       | 8.000 ug/l   | 8.00 ug/l               | 608.          |
| Lindane TCLP - liquid                       | RMK     | 09/29/93 19:08   | <       | 0.400 mg/l   | 0.40 mg/l               | 608.          |
| Methoxychlor TCLP - liquid                  | RMK     | 09/29/93 19:08   | <       | 10.000 mg/l  | 10.00 mg/l              | 608.          |
| % Solids                                    | MB      | 09/23/93 09:00   |         | 78.700 %     | 0.01 %                  | 160.3         |
| Chloroethane - solid                        | KG      | 09/29/93 09:17   | <       | 10.000 ug/kg | 10.00 ug/kg             | 8240          |
| Chloromethane - solid                       | KG      | 09/29/93 09:17   | <       | 10.000 ug/kg | 10.00 ug/kg             | 8240          |
| Bromomethane - solid                        | KG      | 09/29/93 09:17   | <       | 10.000 ug/kg | 10.00 ug/kg             | 8240          |
| Vinyl Chloride - solid                      | KG      | 09/29/93 09:17   | <       | 10.000 ug/kg | 10.00 ug/kg             | 8240          |
| Methylene Chloride - solid                  | KG      | 09/29/93 09:17   | <       | 5.000 ug/kg  | 5.00 ug/kg              | 8240          |
| Trichlorofluoromethane - solid              | KG      | 09/29/93 09:17   | <       | 10.000 ug/kg | 10.00 ug/kg             | 8240          |
| 1,1-Dichloroethene - solid                  | KG      | 09/29/93 09:17   | <       | 5.000 ug/kg  | 5.00 ug/kg              | 8240          |
| 1,1-Dichloroethane - solid                  | KG      | 09/29/93 09:17   | <       | 5.000 ug/kg  | 5.00 ug/kg              | 8240          |
| Trans 1,2-Dichloroethene - solid            | KG      | 09/29/93 09:17   | <       | 5.000 ug/kg  | 5.00 ug/kg              | 8240          |
| 1,2-Dichloroethane - solid                  | XG      | 09/29/93 09:17   | <       | 5.000 ug/kg  | 5.00 ug/kg              | 8240          |
| 1,1,1-Trichloroethane - solid               | KG      | 09/29/93 09:17   | <       | 5.000 ug/kg  | 5.00 ug/kg              | 8240          |
| Bromodichloromethane - solid                | KG      | 09/29/93 09:17   | <       | 5.000 ug/kg  | 5.00 ug/kg              | 8240          |
| 1,2-Dichloropropane - solid                 | KG      | 09/29/93 09:17   | <       | 5.000 ug/kg  | 5.00 ug/kg              | 8240          |
| Trans 1,3-Dichloropropene - solid           | KG      | 09/29/93 09:17   | <       | 5.000 ug/kg  | 5.00 ug/kg              | 8240          |
| Trichloroethene - solid                     | KG      | 09/29/93 09:17   | <       | 5.000 ug/kg  | 5.00 ug/kg              | 8240          |
| Dibromochloromethane - solid                | KG      | 09/29/93 09:17   | <       | 5.000 ug/kg  | 5.00 ug/kg              | 8240          |
| 1,1,2-trichloroethane - solid               | KG      | 09/29/93 09:17   | <       | 5.000 ug/kg  | 5.00 ug/kg              | 8240          |
| Cis-1,3-Dichloropropene - solid             | KG      | 09/29/93 09:17   | <       | 5.000 ug/kg  | 5.00 ug/kg              | 8240          |
| Benzene - solid                             | KG      | 09/29/93 09:17   | <       | 5.000 ug/kg  | 5.00 ug/kg              | 8240          |
| 2-Chloroethylvinyl ether - solid            | KG      | 09/29/93 09:17   | <       | 10.000 ug/kg | 10.00 ug/kg             | 8240          |
| Bromoform - solid                           | KG      | 09/29/93 09:17   | <       | 5.000 ug/kg  | 5.00 ug/kg              | 8240          |
| 1,1,2,2-Tetrachloroethane - solid           | KG      | 09/29/93 09:17   | <       | 5.000 ug/kg  | 5.00 ug/kg              | 8240          |
| Tetrachloroethene - solid                   | KG      | 09/29/93 09:17   | <       | 5.000 ug/kg  | 5.00 ug/kg              | 8240          |
| Toluene - solid                             | KG      | 09/29/93 09:17   | <       | 5.000 ug/kg  | 5.00 ug/kg              | 8240          |
| Chlorobenzene - solid                       | KG      | 09/29/93 09:17   | <       | 5.000 ug/kg  | 5.00 ug/kg              | 8240          |
| Ethylbenzene - solid                        | KG      | 09/29/93 09:17   | <       | 5.000 ug/kg  | 5.00 ug/kg              | 8240          |
| Chloroform - solid                          | KG      | 09/29/93 09:17   | <       | 5.000 ug/kg  | 5.00 ug/kg              | 8240          |
| Acetone - solid                             | KG      | 09/29/93 09:17   | <       | 0.200 mg/kg  | 0.20 mg/kg              | 8240          |
| Carbon tetrachloride - solid                | KG      | 09/29/93 09:17   | <       | 5.000 ug/kg  | 5.00 ug/kg              | 8240          |
| Xylene - solid                              | KG      | 09/29/93 09:17   | <       | 10.000 ug/kg | 10.00 ug/kg             | 8240          |
| 2-Butanone - solid                          | KG      | 09/29/93 09:17   | <       | 10.000 ug/kg | 10.00 ug/kg             | 8240          |
| Vinyl Acetate - solid                       | KG      | 09/29/93 09:17   | <       | 10.000 ug/kg | 10.00 ug/kg             | 8240          |
| 4-methyl-2-pentanone - solid                | KG      | 09/29/93 09:17   | <       | 10.000 ug/kg | 10.00 ug/kg             | 8240          |
| Styrene - solid                             | KG      | 09/29/93 09:17   | <       | 10.000 ug/kg | 10.00 ug/kg             | 8240          |
| Carbon Disulfide - solid                    | KG      | 09/29/93 09:17   | <       | 5.000 ug/kg  | 5.00 ug/kg              | 8240          |
| 2-Hexanone - solid                          | KG      | 09/29/93 09:17   | <       | 10.000 ug/kg | 10.00 ug/kg             | 8240          |

Comments:

TCLP Extracts were prepared and analyzed according to SW846 method 1311. Analytical results are reported on a wet-weight basis.

The volatile run was initiated at 15:53.

For Volatile Analysis: Due to the nature of the sample, the sample size was reduced from 5g to 1g. Therefore, the detection limits and less than values are actually 5 times those reported. However, the reported levels for the compounds found have already been corrected.

Sample Date: 09/16/93 In House # 09-6202-93 Source: SB2-9-93 Location:

|  |     |          |       |       |      |
|--|-----|----------|-------|-------|------|
| Metals Sample Preparation - water        | JAG | 09/23/93 | 17:00 | 0.000 | 0.00 |
| TCLP Extraction, excluding Volatile cpds | JDW | 09/20/93 | 18:00 | 0.000 | 0.00 |
| TCLP Extraction, Volatile cpds. only     | JDW | 09/21/93 | 18:00 | 0.000 | 0.00 |
| TPH (heavy fuels) sample preparation     | SS  | 09/21/93 | 09:00 | 0.000 | 0.00 |
| Pesticide extraction - TCLP              | MR  | 09/29/93 | 09:00 | 0.000 | 0.00 |
| Herbicide extraction - TCLP              | SB  | 09/27/93 | 10:00 | 0.000 | 0.00 |

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| Parameter                         | Analyst               | Date -- Time     | Results   | Units    | Lowest Detectable Level | Method Number |
|-----------------------------------|-----------------------|------------------|-----------|----------|-------------------------|---------------|
| Sample Date: 09/16/93             | In House # 09-6202-93 | Source: SB2-9-93 | Location: |          |                         |               |
| - CONTINUED -                     |                       |                  |           |          |                         |               |
| Base Neutrals - TCLP extraction   | SB                    | 09/23/93 08:00   | 0.000     |          | 0.00                    |               |
| Acid - TCLP extraction            | SB                    | 09/23/93 08:00   | 0.000     |          | 0.00                    |               |
| Lab pH                            | TW                    | 09/20/93 11:10   | 5.500     | pH Units | 0.00 pH Units           | 150.1         |
| Arsenic - TCLP                    | KAH                   | 09/28/93 22:09   | < 0.500   | ppm      | 0.50 ppm                | 206.2         |
| Selenium - TCLP                   | KAH                   | 09/29/93 03:43   | < 0.100   | ppm      | 0.10 ppm                | 270.2         |
| Barium - TCLP                     | CW                    | 09/24/93 16:03   | < 10.000  | ppm      | 10.00 ppm               | 200.7         |
| Cadmium - TCLP                    | CW                    | 09/24/93 16:03   | < 0.100   | ppm      | 0.10 ppm                | 200.7         |
| Chromium - TCLP                   | CW                    | 09/24/93 16:03   | < 0.500   | ppm      | 0.50 ppm                | 200.7         |
| Lead - TCLP                       | KAH                   | 09/29/93 08:58   | < 0.500   | ppm      | 0.50 ppm                | 239.2         |
| Mercury - TCLP                    | KAH                   | 09/23/93 12:00   | < 0.200   | ppm      | 0.05 ppm                | 245.1         |
| Silver - TCLP                     | CW                    | 09/24/93 16:03   | < 0.500   | ppm      | 0.50 ppm                | 200.7         |
| Benzene - TCLP                    | KG                    | 09/28/93 11:20   | < 0.500   | mg/l     | 0.50 mg/l               | 624.          |
| Carbon Tetrachloride - TCLP       | KG                    | 09/28/93 11:20   | < 0.500   | mg/l     | 0.50 mg/l               | 624.          |
| Chlorobenzene - TCLP              | KG                    | 09/28/93 11:20   | < 100.000 | mg/l     | 100.00 mg/l             | 624.          |
| Chloroform - TCLP                 | KG                    | 09/28/93 11:20   | < 6.000   | mg/l     | 6.00 mg/l               | 624.          |
| 1,4-Dichlorobenzene - TCLP        | KG                    | 09/28/93 11:20   | < 7.500   | mg/l     | 7.50 mg/l               | 624.          |
| 1,2-Dichloroethane - TCLP         | KG                    | 09/28/93 11:20   | < 0.500   | mg/l     | 0.50 mg/l               | 624.          |
| 1,1-Dichloroethylene - TCLP       | KG                    | 09/28/93 11:20   | < 0.700   | mg/l     | 0.70 mg/l               | 624.          |
| Methyl Ethyl Ketone - TCLP        | KG                    | 09/28/93 11:20   | < 200.000 | mg/l     | 200.00 mg/l             | 624.          |
| Tetrachloroethylene - TCLP        | KG                    | 09/28/93 11:20   | < 0.700   | mg/l     | 0.70 mg/l               | 624.          |
| Trichloroethylene - TCLP          | KG                    | 09/28/93 11:20   | < 0.500   | mg/l     | 0.50 mg/l               | 624.          |
| Vinyl Chloride - TCLP             | KG                    | 09/28/93 11:20   | < 0.200   | mg/l     | 0.20 mg/l               | 624.          |
| O-Cresol - TCLP                   | AT                    | 09/29/93 10:58   | < 200.000 | mg/l     | 200.00 mg/l             | 625.          |
| M-Cresol - TCLP                   | AT                    | 09/29/93 10:58   | < 200.000 | mg/l     | 200.00 mg/l             | 625.          |
| P-Cresol - TCLP                   | AT                    | 09/29/93 10:58   | < 200.000 | mg/l     | 200.00 mg/l             | 625.          |
| Pentachlorophenol - TCLP          | AT                    | 09/29/93 10:58   | < 100.000 | mg/l     | 100.00 mg/l             | 625.          |
| 2,4,5-Trichlorophenol - TCLP      | AT                    | 09/29/93 10:58   | < 400.000 | mg/l     | 400.00 mg/l             | 625.          |
| 2,4,6-Trichlorophenol - TCLP      | AT                    | 09/29/93 10:58   | < 2.000   | mg/l     | 2.00 mg/l               | 625.          |
| 2,4-Dinitrotoluene - TCLP         | AT                    | 09/29/93 10:58   | < 0.130   | mg/l     | 0.13 mg/l               | 625.          |
| Hexachlorobenzene - TCLP          | AT                    | 09/29/93 10:58   | < 0.130   | mg/l     | 0.13 mg/l               | 625.          |
| Hexachlorobutadiene - TCLP        | AT                    | 09/29/93 10:58   | < 0.500   | mg/l     | 0.50 mg/l               | 625.          |
| Hexachloroethane - TCLP           | AT                    | 09/29/93 10:58   | < 3.000   | mg/l     | 3.00 mg/l               | 625.          |
| Nitrobenzene - TCLP               | AT                    | 09/29/93 10:58   | < 0.130   | mg/l     | 0.13 mg/l               | 625.          |
| Pyridine - TCLP                   | AT                    | 09/29/93 10:58   | < 5.000   | mg/l     | 5.00 mg/l               | 625.          |
| TPH light fuel, 5030/8015 - solid | KG                    | 09/30/93 10:57   | < 10.000  | mg/kg    | 10.00 mg/kg             | 8015          |
| TPH heavy fuel, 3550/8015 - solid | RK                    | 09/23/93 15:53   | < 10.000  | mg/kg    | 10.00 mg/kg             | 8015          |
| Toxaphene TCLP - liquid           | RMK                   | 09/29/93 19:47   | < 0.500   | mg/l     | 0.50 mg/l               | 608           |
| 2,4-D TCLP - liquid               | RMK                   | 09/30/93 14:51   | < 10.000  | mg/l     | 10.00 mg/l              | 509.          |
| Silvex TCLP - liquid              | RMK                   | 09/30/93 14:51   | < 1.000   | mg/l     | 1.00 mg/l               | 509.          |
| Chlordane TCLP - liquid           | RMK                   | 09/29/93 19:47   | < 0.030   | mg/l     | 0.03 mg/l               | 608.          |
| Endrin TCLP - liquid              | RMK                   | 09/29/93 19:47   | < 0.020   | mg/l     | 0.02 mg/l               | 608.          |
| Heptachlor TCLP - liquid          | RMK                   | 09/29/93 19:47   | < 8.000   | ug/l     | 8.00 ug/l               | 608.          |
| Heptachlor Epoxide TCLP - liquid  | RMK                   | 09/29/93 19:47   | < 8.000   | ug/l     | 8.00 ug/l               | 608.          |
| Lindane TCLP - liquid             | RMK                   | 09/29/93 19:47   | < 0.400   | mg/l     | 0.40 mg/l               | 608.          |
| Methoxychlor TCLP - liquid        | RMK                   | 09/29/93 19:48   | < 10.000  | mg/l     | 10.00 mg/l              | 608.          |
| % Solids                          | MB                    | 09/23/93 09:00   | 84.100    | %        | 0.01 %                  | 160.3         |
| Chloroethane - solid              | KG                    | 09/29/93 09:20   | < 10.000  | ug/kg    | 10.00 ug/kg             | 8240          |
| Chloromethane - solid             | KG                    | 09/29/93 09:20   | < 10.000  | ug/kg    | 10.00 ug/kg             | 8240          |
| Bromomethane - solid              | KG                    | 09/29/93 09:20   | < 10.000  | ug/kg    | 10.00 ug/kg             | 8240          |
| Vinyl Chloride - solid            | KG                    | 09/29/93 09:20   | < 10.000  | ug/kg    | 10.00 ug/kg             | 8240          |
| Methylene Chloride - solid        | KG                    | 09/29/93 09:20   | < 5.000   | ug/kg    | 5.00 ug/kg              | 8240          |
| Trichlorofluoromethane - solid    | KG                    | 09/29/93 09:20   | < 10.000  | ug/kg    | 10.00 ug/kg             | 8240          |
| 1,1-Dichloroethene - solid        | KG                    | 09/29/93 09:20   | < 5.000   | ug/kg    | 5.00 ug/kg              | 8240          |
| 1,1-Dichloroethane - solid        | KG                    | 09/29/93 09:20   | < 5.000   | ug/kg    | 5.00 ug/kg              | 8240          |
| Trans 1,2-Dichloroethene - solid  | KG                    | 09/29/93 09:20   | < 5.000   | ug/kg    | 5.00 ug/kg              | 8240          |
| 1,2-Dichloroethane - solid        | KG                    | 09/29/93 09:20   | < 5.000   | ug/kg    | 5.00 ug/kg              | 8240          |
| 1,1,1-Trichloroethane - solid     | KG                    | 09/29/93 09:20   | < 5.000   | ug/kg    | 5.00 ug/kg              | 8240          |
| Bromodichloromethane - solid      | KG                    | 09/29/93 09:20   | < 5.000   | ug/kg    | 5.00 ug/kg              | 8240          |
| 1,2-Dichloropropane - solid       | KG                    | 09/29/93 09:20   | < 5.000   | ug/kg    | 5.00 ug/kg              | 8240          |
| Trans 1,3-Dichloropropene - solid | KG                    | 09/29/93 09:20   | < 5.000   | ug/kg    | 5.00 ug/kg              | 8240          |
| Trichloroethene - solid           | KG                    | 09/29/93 09:20   | < 5.000   | ug/kg    | 5.00 ug/kg              | 8240          |
| Dibromochloromethane - solid      | KG                    | 09/29/93 09:20   | < 5.000   | ug/kg    | 5.00 ug/kg              | 8240          |
| 1,1,2-trichloroethane - solid     | KG                    | 09/29/93 09:20   | < 5.000   | ug/kg    | 5.00 ug/kg              | 8240          |
| Cis-1,3-Dichloropropene - solid   | KG                    | 09/29/93 09:20   | < 5.000   | ug/kg    | 5.00 ug/kg              | 8240          |
| Benzene - solid                   | KG                    | 09/29/93 09:20   | < 5.000   | ug/kg    | 5.00 ug/kg              | 8240          |

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| Parameter                                   | Analyst | Date -- Time     | Results   | Units        | Lowest Detectable Level | Method Number |
|---|---------|------------------|-----------|--------------|-------------------------|---------------|
| Sample Date: 09/16/93 In House # 09-6202-93 |         | Source: SB2-9-93 | Location: |              |                         |               |
| - CONTINUED -                               |         |                  |           |              |                         |               |
| 2-Chloroethylvinyl ether - solid            | KG      | 09/29/93 09:20   | <         | 10.000 ug/kg | 10.00 ug/kg             | 8240          |
| Bromoform - solid                           | KG      | 09/29/93 09:20   | <         | 5.000 ug/kg  | 5.00 ug/kg              | 8240          |
| 1,1,2,2,-Tetrachloroethane - solid          | KG      | 09/29/93 09:20   | <         | 5.000 ug/kg  | 5.00 ug/kg              | 8240          |
| Tetrachloroethene - solid                   | KG      | 09/29/93 09:20   | <         | 5.000 ug/kg  | 5.00 ug/kg              | 8240          |
| Toluene - solid                             | KG      | 09/29/93 09:20   | <         | 5.000 ug/kg  | 5.00 ug/kg              | 8240          |
| Chlorobenzene - solid                       | KG      | 09/29/93 09:20   | <         | 5.000 ug/kg  | 5.00 ug/kg              | 8240          |
| Ethylbenzene - solid                        | KG      | 09/29/93 09:20   | <         | 5.000 ug/kg  | 5.00 ug/kg              | 8240          |
| Chloroform - solid                          | KG      | 09/29/93 09:20   | <         | 5.000 ug/kg  | 5.00 ug/kg              | 8240          |
| Acetone - solid                             | KG      | 09/29/93 09:20   | <         | 0.200 mg/kg  | 0.20 mg/kg              | 8240          |
| Carbon tetrachloride - solid                | KG      | 09/29/93 09:20   | <         | 5.000 ug/kg  | 5.00 ug/kg              | 8240          |
| Xylene - solid                              | KG      | 09/29/93 09:20   | <         | 10.000 ug/kg | 10.00 ug/kg             | 8240          |
| 2-Butanone - solid                          | KG      | 09/29/93 09:20   | <         | 10.000 ug/kg | 10.00 ug/kg             | 8240          |
| Vinyl Acetate - solid                       | KG      | 09/29/93 09:20   | <         | 10.000 ug/kg | 10.00 ug/kg             | 8240          |
| 4-methyl-2 pentanone - solid                | KG      | 09/29/93 09:20   | <         | 10.000 ug/kg | 10.00 ug/kg             | 8240          |
| Styrene - solid                             | KG      | 09/29/93 09:20   | <         | 10.000 ug/kg | 10.00 ug/kg             | 8240          |
| Carbon Disulfide - solid                    | KG      | 09/29/93 09:20   | <         | 5.000 ug/kg  | 5.00 ug/kg              | 8240          |
| 2-Hexanone - solid                          | KG      | 09/29/93 09:20   | <         | 10.000 ug/kg | 10.00 ug/kg             | 8240          |

Comments:

TCLP Extracts were prepared and analyzed according to SW846 method 1311.  
Analytical results are reported on a wet-weight basis.

The volatile run was initiated at 16:25.

For Volatile Analysis: Due to the nature of the sample, the sample size was reduced from 5g to 1g. Therefore, the detection limits and less than values are actually 5 times those reported. However, the reported levels for the compounds found have already been corrected.

|   |     |                  |                |               |       |  |
|---|-----|------------------|----------------|---------------|-------|--|
| Sample Date: 09/16/93 In House # 09-6203-93 |     | Source: SB3-9-93 | Location:      |               |       |  |
| Metals Sample Preparation - water           | JAG | 09/23/93 17:00   | 0.000          | 0.00          |       |  |
| TCLP Extraction, excluding Volatile cpds    | JDW | 09/20/93 18:00   | 0.000          | 0.00          |       |  |
| TCLP Extraction, Volatile cpds, only        | JDW | 09/21/93 18:00   | 0.000          | 0.00          |       |  |
| TPH (heavy fuels) sample preparation        | SS  | 09/21/93 09:00   | 0.000          | 0.00          |       |  |
| Pesticide extraction - TCLP                 | MR  | 09/29/93 09:00   | 0.000          | 0.00          |       |  |
| Herbicide extraction - TCLP                 | SB  | 09/27/93 10:00   | 0.000          | 0.00          |       |  |
| Base Neutrals - TCLP extraction             | SB  | 09/23/93 08:00   | 0.000          | 0.00          |       |  |
| Acid - TCLP extraction                      | SB  | 09/23/93 08:00   | 0.000          | 0.00          |       |  |
| Lab pH                                      | TW  | 09/20/93 11:10   | 6.330 pH Units | 0.00 pH Units | 150.1 |  |
| Arsenic - TCLP                              | KAH | 09/28/93 22:37   | < 0.500 ppm    | 0.50 ppm      | 206.2 |  |
| Selenium - TCLP                             | KAH | 09/29/93 03:50   | < 0.100 ppm    | 0.10 ppm      | 270.2 |  |
| Barium - TCLP                               | CW  | 09/24/93 16:16   | < 10.000 ppm   | 10.00 ppm     | 200.7 |  |
| Cadmium - TCLP                              | CW  | 09/24/93 16:16   | < 0.100 ppm    | 0.10 ppm      | 200.7 |  |
| Chromium - TCLP                             | CW  | 09/24/93 16:16   | < 0.500 ppm    | 0.50 ppm      | 200.7 |  |
| Lead - TCLP                                 | KAH | 09/29/93 09:04   | < 0.500 ppm    | 0.50 ppm      | 239.2 |  |
| Mercury - TCLP                              | KAH | 09/23/93 12:00   | < 0.200 ppm    | 0.05 ppm      | 245.1 |  |
| Silver - TCLP                               | CW  | 09/24/93 16:16   | < 0.500 ppm    | 0.50 ppm      | 200.7 |  |
| Benzene - TCLP                              | KG  | 09/28/93 11:51   | < 0.500 mg/l   | 0.50 mg/l     | 624.  |  |
| Carbon Tetrachloride - TCLP                 | KG  | 09/28/93 11:51   | < 0.500 mg/l   | 0.50 mg/l     | 624.  |  |
| Chlorobenzene - TCLP                        | KG  | 09/28/93 11:51   | < 100.000 mg/l | 100.00 mg/l   | 624.  |  |
| Chloroform - TCLP                           | KG  | 09/28/93 11:51   | < 6.000 mg/l   | 6.00 mg/l     | 624.  |  |
| 1,4-Dichlorobenzene - TCLP                  | KG  | 09/28/93 11:51   | < 7.500 mg/l   | 7.50 mg/l     | 624.  |  |
| 1,2-Dichloroethane - TCLP                   | KG  | 09/28/93 11:51   | < 0.500 mg/l   | 0.50 mg/l     | 624.  |  |
| 1,1-Dichloroethylene - TCLP                 | KG  | 09/28/93 11:51   | < 0.700 mg/l   | 0.70 mg/l     | 624.  |  |
| Methyl Ethyl Ketone - TCLP                  | KG  | 09/28/93 11:51   | < 200.000 mg/l | 200.00 mg/l   | 624.  |  |
| Tetrachloroethylene - TCLP                  | KG  | 09/28/93 11:51   | < 0.700 mg/l   | 0.70 mg/l     | 624.  |  |
| Trichloroethylene - TCLP                    | KG  | 09/28/93 11:51   | < 0.500 mg/l   | 0.50 mg/l     | 624.  |  |
| Vinyl Chloride - TCLP                       | KG  | 09/28/93 11:51   | < 0.200 mg/l   | 0.20 mg/l     | 624.  |  |
| O-Cresol - TCLP                             | AT  | 09/29/93 11:44   | < 200.000 mg/l | 200.00 mg/l   | 625.  |  |
| M-Cresol - TCLP                             | AT  | 09/29/93 11:44   | < 200.000 mg/l | 200.00 mg/l   | 625.  |  |
| P-Cresol - TCLP                             | AT  | 09/29/93 11:44   | < 200.000 mg/l | 200.00 mg/l   | 625.  |  |
| Pentachlorophenol - TCLP                    | AT  | 09/29/93 11:44   | < 100.000 mg/l | 100.00 mg/l   | 625.  |  |
| 2,4,5-Trichlorophenol - TCLP                | AT  | 09/29/93 11:44   | < 400.000 mg/l | 400.00 mg/l   | 625.  |  |
| 2,4,6-Trichlorophenol - TCLP                | AT  | 09/29/93 11:44   | < 2.000 mg/l   | 2.00 mg/l     | 625.  |  |
| 2,4-Dinitrotoluene - TCLP                   | AT  | 09/29/93 11:44   | < 0.130 mg/l   | 0.13 mg/l     | 625.  |  |

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| Parameter                                   | Analyst | Date -- Time     | Analysis Results | Units       | Lowest Detectable Level | Method Number |
|---|---------|------------------|------------------|-------------|-------------------------|---------------|
| Sample Date: 09/16/93 In House # 09-6203-93 |         | Source: SB3-9-93 | Location:        |             |                         |               |
| - CONTINUED -                               |         |                  |                  |             |                         |               |
| Hexachlorobenzene - TCLP                    | AT      | 09/29/93 11:44   | < 0.130 mg/l     | 0.13 mg/l   | 625.                    |               |
| Hexachlorobutadiene - TCLP                  | AT      | 09/29/93 11:44   | < 0.500 mg/l     | 0.50 mg/l   | 625.                    |               |
| Hexachloroethane - TCLP                     | AT      | 09/29/93 11:44   | < 3.000 mg/l     | 3.00 mg/l   | 625.                    |               |
| Nitrobenzene - TCLP                         | AT      | 09/29/93 11:44   | < 0.130 mg/l     | 0.13 mg/l   | 625.                    |               |
| Pyridine - TCLP                             | AT      | 09/29/93 11:44   | < 5.000 mg/l     | 5.00 mg/l   | 625.                    |               |
| TPH light fuel, 5030/8015 - solid           | KG      | 09/30/93 11:24   | 13.200 mg/kg     | 10.00 mg/kg | 8015                    |               |
| TPH heavy fuel, 3550/8015 - solid           | RK      | 09/23/93 21:15   | 140.000 mg/kg    | 10.00 mg/kg | 8015                    |               |
| Toxaphene TCLP - liquid                     | RHK     | 09/29/93 20:26   | < 0.500 mg/l     | 0.50 mg/l   | 608                     |               |
| 2,4-D TCLP - liquid                         | RHK     | 09/30/93 15:71   | < 10.000 mg/l    | 10.00 mg/l  | 509.                    |               |
| Silvex TCLP - liquid                        | RHK     | 09/30/93 15:71   | < 1.000 mg/l     | 1.00 mg/l   | 509.                    |               |
| Chlordane TCLP - liquid                     | RHK     | 09/29/93 20:26   | < 0.030 mg/l     | 0.03 mg/l   | 608.                    |               |
| Endrin TCLP - liquid                        | RHK     | 09/29/93 20:26   | < 0.020 mg/l     | 0.02 mg/l   | 608.                    |               |
| Heptachlor TCLP - liquid                    | RHK     | 09/29/93 20:26   | < 8.000 ug/l     | 8.00 ug/l   | 608.                    |               |
| Heptachlor Epoxide TCLP - liquid            | RHK     | 09/29/93 20:26   | < 8.000 ug/l     | 8.00 ug/l   | 608.                    |               |
| Lindane TCLP - liquid                       | RHK     | 09/29/93 20:26   | < 0.400 mg/l     | 0.40 mg/l   | 608.                    |               |
| Methoxychlor TCLP - liquid                  | RHK     | 09/29/93 20:26   | < 10.000 mg/l    | 10.00 mg/l  | 608.                    |               |
| % Solids                                    | MB      | 09/23/93 09:00   | 81.900 %         | 0.01 %      | 160.3                   |               |
| Chloroethane - solid                        | KG      | 09/29/93 09:22   | < 10.000 ug/kg   | 10.00 ug/kg | 8240                    |               |
| Chloromethane - solid                       | KG      | 09/29/93 09:22   | < 10.000 ug/kg   | 10.00 ug/kg | 8240                    |               |
| Bromomethane - solid                        | KG      | 09/29/93 09:22   | < 10.000 ug/kg   | 10.00 ug/kg | 8240                    |               |
| Vinyl Chloride - solid                      | KG      | 09/29/93 09:22   | < 10.000 ug/kg   | 10.00 ug/kg | 8240                    |               |
| Methylene Chloride - solid                  | KG      | 09/29/93 09:22   | < 5.000 ug/kg    | 5.00 ug/kg  | 8240                    |               |
| Trichlorofluoromethane - solid              | KG      | 09/29/93 09:22   | < 10.000 ug/kg   | 10.00 ug/kg | 8240                    |               |
| 1,1-Dichloroethene - solid                  | KG      | 09/29/93 09:22   | < 5.000 ug/kg    | 5.00 ug/kg  | 8240                    |               |
| 1,1-Dichloroethane - solid                  | KG      | 09/29/93 09:22   | < 5.000 ug/kg    | 5.00 ug/kg  | 8240                    |               |
| Trans 1,2-Dichloroethene - solid            | KG      | 09/29/93 09:22   | < 5.000 ug/kg    | 5.00 ug/kg  | 8240                    |               |
| 1,2-Dichloroethane - solid                  | KG      | 09/29/93 09:22   | < 5.000 ug/kg    | 5.00 ug/kg  | 8240                    |               |
| 1,1,1-Trichloroethane - solid               | KG      | 09/29/93 09:22   | < 5.000 ug/kg    | 5.00 ug/kg  | 8240                    |               |
| Bromodichloromethane - solid                | KG      | 09/29/93 09:22   | < 5.000 ug/kg    | 5.00 ug/kg  | 8240                    |               |
| 1,2-Dichloropropane - solid                 | KG      | 09/29/93 09:22   | < 5.000 ug/kg    | 5.00 ug/kg  | 8240                    |               |
| Trans 1,3-Dichloropropene - solid           | KG      | 09/29/93 09:22   | < 5.000 ug/kg    | 5.00 ug/kg  | 8240                    |               |
| Trichloroethene - solid                     | KG      | 09/29/93 09:22   | < 5.000 ug/kg    | 5.00 ug/kg  | 8240                    |               |
| Dibromochloromethane - solid                | KG      | 09/29/93 09:22   | < 5.000 ug/kg    | 5.00 ug/kg  | 8240                    |               |
| 1,1,2-trichloroethane - solid               | KG      | 09/29/93 09:22   | < 5.000 ug/kg    | 5.00 ug/kg  | 8240                    |               |
| Cis-1,3-Dichloropropene - solid             | KG      | 09/29/93 09:22   | < 5.000 ug/kg    | 5.00 ug/kg  | 8240                    |               |
| Benzene - solid                             | KG      | 09/29/93 09:22   | 125.000 ug/kg    | 5.00 ug/kg  | 8240                    |               |
| 2-Chloroethylvinyl ether - solid            | KG      | 09/29/93 09:22   | < 10.000 ug/kg   | 10.00 ug/kg | 8240                    |               |
| Bromoform - solid                           | KG      | 09/29/93 09:22   | < 5.000 ug/kg    | 5.00 ug/kg  | 8240                    |               |
| 1,1,2,2,-Tetrachloroethane - solid          | KG      | 09/29/93 09:22   | 313.000 ug/kg    | 5.00 ug/kg  | 8240                    |               |
| Tetrachloroethene - solid                   | KG      | 09/29/93 09:22   | < 5.000 ug/kg    | 5.00 ug/kg  | 8240                    |               |
| Toluene - solid                             | KG      | 09/29/93 09:22   | 205.000 ug/kg    | 5.00 ug/kg  | 8240                    |               |
| Chlorobenzene - solid                       | KG      | 09/29/93 09:22   | < 5.000 ug/kg    | 5.00 ug/kg  | 8240                    |               |
| Ethylbenzene - solid                        | KG      | 09/29/93 09:22   | 415.000 ug/kg    | 5.00 ug/kg  | 8240                    |               |
| Chloroform - solid                          | KG      | 09/29/93 09:22   | < 5.000 ug/kg    | 5.00 ug/kg  | 8240                    |               |
| Acetone - solid                             | KG      | 09/29/93 09:22   | < 0.200 mg/kg    | 0.20 mg/kg  | 8240                    |               |
| Carbon tetrachloride - solid                | KG      | 09/29/93 09:22   | < 5.000 ug/kg    | 5.00 ug/kg  | 8240                    |               |
| Xylene - solid                              | KG      | 09/29/93 09:22   | 1213.000 ug/kg   | 10.00 ug/kg | 8240                    |               |
| 2-Butanone - solid                          | KG      | 09/29/93 09:22   | < 10.000 ug/kg   | 10.00 ug/kg | 8240                    |               |
| Vinyl Acetate - solid                       | KG      | 09/29/93 09:22   | < 10.000 ug/kg   | 10.00 ug/kg | 8240                    |               |
| 4-methyl-2-pentanone - solid                | KG      | 09/29/93 09:22   | < 10.000 ug/kg   | 10.00 ug/kg | 8240                    |               |
| Styrene - solid                             | KG      | 09/29/93 09:22   | < 10.000 ug/kg   | 10.00 ug/kg | 8240                    |               |
| Carbon Disulfide - solid                    | KG      | 09/29/93 09:22   | < 5.000 ug/kg    | 5.00 ug/kg  | 8240                    |               |
| 2-Hexanone - solid                          | KG      | 09/29/93 09:22   | < 10.000 ug/kg   | 10.00 ug/kg | 8240                    |               |

Comments:

TCLP Extracts were prepared and analyzed according to SW846 method 1311. Analytical results are reported on a wet-weight basis.

The volatile run was initiated at 16:57.

For Volatile Analysis: Due to the nature of the sample, the sample size was reduced from 5g to 0.2g. Therefore, the detection limits and less than values are actually 25 times those reported. However, the reported levels for the compounds found have already been corrected.

Sample Date: 09/16/93 In House # 09-6204-93 Source: SB3-DUP Location:

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| Parameter                                |                       | Analyst  | Date -- Time    | Results   | Units     | Lowest Detectable Level | Method Number |
|--|-----------------------|----------|-----------------|-----------|-----------|-------------------------|---------------|
| Sample Date: 09/16/93                    | In House # 09-6204-93 |          | Source: SB3-DUP |           | Location: |                         |               |
| - CONTINUED -                            |                       |          |                 |           |           |                         |               |
| Metals Sample Preparation - water        | JAG                   | 09/23/93 | 17:00           | 0.000     |           | 0.00                    |               |
| TCLP Extraction, excluding Volatile cpds | JDW                   | 09/20/93 | 18:00           | 0.000     |           | 0.00                    |               |
| TCLP Extraction, Volatile cpds. only     | JDW                   | 09/21/93 | 18:00           | 0.000     |           | 0.00                    |               |
| TPH (heavy fuels) sample preparation     | SS                    | 09/21/93 | 09:00           | 0.000     |           | 0.00                    |               |
| Pesticide extraction - TCLP              | MR                    | 09/29/93 | 09:00           | 0.000     |           | 0.00                    |               |
| Herbicide extraction - TCLP              | SB                    | 09/27/93 | 10:00           | 0.000     |           | 0.00                    |               |
| Base Neutrals - TCLP extraction          | SB                    | 09/23/93 | 08:00           | 0.000     |           | 0.00                    |               |
| Acid - TCLP extraction                   | SB                    | 09/23/93 | 08:00           | 0.000     |           | 0.00                    |               |
| Arsenic - TCLP                           | KAH                   | 09/28/93 | 22:43           | < 0.500   | ppm       | 0.50 ppm                | 206.2         |
| Selenium - TCLP                          | KAH                   | 09/29/93 | 03:56           | < 0.100   | ppm       | 0.10 ppm                | 270.2         |
| Barium - TCLP                            | CW                    | 09/24/93 | 16:16           | < 10.000  | ppm       | 10.00 ppm               | 200.7         |
| Cadmium - TCLP                           | CW                    | 09/24/93 | 16:16           | < 0.100   | ppm       | 0.10 ppm                | 200.7         |
| Chromium - TCLP                          | CW                    | 09/24/93 | 16:16           | < 0.500   | ppm       | 0.50 ppm                | 200.7         |
| Lead - TCLP                              | KAH                   | 09/29/93 | 09:10           | < 0.500   | ppm       | 0.50 ppm                | 239.2         |
| Mercury - TCLP                           | KAH                   | 09/23/93 | 12:00           | < 0.200   | ppm       | 0.05 ppm                | 245.1         |
| Silver - TCLP                            | CW                    | 09/24/93 | 16:16           | < 0.500   | ppm       | 0.50 ppm                | 200.7         |
| Benzene - TCLP                           | KG                    | 09/28/93 | 12:23           | < 0.500   | mg/l      | 0.50 mg/l               | 624.          |
| Carbon Tetrachloride - TCLP              | KG                    | 09/28/93 | 12:23           | < 0.500   | mg/l      | 0.50 mg/l               | 624.          |
| Chlorobenzene - TCLP                     | KG                    | 09/28/93 | 12:23           | < 100.000 | mg/l      | 100.00 mg/l             | 624.          |
| Chloroform - TCLP                        | KG                    | 09/28/93 | 12:23           | < 6.000   | mg/l      | 6.00 mg/l               | 624.          |
| 1,4-Dichlorobenzene - TCLP               | KG                    | 09/28/93 | 12:23           | < 7.500   | mg/l      | 7.50 mg/l               | 624.          |
| 1,2-Dichloroethane - TCLP                | KG                    | 09/28/93 | 12:23           | < 0.500   | mg/l      | 0.50 mg/l               | 624.          |
| 1,1-Dichloroethylene - TCLP              | KG                    | 09/28/93 | 12:23           | < 0.700   | mg/l      | 0.70 mg/l               | 624.          |
| Methyl Ethyl Ketone - TCLP               | KG                    | 09/28/93 | 12:23           | < 200.000 | mg/l      | 200.00 mg/l             | 624.          |
| Tetrachloroethylene - TCLP               | KG                    | 09/28/93 | 12:23           | < 0.700   | mg/l      | 0.70 mg/l               | 624.          |
| Trichloroethylene - TCLP                 | KG                    | 09/28/93 | 12:23           | < 0.500   | mg/l      | 0.50 mg/l               | 624.          |
| Vinyl Chloride - TCLP                    | KG                    | 09/28/93 | 12:23           | < 0.200   | mg/l      | 0.20 mg/l               | 624.          |
| O-Cresol - TCLP                          | AT                    | 09/29/93 | 13:23           | < 200.000 | mg/l      | 200.00 mg/l             | 625.          |
| M-Cresol - TCLP                          | AT                    | 09/29/93 | 13:23           | < 200.000 | mg/l      | 200.00 mg/l             | 625.          |
| P-Cresol - TCLP                          | AT                    | 09/29/93 | 13:23           | < 200.000 | mg/l      | 200.00 mg/l             | 625.          |
| Pentachlorophenol - TCLP                 | AT                    | 09/29/93 | 13:23           | < 100.000 | mg/l      | 100.00 mg/l             | 625.          |
| 2,4,5-Trichlorophenol - TCLP             | AT                    | 09/29/93 | 13:23           | < 400.000 | mg/l      | 400.00 mg/l             | 625.          |
| 2,4,6-Trichlorophenol - TCLP             | AT                    | 09/29/93 | 13:23           | < 2.000   | mg/l      | 2.00 mg/l               | 625.          |
| 2,4-Dinitrotoluene - TCLP                | AT                    | 09/29/93 | 13:23           | < 0.130   | mg/l      | 0.13 mg/l               | 625.          |
| Hexachlorobenzene - TCLP                 | AT                    | 09/29/93 | 13:23           | < 0.130   | mg/l      | 0.13 mg/l               | 625.          |
| Hexachlorobutadiene - TCLP               | AT                    | 09/29/93 | 13:23           | < 0.500   | mg/l      | 0.50 mg/l               | 625.          |
| Hexachloroethane - TCLP                  | AT                    | 09/29/93 | 13:23           | < 3.000   | mg/l      | 3.00 mg/l               | 625.          |
| Nitrobenzene - TCLP                      | AT                    | 09/29/93 | 13:23           | < 0.130   | mg/l      | 0.13 mg/l               | 625.          |
| Pyridine - TCLP                          | AT                    | 09/29/93 | 13:23           | < 5.000   | mg/l      | 5.00 mg/l               | 625.          |
| TPH light fuel, 5030/8015 - solid        | KG                    | 09/30/93 | 11:51           | < 10.000  | mg/kg     | 10.00 mg/kg             | 8015          |
| TPH heavy fuel, 3550/8015 - solid        | RK                    | 09/23/93 | 20:46           | 140.000   | mg/kg     | 10.00 mg/kg             | 8015          |
| Toxaphene TCLP - liquid                  | RHK                   | 09/29/93 | 21:05           | < 0.500   | mg/l      | 0.50 mg/l               | 608           |
| 2,4-D TCLP - liquid                      | RHK                   | 09/30/93 | 15:42           | < 10.000  | mg/l      | 10.00 mg/l              | 509.          |
| Silvex TCLP - liquid                     | RHK                   | 09/30/93 | 15:42           | < 1.000   | mg/l      | 1.00 mg/l               | 509.          |
| Chlordane TCLP - liquid                  | RHK                   | 09/29/93 | 21:05           | < 0.030   | mg/l      | 0.03 mg/l               | 608.          |
| Endrin TCLP - liquid                     | RHK                   | 09/29/93 | 21:05           | < 0.020   | mg/l      | 0.02 mg/l               | 608.          |
| Heptachlor TCLP - liquid                 | RHK                   | 09/29/93 | 21:05           | < 8.000   | ug/l      | 8.00 ug/l               | 608.          |
| Heptachlor Epoxide TCLP - liquid         | RHK                   | 09/29/93 | 21:05           | < 8.000   | ug/l      | 8.00 ug/l               | 608.          |
| Lindane TCLP - liquid                    | RHK                   | 09/29/93 | 21:05           | < 0.400   | mg/l      | 0.40 mg/l               | 608.          |
| Methoxychlor TCLP - liquid               | RHK                   | 09/29/93 | 21:05           | < 10.000  | mg/l      | 10.00 mg/l              | 608.          |
| % Solids                                 | NB                    | 09/23/93 | 09:00           | 81.700    | %         | 0.01 %                  | 160.3         |
| Chloroethane - solid                     | KG                    | 09/29/93 | 09:24           | < 10.000  | ug/kg     | 10.00 ug/kg             | 8240          |
| Chloromethane - solid                    | KG                    | 09/29/93 | 09:24           | < 10.000  | ug/kg     | 10.00 ug/kg             | 8240          |
| Bromomethane - solid                     | KG                    | 09/29/93 | 09:24           | < 10.000  | ug/kg     | 10.00 ug/kg             | 8240          |
| Vinyl Chloride - solid                   | KG                    | 09/29/93 | 09:24           | < 10.000  | ug/kg     | 10.00 ug/kg             | 8240          |
| Methylene Chloride - solid               | KG                    | 09/29/93 | 09:24           | < 5.000   | ug/kg     | 5.00 ug/kg              | 8240          |
| Trichlorofluoromethane - solid           | KG                    | 09/29/93 | 09:24           | < 10.000  | ug/kg     | 10.00 ug/kg             | 8240          |
| 1,1-Dichloroethene - solid               | KG                    | 09/29/93 | 09:24           | < 5.000   | ug/kg     | 5.00 ug/kg              | 8240          |
| 1,1-Dichloroethane - solid               | KG                    | 09/29/93 | 09:24           | < 5.000   | ug/kg     | 5.00 ug/kg              | 8240          |
| Trans 1,2-Dichloroethene - solid         | KG                    | 09/29/93 | 09:24           | < 5.000   | ug/kg     | 5.00 ug/kg              | 8240          |
| 1,2-Dichloroethane - solid               | KG                    | 09/29/93 | 09:24           | < 5.000   | ug/kg     | 5.00 ug/kg              | 8240          |
| 1,1,1-Trichloroethane - solid            | KG                    | 09/29/93 | 09:24           | < 5.000   | ug/kg     | 5.00 ug/kg              | 8240          |
| Bromodichloromethane - solid             | KG                    | 09/29/93 | 09:24           | < 5.000   | ug/kg     | 5.00 ug/kg              | 8240          |
| 1,2-Dichloropropene - solid              | KG                    | 09/29/93 | 09:24           | < 5.000   | ug/kg     | 5.00 ug/kg              | 8240          |
| Trans 1,3-Dichloropropene - solid        | KG                    | 09/29/93 | 09:24           | < 5.000   | ug/kg     | 5.00 ug/kg              | 8240          |

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| Parameter                         |                       | Analyst  | Date -- Time    | Results | Units         | Lowest Detectable Level | Method Number |
|-----------------------------------|-----------------------|----------|-----------------|---------|---------------|-------------------------|---------------|
| Sample Date: 09/16/93             | In House # 09-6204-93 |          | Source: SB3-DUP |         | Location:     |                         |               |
| - CONTINUED -                     |                       |          |                 |         |               |                         |               |
| Trichloroethene - solid           | KG                    | 09/29/93 | 09:24           | <       | 5.000 ug/kg   | 5.00 ug/kg              | 8240          |
| Dibromochloromethane - solid      | KG                    | 09/29/93 | 09:24           | <       | 5.000 ug/kg   | 5.00 ug/kg              | 8240          |
| 1,1,2-trichloroethane - solid     | KG                    | 09/29/93 | 09:24           | <       | 5.000 ug/kg   | 5.00 ug/kg              | 8240          |
| Cis-1,3-Dichloropropene - solid   | KG                    | 09/29/93 | 09:24           | <       | 5.000 ug/kg   | 5.00 ug/kg              | 8240          |
| Benzene - solid                   | KG                    | 09/29/93 | 09:24           |         | 37.500 ug/kg  | 5.00 ug/kg              | 8240          |
| 2-Chloroethylvinyl ether - solid  | KG                    | 09/29/93 | 09:24           | <       | 10.000 ug/kg  | 10.00 ug/kg             | 8240          |
| Bromoform - solid                 | KG                    | 09/29/93 | 09:24           | <       | 5.000 ug/kg   | 5.00 ug/kg              | 8240          |
| 1,1,2,2-Tetrachloroethane - solid | KG                    | 09/29/93 | 09:24           |         | 92.000 ug/kg  | 5.00 ug/kg              | 8240          |
| Tetrachloroethene - solid         | KG                    | 09/29/93 | 09:24           | <       | 5.000 ug/kg   | 5.00 ug/kg              | 8240          |
| Toluene - solid                   | KG                    | 09/29/93 | 09:24           |         | 79.000 ug/kg  | 5.00 ug/kg              | 8240          |
| Chlorobenzene - solid             | KG                    | 09/29/93 | 09:24           | <       | 5.000 ug/kg   | 5.00 ug/kg              | 8240          |
| Ethylbenzene - solid              | KG                    | 09/29/93 | 09:24           |         | 207.000 ug/kg | 5.00 ug/kg              | 8240          |
| Chloroform - solid                | KG                    | 09/29/93 | 09:24           | <       | 5.000 ug/kg   | 5.00 ug/kg              | 8240          |
| Acetone - solid                   | KG                    | 09/29/93 | 09:24           | <       | 0.200 mg/kg   | 0.20 mg/kg              | 8240          |
| Carbon tetrachloride - solid      | KG                    | 09/29/93 | 09:24           | <       | 5.000 ug/kg   | 5.00 ug/kg              | 8240          |
| Xylene - solid                    | KG                    | 09/29/93 | 09:24           |         | 643.000 ug/kg | 10.00 ug/kg             | 8240          |
| 2-Butanone - solid                | KG                    | 09/29/93 | 09:24           | <       | 10.000 ug/kg  | 10.00 ug/kg             | 8240          |
| Vinyl Acetate - solid             | KG                    | 09/29/93 | 09:24           |         | 10.000 ug/kg  | 10.00 ug/kg             | 8240          |
| 4-methyl-2 pentanone - solid      | KG                    | 09/29/93 | 09:24           | <       | 10.000 ug/kg  | 10.00 ug/kg             | 8240          |
| Styrene - solid                   | KG                    | 09/29/93 | 09:24           | <       | 10.000 ug/kg  | 10.00 ug/kg             | 8240          |
| Carbon Disulfide - solid          | KG                    | 09/29/93 | 09:24           | <       | 5.000 ug/kg   | 5.00 ug/kg              | 8240          |
| 2-Hexanone - solid                | KG                    | 09/29/93 | 09:24           | <       | 10.000 ug/kg  | 10.00 ug/kg             | 8240          |

Comments:

TCLP Extracts were prepared and analyzed according to SW846 method 1311.  
Analytical results are reported on a wet-weight basis.

The volatile run was initiated at 17:28.

For Volatile Analysis: Due to the nature of the sample, the sample size was reduced from 5g to 1g. Therefore, the detection limits and less than values are actually 5 times those reported. However, the reported levels for the compounds found have already been corrected.

|  |                       |                |           |                |               |       |  |
|--|-----------------------|----------------|-----------|----------------|---------------|-------|--|
| Sample Date: 09/16/93                    | In House # 09-6205-93 | Source: SB4-93 | Location: |                |               |       |  |
| Metals Sample Preparation - Water        | JAG                   | 09/23/93       | 17:00     | 0.000          |               | 0.00  |  |
| TCLP Extraction, excluding Volatile cpds | JDW                   | 09/20/93       | 18:00     | 0.000          |               | 0.00  |  |
| TCLP Extraction, Volatile cpds. only     | JDW                   | 09/21/93       | 18:00     | 0.000          |               | 0.00  |  |
| TPH (heavy fuels) sample preparation     | SS                    | 09/21/93       | 09:00     | 0.000          |               | 0.00  |  |
| Pesticide extraction - TCLP              | MR                    | 09/29/93       | 09:00     | 0.000          |               | 0.00  |  |
| Herbicide extraction - TCLP              | SB                    | 09/27/93       | 10:00     | 0.000          |               | 0.00  |  |
| Base Neutrals - TCLP extraction          | SB                    | 09/23/93       | 08:00     | 0.000          |               | 0.00  |  |
| Acid - TCLP extraction                   | SB                    | 09/23/93       | 08:00     | 0.000          |               | 0.00  |  |
| Lab pH                                   | TW                    | 09/20/93       | 11:10     | 5.710 pH Units | 0.00 pH Units | 150.1 |  |
| Arsenic - TCLP                           | KAH                   | 09/28/93       | 22:49     | < 0.500 ppm    | 0.50 ppm      | 206.2 |  |
| Selenium - TCLP                          | KAH                   | 09/29/93       | 04:02     | < 0.100 ppm    | 0.10 ppm      | 270.2 |  |
| Barium - TCLP                            | CW                    | 09/24/93       | 16:20     | < 10.000 ppm   | 10.00 ppm     | 200.7 |  |
| Cadmium - TCLP                           | CW                    | 09/24/93       | 16:20     | < 0.100 ppm    | 0.10 ppm      | 200.7 |  |
| Chromium - TCLP                          | CW                    | 09/24/93       | 16:20     | < 0.500 ppm    | 0.50 ppm      | 200.7 |  |
| Lead - TCLP                              | KAH                   | 09/29/93       | 09:16     | < 0.500 ppm    | 0.50 ppm      | 239.2 |  |
| Mercury - TCLP                           | CMP                   | 09/28/93       | 14:00     | < 0.050 ppm    | 0.05 ppm      | 245.1 |  |
| Silver - TCLP                            | CW                    | 09/24/93       | 16:20     | < 0.500 ppm    | 0.50 ppm      | 200.7 |  |
| Benzene - TCLP                           | KG                    | 09/28/93       | 12:55     | < 0.500 mg/l   | 0.50 mg/l     | 624.  |  |
| Carbon Tetrachloride - TCLP              | KG                    | 09/28/93       | 12:55     | < 0.500 mg/l   | 0.50 mg/l     | 624.  |  |
| Chlorobenzene - TCLP                     | KG                    | 09/28/93       | 12:55     | < 100.000 mg/l | 100.00 mg/l   | 624.  |  |
| Chloroform - TCLP                        | KG                    | 09/28/93       | 12:55     | < 6.000 mg/l   | 6.00 mg/l     | 624.  |  |
| 1,4-Dichlorobenzene - TCLP               | KG                    | 09/28/93       | 12:55     | < 7.500 mg/l   | 7.50 mg/l     | 624.  |  |
| 1,2-Dichloroethane - TCLP                | KG                    | 09/28/93       | 12:55     | < 0.500 mg/l   | 0.50 mg/l     | 624.  |  |
| 1,1-Dichloroethylene - TCLP              | KG                    | 09/28/93       | 12:55     | < 0.700 mg/l   | 0.70 mg/l     | 624.  |  |
| Methyl Ethyl Ketone - TCLP               | KG                    | 09/28/93       | 12:55     | < 200.000 mg/l | 200.00 mg/l   | 624.  |  |
| Tetrachloroethylene - TCLP               | KG                    | 09/28/93       | 12:55     | < 0.700 mg/l   | 0.70 mg/l     | 624.  |  |
| Trichloroethylene - TCLP                 | KG                    | 09/28/93       | 12:55     | < 0.500 mg/l   | 0.50 mg/l     | 624.  |  |
| Vinyl Chloride - TCLP                    | KG                    | 09/28/93       | 12:55     | < 0.200 mg/l   | 0.20 mg/l     | 624.  |  |
| O-Cresol - TCLP                          | AT                    | 09/29/93       | 14:09     | < 200.000 mg/l | 200.00 mg/l   | 625.  |  |
| M-Cresol - TCLP                          | AT                    | 09/29/93       | 14:09     | < 200.000 mg/l | 200.00 mg/l   | 625.  |  |

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| Parameter                                   | Analyst | Analysis       |         |                | Units       | Lowest Detectable Level | Method Number |
|---|---------|----------------|---------|----------------|-------------|-------------------------|---------------|
|   |         | Date           | -- Time | Results        |             |                         |               |
| Sample Date: 09/16/93 In House # 09-6205-93 |         | Source: SB4-93 |         | Location:      |             |                         |               |
| - CONTINUED -                               |         |                |         |                |             |                         |               |
| P-Cresol - TCLP                             | AT      | 09/29/93       | 14:09   | < 200.000 mg/l | 200.00 mg/l | 625.                    |               |
| Pentachlorophenol - TCLP                    | AT      | 09/29/93       | 14:09   | < 100.000 mg/l | 100.00 mg/l | 625.                    |               |
| 2,4,5-Trichlorophenol - TCLP                | AT      | 09/29/93       | 14:09   | < 400.000 mg/l | 400.00 mg/l | 625.                    |               |
| 2,4,6-Trichlorophenol - TCLP                | AT      | 09/29/93       | 14:09   | < 2.000 mg/l   | 2.00 mg/l   | 625.                    |               |
| 2,4-Dinitrotoluene - TCLP                   | AT      | 09/29/93       | 14:09   | < 0.130 mg/l   | 0.13 mg/l   | 625.                    |               |
| Hexachlorobenzene - TCLP                    | AT      | 09/29/93       | 14:09   | < 0.130 mg/l   | 0.13 mg/l   | 625.                    |               |
| Hexachlorobutadiene - TCLP                  | AT      | 09/29/93       | 14:09   | < 0.500 mg/l   | 0.50 mg/l   | 625.                    |               |
| Hexachloroethane - TCLP                     | AT      | 09/29/93       | 14:09   | < 3.000 mg/l   | 3.00 mg/l   | 625.                    |               |
| Nitrobenzene - TCLP                         | AT      | 09/29/93       | 14:09   | < 0.130 mg/l   | 0.13 mg/l   | 625.                    |               |
| Pyridine - TCLP                             | AT      | 09/29/93       | 14:09   | < 5.000 mg/l   | 5.00 mg/l   | 625.                    |               |
| TPH light fuel, 5030/8015 - solid           | KG      | 09/30/93       | 12:17   | < 10.000 mg/kg | 10.00 mg/kg | 8015                    |               |
| TPH heavy fuel, 3550/8015 - solid           | RK      | 09/23/93       | 20:17   | < 10.000 mg/kg | 10.00 mg/kg | 8015                    |               |
| Toxaphene TCLP - liquid                     | RMK     | 09/29/93       | 21:45   | < 0.500 mg/l   | 0.50 mg/l   | 608.                    |               |
| 2,4-D TCLP - liquid                         | RMK     | 09/30/93       | 16:08   | < 10.000 mg/l  | 10.00 mg/l  | 509.                    |               |
| Silvex TCLP - liquid                        | RMK     | 09/30/93       | 16:08   | < 1.000 mg/l   | 1.00 mg/l   | 509.                    |               |
| Chlordane TCLP - liquid                     | RMK     | 09/29/93       | 21:45   | < 0.030 mg/l   | 0.03 mg/l   | 608.                    |               |
| Endrin TCLP - liquid                        | RMK     | 09/29/93       | 21:45   | < 0.020 mg/l   | 0.02 mg/l   | 608.                    |               |
| Heptachlor TCLP - liquid                    | RMK     | 09/29/93       | 21:45   | < 8.000 ug/l   | 8.00 ug/l   | 608.                    |               |
| Heptachlor Epoxide TCLP - liquid            | RMK     | 09/29/93       | 21:45   | < 8.000 ug/l   | 8.00 ug/l   | 608.                    |               |
| Lindane TCLP - liquid                       | RMK     | 09/29/93       | 21:45   | < 0.400 mg/l   | 0.40 mg/l   | 608.                    |               |
| Methoxychlor TCLP - liquid                  | RMK     | 09/29/93       | 21:45   | < 10.000 mg/l  | 10.00 mg/l  | 608.                    |               |
| % Solids                                    | MB      | 09/23/93       | 09:00   | 88.400 %       | 0.01 %      | 160.3                   |               |
| Chloroethane - solid                        | KG      | 09/29/93       | 09:32   | < 10.000 ug/kg | 10.00 ug/kg | 8240                    |               |
| Chloromethane - solid                       | KG      | 09/29/93       | 09:32   | < 10.000 ug/kg | 10.00 ug/kg | 8240                    |               |
| Bromomethane - solid                        | KG      | 09/29/93       | 09:32   | < 10.000 ug/kg | 10.00 ug/kg | 8240                    |               |
| Vinyl Chloride - solid                      | KG      | 09/29/93       | 09:32   | < 10.000 ug/kg | 10.00 ug/kg | 8240                    |               |
| Methylene Chloride - solid                  | KG      | 09/29/93       | 09:32   | < 5.000 ug/kg  | 5.00 ug/kg  | 8240                    |               |
| Trichlorofluoromethane - solid              | KG      | 09/29/93       | 09:32   | < 10.000 ug/kg | 10.00 ug/kg | 8240                    |               |
| 1,1-Dichloroethene - solid                  | KG      | 09/29/93       | 09:32   | < 5.000 ug/kg  | 5.00 ug/kg  | 8240                    |               |
| 1,1-Dichloroethane - solid                  | KG      | 09/29/93       | 09:32   | < 5.000 ug/kg  | 5.00 ug/kg  | 8240                    |               |
| Trans 1,2-Dichloroethene - solid            | KG      | 09/29/93       | 09:32   | < 5.000 ug/kg  | 5.00 ug/kg  | 8240                    |               |
| 1,2-Dichloroethane - solid                  | KG      | 09/29/93       | 09:32   | < 5.000 ug/kg  | 5.00 ug/kg  | 8240                    |               |
| 1,1,1-Trichloroethane - solid               | KG      | 09/29/93       | 09:32   | < 5.000 ug/kg  | 5.00 ug/kg  | 8240                    |               |
| Bromodichloromethane - solid                | KG      | 09/29/93       | 09:32   | < 5.000 ug/kg  | 5.00 ug/kg  | 8240                    |               |
| 1,2-Dichloropropane - solid                 | KG      | 09/29/93       | 09:32   | < 5.000 ug/kg  | 5.00 ug/kg  | 8240                    |               |
| Trans 1,3-Dichloropropene - solid           | KG      | 09/29/93       | 09:32   | < 5.000 ug/kg  | 5.00 ug/kg  | 8240                    |               |
| Trichloroethene - solid                     | KG      | 09/29/93       | 09:32   | < 5.000 ug/kg  | 5.00 ug/kg  | 8240                    |               |
| Dibromochloromethane - solid                | KG      | 09/29/93       | 09:32   | < 5.000 ug/kg  | 5.00 ug/kg  | 8240                    |               |
| 1,1,2-trichloroethane - solid               | KG      | 09/29/93       | 09:32   | < 5.000 ug/kg  | 5.00 ug/kg  | 8240                    |               |
| Cis-1,3-Dichloropropene - solid             | KG      | 09/29/93       | 09:32   | < 5.000 ug/kg  | 5.00 ug/kg  | 8240                    |               |
| Benzene - solid                             | KG      | 09/29/93       | 09:32   | < 5.000 ug/kg  | 5.00 ug/kg  | 8240                    |               |
| 2-Chloroethylvinyl ether - solid            | KG      | 09/29/93       | 09:32   | < 10.000 ug/kg | 10.00 ug/kg | 8240                    |               |
| Bromoform - solid                           | KG      | 09/29/93       | 09:32   | < 5.000 ug/kg  | 5.00 ug/kg  | 8240                    |               |
| 1,1,2,2-Tetrachloroethane - solid           | KG      | 09/29/93       | 09:32   | < 5.000 ug/kg  | 5.00 ug/kg  | 8240                    |               |
| Tetrachloroethene - solid                   | KG      | 09/29/93       | 09:32   | < 5.000 ug/kg  | 5.00 ug/kg  | 8240                    |               |
| Toluene - solid                             | KG      | 09/29/93       | 09:32   | < 5.000 ug/kg  | 5.00 ug/kg  | 8240                    |               |
| Chlorobenzene - solid                       | KG      | 09/29/93       | 09:32   | < 5.000 ug/kg  | 5.00 ug/kg  | 8240                    |               |
| Ethylbenzene - solid                        | KG      | 09/29/93       | 09:32   | < 5.000 ug/kg  | 5.00 ug/kg  | 8240                    |               |
| Chloroform - solid                          | KG      | 09/29/93       | 09:32   | < 5.000 ug/kg  | 5.00 ug/kg  | 8240                    |               |
| Acetone - solid                             | KG      | 09/29/93       | 09:32   | < 0.200 mg/kg  | 0.20 mg/kg  | 8240                    |               |
| Carbon tetrachloride - solid                | KG      | 09/29/93       | 09:32   | < 5.000 ug/kg  | 5.00 ug/kg  | 8240                    |               |
| Xylene - solid                              | KG      | 09/29/93       | 09:32   | < 10.000 ug/kg | 10.00 ug/kg | 8240                    |               |
| 2-Butanone - solid                          | KG      | 09/29/93       | 09:32   | < 10.000 ug/kg | 10.00 ug/kg | 8240                    |               |
| Vinyl Acetate - solid                       | KG      | 09/29/93       | 09:32   | < 10.000 ug/kg | 10.00 ug/kg | 8240                    |               |
| 4-methyl-2-pentanone - solid                | KG      | 09/29/93       | 09:32   | < 10.000 ug/kg | 10.00 ug/kg | 8240                    |               |
| Styrene - solid                             | KG      | 09/29/93       | 09:32   | < 10.000 ug/kg | 10.00 ug/kg | 8240                    |               |
| Carbon Disulfide - solid                    | KG      | 09/29/93       | 09:32   | < 5.000 ug/kg  | 5.00 ug/kg  | 8240                    |               |
| 2-Hexanone - solid                          | KG      | 09/29/93       | 09:32   | < 10.000 ug/kg | 10.00 ug/kg | 8240                    |               |

Comments:

TCLP Extracts were prepared and analyzed according to SW846 method 1311.  
Analytical results are reported on a wet-weight basis.

The volatile run was initiated at 18:00.

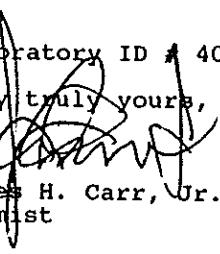
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For Volatile Analysis: Due to the nature of the sample, the sample size was reduced from 5g to 1g. Therefore, the detection limits and less than values are actually 5 times those reported. However, the reported levels for the compounds found have already been corrected.

Laboratory ID # 40111

Very truly yours,

  
James H. Carr, Jr.  
Chemist

U-841

## FT. STEWART Number Key

JOB NUMBER FST-026

Carr Lab No.FT STEWART ID

09-6201-93  
09-6202-93  
09-6203-93  
09-6204-93  
09-6205-93

SB1-9-93  
SB2-9-93  
SB3-9-93  
SB3DUP93  
SB4-93

## QUALITY CONTROL FOR LEAD ANALYSIS

SAMPLES NUMBERED: 09-6201-93 through 09-6205-93 analyzed 09/29/93

| Date     | QC Sample Number | Val. 1<br><u>(ug/1)</u> | Val. 2<br><u>(ug/1)</u> | % RPD | Spike Conc. | True Value | Observed Value | Percent Recovery |
|----------|------------------|-------------------------|-------------------------|-------|-------------|------------|----------------|------------------|
| 09/29/93 | WP28-2           |                         |                         |       |             | 30.0       | 32.9           | 110              |
| 09/29/93 | DIG. STD.        | <5.0                    | 0                       |       |             | 50.0       | 54.5           | 109              |
| 09/29/93 | 6206             | 6.5                     | 3.1                     | 15.0  | 15.0        | 17.6       | 17.8           | 101              |
| 09/29/93 | 6208             | 6.3                     | 3.1                     | 15.0  | 21.6        | 21.6       | 21.7           | 101              |

## QUALITY CONTROL FOR ARSENIC ANALYSIS

SAMPLES NUMBERED: 09-6201-93 through 09-6205-93 analyzed 09/28/93

| Date     | QC Sample Number | Val. 1<br><u>(ug/1)</u> | Val. 2<br><u>(ug/1)</u> | % RPD | Spike Conc. | True Value | Observed Value | Percent Recovery |
|----------|------------------|-------------------------|-------------------------|-------|-------------|------------|----------------|------------------|
| 09/28/93 | WP28-2           | <5.0                    | 0                       |       |             | 86.0       | 85.4           | 98               |
| 09/28/93 | 6206dig          | 5.0                     | 11.0                    | 75    | 50.0        | 15.0       | 16.3           | 109              |
| 09/28/93 | 6207dig          | <5.0                    | <5.0                    | 0     | 15.0        | 61.0       | 63.0           | 103              |
| 09/28/93 | 6208             |                         |                         |       |             | 16.0       | 16.4           | 102              |

C1-E4-U

**QUALITY CONTROL FOR SELENIUM ANALYSIS**

SAMPLES NUMBERED: 09-6201-93 through 09-6205-93 analyzed 09/29/93

| <u>Date</u> | <u>QC Sample Number</u> | <u>Val. 1<br/>(ug/1)</u> | <u>Val. 2<br/>(ug/1)</u> | <u>%<br/>RPD</u> | <u>Spike<br/>Conc.</u> | <u>True<br/>Value</u> | <u>Observed<br/>Value</u> | <u>Percent<br/>Recovery</u> |
|-------------|-------------------------|--------------------------|--------------------------|------------------|------------------------|-----------------------|---------------------------|-----------------------------|
| 09/29/93    | WP28-2                  | <5.0                     | <5.0                     | 0                | 0                      | 11.0                  | 11.3                      | 102                         |
| 09/29/93    | 6206                    | <5.0                     | <5.0                     | 0                | 15.0                   | 15.0                  | 14.9                      | 97                          |
| 09/29/93    | 6207DIG                 |                          |                          |                  | 50.0                   | 50.0                  | 49.2                      | 98                          |

**QUALITY CONTROL FOR ICP ANALYSIS**

SAMPLES NUMBERED: 09-6201-93 through 09-6205 analyzed 09/24/93.

| <u>Date</u> | <u>Element</u> | <u>QC Sample<br/>Number</u> | <u>Val. 1<br/>(mg/l)</u> | <u>Val. 2<br/>(mg/l)</u> | <u>%<br/>RPD</u> | <u>Spike<br/>Conc.</u> | <u>True<br/>Value</u> | <u>Obs.<br/>Value</u> | <u>%<br/>Rec.</u> |
|-------------|----------------|-----------------------------|--------------------------|--------------------------|------------------|------------------------|-----------------------|-----------------------|-------------------|
| 09/24/93    | Ba             | ICP-07                      |                          |                          |                  | 1.00                   | 0.992                 | 99                    |                   |
| 09/24/93    | Cr             | ICP-19                      |                          |                          |                  | 1.00                   | 0.950                 | 95                    |                   |
| 09/24/93    | Cd             | ICP-19                      |                          |                          |                  | 1.00                   | 1.01                  | 101                   |                   |
| 09/24/93    | Ag             | ICP-07                      |                          |                          |                  | 1.00                   | 1.10                  | 110                   |                   |
| 09/24/93    | Cr             | 6161                        | 0.075                    | 0.078                    | 3.9              | 0.10                   | 0.175                 | 0.164                 | 86                |
| 09/24/93    | Cd             | 6161                        | <.01                     | <.01                     | 0                | 0.10                   | 0.10                  | 0.084                 | 84                |
| 09/24/93    | Ag             | 6118                        | <.05                     | <.05                     | 0                | 0.10                   | 0.10                  | 0.112                 | 112               |
| 09/24/93    | Ba             | 6161                        | 0.20                     | 0.21                     | 4.9              | 0.10                   | 0.300                 | 0.292                 | 92                |

**QUALITY CONTROL FOR MERCURY ANALYSIS**

SAMPLES NUMBERED: 09-6201-93 through 09-6205-93 analyzed 09/28/93;

| <u>Date</u> | <u>QC Sample Number</u> | <u>Val. 1<br/>(ug/1)</u> | <u>Val. 2<br/>(ug/1)</u> | <u>%<br/>RPD</u> | <u>Spike<br/>Conc.</u> | <u>True<br/>Value</u> | <u>Observed<br/>Value</u> | <u>Percent<br/>Recovery</u> |
|-------------|-------------------------|--------------------------|--------------------------|------------------|------------------------|-----------------------|---------------------------|-----------------------------|
| 09/28/93    | WP25-1                  |                          |                          |                  |                        | 0.60                  | 0.58                      | 96                          |

|          |      |      |      |   |     |      |      |    |
|----------|------|------|------|---|-----|------|------|----|
| 09/28/93 | 6194 | <0.2 | <0.2 | 0 | 1.0 | 1.00 | 0.96 | 96 |
| 09/28/93 | 6209 | <0.2 | <0.2 | 0 | 1.0 | 1.00 | 0.86 | 86 |

QUALITY CONTROL FOR PESTICIDES

SAMPLES NUMBERED: 09-6201-93 through 09-6205-93 analyzed 09/29/93;

SPIKE QC SAMPLE NUMBER: SPK092993      SPIKE RECOVERY DATA FOR 09/29/93  
DUPLICATE SAMPLE NO: 09620793

| Analyte          | Val. 1<br>(ug/l <sub>1</sub> ) | Val. 2<br>(ug/l <sub>1</sub> ) | %<br>RPD | Spike<br>Conc. | True<br>Value | Observed<br>Value | Percent<br>Recovery |
|------------------|--------------------------------|--------------------------------|----------|----------------|---------------|-------------------|---------------------|
| Alpha-BHC        | <.02                           | <.02                           | 0        | 0.08           | 0.08          | 0.125             | 156                 |
| Gamma-BHC        | <.02                           | <.02                           | 0        | 0.08           | 0.08          | 0.105             | 131                 |
| Beta-BHC         | <.02                           | <.02                           | 0        | 0.08           | 0.08          | 0.093             | 116                 |
| Heptachlor       | <.02                           | <.02                           | 0        | 0.08           | 0.08          | 0.116             | 145                 |
| Delta-BHC        | <.02                           | <.02                           | 0        | 0.08           | 0.08          | 0.068             | 85                  |
| Aldrin           | <.02                           | <.02                           | 0        | 0.08           | 0.08          | 0.108             | 135                 |
| Heptachlor Epox. | <.02                           | <.02                           | 0        | 0.08           | 0.08          | 0.098             | 122                 |
| Endosulfan I     | <.02                           | <.02                           | 0        | 0.08           | 0.08          | 0.091             | 114                 |
| P,P' - DDE       | <.02                           | <.02                           | 0        | 0.08           | 0.08          | 0.095             | 119                 |
| Dieldrin         | <.02                           | <.02                           | 0        | 0.08           | 0.08          | 0.089             | 111                 |
| Endrin           | <.02                           | <.02                           | 0        | 0.08           | 0.08          | 0.079             | 99                  |
| Endosulfan II    | <.02                           | <.02                           | 0        | 0.08           | 0.08          | 0.070             | 88                  |
| Endrin Aldehyde  | <.02                           | <.02                           | 0        | 0.08           | 0.08          | 0.063             | 79                  |
| Endosulfan Sulf. | <.02                           | <.02                           | 0        | 0.08           | 0.08          | 0.052             | 65                  |
| Methoxychlor     | <.02                           | <.02                           | 0        | 0.08           | 0.08          | 0.104             | 130                 |
| Endrin Ketone    | <.02                           | <.02                           | 0        | 0.16           | 0.16          | 0.189             | 118                 |

U-849

## BLANK DATA FOR PESTICIDES

All analytes less than 0.05 ug/L on all dates.

**SURROGATE RECOVERIES FOR PESTICIDES**

| <u>Sample Date</u> | <u>Sample Number</u> | <u>Theoretical Conc. (ug/1)</u> | <u>Observed Conc. (ug/1)</u> | <u>Percent Recovery</u> |
|--------------------|----------------------|---------------------------------|------------------------------|-------------------------|
| 09/29/93           | BLANK                | 1.0                             | 0.40                         | 40                      |
| 09/29/93           | 09-6201-93           | 1.0                             | 0.28                         | 28                      |
| 09/29/93           | 09-6202-93           | 1.0                             | 0.50                         | 50                      |
| 09/29/93           | 09-6203-93           | 1.0                             | 0.47                         | 47                      |
| 09/29/93           | 09-6204-93           | 1.0                             | 0.41                         | 41                      |
| 09/29/93           | 09-6205-93           | 1.0                             | 0.61                         | 61                      |
| 09/29/93           | 09-6207-93           | 1.0                             | 0.52                         | 52                      |
| 09/29/93           | 09-6207DUP           | 1.0                             | 0.49                         | 49                      |
| 09/29/93           | 092993SPK            | 1.0                             | 0.64                         | 64                      |

\* Surrogate recoveries were low for this run. Data is accepted based on spike and duplicate values. New surrogate has been prepared for future analyses.

**QUALITY CONTROL FOR HERBICIDES**

| SAMPLES NUMBERED: |                  | DUPLICATE SAMPLE NUMBER 09620793 |       |             |            |
|-------------------|------------------|----------------------------------|-------|-------------|------------|
| Analyte           | Val. 1<br>(ug/1) | Val. 2<br>(ug/1)                 | % RPD | Spike Conc. | True value |
| 2,4-D             | <.05             | <.05                             | 0     | 2.00        | 2.00       |
| Silvex            | <.05             | <.05                             | 0     | 0.20        | 0.116      |

|                  |    |
|------------------|----|
| Percent Recovery | 89 |
| Percent Recovery | 58 |

2-846

**SURROGATE RECOVERIES FOR HERBICIDES**

| <u>Sample Date</u> | <u>Sample Number</u> | <u>Theoretical Conc. (ug/l)</u> | <u>Percent Recovery</u> |
|--------------------|----------------------|---------------------------------|-------------------------|
| 09/30/93           | BLANK                | 4.0                             | 120                     |
| 09/30/93           | 09-6201-93           | 4.0                             | 117                     |
| 09/30/93           | 09-6202-93           | 4.0                             | 115                     |
| 09/30/93           | 09-6203-93           | 4.0                             | 129                     |
| 09/30/93           | 09-6204-93           | 4.0                             | 114                     |
| 09/30/93           | 09-6205-93           | 4.0                             | 97                      |
| 09/30/93           | 09-6207-93           | 4.0                             | 97                      |
| 09/30/93           | 09-6207DUP           | 4.0                             | 116                     |
| 09/30/93           | 092393SPK            | 4.0                             | 87                      |

**QUALITY CONTROL FOR VOLATILES**

SAMPLES NUMBERED: 09-6201-93 through 09-6205-93 analyzed 09/28/93 for TCLP.

SAMPLES NUMBERED: 09-5201-93 through 09-6205-93 analyzed 09/29/93 for total volatiles.

**SPIKE RECOVERY DATA FOR 09/28/93**

SPIKE QC SAMPLE NUMBER: 09620693 spiked duplicate sample

| Analyte            | <u>Val. 1<br/>(ug/l)</u> | <u>Val. 2<br/>(ug/l)</u> | <u>% RPD</u> | <u>Spike Conc.</u> | <u>True Value</u> | <u>Observed Value</u> | <u>Percent Recovery</u> |
|--------------------|--------------------------|--------------------------|--------------|--------------------|-------------------|-----------------------|-------------------------|
| 1,1 Dichloroethene | 28.9                     | 34.7                     | 18.2         | 50                 | 50                | 34.7                  | 69                      |
| Trichloroethene    | 51.3                     | 60.7                     | 16.8         | 50                 | 50                | 51.3                  | 103                     |
| Benzene            | 39.5                     | 45.4                     | 13.9         | 50                 | 50                | 45.4                  | 91                      |
| Toluene            | 45.4                     | 53.7                     | 14.3         | 50                 | 50                | 53.7                  | 107                     |
| Chlorobenzene      | 39.7                     | 46.8                     | 16.4         | 50                 | 50                | 46.8                  | 94                      |

## SPIKE RECOVERY DATA FOR 09/29/93

SPIKE QC SAMPLE NUMBER: 09620793 spiked duplicate sample.

| Analyte            | Val. 1<br><u>(ug/L)</u> | Val. 2<br><u>(ug/L)</u> | %<br><u>RPD</u> | Spike<br><u>Conc.</u> | True<br><u>Value</u> | Observed<br><u>Value</u> | Percent<br>Recovery |
|--------------------|-------------------------|-------------------------|-----------------|-----------------------|----------------------|--------------------------|---------------------|
| 1,1 Dichloroethene | 35.9                    | 35.7                    | .56             | 50                    | 50                   | 35.9                     | 72                  |
| Trichloroethene    | 57.9                    | 49.7                    | 15.2            | 50                    | 50                   | 49.7                     | 99                  |
| Benzene            | 44.8                    | 44.3                    | 1.1             | 50                    | 50                   | 44.8                     | 90                  |
| Toluene            | 49.7                    | 41.6                    | 17.7            | 50                    | 50                   | 49.7                     | 99                  |
| Chlorobenzene      | 44.5                    | 45.5                    | 2.2             | 50                    | 50                   | 45.5                     | 91                  |

## BTEX, LIGHT TPH RECOVERY DATA .

SAMPLES NUMBERED: 09-6201-93 through 09-6205-93 analyzed 09-30/93

## SPIKE QC SAMPLE NUMBER: 09620193

| Analyte       | Val. 1<br><u>(ug/Kg)</u> | Val. 2<br><u>(ug/Kg)</u> | %<br><u>RPD</u> | Spike<br><u>Conc.</u> | True<br><u>Value</u> | Observed<br><u>Value</u> | Percent<br>Recovery |
|---------------|--------------------------|--------------------------|-----------------|-----------------------|----------------------|--------------------------|---------------------|
| Total Lt. TPH | <5                       | <5                       | 0               | 14                    | 14.0                 | 14.4                     | 103                 |

## BLANK DATA FOR VOLATILES

All analytes on all dates &lt;5 ug/L.

(1-84)

**SURROGATE RECOVERIES FOR VOLATILES, PERCENT RECOVERY**

| <u>Sample Date</u> | <u>Sample Number</u> | 1, 2 dichloro-ethane d-4 | Toluene d-8 | Bromofloro benzene |
|--------------------|----------------------|--------------------------|-------------|--------------------|
| 09/28/93           | BLANK                | 84                       | 99          | 77                 |
| 09/28/93           | 09-6201-93           | 75                       | 109         | 80                 |
| 09/28/93           | 09-6202-93           | 80                       | 100         | 74                 |
| 09/28/93           | 09-6203-93           | 76                       | 99          | 70                 |
| 09/28/93           | 09-6204-93           | 91                       | 110         | 72                 |
| 09/28/93           | 09-6205-93           | 81                       | 100         | 66                 |
| 09/28/93           | 09-6206-93           | 84                       | 106         | 77                 |
| 09/28/93           | 09-6206SPK           | 84                       | 103         | 67                 |
| 09/28/93           | 09-6206SPKDUP        | 84                       | 103         | 68                 |
| 09/29/93           | BLANK                | 94                       | 109         | 88                 |
| 09/29/93           | 09-6201-93           | 79                       | 93          | 75                 |
| 09/29/93           | 09-6202-93           | 82                       | 97          | 79                 |
| 09/29/93           | 09-6203-93           | 67                       | 83          | 79                 |
| 09/29/93           | 09-6204-93           | 90                       | 104         | 89                 |
| 09/29/93           | 09-6205-93           | 85                       | 101         | 79                 |
| 09/29/93           | 09-6207-93           | 86                       | 99          | 79                 |
| 09/29/93           | 09-6207SPK           | 91                       | 108         | 83                 |
| 09/29/93           | 09-6207SPKDUP        | 70                       | 103         | 73                 |
| 09/30/93           | BLANK                | 99                       | 98          | 96                 |
| 09/30/93           | 09-6201-93           | 97                       | 90          | 86                 |
| 09/30/93           | 09-6202-93           | 91                       | 103         | 98                 |
| 09/30/93           | 09-6203-93           | 99                       | 88          | 105                |
| 09/30/93           | 09-6204-93           | 89                       | 92          | 106                |
| 09/30/93           | 09-6205-93           | 93                       | 84          | 78                 |
| 09/30/93           | 09-6201DUP           | 87                       | 81          | 75                 |
| 09/30/93           | 09-6201SPK           | 99                       | 89          | 96                 |

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## ACIDS AND BASE-NEUTRALS QUALITY CONTROL DATA

SAMPLE NUMBERS: 09-6201-93 through 09-6205-93 analyzed 09/29/93;

DATE: 09/29/93  
QC SAMPLE: SPK092393

DUPLICATE SAMPLE NO.: 09620393

| Analyte             | Dup. 1<br>ug/l | Dup. 2<br>ug/l | %<br>RPD | Spike<br>ug/l | True<br>Value | Observed<br>Value | Percent<br>Recovery |
|---------------------|----------------|----------------|----------|---------------|---------------|-------------------|---------------------|
| 1,4-Dichlorobenzene | <10            | <10            | 0        | 100           | 100           | 50.5              | 51                  |
| 2,4 Dinitrotoluene  | <10            | <10            | 0        | 100           | 100           | 101               | 101                 |
| Pentachlorophenol   | <10            | <10            | 0        | 100           | 100           | 64.0              | 64                  |

SURROGATE RECOVERIES FOR BASE-NEUTRALS  
PERCENT RECOVERY

| Sample<br>Date | Sample<br>Number | Nitrobenzene-<br>d-5 | 2-Fluoro<br>biphenyl | Terphenyl<br>d-14 | Phenol<br>d-5 | 2-Fluoro<br>phenol | 2,4,6<br>Tribromo<br>phenol |
|----------------|------------------|----------------------|----------------------|-------------------|---------------|--------------------|-----------------------------|
| 09/29/93       | BLANK            | 39                   | 81                   | 80                | 19            | 39                 | 44                          |
| 09/29/93       | 09-6201-93       | 82                   | 71                   | 103               | 28            | 58                 | 50                          |
| 09/29/93       | 09-6202-93       | 9*                   | 50                   | 63                | 19            | 33                 | 44                          |
| 09/29/93       | 09-6203-93       | 83                   | 71                   | 94                | 33            | 56                 | 71                          |
| 09/14/93       | 09-6204-93       | 35                   | 73                   | 83                | 39            | 62                 | 91                          |
| 09/29/93       | 09-6205-93       | 35                   | 60                   | 76                | 34            | 52                 | 84                          |
| 09/29/93       | 09-6203DUP       | 73                   | 67                   | 97                | 34            | 58                 | 80                          |
| 09/29/93       | SPK092393        | 54                   | 71                   | 66                | 23            | 40                 | 71                          |

BLANK DATA FOR ACIDS AND BASE NEUTRALS

All Compounds less than the minimum detectable level.

HEAVY TPH RECOVERY DATA

SAMPLES NUMBERED: 09-6201-93 through 09-6205-93 analyzed 09/23/93

SPIKE QC SAMPLE NUMBER: 09609893 SPIKED DUPLICATE

| Analyte   | <u>Val. 1</u><br><u>(ug/Kg)</u> | <u>Val. 2</u><br><u>(ug/Kg)</u> | %<br><u>RPD</u> | Spike<br><u>Conc.</u> | True<br><u>Value</u> | Observed<br><u>Value</u> | <u>Percent<br/>Recovery</u> |
|-----------|---------------------------------|---------------------------------|-----------------|-----------------------|----------------------|--------------------------|-----------------------------|
| Heavy TPH | 1148                            | 946                             | 19.3            | 800                   | 800                  | 946                      | 111                         |

SURROGATE RECOVERIES FOR HEAVY TPH  
PERCENT RECOVERY

| <u>Sample<br/>Date</u> | <u>Sample<br/>Number</u> | <u>Percent<br/>Recovery</u> |
|------------------------|--------------------------|-----------------------------|
| 09/23/93               | BLANK                    | 101                         |
| 09/23/93               | 09-6201-93               | 109                         |
| 09/23/93               | 09-6202-93               | 145                         |
| 09/23/93               | 09-6203-93               | 106                         |
| 09/23/93               | 09-6204-93               | 123                         |
| 09/23/93               | 09-6205-93               | 111                         |
| 09/23/93               | 09-6098-93               | 137                         |
| 09/23/93               | 09-6098SPK               | 198*                        |
| 09/23/93               | 09-6098SPKDUP            | 131                         |

\* Spike surrogate value out of range.  
all other QC data.

Data accepted based on

CARR LABORATORIES

**CHAIN OF CUSTODY RECORD**

|   |                               |
|---|-------------------------------|
| Client <u>CESAS</u>                           | Project No. <u>EST-076</u>    |
| Contact <u>Tony Nicholson</u>                 | Phone No. <u>912-652-5875</u> |
| Address <u>Po Box 889, SAVANNAH, GA 31402</u> | Fax No. <u>912-652-5311</u>   |
| Collected By <u>Jason Smart</u>               | Client P.O. #                 |

AP Analytical Program  
 W=Wastewater  
 G=Groundwater  
 D=Drinking Water  
 S=Solid/Haz. Waste  
 N=Nonregulated

# James H. Carr & Associates, Inc.

Office & Laboratories  
 P.O. Box 90209  
 Columbia, SC 29290  
 (803) 776-7789  
 (800) 435-3995

12/14/93

Ms. Toni Nicholson  
 Corps of Engineers  
 PO Box 889  
 Savannah, GA 31402

Dear Ms. Nicholson:

The following are the results of the parameters you requested we check on your FST-026 samples listed below.

| Parameter                                   | Analyst | Date -- Time   | Analysis Results | Units    | Lowest Detectable Level | Method Number |
|---|---------|----------------|------------------|----------|-------------------------|---------------|
| Sample Date: 11/09/93 In House # 11-8141-93 |         |                | Source: 5A-11-93 |          | Location: FT STEWART    |               |
| Metals Sample Preparation - Water           | VB      | 11/18/93 17:00 | 0.000            |          | 0.00                    |               |
| TCLP Extraction, excluding Volatile cpds    | JDW     | 11/15/93 15:00 | 0.000            |          | 0.00                    |               |
| TCLP Extraction, Volatile cpds. only        | JDW     | 11/15/93 15:00 | 0.000            |          | 0.00                    |               |
| TPH (heavy fuels) sample preparation        | SS      | 11/15/93 14:00 | 0.000            |          | 0.00                    |               |
| Pesticide extraction - TCLP                 | MR      | 11/24/93 09:00 | 0.000            |          | 0.00                    |               |
| Herbicide extraction - TCLP                 | MR      | 11/24/93 14:00 | 0.000            |          | 0.00                    |               |
| Base Neutrals - TCLP extraction             | SB      | 11/18/93 09:00 | 0.000            |          | 0.00                    |               |
| Acid - TCLP extraction                      | SB      | 11/18/93 09:00 | 0.000            |          | 0.00                    |               |
| Lab pH                                      | TW      | 11/11/93 10:55 | 4.870            | pH Units | 0.00                    | pH Units      |
| Arsenic - TCLP                              | JDW     | 11/24/93 10:17 | < 0.500          | ppm      | 0.50                    | ppm           |
| Selenium - TCLP                             | JDW     | 11/23/93 18:44 | < 0.100          | ppm      | 0.10                    | ppm           |
| Barium - TCLP                               | CW      | 11/29/93 13:06 | < 10.000         | ppm      | 10.00                   | ppm           |
| Cadmium - TCLP                              | CW      | 11/29/93 13:06 | < 0.100          | ppm      | 0.10                    | ppm           |
| Chromium - TCLP                             | CW      | 11/29/93 13:06 | < 0.500          | ppm      | 0.50                    | ppm           |
| Lead - TCLP                                 | JDW     | 11/24/93 01:51 | < 0.500          | ppm      | 0.50                    | ppm           |
| Mercury - TCLP                              | VTB     | 11/30/93 09:00 | < 0.050          | ppm      | 0.05                    | ppm           |
| Silver - TCLP                               | CW      | 11/29/93 13:06 | < 0.500          | ppm      | 0.50                    | ppm           |
| Benzene - TCLP                              | KG      | 11/22/93 10:28 | < 0.500          | mg/l     | 0.50                    | mg/l          |
| Carbon Tetrachloride - TCLP                 | KG      | 11/22/93 10:28 | < 0.500          | mg/l     | 0.50                    | mg/l          |
| Chlorobenzene - TCLP                        | KG      | 11/22/93 10:28 | < 100.000        | mg/l     | 100.00                  | mg/l          |
| Chloroform - TCLP                           | KG      | 11/22/93 10:28 | < 6.000          | mg/l     | 6.00                    | mg/l          |
| 1,4-Dichlorobenzene - TCLP                  | KG      | 11/22/93 10:28 | < 7.500          | mg/l     | 7.50                    | mg/l          |
| 1,2-Dichloroethane - TCLP                   | KG      | 11/22/93 10:28 | < 0.500          | mg/l     | 0.50                    | mg/l          |
| 1,1-Dichloroethylene - TCLP                 | KG      | 11/22/93 10:28 | < 0.700          | mg/l     | 0.70                    | mg/l          |
| Methyl Ethyl Ketone - TCLP                  | KG      | 11/22/93 10:28 | < 200.000        | mg/l     | 200.00                  | mg/l          |
| Tetrachloroethylene - TCLP                  | KG      | 11/22/93 10:28 | < 0.700          | mg/l     | 0.70                    | mg/l          |
| Trichloroethylene - TCLP                    | KG      | 11/22/93 10:28 | < 0.500          | mg/l     | 0.50                    | mg/l          |
| Vinyl Chloride - TCLP                       | KG      | 11/22/93 10:28 | < 0.200          | mg/l     | 0.20                    | mg/l          |
| O-Cresol - TCLP                             | AT      | 11/22/93 14:04 | < 200.000        | mg/l     | 200.00                  | mg/l          |
| M-Cresol - TCLP                             | AT      | 11/22/93 14:04 | < 200.000        | mg/l     | 200.00                  | mg/l          |
| P-Cresol - TCLP                             | AT      | 11/22/93 14:04 | < 200.000        | mg/l     | 200.00                  | mg/l          |
| Pentachlorophenol - TCLP                    | AT      | 11/22/93 14:04 | < 100.000        | mg/l     | 100.00                  | mg/l          |
| 2,4,5-Trichlorophenol - TCLP                | AT      | 11/22/93 14:04 | < 400.000        | mg/l     | 400.00                  | mg/l          |
| 2,4,6-Trichlorophenol - TCLP                | AT      | 11/22/93 14:04 | < 2.000          | mg/l     | 2.00                    | mg/l          |
| 2,4-Dinitrotoluene - TCLP                   | AT      | 11/22/93 14:04 | < 0.130          | mg/l     | 0.13                    | mg/l          |
| Hexachlorobenzene - TCLP                    | AT      | 11/22/93 14:04 | < 0.130          | mg/l     | 0.13                    | mg/l          |
| Hexachlorobutadiene - TCLP                  | AT      | 11/22/93 14:04 | < 0.500          | mg/l     | 0.50                    | mg/l          |
| Hexachloroethane - TCLP                     | AT      | 11/22/93 14:04 | < 3.000          | mg/l     | 3.00                    | mg/l          |
| Nitrobenzene - TCLP                         | AT      | 11/22/93 14:04 | < 0.130          | mg/l     | 0.13                    | mg/l          |
| Pyridine - TCLP                             | AT      | 11/22/93 14:04 | < 5.000          | mg/l     | 5.00                    | mg/l          |
| TPH light fuel, 5030/8015 - solid           | KG      | 11/22/93 11:59 | < 10.000         | mg/kg    | 10.00                   | mg/kg         |
| TPH heavy fuel, 3550/8015 - solid           | CCS     | 11/17/93 12:53 | 25600.000        | mg/kg    | 10.00                   | mg/kg         |

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| Parameter                                   | Analyst | Date -- Time   | Analysis         | Results       | Units                | Lowest Detectable Level | Method Number |
|---|---------|----------------|------------------|---------------|----------------------|-------------------------|---------------|
| Sample Date: 11/09/93 In House # 11-8141-93 |         |                | Source: 5A-11-93 |               | Location: FT.STEWART |                         |               |
| - CONTINUED -                               |         |                |                  |               |                      |                         |               |
| Toxaphene TCLP - liquid                     | RMK     | 12/10/93 23:23 | <                | 0.500 mg/l    |                      | 0.50 mg/l               | 608           |
| 2,4-D TCLP - liquid                         | RMK     | 12/06/93 21:44 | <                | 10.000 mg/l   |                      | 10.00 mg/l              | 509.          |
| Silvex TCLP - liquid                        | RMK     | 12/06/93 21:44 | <                | 1.000 mg/l    |                      | 1.00 mg/l               | 509.          |
| Chlordane TCLP - liquid                     | RMK     | 12/10/93 23:23 | <                | 0.030 mg/l    |                      | 0.03 mg/l               | 608.          |
| Endrin TCLP - liquid                        | RMK     | 12/10/93 23:23 | <                | 0.020 mg/l    |                      | 0.02 mg/l               | 608.          |
| Heptachlor TCLP - liquid                    | RMK     | 12/10/93 23:23 | <                | 8.000 ug/l    |                      | 8.00 ug/l               | 608.          |
| Heptachlor Epoxide TCLP - liquid            | RMK     | 12/10/93 23:23 | <                | 8.000 ug/l    |                      | 8.00 ug/l               | 608.          |
| Lindane TCLP - liquid                       | RMK     | 12/10/93 23:23 | <                | 0.400 mg/l    |                      | 0.40 mg/l               | 608.          |
| Methoxychlor TCLP - liquid                  | RMK     | 12/10/93 23:23 | <                | 10.000 mg/l   |                      | 10.00 mg/l              | 608.          |
| % Solids                                    | MB      | 11/16/93 09:00 |                  | 77.000 %      |                      | 0.01 %                  | 160.3         |
| Chloromethane - solid                       | KG      | 11/22/93 16:04 | <                | 10.000 ug/kg  |                      | 10.00 ug/kg             | 8240          |
| Bromomethane - solid                        | KG      | 11/22/93 16:04 | <                | 10.000 ug/kg  |                      | 10.00 ug/kg             | 8240          |
| Vinyl Chloride - solid                      | KG      | 11/22/93 16:04 | <                | 10.000 ug/kg  |                      | 10.00 ug/kg             | 8240          |
| Methylene Chloride - solid                  | KG      | 11/22/93 16:04 |                  | 120.000 ug/kg |                      | 5.00 ug/kg              | 8240          |
| Trichlorofluoromethane - solid              | KG      | 11/22/93 16:04 | <                | 10.000 ug/kg  |                      | 10.00 ug/kg             | 8240          |
| 1,1-Dichloroethene - solid                  | KG      | 11/22/93 16:04 | <                | 5.000 ug/kg   |                      | 5.00 ug/kg              | 8240          |
| 1,1-Dichloroethane - solid                  | KG      | 11/22/93 16:04 | <                | 5.000 ug/kg   |                      | 5.00 ug/kg              | 8240          |
| Trans 1,2-Dichloroethene - solid            | KG      | 11/22/93 16:04 | <                | 5.000 ug/kg   |                      | 5.00 ug/kg              | 8240          |
| 1,2-Dichloroethane - solid                  | KG      | 11/22/93 16:04 | <                | 5.000 ug/kg   |                      | 5.00 ug/kg              | 8240          |
| 1,1,1-Trichloroethane - solid               | KG      | 11/22/93 16:04 | <                | 5.000 ug/kg   |                      | 5.00 ug/kg              | 8240          |
| Bromodichloromethane - solid                | KG      | 11/22/93 16:04 | <                | 5.000 ug/kg   |                      | 5.00 ug/kg              | 8240          |
| 1,2-Dichloropropane - solid                 | KG      | 11/22/93 16:04 | <                | 5.000 ug/kg   |                      | 5.00 ug/kg              | 8240          |
| Trans 1,3-Dichloropropene - solid           | KG      | 11/22/93 16:04 | <                | 5.000 ug/kg   |                      | 5.00 ug/kg              | 8240          |
| Trichloroethene - solid                     | KG      | 11/22/93 16:04 | <                | 5.000 ug/kg   |                      | 5.00 ug/kg              | 8240          |
| Dibromochloromethane - solid                | KG      | 11/22/93 16:04 | <                | 5.000 ug/kg   |                      | 5.00 ug/kg              | 8240          |
| 1,1,2-trichloroethane - solid               | KG      | 11/22/93 16:04 | <                | 5.000 ug/kg   |                      | 5.00 ug/kg              | 8240          |
| Cis-1,3-Dichloropropene - solid             | KG      | 11/22/93 16:04 | <                | 5.000 ug/kg   |                      | 5.00 ug/kg              | 8240          |
| Benzene - solid                             | KG      | 11/22/93 16:04 | <                | 5.000 ug/kg   |                      | 5.00 ug/kg              | 8240          |
| 2-Chloroethylvinyl ether - solid            | KG      | 11/22/93 16:04 | <                | 10.000 ug/kg  |                      | 10.00 ug/kg             | 8240          |
| Bromoform - solid                           | KG      | 11/22/93 16:04 | <                | 5.000 ug/kg   |                      | 5.00 ug/kg              | 8240          |
| 1,1,2,2-Tetrachloroethane - solid           | KG      | 11/22/93 16:04 | <                | 5.000 ug/kg   |                      | 5.00 ug/kg              | 8240          |
| Tetrachloroethene - solid                   | KG      | 11/22/93 16:04 | <                | 5.000 ug/kg   |                      | 5.00 ug/kg              | 8240          |
| Toluene - solid                             | KG      | 11/22/93 16:04 |                  | 35.200 ug/kg  |                      | 5.00 ug/kg              | 8240          |
| Chlorobenzene - solid                       | KG      | 11/22/93 16:04 | <                | 5.000 ug/kg   |                      | 5.00 ug/kg              | 8240          |
| Ethylbenzene - solid                        | KG      | 11/22/93 16:04 |                  | 141.000 ug/kg |                      | 5.00 ug/kg              | 8240          |
| Chloroform - solid                          | KG      | 11/22/93 16:04 | <                | 5.000 ug/kg   |                      | 5.00 ug/kg              | 8240          |
| Acetone - solid                             | KG      | 11/22/93 16:04 |                  | 144.000 ug/kg |                      | 0.20 mg/kg              | 8240          |
| Carbon tetrachloride - solid                | KG      | 11/22/93 16:04 | <                | 5.000 ug/kg   |                      | 5.00 ug/kg              | 8240          |
| Xylene - solid                              | KG      | 11/22/93 16:04 |                  | 170.000 ug/kg |                      | 10.00 ug/kg             | 8240          |
| 2-Butanone - solid                          | KG      | 11/22/93 16:04 | <                | 10.000 ug/kg  |                      | 10.00 ug/kg             | 8240          |
| Vinyl Acetate - solid                       | KG      | 11/22/93 16:04 | <                | 10.000 ug/kg  |                      | 10.00 ug/kg             | 8240          |
| 4-methyl-2-pentanone - solid                | KG      | 11/22/93 16:04 | <                | 10.000 ug/kg  |                      | 10.00 ug/kg             | 8240          |
| Styrene - solid                             | KG      | 11/22/93 16:04 | <                | 10.000 ug/kg  |                      | 10.00 ug/kg             | 8240          |
| Carbon Disulfide - solid                    | KG      | 11/22/93 16:04 | <                | 5.000 ug/kg   |                      | 5.00 ug/kg              | 8240          |
| 2-Hexanone - solid                          | KG      | 11/22/93 16:04 | <                | 10.000 ug/kg  |                      | 10.00 ug/kg             | 8240          |

Comments:

Analytical results are reported on a wet-weight basis.

TCLP Extracts Were prepared and analyzed according to SW846 method 1311.

The volatile run was initiated at 12:15.

|   |     |                  |   |                      |  |               |       |
|---|-----|------------------|---|----------------------|--|---------------|-------|
| Sample Date: 11/09/93 In House # 11-8142-93 |     | Source: 5B-11-93 |   | Location: FT.STEWART |  |               |       |
| Metals Sample Preparation - water           | VB  | 11/18/93 17:00   |   | 0.000                |  | 0.00          |       |
| TCLP Extraction, excluding Volatile cpds    | JDW | 11/15/93 15:00   |   | 0.000                |  | 0.00          |       |
| TCLP Extraction, Volatile cpds. only        | JDW | 11/15/93 15:00   |   | 0.000                |  | 0.00          |       |
| TPH (heavy fuels) sample preparation        | SS  | 11/15/93 14:00   |   | 0.000                |  | 0.00          |       |
| Pesticide extraction - TCLP                 | MR  | 11/24/93 09:00   |   | 0.000                |  | 0.00          |       |
| Herbicide extraction - TCLP                 | MR  | 11/24/93 14:00   |   | 0.000                |  | 0.00          |       |
| Base Neutrals - TCLP extraction             | SB  | 11/18/93 09:00   |   | 0.000                |  | 0.00          |       |
| Acid - TCLP extraction                      | SB  | 11/18/93 09:00   |   | 0.000                |  | 0.00          |       |
| Lab pH                                      | TW  | 11/11/93 10:55   |   | 5.580 pH Units       |  | 0.00 pH Units | 150.1 |
| Arsenic - TCLP                              | JDW | 11/24/93 10:24   | < | 0.500 ppm            |  | 0.50 ppm      | 206.2 |
| Selenium - TCLP                             | JDW | 11/23/93 18:50   | < | 0.100 ppm            |  | 0.10 ppm      | 270.2 |

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| Parameter                                   | Analyst | Date -- Time     | Results   | Units                | Lowest Detectable Level | Method Number |
|---|---------|------------------|-----------|----------------------|-------------------------|---------------|
| Sample Date: 11/09/93 In House # 11-8142-93 |         | Source: 5B-11-93 |           | Location: FT.STEWART |                         |               |
| - CONTINUED -                               |         |                  |           |                      |                         |               |
| Barium - TCLP                               | CW      | 11/29/93 13:13   | < 10.000  | ppm                  | 10.00 ppm               | 200.7         |
| Cadmium - TCLP                              | CW      | 11/29/93 13:13   | < 0.100   | ppm                  | 0.10 ppm                | 200.7         |
| Chromium - TCLP                             | CW      | 11/29/93 13:13   | < 0.500   | ppm                  | 0.50 ppm                | 200.7         |
| Lead - TCLP                                 | JDW     | 11/24/93 02:12   | < 0.500   | ppm                  | 0.50 ppm                | 239.2         |
| Mercury - TCLP                              | VTB     | 11/30/93 09:00   | < 0.050   | ppm                  | 0.05 ppm                | 245.1         |
| Silver - TCLP                               | CW      | 11/29/93 13:13   | < 0.500   | ppm                  | 0.50 ppm                | 200.7         |
| Benzene - TCLP                              | KG      | 11/22/93 10:55   | < 0.500   | mg/l                 | 0.50 mg/l               | 624.          |
| Carbon Tetrachloride - TCLP                 | KG      | 11/22/93 10:55   | < 0.500   | mg/l                 | 0.50 mg/l               | 624.          |
| Chlorobenzene - TCLP                        | KG      | 11/22/93 10:55   | < 100.000 | mg/l                 | 100.00 mg/l             | 624.          |
| Chloroform - TCLP                           | KG      | 11/22/93 10:55   | < 6.000   | mg/l                 | 6.00 mg/l               | 624.          |
| 1,4-Dichlorobenzene - TCLP                  | KG      | 11/22/93 10:55   | < 7.500   | mg/l                 | 7.50 mg/l               | 624.          |
| 1,2-Dichloroethane - TCLP                   | KG      | 11/22/93 10:55   | < 0.500   | mg/l                 | 0.50 mg/l               | 624.          |
| 1,1-Dichloroethylene - TCLP                 | KG      | 11/22/93 10:55   | < 0.700   | mg/l                 | 0.70 mg/l               | 624.          |
| Methyl Ethyl Ketone - TCLP                  | KG      | 11/22/93 10:55   | < 200.000 | mg/l                 | 200.00 mg/l             | 624.          |
| Tetrachloroethylene - TCLP                  | KG      | 11/22/93 10:55   | < 0.700   | mg/l                 | 0.70 mg/l               | 624.          |
| Trichloroethylene - TCLP                    | KG      | 11/22/93 10:55   | < 0.500   | mg/l                 | 0.50 mg/l               | 624.          |
| Vinyl Chloride - TCLP                       | KG      | 11/22/93 10:55   | < 0.200   | mg/l                 | 0.20 mg/l               | 624.          |
| O-Cresol - TCLP                             | AT      | 11/22/93 15:05   | < 200.000 | mg/l                 | 200.00 mg/l             | 625.          |
| M-Cresol - TCLP                             | AT      | 11/22/93 15:05   | < 200.000 | mg/l                 | 200.00 mg/l             | 625.          |
| P-Cresol - TCLP                             | AT      | 11/22/93 15:05   | < 200.000 | mg/l                 | 200.00 mg/l             | 625.          |
| Pentachlorophenol - TCLP                    | AT      | 11/22/93 15:05   | < 100.000 | mg/l                 | 100.00 mg/l             | 625.          |
| 2,4,5-Trichlorophenol - TCLP                | AT      | 11/22/93 15:05   | < 400.000 | mg/l                 | 400.00 mg/l             | 625.          |
| 2,4,6-Trichlorophenol - TCLP                | AT      | 11/22/93 15:05   | < 2.000   | mg/l                 | 2.00 mg/l               | 625.          |
| 2,4-Dinitrotoluene - TCLP                   | AT      | 11/22/93 15:05   | < 0.130   | mg/l                 | 0.13 mg/l               | 625.          |
| Hexachlorobenzene - TCLP                    | AT      | 11/22/93 15:05   | < 0.130   | mg/l                 | 0.13 mg/l               | 625.          |
| Hexachlorobutadiene - TCLP                  | AT      | 11/22/93 15:05   | < 0.500   | mg/l                 | 0.50 mg/l               | 625.          |
| Hexachloroethane - TCLP                     | AT      | 11/22/93 15:05   | < 3.000   | mg/l                 | 3.00 mg/l               | 625.          |
| Nitrobenzene - TCLP                         | AT      | 11/22/93 15:05   | < 0.130   | mg/l                 | 0.13 mg/l               | 625.          |
| Pyridine - TCLP                             | AT      | 11/22/93 15:05   | < 5.000   | mg/l                 | 5.00 mg/l               | 625.          |
| TPH light fuel, 5030/8015 - solid           | KG      | 11/22/93 12:30   | 201.000   | mg/kg                | 10.00 mg/kg             | 8015          |
| TPH heavy fuel, 3550/8015 - solid           | CCS     | 11/17/93 13:54   | 4120.000  | mg/kg                | 10.00 mg/kg             | 8015          |
| Toxaphene TCLP - liquid                     | RMK     | 12/11/93 00:02   | < 0.500   | mg/l                 | 0.50 mg/l               | 608           |
| 2,4-D TCLP - liquid                         | RMK     | 12/06/93 22:09   | < 10.000  | mg/l                 | 10.00 mg/l              | 509.          |
| Silvex TCLP - liquid                        | RMK     | 12/06/93 22:09   | < 1.000   | mg/l                 | 1.00 mg/l               | 509.          |
| Chlordane TCLP - liquid                     | RMK     | 12/11/93 00:02   | < 0.030   | mg/l                 | 0.03 mg/l               | 608.          |
| Endrin TCLP - liquid                        | RMK     | 12/11/93 00:02   | < 0.020   | mg/l                 | 0.02 mg/l               | 608.          |
| Heptachlor TCLP - liquid                    | RMK     | 12/11/93 00:02   | < 8.000   | ug/l                 | 8.00 ug/l               | 608.          |
| Heptachlor Epoxide TCLP - liquid            | RMK     | 12/11/93 00:02   | < 8.000   | ug/l                 | 8.00 ug/l               | 608.          |
| Lindane TCLP - liquid                       | RMK     | 12/11/93 00:02   | < 0.400   | mg/l                 | 0.40 mg/l               | 608.          |
| Methoxychlor TCLP - liquid                  | RMK     | 12/11/93 00:02   | < 10.000  | mg/l                 | 10.00 mg/l              | 608.          |
| % Solids                                    | MB      | 11/16/93 09:00   | 81.000    | %                    | 0.01 %                  | 160.3         |
| Chloromethane - solid                       | KG      | 11/22/93 16:06   | < 10.000  | ug/kg                | 10.00 ug/kg             | 8240          |
| Bromomethane - solid                        | KG      | 11/22/93 16:06   | < 10.000  | ug/kg                | 10.00 ug/kg             | 8240          |
| Vinyl Chloride - solid                      | KG      | 11/22/93 16:06   | < 10.000  | ug/kg                | 10.00 ug/kg             | 8240          |
| Methylene Chloride - solid                  | KG      | 11/22/93 16:06   | < 5.000   | ug/kg                | 5.00 ug/kg              | 8240          |
| Trichlorofluoromethane - solid              | KG      | 11/22/93 16:06   | < 10.000  | ug/kg                | 10.00 ug/kg             | 8240          |
| 1,1-Dichloroethene - solid                  | KG      | 11/22/93 16:06   | < 5.000   | ug/kg                | 10.00 ug/kg             | 8240          |
| 1,1-Dichloroethane - solid                  | KG      | 11/22/93 16:06   | < 5.000   | ug/kg                | 5.00 ug/kg              | 8240          |
| Trans 1,2-Dichloroethene - solid            | KG      | 11/22/93 16:06   | < 5.000   | ug/kg                | 5.00 ug/kg              | 8240          |
| 1,2-Dichloroethane - solid                  | KG      | 11/22/93 16:06   | < 5.000   | ug/kg                | 5.00 ug/kg              | 8240          |
| 1,1,1-Trichloroethane - solid               | KG      | 11/22/93 16:06   | < 5.000   | ug/kg                | 5.00 ug/kg              | 8240          |
| Bromodichloromethane - solid                | KG      | 11/22/93 16:06   | < 5.000   | ug/kg                | 5.00 ug/kg              | 8240          |
| 1,2-Dichloroproppane - solid                | KG      | 11/22/93 16:06   | < 5.000   | ug/kg                | 5.00 ug/kg              | 8240          |
| Trans 1,3-Dichloropropene - solid           | KG      | 11/22/93 16:06   | < 5.000   | ug/kg                | 5.00 ug/kg              | 8240          |
| Trichloroethene - solid                     | KG      | 11/22/93 16:06   | < 5.000   | ug/kg                | 5.00 ug/kg              | 8240          |
| Dibromochloromethane - solid                | KG      | 11/22/93 16:06   | < 5.000   | ug/kg                | 5.00 ug/kg              | 8240          |
| 1,1,2-trichloroethane - solid               | KG      | 11/22/93 16:06   | < 5.000   | ug/kg                | 5.00 ug/kg              | 8240          |
| Cis-1,3-Dichloropropene - solid             | KG      | 11/22/93 16:06   | < 5.000   | ug/kg                | 5.00 ug/kg              | 8240          |
| Benzene - solid                             | KG      | 11/22/93 16:06   | < 5.000   | ug/kg                | 5.00 ug/kg              | 8240          |
| 2-Chloroethylvinyl ether - solid            | KG      | 11/22/93 16:06   | < 10.000  | ug/kg                | 10.00 ug/kg             | 8240          |
| Bromoform - solid                           | KG      | 11/22/93 16:06   | < 5.000   | ug/kg                | 5.00 ug/kg              | 8240          |
| 1,1,2,2-Tetrachloroethane - solid           | KG      | 11/22/93 16:06   | < 5.000   | ug/kg                | 5.00 ug/kg              | 8240          |
| Tetrachloroethene - solid                   | KG      | 11/22/93 16:06   | < 5.000   | ug/kg                | 5.00 ug/kg              | 8240          |
| Toluene - solid                             | KG      | 11/22/93 16:06   | 390.000   | ug/kg                | 5.00 ug/kg              | 8240          |
| Chlorobenzene - solid                       | KG      | 11/22/93 16:06   | < 5.000   | ug/kg                | 5.00 ug/kg              | 8240          |

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| Parameter                                   | Analyst | Date -- Time     | Analysis Results     | Units       | Lowest Detectable Level | Method Number |
|---|---------|------------------|----------------------|-------------|-------------------------|---------------|
| Sample Date: 11/09/93 In House # 11-8142-93 |         | Source: 5B-11-93 | Location: FT.STEWART |             |                         |               |
| - CONTINUED -                               |         |                  |                      |             |                         |               |
| Ethylbenzene - solid                        | KG      | 11/22/93 16:06   | 2040.000 ug/kg       | 5.00 ug/kg  | 8240                    |               |
| Chloroform - solid                          | KG      | 11/22/93 16:06   | < 5.000 ug/kg        | 5.00 ug/kg  | 8240                    |               |
| Acetone - solid                             | KG      | 11/22/93 16:06   | 189.000 ug/kg        | 0.20 mg/kg  | 8240                    |               |
| Carbon tetrachloride - solid                | KG      | 11/22/93 16:06   | < 5.000 ug/kg        | 5.00 ug/kg  | 8240                    |               |
| Xylene - solid                              | KG      | 11/22/93 16:06   | 1910.000 ug/kg       | 10.00 ug/kg | 8240                    |               |
| 2-Butanone - solid                          | KG      | 11/22/93 16:06   | < 10.000 ug/kg       | 10.00 ug/kg | 8240                    |               |
| Vinyl Acetate - solid                       | KG      | 11/22/93 16:06   | < 10.000 ug/kg       | 10.00 ug/kg | 8240                    |               |
| 4-methyl-2 pentanone - solid                | KG      | 11/22/93 16:06   | < 10.000 ug/kg       | 10.00 ug/kg | 8240                    |               |
| Styrene - solid                             | KG      | 11/22/93 16:06   | < 10.000 ug/kg       | 10.00 ug/kg | 8240                    |               |
| Carbon Disulfide - solid                    | KG      | 11/22/93 16:06   | < 5.000 ug/kg        | 5.00 ug/kg  | 8240                    |               |
| 2-Hexanone - solid                          | KG      | 11/22/93 16:06   | < 10.000 ug/kg       | 10.00 ug/kg | 8240                    |               |

Comments:

Analytical results are reported on a wet-weight basis.

TCLP Extracts Were prepared and analyzed according to SW846 method 1311.

The volatile run was initiated at 12:42.

Sample Date: 11/09/93 In House # 11-8143-93 Source: 6A-11-93 Location: FT.STEWART

|  |     |                |                |               |       |  |
|--|-----|----------------|----------------|---------------|-------|--|
| Metals Sample Preparation - water        | VB  | 11/18/93 17:00 | 0.000          | 0.00          |       |  |
| TCLP Extraction, excluding Volatile cpds | JDW | 11/15/93 15:00 | 0.000          | 0.00          |       |  |
| TCLP Extraction, Volatile cpds. only     | JDW | 11/15/93 15:00 | 0.000          | 0.00          |       |  |
| TPH (heavy fuels) sample preparation     | SS  | 11/15/93 14:00 | 0.000          | 0.00          |       |  |
| Pesticide extraction - TCLP              | MR  | 11/24/93 09:00 | 0.000          | 0.00          |       |  |
| Herbicide extraction - TCLP              | MR  | 11/24/93 14:00 | 0.000          | 0.00          |       |  |
| Base Neutrals - TCLP extraction          | SB  | 11/18/93 09:00 | 0.000          | 0.00          |       |  |
| Acid - TCLP extraction                   | SB  | 11/18/93 09:00 | 0.000          | 0.00          |       |  |
| Lab pH                                   | TW  | 11/11/93 10:55 | 5.570 pH Units | 0.00 pH Units | 150.1 |  |
| Arsenic - TCLP                           | JDW | 11/24/93 10:30 | < 0.500 ppm    | 0.50 ppm      | 206.2 |  |
| Selenium - TCLP                          | JDW | 11/23/93 18:57 | < 0.100 ppm    | 0.10 ppm      | 270.2 |  |
| Barium - TCLP                            | CW  | 11/29/93 13:02 | < 10.000 ppm   | 10.00 ppm     | 200.7 |  |
| Cadmium - TCLP                           | CW  | 11/29/93 13:02 | < 0.100 ppm    | 0.10 ppm      | 200.7 |  |
| Chromium - TCLP                          | CW  | 11/29/93 13:02 | < 0.500 ppm    | 0.50 ppm      | 200.7 |  |
| Lead - TCLP                              | JDW | 11/24/93 02:18 | < 0.500 ppm    | 0.50 ppm      | 239.2 |  |
| Mercury - TCLP                           | VTB | 11/30/93 09:00 | < 0.050 ppm    | 0.05 ppm      | 245.1 |  |
| Silver - TCLP                            | CW  | 11/29/93 13:02 | < 0.500 ppm    | 0.50 ppm      | 200.7 |  |
| Benzene - TCLP                           | KG  | 11/22/93 11:22 | < 0.500 mg/l   | 0.50 mg/l     | 624.  |  |
| Carbon Tetrachloride - TCLP              | KG  | 11/22/93 11:22 | < 0.500 mg/l   | 0.50 mg/l     | 624.  |  |
| Chlorobenzene - TCLP                     | KG  | 11/22/93 11:22 | < 100.000 mg/l | 100.00 mg/l   | 624.  |  |
| Chloroform - TCLP                        | KG  | 11/22/93 11:22 | < 6.000 mg/l   | 6.00 mg/l     | 624.  |  |
| 1,4-Dichlorobenzene - TCLP               | KG  | 11/22/93 11:22 | < 7.500 mg/l   | 7.50 mg/l     | 624.  |  |
| 1,2-Dichloroethane - TCLP                | KG  | 11/22/93 11:22 | < 0.500 mg/l   | 0.50 mg/l     | 624.  |  |
| 1,1-Dichloroethylene - TCLP              | KG  | 11/22/93 11:22 | < 0.700 mg/l   | 0.70 mg/l     | 624.  |  |
| Methyl Ethyl Ketone - TCLP               | KG  | 11/22/93 11:22 | < 200.000 mg/l | 200.00 mg/l   | 624.  |  |
| Tetrachloroethylene - TCLP               | KG  | 11/22/93 11:22 | < 0.700 mg/l   | 0.70 mg/l     | 624.  |  |
| Trichloroethylene - TCLP                 | KG  | 11/22/93 11:22 | < 0.500 mg/l   | 0.50 mg/l     | 624.  |  |
| Vinyl Chloride - TCLP                    | KG  | 11/22/93 11:22 | < 0.200 mg/l   | 0.20 mg/l     | 624.  |  |
| O-Cresol - TCLP                          | AT  | 11/22/93 16:06 | < 200.000 mg/l | 200.00 mg/l   | 625.  |  |
| M-Cresol - TCLP                          | AT  | 11/22/93 16:06 | < 200.000 mg/l | 200.00 mg/l   | 625.  |  |
| P-Cresol - TCLP                          | AT  | 11/22/93 16:06 | < 200.000 mg/l | 200.00 mg/l   | 625.  |  |
| Pentachlorophenol - TCLP                 | AT  | 11/22/93 16:06 | < 100.000 mg/l | 100.00 mg/l   | 625.  |  |
| 2,4,5-Trichlorophenol - TCLP             | AT  | 11/22/93 16:06 | < 400.000 mg/l | 400.00 mg/l   | 625.  |  |
| 2,4,6-Trichlorophenol - TCLP             | AT  | 11/22/93 16:06 | < 2.000 mg/l   | 2.00 mg/l     | 625.  |  |
| 2,4-Dinitrotoluene - TCLP                | AT  | 11/22/93 16:06 | < 0.130 mg/l   | 0.13 mg/l     | 625.  |  |
| Hexachlorobenzene - TCLP                 | AT  | 11/22/93 16:06 | < 0.130 mg/l   | 0.13 mg/l     | 625.  |  |
| Hexachlorobutadiene - TCLP               | AT  | 11/22/93 16:06 | < 0.500 mg/l   | 0.50 mg/l     | 625.  |  |
| Hexachloroethane - TCLP                  | AT  | 11/22/93 16:06 | < 3.000 mg/l   | 3.00 mg/l     | 625.  |  |
| Nitrobenzene - TCLP                      | AT  | 11/22/93 16:06 | < 0.130 mg/l   | 0.13 mg/l     | 625.  |  |
| Pyridine - TCLP                          | AT  | 11/22/93 16:06 | < 5.000 mg/l   | 5.00 mg/l     | 625.  |  |
| TPH light fuel, 5030/8015 - solid        | KG  | 11/22/93 13:01 | < 10.000 mg/kg | 10.00 mg/kg   | 8015  |  |
| TPH heavy fuel, 3550/8015 - solid        | CCS | 11/17/93 01:29 | 38.900 mg/kg   | 10.00 mg/kg   | 8015  |  |
| Toxaphene TCLP - liquid                  | RMK | 12/01/93 02:06 | < 0.500 mg/l   | 0.50 mg/l     | 608   |  |
| 2,4-D TCLP - liquid                      | RMK | 12/01/93 02:06 | < 10.000 mg/l  | 10.00 mg/l    | 509.  |  |
| Silvex TCLP - liquid                     | RMK | 12/01/93 02:06 | < 1.000 mg/l   | 1.00 mg/l     | 509.  |  |

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| Parameter                                   | Analyst | Date -- Time     | Results              | Units        | Lowest Detectable Level | Method Number |
|---|---------|------------------|----------------------|--------------|-------------------------|---------------|
| Sample Date: 11/09/93 In House # 11-8143-93 |         | Source: 6A-11-93 | Location: FT.STEWART |              |                         |               |
| - CONTINUED -                               |         |                  |                      |              |                         |               |
| Chlordane TCLP - liquid                     | RMK     | 12/01/93 02:06   | <                    | 0.030 mg/l   | 0.03 mg/l               | 608.          |
| Endrin TCLP - liquid                        | RMK     | 12/01/93 02:06   | <                    | 0.020 mg/l   | 0.02 mg/l               | 608.          |
| Heptachlor TCLP - liquid                    | RMK     | 12/01/93 02:06   | <                    | 8.000 ug/l   | 8.00 ug/l               | 608.          |
| Heptachlor Epoxide TCLP - liquid            | RMK     | 12/01/93 02:06   | <                    | 8.000 ug/l   | 8.00 ug/l               | 608.          |
| Lindane TCLP - liquid                       | RMK     | 12/01/93 02:06   | <                    | 0.400 mg/l   | 0.40 mg/l               | 608.          |
| Methoxychlor TCLP - liquid                  | RMK     | 12/01/93 02:06   | <                    | 10.000 mg/l  | 10.00 mg/l              | 608.          |
| % Solids                                    | MB      | 11/16/93 09:00   |                      | 86.800 %     | 0.01 %                  | 160.3         |
| Chloromethane - solid                       | KG      | 11/22/93 16:08   | <                    | 10.000 ug/kg | 10.00 ug/kg             | 8240          |
| Bromomethane - solid                        | KG      | 11/22/93 16:08   | <                    | 10.000 ug/kg | 10.00 ug/kg             | 8240          |
| Vinyl Chloride - solid                      | KG      | 11/22/93 16:08   | <                    | 10.000 ug/kg | 10.00 ug/kg             | 8240          |
| Methylene Chloride - solid                  | KG      | 11/22/93 16:08   | <                    | 5.000 ug/kg  | 5.00 ug/kg              | 8240          |
| Trichlorofluoromethane - solid              | KG      | 11/22/93 16:08   | <                    | 10.000 ug/kg | 10.00 ug/kg             | 8240          |
| 1,1-Dichloroethene - solid                  | KG      | 11/22/93 16:08   | <                    | 5.000 ug/kg  | 5.00 ug/kg              | 8240          |
| 1,1-Dichloroethane - solid                  | KG      | 11/22/93 16:08   | <                    | 5.000 ug/kg  | 5.00 ug/kg              | 8240          |
| Trans 1,2-Dichloroethene - solid            | KG      | 11/22/93 16:08   | <                    | 5.000 ug/kg  | 5.00 ug/kg              | 8240          |
| 1,2-Dichloroethane - solid                  | KG      | 11/22/93 16:08   | <                    | 5.000 ug/kg  | 5.00 ug/kg              | 8240          |
| 1,1,1-Trichloroethane - solid               | KG      | 11/22/93 16:08   | <                    | 5.000 ug/kg  | 5.00 ug/kg              | 8240          |
| Bromodichloromethane - solid                | KG      | 11/22/93 16:08   | <                    | 5.000 ug/kg  | 5.00 ug/kg              | 8240          |
| 1,2-Dichloropropane - solid                 | KG      | 11/22/93 16:08   | <                    | 5.000 ug/kg  | 5.00 ug/kg              | 8240          |
| Trans 1,3-Dichloropropene - solid           | KG      | 11/22/93 16:08   | <                    | 5.000 ug/kg  | 5.00 ug/kg              | 8240          |
| Trichloroethene - solid                     | KG      | 11/22/93 16:08   | <                    | 5.000 ug/kg  | 5.00 ug/kg              | 8240          |
| Dibromochloromethane - solid                | KG      | 11/22/93 16:08   | <                    | 5.000 ug/kg  | 5.00 ug/kg              | 8240          |
| 1,1,2-trichloroethane - solid               | KG      | 11/22/93 16:08   | <                    | 5.000 ug/kg  | 5.00 ug/kg              | 8240          |
| Cis-1,3-Dichloropropene - solid             | KG      | 11/22/93 16:08   | <                    | 5.000 ug/kg  | 5.00 ug/kg              | 8240          |
| Benzene - solid                             | KG      | 11/22/93 16:08   | <                    | 5.000 ug/kg  | 5.00 ug/kg              | 8240          |
| 2-Chloroethylvinyl ether - solid            | KG      | 11/22/93 16:08   | <                    | 10.000 ug/kg | 10.00 ug/kg             | 8240          |
| Bromoform - solid                           | KG      | 11/22/93 16:08   | <                    | 5.000 ug/kg  | 5.00 ug/kg              | 8240          |
| 1,1,2,2-Tetrachloroethane - solid           | KG      | 11/22/93 16:08   | <                    | 5.000 ug/kg  | 5.00 ug/kg              | 8240          |
| Tetrachloroethene - solid                   | KG      | 11/22/93 16:08   | <                    | 5.000 ug/kg  | 5.00 ug/kg              | 8240          |
| Toluene - solid                             | KG      | 11/22/93 16:08   | <                    | 5.000 ug/kg  | 5.00 ug/kg              | 8240          |
| Chlorobenzene - solid                       | KG      | 11/22/93 16:08   | <                    | 5.000 ug/kg  | 5.00 ug/kg              | 8240          |
| Ethylbenzene - solid                        | KG      | 11/22/93 16:08   | <                    | 5.000 ug/kg  | 5.00 ug/kg              | 8240          |
| Chloroform - solid                          | KG      | 11/22/93 16:08   | <                    | 5.000 ug/kg  | 5.00 ug/kg              | 8240          |
| Acetone - solid                             | KG      | 11/22/93 16:08   | <                    | 5.000 ug/kg  | 5.00 ug/kg              | 8240          |
| Carbon tetrachloride - solid                | KG      | 11/22/93 16:08   | <                    | 0.200 mg/kg  | 0.20 mg/kg              | 8240          |
| Xylene - solid                              | KG      | 11/22/93 16:08   | <                    | 10.000 ug/kg | 10.00 ug/kg             | 8240          |
| 2-Butanone - solid                          | KG      | 11/22/93 16:08   | <                    | 10.000 ug/kg | 10.00 ug/kg             | 8240          |
| Vinyl Acetate - solid                       | KG      | 11/22/93 16:08   | <                    | 10.000 ug/kg | 10.00 ug/kg             | 8240          |
| 4-methyl-2-pentanone - solid                | KG      | 11/22/93 16:08   | <                    | 10.000 ug/kg | 10.00 ug/kg             | 8240          |
| Styrene - solid                             | KG      | 11/22/93 16:08   | <                    | 10.000 ug/kg | 10.00 ug/kg             | 8240          |
| Carbon Disulfide - solid                    | KG      | 11/22/93 16:08   | <                    | 5.000 ug/kg  | 5.00 ug/kg              | 8240          |
| 2-Hexanone - solid                          | KG      | 11/22/93 16:08   | <                    | 10.000 ug/kg | 10.00 ug/kg             | 8240          |

Comments:

Analytical results are reported on a wet-weight basis.

TCLP Extracts were prepared and analyzed according to SW846 method 1311.

The volatile run was initiated at 13:09.

|   |     |                  |                      |               |       |  |
|---|-----|------------------|----------------------|---------------|-------|--|
| Sample Date: 11/09/93 In House # 11-8144-93 |     | Source: 6B-11-93 | Location: FT.STEWART |               |       |  |
| Metals Sample Preparation - Water           | VB  | 11/18/93 17:00   | 0.000                | 0.00          |       |  |
| TCLP Extraction, excluding Volatile cpds    | JDW | 11/15/93 15:00   | 0.000                | 0.00          |       |  |
| TCLP Extraction, Volatile cpds. only        | JDW | 11/15/93 15:00   | 0.000                | 0.00          |       |  |
| TPH (heavy fuels) sample preparation        | SS  | 11/15/93 14:00   | 0.000                | 0.00          |       |  |
| Pesticide extraction - TCLP                 | MR  | 11/24/93 09:00   | 0.000                | 0.00          |       |  |
| Herbicide extraction - TCLP                 | MR  | 11/24/93 14:00   | 0.000                | 0.00          |       |  |
| Base Neutrals - TCLP extraction             | SB  | 11/18/93 09:00   | 0.000                | 0.00          |       |  |
| Acid - TCLP extraction                      | SB  | 11/18/93 09:00   | 0.000                | 0.00          |       |  |
| Lab pH                                      | TW  | 11/11/93 10:55   | 5.890 pH Units       | 0.00 pH Units | 150.1 |  |
| Arsenic - TCLP                              | JDW | 11/24/93 10:55   | < 0.500 ppm          | 0.50 ppm      | 206.2 |  |
| Selenium - TCLP                             | JDW | 11/23/93 19:35   | < 0.100 ppm          | 0.10 ppm      | 270.2 |  |
| Barium - TCLP                               | CW  | 11/29/93 12:44   | < 10.000 ppm         | 10.00 ppm     | 200.7 |  |
| Cadmium - TCLP                              | CW  | 11/29/93 12:44   | < 0.100 ppm          | 0.10 ppm      | 200.7 |  |
| Chromium - TCLP                             | CW  | 11/29/93 12:44   | < 0.500 ppm          | 0.50 ppm      | 200.7 |  |

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| Parameter                          | Sample Date: 11/09/93 | In House # 11-8144-93 | Analyst | Analysis       |         |                       | Units       | Lowest Detectable Level | Method Number |
|------------------------------------|-----------------------|-----------------------|---------|----------------|---------|-----------------------|-------------|-------------------------|---------------|
|                                    |                       |                       |         | Date -- Time   | Results | Location: FT. STEWART |             |                         |               |
| - CONTINUED -                      |                       |                       |         |                |         |                       |             |                         |               |
| Lead - TCLP                        |                       |                       | JDW     | 11/24/93 02:42 | <       | 0.500 ppm             | 0.50 ppm    | 239.2                   |               |
| Mercury - TCLP                     |                       |                       | VTB     | 11/30/93 09:00 | <       | 0.050 ppm             | 0.05 ppm    | 245.1                   |               |
| Silver - TCLP                      |                       |                       | CW      | 11/29/93 12:44 | <       | 0.500 ppm             | 0.50 ppm    | 200.7                   |               |
| Benzene - TCLP                     |                       |                       | KG      | 11/22/93 11:48 | <       | 0.500 mg/l            | 0.50 mg/l   | 624.                    |               |
| Carbon Tetrachloride - TCLP        |                       |                       | KG      | 11/22/93 11:48 | <       | 0.500 mg/l            | 0.50 mg/l   | 624.                    |               |
| Chlorobenzene - TCLP               |                       |                       | KG      | 11/22/93 11:48 | <       | 100.000 mg/l          | 100.00 mg/l | 624.                    |               |
| Chloroform - TCLP                  |                       |                       | KG      | 11/22/93 11:48 | <       | 6.000 mg/l            | 6.00 mg/l   | 624.                    |               |
| 1,4-Dichlorobenzene - TCLP         |                       |                       | KG      | 11/22/93 11:48 | <       | 7.500 mg/l            | 7.50 mg/l   | 624.                    |               |
| 1,2-Dichloroethane - TCLP          |                       |                       | KG      | 11/22/93 11:48 | <       | 0.500 mg/l            | 0.50 mg/l   | 624.                    |               |
| 1,1-Dichloroethylene - TCLP        |                       |                       | KG      | 11/22/93 11:48 | <       | 0.700 mg/l            | 0.70 mg/l   | 624.                    |               |
| Methyl Ethyl Ketone - TCLP         |                       |                       | KG      | 11/22/93 11:48 | <       | 200.000 mg/l          | 200.00 mg/l | 624.                    |               |
| Tetrachloroethylene - TCLP         |                       |                       | KG      | 11/22/93 11:48 | <       | 0.700 mg/l            | 0.70 mg/l   | 624.                    |               |
| Trichloroethylene - TCLP           |                       |                       | KG      | 11/22/93 11:48 | <       | 0.500 mg/l            | 0.50 mg/l   | 624.                    |               |
| Vinyl Chloride - TCLP              |                       |                       | KG      | 11/22/93 11:48 | <       | 0.200 mg/l            | 0.20 mg/l   | 624.                    |               |
| O-Cresol - TCLP                    |                       |                       | AT      | 11/22/93 17:55 | <       | 200.000 mg/l          | 200.00 mg/l | 625.                    |               |
| M-Cresol - TCLP                    |                       |                       | AT      | 11/22/93 17:55 | <       | 200.000 mg/l          | 200.00 mg/l | 625.                    |               |
| P-Cresol - TCLP                    |                       |                       | AT      | 11/22/93 17:55 | <       | 200.000 mg/l          | 200.00 mg/l | 625.                    |               |
| Pentachlorophenol - TCLP           |                       |                       | AT      | 11/22/93 17:55 | <       | 100.000 mg/l          | 100.00 mg/l | 625.                    |               |
| 2,4,5-Trichlorophenol - TCLP       |                       |                       | AT      | 11/22/93 17:55 | <       | 400.000 mg/l          | 400.00 mg/l | 625.                    |               |
| 2,4,6-Trichlorophenol - TCLP       |                       |                       | AT      | 11/22/93 17:55 | <       | 2.000 mg/l            | 2.00 mg/l   | 625.                    |               |
| 2,4-Dinitrotoluene - TCLP          |                       |                       | AT      | 11/22/93 17:55 | <       | 0.130 mg/l            | 0.13 mg/l   | 625.                    |               |
| Hexachlorobenzene - TCLP           |                       |                       | AT      | 11/22/93 17:55 | <       | 0.130 mg/l            | 0.13 mg/l   | 625.                    |               |
| Hexachlorobutadiene - TCLP         |                       |                       | AT      | 11/22/93 17:55 | <       | 0.500 mg/l            | 0.50 mg/l   | 625.                    |               |
| Hexachloroethane - TCLP            |                       |                       | AT      | 11/22/93 17:55 | <       | 3.000 mg/l            | 3.00 mg/l   | 625.                    |               |
| Nitrobenzene - TCLP                |                       |                       | AT      | 11/22/93 17:55 | <       | 0.130 mg/l            | 0.13 mg/l   | 625.                    |               |
| Pyridine - TCLP                    |                       |                       | AT      | 11/22/93 17:55 | <       | 5.000 mg/l            | 5.00 mg/l   | 625.                    |               |
| TPH light fuel, 5030/8015 - solid  |                       |                       | KG      | 11/22/93 13:32 | <       | 10.000 mg/kg          | 10.00 mg/kg | 8015                    |               |
| TPH heavy fuel, 3550/8015 - solid  |                       |                       | CCS     | 11/17/93 01:58 | <       | 23.400 mg/kg          | 10.00 mg/kg | 8015                    |               |
| Toxaphene TCLP - liquid            |                       |                       | RMK     | 12/01/93 02:44 | <       | 0.500 mg/l            | 0.50 mg/l   | 608                     |               |
| 2,4-D TCLP - liquid                |                       |                       | RMK     | 12/01/93 02:44 | <       | 10.000 mg/l           | 10.00 mg/l  | 509.                    |               |
| Silvex TCLP - liquid               |                       |                       | RMK     | 12/01/93 02:44 | <       | 1.000 mg/l            | 1.00 mg/l   | 509.                    |               |
| Chlordane TCLP - liquid            |                       |                       | RMK     | 12/01/93 02:44 | <       | 0.030 mg/l            | 0.03 mg/l   | 608.                    |               |
| Endrin TCLP - liquid               |                       |                       | RMK     | 12/01/93 02:44 | <       | 0.020 mg/l            | 0.02 mg/l   | 608.                    |               |
| Heptachlor TCLP - liquid           |                       |                       | RMK     | 12/01/93 02:44 | <       | 8.000 ug/l            | 8.00 ug/l   | 608.                    |               |
| Heptachlor Epoxide TCLP - liquid   |                       |                       | RMK     | 12/01/93 02:44 | <       | 8.000 ug/l            | 8.00 ug/l   | 608.                    |               |
| Lindane TCLP - liquid              |                       |                       | RMK     | 12/01/93 02:44 | <       | 0.400 mg/l            | 0.40 mg/l   | 608.                    |               |
| Methoxychlor TCLP - liquid         |                       |                       | RMK     | 12/01/93 02:44 | <       | 10.000 mg/l           | 10.00 mg/l  | 608.                    |               |
| % Solids                           |                       |                       | MB      | 11/16/93 09:00 | <       | 86.100 %              | 0.01 %      | 160.3                   |               |
| Chloromethane - solid              |                       |                       | KG      | 11/22/93 16:11 | <       | 10.000 ug/kg          | 10.00 ug/kg | 8240                    |               |
| Bromomethane - solid               |                       |                       | KG      | 11/22/93 16:11 | <       | 10.000 ug/kg          | 10.00 ug/kg | 8240                    |               |
| Vinyl Chloride - solid             |                       |                       | KG      | 11/22/93 16:11 | <       | 10.000 ug/kg          | 10.00 ug/kg | 8240                    |               |
| Methylene Chloride - solid         |                       |                       | KG      | 11/22/93 16:11 | <       | 5.000 ug/kg           | 5.00 ug/kg  | 8240                    |               |
| Trichlorofluoromethane - solid     |                       |                       | KG      | 11/22/93 16:11 | <       | 10.000 ug/kg          | 10.00 ug/kg | 8240                    |               |
| 1,1-Dichloroethene - solid         |                       |                       | KG      | 11/22/93 16:11 | <       | 5.000 ug/kg           | 5.00 ug/kg  | 8240                    |               |
| 1,1-Dichloroethane - solid         |                       |                       | KG      | 11/22/93 16:11 | <       | 5.000 ug/kg           | 5.00 ug/kg  | 8240                    |               |
| Trans 1,2-Dichloroethene - solid   |                       |                       | KG      | 11/22/93 16:11 | <       | 5.000 ug/kg           | 5.00 ug/kg  | 8240                    |               |
| 1,2-Dichloroethane - solid         |                       |                       | KG      | 11/22/93 16:11 | <       | 5.000 ug/kg           | 5.00 ug/kg  | 8240                    |               |
| 1,1,1-Trichloroethane - solid      |                       |                       | KG      | 11/22/93 16:11 | <       | 5.000 ug/kg           | 5.00 ug/kg  | 8240                    |               |
| Bromodichloromethane - solid       |                       |                       | KG      | 11/22/93 16:11 | <       | 5.000 ug/kg           | 5.00 ug/kg  | 8240                    |               |
| 1,2-Dichloropropane - solid        |                       |                       | KG      | 11/22/93 16:11 | <       | 5.000 ug/kg           | 5.00 ug/kg  | 8240                    |               |
| Trans 1,3-Dichloropropene - solid  |                       |                       | KG      | 11/22/93 16:11 | <       | 5.000 ug/kg           | 5.00 ug/kg  | 8240                    |               |
| Trichloroethene - solid            |                       |                       | KG      | 11/22/93 16:11 | <       | 5.000 ug/kg           | 5.00 ug/kg  | 8240                    |               |
| Dibromochloromethane - solid       |                       |                       | KG      | 11/22/93 16:11 | <       | 5.000 ug/kg           | 5.00 ug/kg  | 8240                    |               |
| 1,1,2-trichloroethane - solid      |                       |                       | KG      | 11/22/93 16:11 | <       | 5.000 ug/kg           | 5.00 ug/kg  | 8240                    |               |
| Cis-1,3-Dichloropropene - solid    |                       |                       | KG      | 11/22/93 16:11 | <       | 5.000 ug/kg           | 5.00 ug/kg  | 8240                    |               |
| Benzene - solid                    |                       |                       | KG      | 11/22/93 16:11 | <       | 5.000 ug/kg           | 5.00 ug/kg  | 8240                    |               |
| 2-Chloroethylvinyl ether - solid   |                       |                       | KG      | 11/22/93 16:11 | <       | 10.000 ug/kg          | 10.00 ug/kg | 8240                    |               |
| Bromoform - solid                  |                       |                       | KG      | 11/22/93 16:11 | <       | 5.000 ug/kg           | 5.00 ug/kg  | 8240                    |               |
| 1,1,2,2,-Tetrachloroethane - solid |                       |                       | KG      | 11/22/93 16:11 | <       | 5.000 ug/kg           | 5.00 ug/kg  | 8240                    |               |
| Tetrachloroethene - solid          |                       |                       | KG      | 11/22/93 16:11 | <       | 5.000 ug/kg           | 5.00 ug/kg  | 8240                    |               |
| Toluene - solid                    |                       |                       | KG      | 11/22/93 16:11 | <       | 5.000 ug/kg           | 5.00 ug/kg  | 8240                    |               |
| Chlorobenzene - solid              |                       |                       | KG      | 11/22/93 16:11 | <       | 5.000 ug/kg           | 5.00 ug/kg  | 8240                    |               |
| Ethylbenzene - solid               |                       |                       | KG      | 11/22/93 16:11 | <       | 5.000 ug/kg           | 5.00 ug/kg  | 8240                    |               |
| Chloroform - solid                 |                       |                       | KG      | 11/22/93 16:11 | <       | 5.000 ug/kg           | 5.00 ug/kg  | 8240                    |               |
| Acetone - solid                    |                       |                       | KG      | 11/22/93 16:11 | <       | 0.200 mg/kg           | 0.20 mg/kg  | 8240                    |               |

U-860

Ms. Toni Nicholson  
12/14/93  
Page 7

| Parameter                    | Analyst               | Date -- Time     | Results              | Units        | Lowest Detectable Level | Method Number |
|------------------------------|-----------------------|------------------|----------------------|--------------|-------------------------|---------------|
| Sample Date: 11/09/93        | In House # 11-8144-93 | Source: 6B-11-93 | Location: FT STEWART |              |                         |               |
| - CONTINUED -                |                       |                  |                      |              |                         |               |
| Carbon tetrachloride - solid | KG                    | 11/22/93 16:11   | <                    | 5.000 ug/kg  | 5.00 ug/kg              | 8240          |
| Xylene - solid               | KG                    | 11/22/93 16:11   | <                    | 10.000 ug/kg | 10.00 ug/kg             | 8240          |
| 2-Butanone - solid           | KG                    | 11/22/93 16:11   | <                    | 10.000 ug/kg | 10.00 ug/kg             | 8240          |
| Vinyl Acetate - solid        | KG                    | 11/22/93 16:11   | <                    | 10.000 ug/kg | 10.00 ug/kg             | 8240          |
| 4-methyl-2 pentanone - solid | KG                    | 11/22/93 16:11   | <                    | 10.000 ug/kg | 10.00 ug/kg             | 8240          |
| Styrene - solid              | KG                    | 11/22/93 16:11   | <                    | 10.000 ug/kg | 10.00 ug/kg             | 8240          |
| Carbon Disulfide - solid     | KG                    | 11/22/93 16:11   | <                    | 5.000 ug/kg  | 5.00 ug/kg              | 8240          |
| 2-Hexanone - solid           | KG                    | 11/22/93 16:11   | <                    | 10.000 ug/kg | 10.00 ug/kg             | 8240          |

Comments:

Analytical results are reported on a wet-weight basis.

TCLP Extracts were prepared and analyzed according to SW846 method 1311.

The volatile run was initiated at 13:36.

Laboratory ID # 40111

Very truly yours,

James H. Carr, Jr.  
Chemist

U-8601

FT. STEWART Number Key  
JOB NUMBER FST-026

| <u>Carr Lab No.</u> | <u>FT STEWART ID</u> |
|---------------------|----------------------|
| 11-8141-93          | 5A-11-93             |
| 11-8142-93          | 5B-11-93             |
| 11-8143-93          | 6A-11-93             |
| 11-8144-93          | 6B-11-93             |

**LEGEND**

QC SAmple Number: The identifying number on a sample or known which makes unique identification of each sample possible.

Val. 1, Val. 2: Concentrations of duplicate samples, presented for precision information. \* indicates a spiked duplicate sample if this information is not presented elsewhere.

RPD: Relative Percent Difference:

$$RPD = \frac{abs(D_1 - D_2)}{(D_1 + D_2)/2} * 100$$

Spike Conc.: The concentratiton of spike material added to the sample to produce the spiked sample.

True Value: The target concentratiton for the spiked sample:

$$TV = \text{Sample Conc.} - \text{Spike Conc.}$$

Observed Value: The concentration observed in the spiked sample upon analysis.

Percent Recovery: A measure of the concentration of the sppiked sample relative to the spiked concentration:

$$\% \text{ Recovery} = \frac{\text{Conc. spiked sample} - \text{Conc. unspiked sample}}{\text{spike concentration}}$$

## QUALITY CONTROL FOR LEAD ANALYSIS

SAMPLES NUMBERED: 11-8141-93 through 11-8144-93 analyzed 11/24/93;

| Date     | QC Sample Number | Val. 1<br>(ug/l) | Val. 2<br>(ug/l) | %<br>RPD | Spike Conc. | True Value | Observed Value | Percent Recovery |
|----------|------------------|------------------|------------------|----------|-------------|------------|----------------|------------------|
| 11/24/93 | WP28-2           |                  |                  |          |             | 30.0       | 34.7           | 116              |
| 11/24/93 | DIG. STD.        |                  |                  |          |             | 50.0       | 52.2           | 104              |
| 11/24/93 | 8145*            | 32.0             | 31.5             | 1.6      | 18.5        | 32.1       | 32.0           | 99               |
| 11/24/93 | 8192*            | 6.5              | 6.2              | 4.7      | 5.0         | 6.8        | 6.5            | 95               |

\* Indicates a spiked duplicate sample.

## QUALITY CONTROL FOR ARSENIC ANALYSIS

SAMPLES NUMBERED: 11-8141-93 through 11-8144-93 analyzed 11/24/93;

| Date     | QC Sample Number | Val. 1<br>(ug/l) | Val. 2<br>(ug/l) | %<br>RPD | Spike Conc. | True Value | Observed Value | Percent Recovery |
|----------|------------------|------------------|------------------|----------|-------------|------------|----------------|------------------|
| 11/24/93 | WP28-2           |                  |                  |          |             | 86.0       | 96.6           | 112              |
| 11/24/93 | DIG. STD.        |                  |                  |          |             | 50.0       | 47.9           | 96               |
| 11/24/93 | 8192*            | 5.4              | 6.2              | 13.8     | 5.0         | 5.0        | 5.4            | 108              |
| 11/24/93 | 8143*            | 65.0             | 58.0             | 11.4     | 50.0        | 57.0       | 65.0           | 116              |

## QUALITY CONTROL FOR SELENIUM ANALYSIS

SAMPLES NUMBERED: 11-8141-93 through 11-8144-93 analyzed 11/24/93;

| Date     | QC Sample Number | Val. 1<br><u>(ug/1)</u> | Val. 2<br><u>(ug/1)</u> | % RPD | Spike Conc. | True Value | Observed Value | Percent Recovery |
|----------|------------------|-------------------------|-------------------------|-------|-------------|------------|----------------|------------------|
| 11/24/93 | WP28-2           |                         |                         |       |             | 11.0       | 12.5           | 114              |
| 11/24/93 | DIG. STD.        |                         |                         |       |             | 50.0       | 53.7           | 107              |
| 11/24/93 | 8186*            | 13.3                    | 11.2                    | 17.1  | 15.0        | 15.0       | 13.3           | 89               |
| 11/24/93 | 8100*            | 5.5                     | 5.3                     | 3.7   | 5.0         | 5.0        | 5.3            | 106              |

## QUALITY CONTROL FOR ICP ANALYSIS

SAMPLES NUMBERED: 11-8141-93 through 11-8144-93 analyzed 11/29/93.

| Date     | QC Sample Number | Val. 1<br><u>(mg/1)</u> | Val. 2<br><u>(mg/1)</u> | % RPD | Spike Conc. | True Value | Obs. Val. | Percent Recovery |
|----------|------------------|-------------------------|-------------------------|-------|-------------|------------|-----------|------------------|
| 11/29/93 | Ag               | ICP-07                  |                         |       |             | 0.10       | 0.099     | 99               |
| 11/29/93 | Ba               | ICP-07                  |                         |       |             | 0.10       | 0.099     | 99               |
| 11/29/93 | Cr               | ICP-19                  |                         |       |             | 0.10       | 0.090     | 90               |
| 11/29/93 | Cd               | ICP-19                  |                         |       |             | 0.10       | 0.085     | 85               |
| 11/29/93 | Ag               | 8142                    | <.05                    | <.05  | 0           | 0.20       | 0.222     | 111              |
| 11/29/93 | Cr               | 8142                    | <.05                    | <.05  | 0           | 0.20       | 0.153     | 88               |
| 11/29/93 | Ba               | 8142                    | <.05                    | <.05  | 0           | 0.20       | 0.160     | 80               |
| 11/29/93 | Cd               | 8142                    | <.01                    | <.01  | 0           | 0.20       | 0.151     | 76               |
| 11/29/93 | Ag               | CHK. STD                | 0.127                   | 0.088 | 36.4        | 0.10       | 0.088     | 88               |
| 11/29/93 | Cr               | CHK. STD                | 0.072                   | 0.072 | 0           | 0.10       | 0.072     | 72               |
| 11/29/93 | Ba               | CHK. STD                | 0.093                   | 0.073 | 24.1        | 0.10       | 0.093     | 93               |
| 11/29/93 | Cd               | CHK. STD                | 0.071                   | 0.064 | 10.4        | 0.10       | 0.071     | 71               |

## QUALITY CONTROL FOR MERCURY ANALYSIS

SAMPLES NUMBERED: 11-8141-93 through 11-8144-93 analyzed 11/30/93;

| Date     | QC Sample Number | Val. 1<br><u>ug/l</u> | Val. 2<br><u>ug/l</u> | % RPD | Spike Conc. | True Value | Observed Value | Percent Recovery |
|----------|------------------|-----------------------|-----------------------|-------|-------------|------------|----------------|------------------|
| 11/30/93 | EPA              |                       |                       |       |             | 2.00       | 1.92           | 96               |
| 11/30/93 | 8192             | <.2                   | <.2                   | 0     | 1.0         | 1.00       | 0.80           | 80               |
| 11/30/93 | 8144             | <.2                   | <.2                   | 0     | 1.0         | 1.00       | 1.02           | 102              |
| 11/30/93 | CHK-STD          | 1.02                  | 1.19                  | 15.4  | 1.0         | 1.00       | 1.02           | 102              |

## QUALITY CONTROL FOR PESTICIDES

SAMPLES NUMBERED: 11-8143-93 through 11-8144-93 analyzed 12/01/93;

SAMPLES NUMBERED: 11-8141-93 through 11-8142-93 reanalyzed 12/10-11/93 for confirmation;

## SPIKE RECOVERY DATA FOR 12/01/93

SPIKE QC SAMPLE NUMBER: 11814093 SPIKED DUPLICATE

| Analyte     | Val. 1<br><u>ug/l</u> | Val. 2<br><u>ug/l</u> | % RPD | Spike Conc. | True Value | Observed Value | Percent Recovery |
|-------------|-----------------------|-----------------------|-------|-------------|------------|----------------|------------------|
| Gamma-BHC   | 0.078                 | 0.054                 | 36.4  | 0.08        | 0.08       | 0.078          | 93               |
| Heptachlor  | 0.102                 | 0.056                 | 58.2  | 0.08        | 0.08       | 0.102          | 128              |
| Aldrin      | 0.078                 | 0.051                 | 41.8  | 0.08        | 0.08       | 0.078          | 98               |
| Dieldrin    | 0.066                 | 0.039                 | 51.4  | 0.08        | 0.08       | 0.066          | 83               |
| Endrin      | 0.072                 | 0.029                 | 86.0  | 0.08        | 0.08       | 0.072          | 90               |
| Endosulf. I | 0.072                 | 0.046                 | 44.1  | 0.08        | 0.08       | 0.072          | 90               |

## BLANK DATA FOR PESTICIDES

All analytes less than 0.05 ug/L on all dates.

2-Old

## SURROGATE RECOVERIES FOR PESTICIDES

| <u>Sample Date</u> | <u>Sample Number</u> | <u>Theoretical Conc. (ug/l)</u> | <u>Observed Conc. (ug/l)</u> | <u>Percent Recovery</u> |
|--------------------|----------------------|---------------------------------|------------------------------|-------------------------|
| 12/01/93           | BLANK                | 1.0                             | 0.27                         | 27                      |
| 12/01/93           | 11-8140MS            | 1.0                             | 0.45                         | 45                      |
| 12/01/93           | 11-8140MSD           | 1.0                             | 0.27                         | 27                      |
| 12/01/93           | 11-8143-93           | 1.0                             | 0.36                         | 36                      |
| 12/01/93           | 11-8144-93           | 1.0                             | 0.42                         | 42                      |
| 12/01/93           | 11-8141-93           | 1.0                             | 0.87                         | 87                      |
| 12/01/93           | 11-8142-93           | 1.0                             | 0.49                         | 49                      |

## QUALITY CONTROL FOR HERBICIDES

SAMPLES NUMBERED: 11-8141-93 through 11-8144-93 analyzed 12/06/93;

DATE: 12/06/93

SPIKE QC SAMPLE NUMBER: 11839793 SPIKED DUPLICATE

| <u>Analyte</u> | <u>Val. 1<br/>(ug/l)</u> | <u>Val. 2<br/>(ug/l)</u> | <u>% RPD</u> | <u>Spike Conc.</u> | <u>True Value</u> | <u>Observed Value</u> | <u>Percent Recovery</u> |
|----------------|--------------------------|--------------------------|--------------|--------------------|-------------------|-----------------------|-------------------------|
| 2,4-D          | 3.74                     | 3.75                     | 0.3          | 3.00               | 3.00              | 3.74                  | 125                     |
| Silvex         | .414                     | 0.368                    | 11.8         | 0.375              | 0.375             | 0.368                 | 98                      |

2-067

## SURROGATE RECOVERIES FOR HERBICIDES

| <u>Sample Date</u> | <u>Sample Number</u> | <u>Theoretical Conc. (ug/1)</u> | <u>Percent Recovery</u> |
|--------------------|----------------------|---------------------------------|-------------------------|
| 12/06/93           | BLANK                | 4.0                             | 97                      |
| 12/06/93           | 11-8141-93           | 4.0                             | 114                     |
| 12/06/93           | 11-8142-93           | 4.0                             | 134                     |
| 12/06/93           | 11-8143-93           | 4.0                             | 30                      |
| 12/06/93           | 11-8144-93           | 4.0                             | 110                     |
| 12/06/93           | 11-8397-93           | 4.0                             | 108                     |
| 12/06/93           | 11-8397SPK           | 4.0                             | 111                     |
| 12/06/93           | 11-8397SPKDUP        | 4.0                             | 101                     |

C1-068

## QUALITY CONTROL FOR VOLATILES

SAMPLES NUMBERED: 11-8141-93 through 11-8144-93 analyzed 11/22/93;

DATE: 11/22/93  
SPIKE QC SAMPLE NUMBER: 11809293 SPIKED DUPLICATE

| Analyte            | <u>Val. 1</u><br>(ug/L) | <u>Val. 2</u><br>(ug/L) | <u>RPD</u> | <u>Spike Conc.</u> | <u>True Value</u> | <u>Observed Value</u> | <u>Percent Recovery</u> |
|--------------------|-------------------------|-------------------------|------------|--------------------|-------------------|-----------------------|-------------------------|
| 1,1 Dichloroethene | 34.4                    | 41.0                    | 17.5       | 50                 | 50                | 41.0                  | 82                      |
| Trichloroethene    | 38.8                    | 46.8                    | 18.7       | 50                 | 50                | 46.8                  | 94                      |
| Benzene            | 38.8                    | 47.9                    | 21.0       | 50                 | 50                | 47.9                  | 96                      |
| Toluene            | 43.2                    | 52.7                    | 19.8       | 50                 | 50                | 52.7                  | 105                     |
| Chlorobenzene      | 37.4                    | 45.6                    | 19.8       | 50                 | 50                | 45.6                  | 91                      |

## BLANK DATA FOR VOLATILES

All analytes on all dates <5 ug/L.

## SURROGATE RECOVERIES FOR VOLATILES, PERCENT RECOVERY

| <u>Sample Date</u> | <u>Sample Number</u> | <u>1,2 dichloro-ethane d-4</u> | <u>Toluene d-8</u> | <u>Bromoflboro benzene</u> |
|--------------------|----------------------|--------------------------------|--------------------|----------------------------|
| 11/22/93           | BLANK                | 88                             | 81                 | 89                         |
| 11/22/93           | 11-8141-93           | 84                             | 83                 | 166*                       |
| 11/22/93           | 11-8142-93           | 84                             | 80                 | 142*                       |
| 11/22/93           | 11-8143-93           | 73                             | 72                 | 129                        |
| 11/22/93           | 11-8144-93           | 102                            | 107                | 173*                       |
| 11/22/93           | 11-8092SPK           | 82                             | 86                 | 78                         |
| 11/22/93           | 11-8092SPKDUP        | 94                             | 100                | 89                         |

11-869

## ACIDS AND BASE-NEUTRALS QUALITY CONTROL DATA

SAMPLES NUMBERED: 11-8141-93 through 11-8144-9304 analyzed 11/22/93;

DATE: 11/22/93

QC SAMPLE: BLKSPK1118 and 11814493DUP

| Analyte             | Dup. 1<br><u>ug/1</u> | Dup. 2<br><u>ug/1</u> | %<br>RPD | Spike<br>( <u>ug/1</u> ) | True<br>Value | Observed<br>Value | Percent<br>Recovery |
|---------------------|-----------------------|-----------------------|----------|--------------------------|---------------|-------------------|---------------------|
| 1,4-Dichlorobenzene | 15.0                  |                       |          | 100                      | 100           | 15.0              | 15                  |
| 2,4 Dinitrotoluene  | 47.3                  |                       |          | 100                      | 100           | 47.3              | 47                  |
| Pentachlorophenol   | 125                   |                       |          | 200                      | 200           | 125               | 63                  |

QC SAMPLE: 11814493DUP

| Analyte             | Dup. 1<br><u>ug/1</u> | Dup. 2<br><u>ug/1</u> | %<br>RPD | Spike<br>( <u>ug/1</u> ) | True<br>Value | Observed<br>Value | Percent<br>Recovery |
|---------------------|-----------------------|-----------------------|----------|--------------------------|---------------|-------------------|---------------------|
| 1,4-Dichlorobenzene | <10.0                 | <10.0                 |          | 0                        |               |                   |                     |
| 2,4 Dinitrotoluene  | <10.0                 | <10.0                 |          | 0                        |               |                   |                     |
| Pentachlorophenol   | <10.0                 | <10.0                 |          | 0                        |               |                   |                     |

SURROGATE RECOVERIES FOR BASE-NEUTRALS  
PERCENT RECOVERY

| <u>Sample Date</u> | <u>Sample Number</u> | <u>Nitrobenzene-d-5</u> | <u>2-Fluorobiphenyl</u> | <u>d-14</u> | <u>Terphenyl d-5</u> | <u>Phenol d-5</u> | <u>2,4,6 Tribromo phenol</u> |
|--------------------|----------------------|-------------------------|-------------------------|-------------|----------------------|-------------------|------------------------------|
| 11/22/93           | BLANK                | 53                      | 63                      | 66          | 59                   | 69                | 51                           |
| 11/22/93           | 11-8141-93           | 67                      | 116                     | 154         | 12                   | 18                | 33                           |
| 11/22/93           | 11-8142-93           | 66                      | 75                      | 74          | 38                   | 97                | 78                           |
| 11/22/93           | 11-8143-93           | 80                      | 83                      | 97          | 39                   | 66                | 75                           |
| 11/22/93           | 11-8144-93           | 40                      | 43                      | 71          | 39                   | 66                | 75                           |
| 11/22/93           | 11-814093            | 52                      | 64                      | 84          | 28                   | 48                | 63                           |
| 11/22/93           | 11-8144DUP           | 37                      | 41                      | 143         | 33                   | 57                | 82                           |
| 11/22/93           | BLKSPK111893         | 31                      | 31                      | 79          | 26                   | 37                | 70                           |

BLANK DATA FOR ACIDS AND BASE NEUTRALS

All Compounds less than the minimum detectable level.

SAMPLES NUMBERED: 11-8141-93 through 11-8144-93 analyzed 11/17/93.  
QUALITY CONTROL FOR HEAVY TPH

| <u>Sample Date</u> | <u>Sample Number</u> | <u>Val. 1 (ug/kg)</u> | <u>Val. 2 (ug/kg)</u> | <u>% RPD</u> | <u>Spike Conc.</u> | <u>True Value</u> | <u>Observed Value</u> | <u>Percent Recovery</u> |
|--------------------|----------------------|-----------------------|-----------------------|--------------|--------------------|-------------------|-----------------------|-------------------------|
| 11/17/93           | 11814493             | 1040                  | 1030                  | 1.0          | 850                | 870               | 1030                  | 119                     |

## SURROGATE RECOVERIES FOR HEAVY TPH

| <u>Sample Date</u> | <u>Sample Number</u> | <u>Percent Recovery</u> |
|--------------------|----------------------|-------------------------|
| 11/17/93           | BLANK                | 91                      |
| 11/17/93           | 112693BS             | 95                      |
| 11/17/93           | 11-8142-93           | 90                      |
| 11/17/93           | 11-8144-93           | 95                      |
| 11/17/93           | 11-8144SPK           | 101                     |
| 11/17/93           | 11-8144SPKDUP        | 92                      |

Samples 8141 and 8143 were diluted 1:100 for analysis. Thus, the surrogate recoveries were diluted out.

## QUALITY CONTROL FOR LIGHT TPH

SAMPLES NUMBERED:

11-8141-93 through 11-8144-93 analyzed 11/22/93 SPIKED DUPLICATE

| <u>Date</u> | <u>Sample Number</u> | <u>Val. 1<br/>(ug/Kg)</u> | <u>Val. 2<br/>(ug/Kg)</u> | <u>%<br/>RPD</u> | <u>Spike Conc.</u> | <u>True Value</u> | <u>Observed Value</u> | <u>Percent Recovery</u> |
|-------------|----------------------|---------------------------|---------------------------|------------------|--------------------|-------------------|-----------------------|-------------------------|
| 11/22/93    | 11832193             | 11.6                      | 10.3                      | 11.9             | 14.0               | 14.0              | 11.6                  | 83                      |

## SURROGATE RECOVERIES FOR LIGHT TPH

| <u>Sample Date</u> | <u>Sample Number</u> | <u>1,2 dichloro-ethane d-4</u> | <u>Toluene d-8</u> | <u>Bromofloro benzene</u> |
|--------------------|----------------------|--------------------------------|--------------------|---------------------------|
| 11/22/93           | BLANK                | 93                             | 101                | 74                        |
| 11/22/93           | 11-8141-93           | 138                            | 113                | 68                        |
| 11/22/93           | 11-8142-93           | 90                             | 132                | 114                       |
| 11/22/93           | 11-8143-93           | 74                             | 100                | 72                        |
| 11/22/93           | 11-8144-93           | 88                             | 109                | 87                        |
| 11/22/93           | 11-8321-93           | 91                             | 91                 | 77                        |
| 11/22/93           | 11-8321SPK           | 93                             | 94                 | 84                        |
| 11/22/93           | 11-8321SPKDUP        | 64                             | 82                 | 69                        |

U-8573

CARR LABORATORIES

**CHAIN OF CUSTODY RECORD**

client CESAS

Contact Tony N. Chiaroscuro

Address P.O. Box 889, Savannah, Ga. 31402

Collected By Tudson Smith

Project No.: ESI-026  
Phone No. 712-652-5312  
Fax No. 712-652-5311  
Client P.O. #

| Carr's<br>Lab No. | Sample<br>Source | Location |
|-------------------|------------------|----------|
|-------------------|------------------|----------|

### **Analyses Requested**

| FST-026-SA-11-93 | FT STEWART | FST-026 | 11/9/93 | 10:40   | X      | S | S | N | pH, sec 8240, FINE TOUGH, SP4 LIGHT, TPH HEAVY | 11-814-93 |
|------------------|------------|---------|---------|---------|--------|---|---|---|--|-----------|
| FST-026-SB-11-93 | "          | "       | "       | 11/9/93 | /10:45 | X | S | S | "  | "         |

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Time 1/5/07

JAMES H. CARR & ASSOCIATES, INC.  
Office and Laboratories  
P.O. Box 90200  
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1950

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columbia, South Carolina 29290  
(803) 776-7789 Fax: 783-2192

4-875

## **6.0 CONCLUSIONS AND RECOMMENDATIONS**

Based on the results of the Phase I investigation (analytical results did not indicate a release had occurred, analytical results indicated concentrations were below the GAEPD guidelines and/or the site was never used), no further action is recommended at the following sites:

- SWMU4G(FST-004G) Burn Pit
- SWMU24A(FST-024A) New Radiator Shop
- SWMU27(FST-027) DOL Maintenance Motor Pool
- SWMU28(FST-028) 724th Battery Shop
- SWMU30(FST-030) Recirculating Wash Impoundment "Bird Bath"
- SWMU33(FST-033) DEH Pesticide Warehouse

Continued monitoring is recommended at SWMU20(FST-020) Wright Army Airfield Sewage Disposal Beds (Land Spray Application and Lagoon) in accordance with the NPDES permit.

Based on the Phase I results of the soil and ground-water analytical data and the exposure pathways analyses, a Phase II investigation is recommended at the following sites:

- SWMU1(FST-001) South Central Landfill
- SWMU2(FST-002) Camp Oliver Landfill
- SWMU3(FST-003) TAC-X Landfill
- SWMU4(FST-004) Burn Pits A through F
- SWMU9(FST-009) Inactive EOD Area
- SWMU10(FST-010) Inactive EOD Area
- SWMU11(FST-011) Inactive EOD Area
- SWMU12(FST-012) Active EOD Area
- SWMU14(FST-014) Old Fire Training Area
- SWMU17(FST-017) DRMO Hazardous Waste Storage Area
- SWMU18(FST-018) Industrial Wastewater Treatment Plant
- SWMU19(FST-019) Old Sludge Drying Beds

- SWMU24A(FST-024A) Old Radiator Shop
- SWMU24B(FST-024B) Paint Booth
- SWMU25(FST-025) Waste Oil Tanks (All 15 sampled tanks and the tanks that failed the tank tightness test)
- SWMU26(FST-026) 724th Tanker Purging Station
- SWMU27(FST-027) Motor Pools (All motor pools with oil/water separators)
- SWMU29(FST-029) Evans Army Heliport POL Storage Facility
- SWMU31(FST-031) DEH Asphalt Tanks
- SWMU32(FST-032) Supply Diesel Tank
- SWMU34(FST-034) DEH Equipment Wash Rack

RUST E&I recommends that a Phase II RFI Work Plan be prepared for the previously noted SWMUs at Fort Stewart. The Phase II RFI Work Plan will document procedures to be utilized for RCRA investigations at each of the SWMUs. Prior to initiation of Phase II field activities, the Phase II RFI Work Plan must meet GAEPD approval. The Phase II field investigations will include monitoring well installation, soil sampling and soil permeability testing, ground-water sampling, horizontal and vertical extent of contamination, ground-water flow rate calculations, map preparation, data quality objectives for risk assessment needs and any requirements that the GAEPD recommends.

Upon completion of Phase II field activities, a Phase II RFI Report will be submitted to the GAEPD that summarizes the results of all work completed. The results of the Phase II investigations will be evaluated along with the results of the Phase I investigations to confirm if Corrective Measure Studies (CMS) are warranted.