

# Bonner Analytical Testing Company

2703 Oak Grove Road, Hattiesburg, MS 39402  
Phone: (601) 264-2854 Fax: (601) 268-7084



**RECEIVED**

APR 14 2008

Dept of Environmental Quality  
Office of Pollution Control

April 4, 2008

Mr. Tony Russell  
Office of Pollution Control  
Mississippi Department of Environmental Quality  
101 West Capital Street  
Jackson, MS 38201

Re: Gulf States Creosote Site  
Sampling, Analyses, Excavation and Backfilling Work Plan.  
Parcel #5  
West Pine Street  
Hattiesburg, MS

Dear Mr. Russell,

I am writing this letter in response to your letter dated March 31, 2008. We have incorporated the items that you mentioned in the letter.

1. Section 2.1.2.4- "The core barrel shall be decontaminated before each four-foot push." has been added.
2. Section 2.2.1- The wording has been modified as follows.  
"At the discretion of the owner and approval by MDEQ-USB, the site will be remediated to either meet the "restricted" or "unrestricted" Tier 1 TRGs for creosote constituents. If the owner chooses to have the site remediated to the "restricted" TRGs, the deed restriction on the land per the Kerr McGee settlement will remain with any appropriate modifications. If the owner elects to remediate the site to the "unrestricted" TRGs, then a request will be made to have the deed restrictions removed from the property title."
3. Section 2.2.2.1- Now includes, "During excavation the area will be sprayed with water as needed to control fugitive dust emissions."
4. Section 2.2.5- Added," All workers working at this site must have 40 hours training per OSHA 29CFR1910.120."

5. To include the field sampling activities report a new section was inserted at 2.1.3. and states:

2.1.3 Field Sampling Activities Report

2.1.3.1 A report shall be submitted to MDEQ within 60 days of completion of field sampling activities.

2.1.3.2 The report shall contain information to show any areas of concern where removal will be needed.

And a line was added to the time line to include the submittal of this report

"3.5.5 2 Weeks MDEQ notification/Submittal of field sampling activities report to MDEQ"

6. An MDEQ notification has been added to the time line before starting of operations.  
"3.5.1 2 Weeks MDEQ notification and Utility Search"

7. To prepare for MDEQ splits the following line has been added to 2.1.2.4  
"EPA approved sample containers will be provided for DEQ Splits."

Thank you for your help on this project and I look forward to hearing back from you.

If you have any questions please feel free to contact Dr. Bonner or me at the number above.

Respectfully,



Glenn Jones

Cc: Mr. John Fairchild.

WORK PLAN FOR TESTING AND RESTORATION

FOR

Former Gulf States Creosote Site  
Parcel Number 5  
West Pine Street  
Hattiesburg, Mississippi

prepared by:

---

Michael S. Bonner, Ph.D.

Bonner Analytical Testing Company  
2703 Oak Grove Road  
Hattiesburg, MS 39402

February 29, 2008

## Table of Contents:

Section	Page
1. Introduction and Work Plan Rationale	1
2. Field Operations	3
3. Schedule	5
4. References	6

### List of Figures

Figure 1- Sight Location

Figure 2- Site Layout

### Appendix:

Appendix A- MSDS Creosote

Appendix B- Analytical report of stump material from east side of site  
around previous contamination area

Appendix C- Storm Water Pollution Prevention

Appendix D- Site Health and Safety Plan

## 1.0 Introduction and Work Plan Rationale

### 1.1 Objectives/Rationale

#### 1.1.1 Objectives

- 1.1.1.1 Collect core samples from the eastern portion of site.
- 1.1.1.2 Analyze core samples.
- 1.1.1.3 Determine necessity and requirements for waste disposal.
- 1.1.1.4 Complete remediation of property.

#### 1.1.2 Rationale

- 1.1.2.1 Following guidance from the Mississippi Department of Environmental Quality Uncontrolled Sites Branch, the site was grid into five equal sections and three sampling locations were selected on each grid line.
- 1.1.2.2 Once samples are analyzed the site will be delineated horizontally and vertically and disposal needs will be determined.

### 1.2 Property Background

#### 1.2.1 Property Location and Demographics.

The site is approximately 1.8 acres and is shown in Figure 1 and Figure 2. The site is bound on the north side by West Pine Street, east by Toyota, south by Southern Railroad track, and west by a drainage ditch. The drainage ditch runs southeast to northwest and divides the property roughly into two halves. This document deals with the east half.

#### 1.2.2 Property History

Gulf States Creosote operated a plant in Hattiesburg along West Pine Street from the early 1900's to approximately 1960. In 1962, the site was redeveloped for commercial and light industrial use.

With the finding of the low levels of benzo(a)pyrene, ICON Environmental was contracted to clear the timber, debris and stumps from the site. The tree debris and

shrubs from the entire site were shredded along with the stumps from the western side. The stumps from the eastern side were segregated for shredding. Upon analysis of shredded material no hazardous material, including creosote, were detected.

ICON Environmental then began the process of developing a work plan to test the soil, remove any contamination and finalize remediation of the site. After completion of the needed work for the work plan, ICON Environmental withdrew from the project.

Bonner Analytical Testing Co. (BATCO) has been contracted to complete the work plan for the soil analysis, contamination clean up, and restoration of the site.

### 1.3 Project History and Detailed Summary of Previous Investigation Activities.

Starting in 1996, Kerr-McGee Chemical (KMC) conducted an investigation of the area. Their findings found low levels of benzo(a)pyrene in soil samples SS-15 (0.033 mg/kg), SS-16 (1.10 mg/kg), and SS-17 (0.93 mg/kg).

### 1.4 Data Needs and Objectives

1.4.1 General Objective: *Delineate the extent of contamination in the soil at the site.*

1.4.2 Specific Objective: *Gather sufficient analytical data to develop a three dimensional delineation of creosote constitutes in the soil that exceed the Tier 1 Target Remediation Goals.*

### 1.5 Work Plan Approach

1.5.1 The initial phase of the work plan was developed by ICON Environmental working through the Uncontrolled Site Branch (USB) of the Mississippi Department of Environmental Quality (MDEQ). This work plan is an extension of previous work, utilizing the same basic strategy while following the Brownsfields work plan template.

1.5.2 Core samples collected on a systematic grid will be used to delineate the site.

## 2.0 Field Operations

### 2.1 Soil Delineation

#### 2.1.1 Source Area(s) Characterization

2.1.1.1 As part of a larger investigation, limited surface samples have been previously collected by Kerr-McGee Chemical at the site; however, the extent of the contamination on this parcel is currently not known.

2.1.1.2 The work plan will address the delineation of Parcel Number 5 with respect to creosote contamination.

#### 2.1.2 Extent of Contamination in Soil

2.1.2.1 This Soil Sampling and Analysis Plan (SAP) will utilize the sampling grid previously approved by MDEQ/USB. Six foot core samples will be collected at each sample location. Cores will be divided into three 2-foot sections and transported to Bonner Analytical Testing Co. for analysis.

2.1.2.2 Soil Sampling Objectives  
If contamination is found exceeding the TRGs the horizontal and vertical extent of contamination will be defined utilizing data from soil core analyses. Those areas exceeding the Tier I remediation goals (TRGs) shall be excavated. Surface clearance samples shall be collected to verify that the remediation efforts were successful. After clearance testing the excavated area will be filled and seeded.

2.1.2.3 Soil Sampling Locations and Frequency  
Waits Engineering Consultants, LLC was contracted to grid off the property and to pre-select the sampling points. The pre-selected points are listed in Figure 2.

2.1.2.4 Soil Sampling Equipment and Procedures  
Six foot soil cores will be collected using a mechanical coring device (Geoprobe or

equivalent). The cores will be collected in clear "Lexan" coring sleeves. The core sleeves will be split and the soil cores dressed by removing ¼" of soil from the outer surface. The dressed cores will then be composited into 2-foot sections. The 2-foot cores will be placed in a stainless steel bowl and homogenized. The resulting samples will be placed in pre-cleaned glass wide mouth jars equipped with Teflon lined caps. The jars will be labeled, custody sealed, doubled bagged and stored on ice prior to transport to the laboratory. EPA approved sample containers will be provided for DEQ Splits.

Labels and Chain of Custody's will contain the following information as appropriate.

- Client Name
- Sample location/depth
- Date/Time Collected
- Analytical Parameter
- Preservative
- Sample Collector
- Sample matrix

All Sampling Equipment shall be decontaminated prior to sampling and then after each six foot core is collected. The core barrel shall be decontaminated before each four-foot push. The Decon procedure will be as follows.

- Detergent wash
- Tap water rinse
- Isopropyl alcohol rinse
- Deionized water rinse
- Isopropyl alcohol rinse

A minimum of one equipment blank per sampling event or 20 sample locations shall be collected.



DECON Water will be drummed and tested for the appropriate analytical parameters. Based on test results, the decon water will either be disposed of as hazardous or non-hazardous waste.

#### 2.1.2.5 Soil Sample Handling and Analysis

Preservation	Type of Container	Shipping	Holding Times	Analytical Method
None	Glass	Ship in Cooler on Ice	Extract/Analyze 14 days /40 days	8310
None	Glass	Ship in Cooler on Ice	Extract/Analyze 14 days /40 days	8270C

#### 2.1.2.6 Special Analysis notes

In accordance with MDEQ-USB guidance all 0-2 ft cores will be analyzed initially. The 2-4ft cores will be analyzed only if 0-2ty cores have detectable concentrations of creosote constituents. Likewise the 4-6ft cores will only be anlyzed if the 2-4ft cores have detectable levels of creosote constituents.

#### 2.1.3 Field Sampling Activities Report

2.1.3.1 A report shall be submitted to MDEQ within 60 days of completion of field sampling activities.

2.1.3.2 The report shall contain information to show any areas of concern where removal will be needed.

#### 2.1.4 Regulatory Involvement

Bonner Analytical Testing Co. shall acquire any needed permits from the City of Hattiesburg.

### 2.2 Site Restoration (Assuming contaminate levels exceed TRGs)

#### 2.2.1 Rationale

At the discretion of the owner and approval by MDEQ-USB, the site will be remediated to either meet the "restricted" or "unrestricted" Tier 1 TRGs for creosote constituents. If the owner chooses to have the site remediated to the "restricted" TRGs, the deed restriction on the land per the Kerr McGee settlement will remain

with any appropriate modifications. If the owner elects to remediate the site to the "unrestricted" TRGs, then a request will be made to have the deed restrictions removed from the property title.

#### 2.2.2 Excavation

2.2.2.1 Excavation will be limited to those areas identified in the delineation process as exceeding the TRGs (Restricted or unrestricted). During excavation the area will be sprayed with water as needed to control fugitive dust emissions.

2.2.2.2 All waste shall be transported in trucks that are covered.

2.2.2.3 All activities shall be in accordance with applicable federal, state, and local requirements. All transportation manifests and disposal certificates shall be retained and submitted to BATCO for documentation.

2.2.2.4 Prior to backfilling surface clearance samples shall be collected and analyzed.

#### 2.2.3 Backfill

2.2.3.1 Once all contaminated soil is removed backfill shall be applied as needed.

2.2.3.2 A representative sample of backfill material shall be analyzed by the laboratory to insure that it is non-hazardous

#### 2.2.4 Site stabilization

For site stabilization and site maintenance refer to Storm Water Pollution Prevention in Appendix A.

2.2.5 All excavation, refill, and site stabilization activities shall be performed under the guidance of Bonner Analytical Testing Co. and all workers working at this site must have 40 hours training per OSHA 29CFR1910.120.

### 3.0 Schedule

Upon completion of this work plan a report will be prepared and submitted to MDEQ. The report will describe all related activities completed during the work. The schedule of activities to be completed under this work plan includes the following:

- 3.1 Utility search to proceed with soil sampling on site
- 3.2 Collect sample cores
- 3.3 Analyze samples
- 3.4 Review results and determine the remainder of the work plan method.
  - 3.4.1 If no contamination is found the site; a no further action report will be requested from MDEQ.
  - 3.4.2 If contamination is found,
    - 3.4.2.1 Excavate
    - 3.4.2.2 Clearance Testing
    - 3.4.2.3 Backfill/re-seed
    - 3.4.2.4 Maintenance
    - 3.4.2.5 Final Report
- 3.5 With no delays during completion of the fieldwork, the testing and construction phase of work should be completed in approximately 10-19 weeks. With the weekly inspections being completed in approximately 4-12 weeks following restoration.
  - 3.5.1 2 Weeks MDEQ notification and Utility Search
  - 3.5.2 1 Week Collect core samples
  - 3.5.3 4 Weeks Run analytical test
  - 3.5.4 2 Weeks Review results and work plan determination
  - 3.5.5 2 Weeks MDEQ notification/Submittal of field sampling activities report to MDEQ
  - 3.5.6 1-4 Weeks Excavation
  - 3.5.7 1-4 Weeks Backfill/reseed site
  - 3.5.8 4-12 Weeks Monitor site and drainage.
  - 3.5.9 2 Weeks Final Report

### 4.0 References

ICON Environmental Solutions, LLC. 2003 Work Plan, Former Gulf States Creosote Parcel # 5, Hattiesburg, Mississippi October 15, 2003.

**FIGURES**

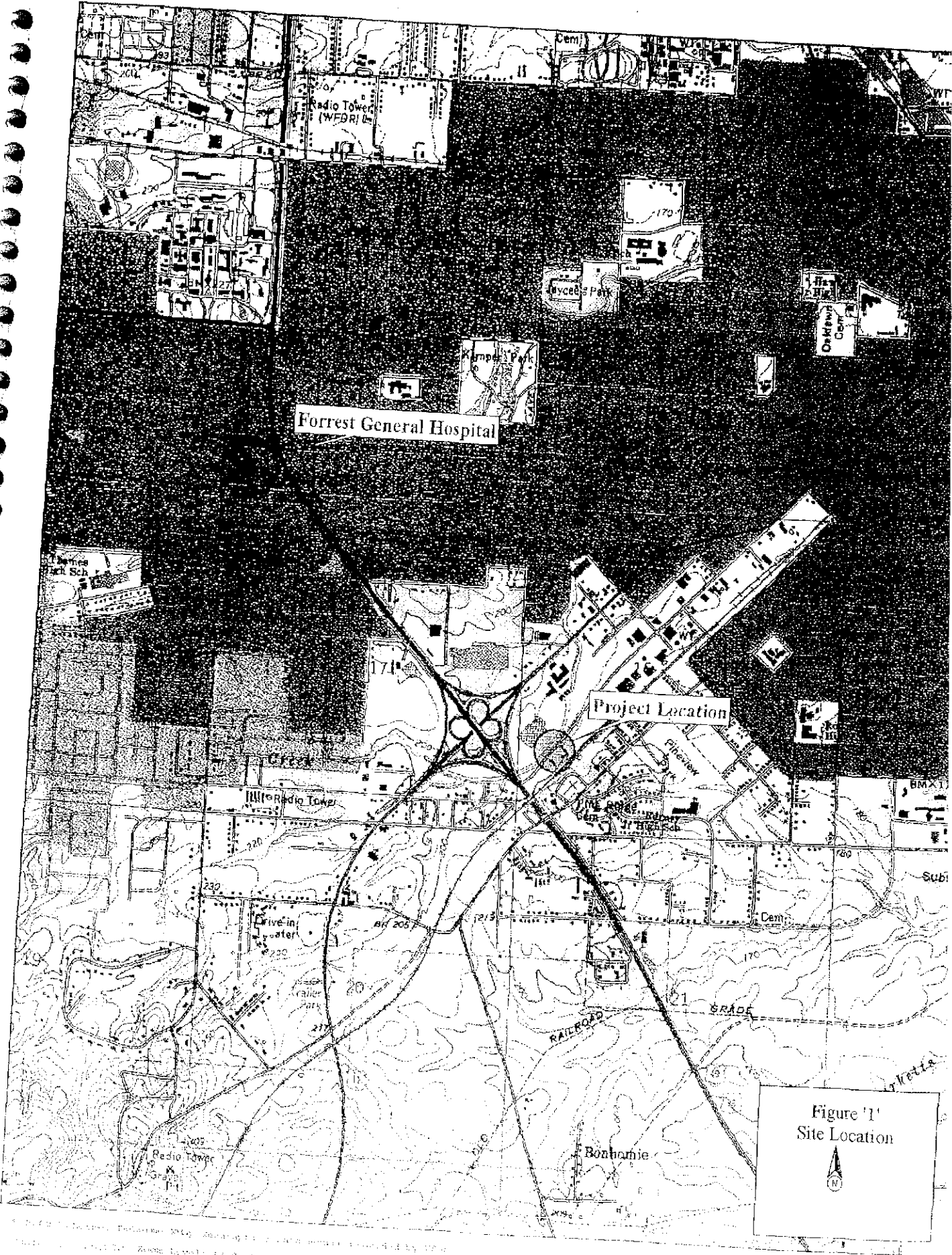


Figure '1'  
Site Location

Topographic Map, Bonhamie, Ala. 1950. Contour interval 10 feet. Vertical datum is Mean Sea Level. Zone 16N. Datum: NAD 83.

7,000 Feet

ProMark Ment.

NEW LEIOL FALL 847 462 0783

15" RCP  
EL 30" RCP 188.44  
L = 182.87  
L = 175.74

WEST PINE STREET

31-8.02

SEWER MANHOLE  
TOP = 188.87  
INV. = 177.20

31 X 1  
INLET

EL 42" RCP  
US FL = 181.41  
DS FL = 180.72

PRECAST CONCRETE  
INLET  
OP = 187.55  
15" RCP INV = 180.07

521  
x 0.00  
FS2

525  
x 0.00  
FS6

SS-17

526  
x 0.00  
FS7

522  
x 0.00  
FS3

524  
x 0.00  
FS5

527  
x 0.00  
FS8

531  
x 0.00  
FS12

532  
x 0.00  
FS13

523  
x 0.00  
FS4

528  
x 0.00  
FS9

530  
x 0.00  
FS11

533  
x 0.00  
FS14

SS-20

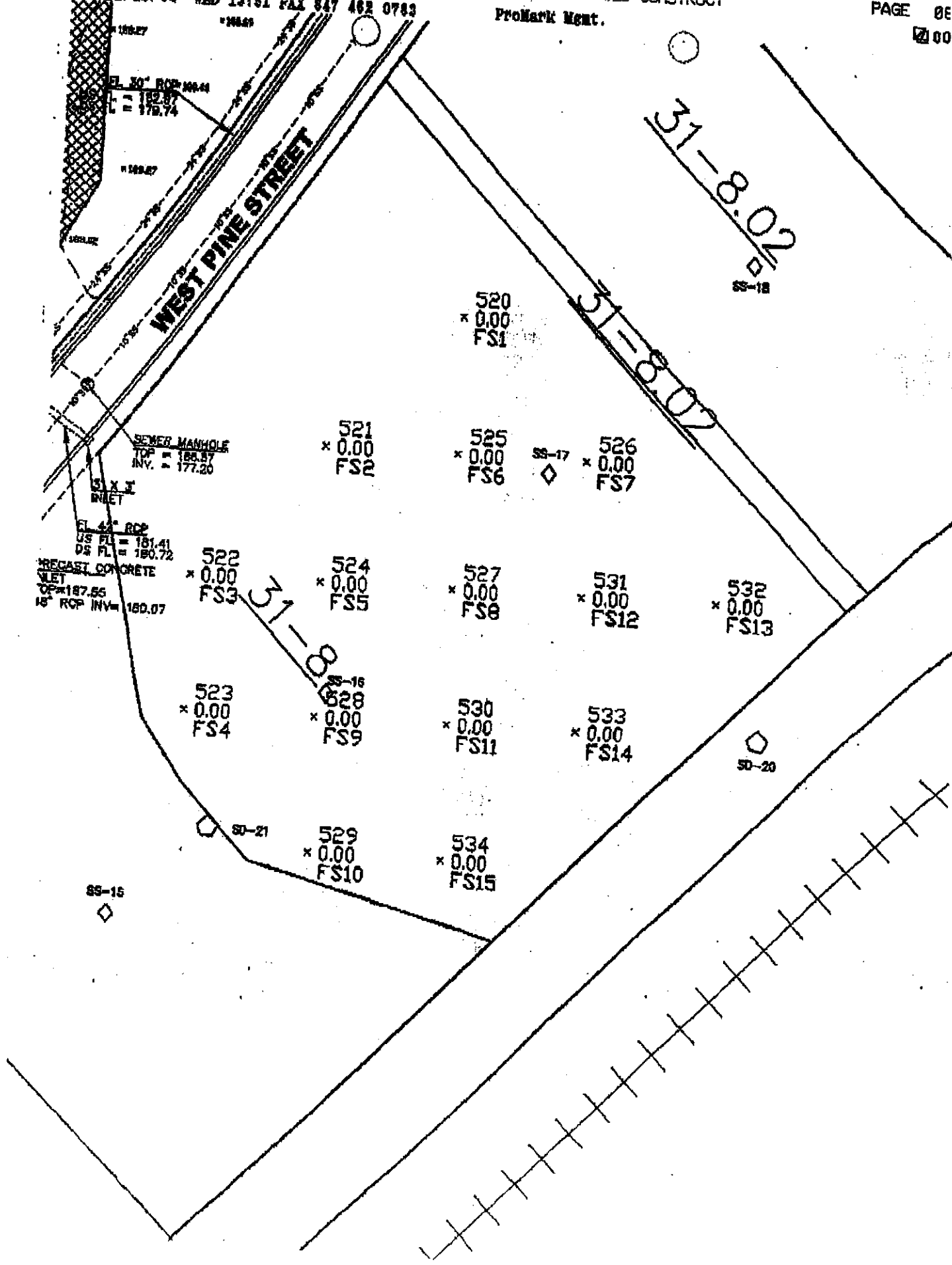
SS-21

529  
x 0.00  
FS10

534  
x 0.00  
FS15


SS-15

31-8.02



**APPENDIX A**

**MSDS Cresote**


**Material Safety  
Data Sheets**

Emergency Telephone  
**Division of Facilities Services**

**DOD Hazardous Material Information (ANSI Format)  
For Cornell University Convenience Only**

**CREOSOTE**

<b>Section 1 - Product and Company Identification</b>	<b>Section 9 - Physical &amp; Chemical Properties</b>
<b>Section 2 - Composition/Information on Ingredients</b>	<b>Section 10 - Stability &amp; Reactivity Data</b>
<b>Section 3 - Hazards Identification Including Emergency Overview</b>	<b>Section 11 - Toxicological Information</b>
<b>Section 4 - First Aid Measures</b>	<b>Section 12 - Ecological Information</b>
<b>Section 5 - Fire Fighting Measures</b>	<b>Section 13 - Disposal Considerations</b>
<b>Section 6 - Accidental Release Measures</b>	<b>Section 14 - MSDS Transport Information</b>
<b>Section 7 - Handling and Storage</b>	<b>Section 15 - Regulatory Information</b>
<b>Section 8 - Exposure Controls &amp; Personal Protection</b>	<b>Section 16 - Other Information</b>

The information in this document is compiled from information maintained by the United States Department of Defense (DOD). Anyone using this information is solely responsible for the accuracy and applicability of this information to a particular use or situation. Cornell University does not in any way warrant or imply the applicability, viability or use of this information to any person or for use in any situation.

**Section 1 - Product and Company Identification**  
**CREOSOTE**

**Product Identification:** CREOSOTE

**Date of MSDS:** 01/01/1987 **Technical Review Date:** 10/08/1986

**FSC:** 6810 **NIIN:** 00-257-2482

**Submitter:** GAW

**Status Code:** C

**MFN:** 01

**Article:** N

**Kit Part:** N

<http://msds.ehs.cornell.edu/msds/msdsdod/a31/m15390.htm>

3/24/2003



**Manufacturer's Information**

**Manufacturer's Name:** KOPPERS CO., INDUSTRIAL PRODUCTS DIV.  
**Manufacturer's Address1:**  
**Manufacturer's Address2:** N/P, NK 00000  
**Manufacturer's Country:** NK  
**General Information Telephone:**  
**Emergency Telephone:** 412-327-3000  
**Emergency Telephone:** 412-327-3000  
**MSDS Preparer's Name:** N/P  
**Proprietary:** N  
**Reviewed:** Y  
**Published:** Y  
**CAGE:** KO910  
**Special Project Code:** N

**Item Description**

**Item Name:** CREOSOTE TECH WOOD  
**Item Manager:** GSA  
**Specification Number:** ASTM D-390  
**Type/Grade/Class:** N/K  
**Unit of Issue:** GL Quantitative Expression: NK  
**Unit of Issue Quantity:** 1 GL CN  
**Type of Container:** METAL

**Contractor Information**

**Contractor's Name:** KOPPERS CO INC  
**Contractor's Address1:** 3000 KOPPERS BLDG  
**Contractor's Address2:** PITTSBURGH, PA 15219-1818  
**Contractor's Telephone:** UNKNOWN  
**Contractor's CAGE:** 80592

**Contractor Information**

**Contractor's Name:** KOPPERS CO., INDUSTRIAL PRODUCTS DIV.  
**Contractor's Address1:** UNKNOWN  
**Contractor's Address2:** UNKNOWN, NK 00000  
**Contractor's Telephone:** UNKNOWN  
**Contractor's CAGE:** KO910

**Section 2 - Composition/Information on Ingredients**  
**CREOSOTE**

**Ingredient Name:** CREOSOTE (SARA III)  
**Ingredient CAS Number:** 8001-58-9 **Ingredient CAS Code:** M  
**RTECS Number:** GF8615000 **RTECS Code:** M  
**=WT: =WT Code:**  
**=Volume: =Volume Code:**  
**>WT: >WT Code:**

<http://msds.ehs.cornell.edu/msds/msdsdod/a31/m15390.htm>

>Volume: >Volume Code:  
 <WT: <WT Code:  
 <Volume: <Volume Code:  
 % Low WT: % Low WT Code:  
 % High WT: % High WT Code:  
 % Low Volume: % Low Volume Code:  
 % High Volume: % High Volume Code:  
 % Text: N/P  
 % Enviromental Weight:  
 Other REC Limits: N/P  
 OSHA PEL: NOT ESTABLISHED OSHA PEL Code: M  
 OSHA STEL: OSHA STEL Code:  
 ACGIH TLV: NOT ESTABLISHED ACGIH TLV Code: M  
 ACGIH STEL: N/P ACGIH STEL Code:  
 EPA Reporting Quantity: 1 LB  
 DOT Reporting Quantity: 1 LB  
 Ozone Depleting Chemical: N

---

**Section 3 - Hazards Identification, Including Emergency Overview**  
**CREOSOTE**

---

**Health Hazards Acute & Chronic:** N/P

**Signs & Symptoms of Overexposure:**  
 IRRIT TO SKIN & EYES. VAPOR & FUMES EVOLVED ON HEATING IRRIT TO EYES &  
 RESPIRAT TRACT. SKIN MAY BECOME

**Medical Conditions Aggravated by Exposure:**  
 N/P

**LD50 LC50 Mixture:** N/P

**Route of Entry Indicators:**  
 Inhalation: N/P  
 Skin: N/P  
 Ingestion: N/P

**Carcenogenicity Indicators**  
 NTP: N/P  
 IARC: N/P  
 OSHA: N/P

**Carcinogenicity Explanation:** N/P

---

**Section 4 - First Aid Measures**  
**CREOSOTE**

---

**First Aid:**  
 REMOVE TO FRESH AIR. IF NOT BREATHING. GIVE ARTIFICIAL RESPIRATION, PREF  
 MOUTH TO MOUTH. IF BREATHING IS DIFFICULT, GIVE OXYG. CALL A PHYS. INCASE OF

<http://msds.ehs.cornell.edu/msds/msdsdod/a31/m15390.htm>

SKIN OR EYE CONTACT, REMOV FR SKIN W/WATERLESS HAND CLEAN ER; FLUSH EYE  
IMMED W/PLENTY OF WATER F/AT LEAST

### Section 5 - Fire Fighting Measures CREOSOTE

**Fire Fighting Procedures:**

FULL PROTECTIVE EQUIPMENT INCL SELF-CONTAINED BREATH APPARAT

**Unusual Fire or Explosion Hazard:**

IN CLOSED CONTAINERS CONTAINING LIQUID, PRESSURE BUILD-UP DUE TO HEAT  
EXPOSURE. WATER MAY BE US

**Extinguishing Media:**

CARBON DIOXIDE, WATERFOG, FOAM, DRY CHEMICAL

Flash Point: Flash Point Text: >200F TCC >93C

**Autoignition Temperature:**

Autoignition Temperature Text: N/A

Lower Limit(s):

Upper Limit(s):

### Section 6 - Accidental Release Measures CREOSOTE

**Spill Release Procedures:**

CLEAN UP & PUT BACK IN CONTAINER OR WASTE RECEPTABLE. COVER W/LAYER OF  
SAND & SCRAPEUP. USE PROTECTIVE MEASURES OUTLINED IN SECTION VIII. DO NOT  
ALLOW TO GET INTO STREAM.

### Section 7 - Handling and Storage CREOSOTE

**Handling and Storage Precautions:**

**Other Precautions:**

### Section 8 - Exposure Controls & Personal Protection CREOSOTE

**Respiratory Protection:**

WHEN EXPOS ARE ABOVE TLV/SEC. II & V) & VENTIL IS INADEQUATE, USE APPR

**Ventilation:**

LOC EXHAUST-USE ADEQ VENTIL IN VOLUME & PATTERN TO KEEP WORK

**Protective Gloves:**

RUBBER (NEOPRENE)

**Eye Protection:** CHEM SAFETY GOGG AND/OR F

**Other Protective Equipment:** OVERALLS OR A NEOPRENE APRON TO PROTECT AGAINST  
CLOTHING CON

**Work Hygenic Practices:** N/P

**Supplemental Health & Safety Information:** N/P

**Section 9 - Physical & Chemical Properties**  
**CREOSOTE**

**HCC:** N1  
**NRC/State License Number:**  
**Net Property Weight for Ammo:**  
**Boiling Point:** Boiling Point Text: 7356F 180  
**Melting/Freezing Point:** Melting/Freezing Text: N/A  
**Decomposition Point:** Decomposition Text: N/A  
**Vapor Pressure:** 1 **Vapor Density:** >1  
**Percent Volatile Organic Content:**  
**Specific Gravity:** 1.050  
**Volatile Organic Content Pounds per Gallon:**  
**pH:** N/P  
**Volatile Organic Content Grams per Liter:**  
**Viscosity:** N/P  
**Evaporation Weight and Reference:** SLOW  
**Solubility in Water:** SLIGHT  
**Appearance and Odor:** BROWN TO BLACK LIQUID W/CREOSOTE OR TARRY ODOR  
**Percent Volatiles by Volume:** N/P  
**Corrosion Rate:** N/P

**Section 10 - Stability & Reactivity Data**  
**CREOSOTE**

**Stability Indicator:** YES  
**Materials to Avoid:**  
N/P  
**Stability Condition to Avoid:**  
OVERHEATING  
**Hazardous Decomposition Products:**  
N/P  
**Hazardous Polymerization Indicator:** NO  
**Conditions to Avoid Polymerization:**  
N/P

**Section 11 - Toxicological Information**  
**CREOSOTE**

**Toxicological Information:**  
N/P

**Section 12 - Ecological Information**  
**CREOSOTE**

**Ecological Information:**  
N/P

**Section 13 - Disposal Considerations**  
**CREOSOTE**

**Waste Disposal Methods:**

BURN IN APPRVD INCINERATOR OR USE APPRVD CHEMICALLY DISPOSAL FACILITY.DC  
 NOT INCINERATE CLOSED CONTAINER.DISPOSAL MUST BE CARRIED OUT IN  
 ACCORDANCE W/LOC,STATE & FEDERAL REGULATIONS.

**Section 14 - MSDS Transport Information**  
**CREOSOTE**

**Transport Information:**

N/P

**Section 15 - Regulatory Information**  
**CREOSOTE**

**SARA Title III Information:**

N/P

**Federal Regulatory Information:**

N/P

**State Regulatory Information:**

N/P

**Section 16 - Other Information**  
**CREOSOTE**

**Other Information:**

N/P

**HMIS Transportation Information**

**Product Identification:** CREOSOTE

**Transportation ID Number:** 62009

**Responsible Party CAGE:** KO910

**Date MSDS Prepared:** 01/01/1987

**Date MSDS Reviewed:** 01/22/1983

**MFN:** 01/22/1983

**Submitter:** GAW

**Status Code:** C

**Container Information**

**Unit of Issue:** GL

**Container Quantity:** 1 GL CN

**Type of Container:** METAL

**Net Unit Weight:**

**Article without MSDS:** N

**Technical Entry NOS Shipping Number:**

**Radioactivity:**

**Form:**

**Net Explosive Weight:**

**Coast Guard Ammunition Code:**

**Magnetism:** N/P

**AF MMAC Code:**

**DOD Exemption Number:**

**Limited Quantity Indicator:**

<http://msds.ehs.cornell.edu/msds/msdsdod/a31/m15390.htm>

3/24/2003

Multiple Kit Number: 0  
 Kit Indicator: N  
 Kit Part Indicator: N  
 Review Indicator: Y  
 Additional Data:

**Department of Transportation Information**

DOT Proper Shipping Name: NOT REGULATED BY THIS MODE OF TRANSPORTATION  
 DOT PSN Code: ZZZ  
 Symbols: N/R  
 DOT PSN Modifier:  
 Hazard Class: N/R  
 UN ID Number: N/R  
 DOT Packaging Group: N/R  
 Label: N/R  
 Special Provision(s): N/R  
 Packaging Exception: N/R  
 Non Bulk Packaging: N/R  
 Bulk Packaging: N/R  
 Maximum Quantity in Passenger Area: N/R  
 Maximum Quantity in Cargo Area: N/R  
 Stow in Vessel Requirements: N/R  
 Requirements Water/Sp/Other: N/R

**IMO Detail Information**

IMO Proper Shipping Name: SEE ADDITIONAL DATA FIELD IN HMIS FOR FURTHER INFORMATION  
 IMO PSN Code: XXX  
 IMO PSN Modifier:  
 IMDG Page Number: N/A  
 UN Number:  
 UN Hazard Class: N/A  
 IMO Packaging Group:  
 Subsidiary Risk Label:  
 EMS Number: N/A  
 Medical First Aid Guide Number: N/A

**IATA Detail Information**

IATA Proper Shipping Name: SEE ADDITIONAL DATA FIELD IN HMIS FOR FURTHER INFORMATION  
 IATA PSN Code: XXX  
 IATA PSN Modifier:  
 IATA UN Id Number:  
 IATA UN Class:  
 Subsidiary Risk Class:  
 UN Packaging Group:  
 IATA Label:  
 Packaging Note for Passengers:  
 Maximum Quantity for Passengers:  
 Packaging Note for Cargo:  
 Maximum Quantity for Cargo:  
 Exceptions:

**AFI Detail Information**  
**AFI Proper Shipping Name:** SEE ADDITIONAL DATA FIELD IN HMIS FOR FURTHER INFORMATION

**AFI Symbols:**  
**AFI PSN Code:** XXX  
**AFI PSN Modifier:**  
**AFI UN Id Number:** N/A  
**AFI Hazard Class:** N/A  
**AFI Packing Group:** N/A  
**AFI Label:**  
**Special Provisions:** N/A  
**Back Pack Reference:** N/A

**HAZCOM Label Information**  
**Product Identification:** CREOSOTE

**CAGE:** KO910  
**Assigned Individual:** Y  
**Company Name:** KOPPERS CO., INDUSTRIAL PRODUCTS DIV.  
**Company PO Box:**  
**Company Street Address1:** UNKNOWN  
**Company Street Address2:** UNKNOWN, NK 00000 NK  
**Health Emergency Telephone:** 412-327-3000  
**Label Required Indicator:** Y  
**Date Label Reviewed:** 12/16/1998  
**Status Code:** C  
**Manufacturer's Label Number:**  
**Date of Label:** 12/16/1998  
**Year Procured:** N/K  
**Organization Code:** G  
**Chronic Hazard Indicator:** N/P  
**Eye Protection Indicator:** N/P  
**Skin Protection Indicator:** N/P  
**Respiratory Protection Indicator:** N/P  
**Signal Word:** N/P  
**Health Hazard:**  
**Contact Hazard:**  
**Fire Hazard:**  
**Reactivity Hazard:**

8/7/2002 9:42:54 PM

**APPENDIX B**

**Analytical report on contaminated  
Stump material from east portion of site**



# CULPEPPER TESTING LABORATORIES

301 HARDY STREET SUITE D  
HATTIESBURG, MS 39401

(601) 583-0411

Fax: (601) 582-8163

E-mail: culpe@aol.com

CLIENT: ICON ENVIRONMENTAL SOLUTIONS

REPORT DATE: 09-17-03

COLLECTED BY: JOE FORD

SAMPLE DATE: 08-27-03

COMMENTS: SHREDDED TREE STUMPS

DATE ANALYZED: 08-28-03

CTL SAMPLE ID: 03-750

CTL JOB NUMBER: 20030429

SEMI-VOLATILE					
ANALYTE	RESULT	UNITS	REPORT LIMITS	DIL. FACTOR	EPA METHOD
ACENAPHTHENE	ND	mg/kg	5.98	5	8270C
ACENAPHTHYLENE	ND	mg/kg	5.98	5	8270C
ANTHRACENE	ND	mg/kg	5.98	5	8270C
BENZO(a)ANTHRACENE	ND	mg/kg	5.98	5	8270C
BENZO(a)PYRENE	ND	mg/kg	5.98	5	8270C
BENZO(b)FLUORANTHENE	ND	mg/kg	5.98	5	8270C
BENZO(g,h,i)PERYLENE	ND	mg/kg	5.98	5	8270C
BENZO(k)FLUORANTHENE	ND	mg/kg	5.98	5	8270C
4-BROMOPHENYLPHENYLETHER	ND	mg/kg	5.98	5	8270C
BUTYLBENZYLPHTHALATE	ND	mg/kg	5.98	5	8270C
CARBAZOLE	ND	mg/kg	5.98	5	8270C
4-CHLORO-3-MEHTYLPHENOL	ND	mg/kg	5.98	5	8270C
4-CHLOROANILINE	ND	mg/kg	5.98	5	8270C
BIS(2-CHLOROETHOXY)METHANE	ND	mg/kg	5.98	5	8270C
BIS(2-CHLOROETHYL)ETHER	ND	mg/kg	5.98	5	8270C
BIS(2-CHLOROISOPROPYL)ETHER	ND	mg/kg	5.98	5	8270C

# CULPEPPER TESTING LABORATORIES

301 HARDY STREET SUITE D  
 HATTIESBURG, MS 39401  
 (601) 583-0411  
 FAX: (601) 582-8163  
 E-mail: culpe@aol.com

CLIENT: ICON ENVIRONMENTAL SOLUTIONS

REPORT DATE: 09-17-03

COLLECTED BY: JOE FORD

SAMPLE DATE: 08-27-03

COMMENTS: SHREDDED TREE STUMPS

DATE ANALYZED: 08-28-03

CTL SAMPLE ID: 03-150

CTL JOB NUMBER: 20030429

SEMI-VOLATILE					
ANALYTE	RESULT	UNITS	REPORT LIMITS	DIL. FACTOR	EPA METHOD
2-CHLORONAPHTHALENE	ND	mg/kg	5.98	5	8270C
2-CHLOROPHENOL	ND	mg/kg	5.98	5	8270C
4-CHLOROPHENYLPHENYLETHER	ND	mg/kg	5.98	5	8270C
CHRYSENE	ND	mg/kg	5.98	5	8270C
DIBENZOFURAN	ND	mg/kg	5.98	5	8270C
DIBENZ(a,h)ANTHRACENE	ND	mg/kg	5.98	5	8270C
1,2-DICHLOROBENZENE	ND	mg/kg	5.98	5	8270C
1,3-DICHLOROBENZENE	ND	mg/kg	5.98	5	8270C
1,4-DICHLOROBENZENE	ND	mg/kg	5.98	5	8270C
3,3'-DICHLOROBENZIDINE	ND	mg/kg	5.98	5	8270C
2,4-DICHLOROPHENOL	ND	mg/kg	5.98	5	8270C
DIETHYLPHTHALATE	ND	mg/kg	5.98	5	8270C
2,4-DIMETHYLPHENOL	ND	mg/kg	5.98	5	8270C
DIMETHYLPHTHALATE	ND	mg/kg	5.98	5	8270C
D,L-N-BUTYL PHTHALATE	ND	mg/kg	5.98	5	8270C

# CULPEPPER TESTING LABORATORIES

301 HARDY STREET SUITE D  
HATTIESBURG, MS 39401  
(601) 583-0411

FAX: (601) 582-8163  
E-mail: culpe@aol.com

CLIENT: ICON ENVIRONMENTAL SOLUTIONS

REPORT DATE: 09-17-03

COLLECTED BY: JOE FORD

SAMPLE DATE: 08-27-03

COMMENTS: SHREDDED TREE STUMPS

DATE ANALYZED: 08-28-03

CTL SAMPLE ID: 03-750

CTL JOB NUMBER: 20030429

ANALYTE	SEMI-VOLATILE				
	RESULT	UNITS	REPORT LIMITS	DIL. FACTOR	EPA METHOD
1,3-DINITRO-2-METHYLPHENOL	ND	mg/kg	5.98	5	8270C
2,4-DINITROPHENOL	ND	mg/kg	5.98	5	8270C
2,4-DINITROTOLUENE	ND	mg/kg	5.98	5	8270C
2,6-DINITROTOLUENE	ND	mg/kg	5.98	5	8270C
DI-N-OCTYLPHTHALATE	ND	mg/kg	5.98	5	8270C
FLUORANTHENE	ND	mg/kg	5.98	5	8270C
FLUORENE	ND	mg/kg	5.98	5	8270C
HEXACHLOROBENZENE	ND	mg/kg	5.98	5	8270C
HEXACHLOROBUTADIENE	ND	mg/kg	5.98	5	8270C
HEXACHLOROCYCLOPENTADIENE	ND	mg/kg	5.98	5	8270C
HEXACHLOROETHANE	ND	mg/kg	5.98	5	8270C
INDENO(1,2,3-CD)PYRENE	ND	mg/kg	5.98	5	8270C
ISOPHORONE	ND	mg/kg	5.98	5	8270C
2-METHYLNAPHTHALENE	ND	mg/kg	5.98	5	8270C
2-METHYLPHENOL	ND	mg/kg	5.98	5	8270C
M,P-METHYLPHENOL	ND	mg/kg	5.98	5	8270C
NAPHTHALENE	ND	mg/kg	5.98	5	8270C

# CULPEPPER TESTING LABORATORIES

301 HARDY STREET SUITE D  
 HATTIESBURG, MS 39401  
 (601) 583-0411  
 FAX: (601) 582-8163  
 E-mail: culpe@aol.com

CLIENT: ICON ENVIRONMENTAL SOLUTIONS

REPORT DATE: 09-17-03

COLLECTED BY: JOE FORD

SAMPLE DATE: 08-27-03

COMMENTS: SHREDDED TREE STUMPS

DATE ANALYZED: 08-28-03

CTL SAMPLE ID: 03-750

CTL JOB NUMBER: 20030429

SEMI-VOLATILE					
ANALYTE	RESULT	UNITS	REPORT LIMITS	DIL. FACTOR	EPA METHOD
2-NITROLINE	ND	mg/kg	5.98	5	8270C
3-NITROANILINE	ND	mg/kg	5.98	5	8270C
4-NITROANILINE	ND	mg/kg	5.98	5	8270C
NITROBENZENE	ND	mg/kg	5.98	5	8270C
2-NITROPHENOL	ND	mg/kg	5.98	5	8270C
4-NITROPHENOL	ND	mg/kg	5.98	5	8270C
N-NITROSODI-N-PROPYLAMINE	ND	mg/kg	5.98	5	8270C
N-NITROSODIPHENLAMINE	ND	mg/kg	5.98	5	8270C
PENTACHLOROPHENOL	ND	mg/kg	5.98	5	8270C
PHENANTHRENE	ND	mg/kg	5.98	5	8270C
PHENOL	ND	mg/kg	5.98	5	8270C
PYRENE	ND	mg/kg	5.98	5	8270C
BIS(2-ETHYLHEXYL)PHTHALATE	ND	mg/kg	5.98	5	8270C
1,2,4-TRICHLOROBENZENE	ND	mg/kg	5.98	5	8270C
2,4,5-TRICHLOROPHENOL	ND	mg/kg	5.98	5	8270C
2,4,6-TRICHLOROPHENOL	ND	mg/kg	5.98	5	8270C

ND = NON DETECT

# **APPENDIX C**

## **Storm Water Pollution Prevention**

# Storm Water Pollution Prevention

## 1. Site Identification

The site is presently clear of timber and west side of the property has been reseeded with permanent grass for ground cover. The sampling of the soil will not disturb the area of the drainage ditch, or it's immediate surroundings. Three-fourths of the site has low erosion hazard. The remainder of the site has low to medium erosion hazard. On the south end o the property an earthen ditch is positioned east to west that flows into an earthen ditch positioned southeast to northwest. The ditches have intermittent flow with the direction of flow being from southeast to northwest, draining into Gordon's Creek, which is not on the 303(d) list for siltation, turbidity, or habitat alterations. Therefore, additional controls that are warranted for a site discharging to listed receiving streams are not required.

## 2. Controls

**Vegetative Controls:** After completion of the sampling and finalizing the remediation of the property, the eastern portion will be seeded (permanent seeding) within seven calendar days.

**Structural Controls:** A construction entrance will be built and accumulation of mud on vehicle tires will be washed, if needed, during muddy conditions.

**Housekeeping Practices:** All Equipment maintenance and repair will be done offsite. Trashcans will be placed onsite as needed. Paints, solvents, fertilizers, or any other potentially toxic materials will not be stored on site.

**Post construction/Storm Water Management Measures:** Additional vegetative and structural controls will be placed onsite as needed.

## 3. Implementation Sequence

- |                           |                              |                               |
|---------------------------|------------------------------|-------------------------------|
| 1/ Pull Soil samples      | 2/ Perform analytical tests. | 3/ Identify any contamination |
| 4/ Excavate contamination | 5/ Remove and dispose cont.  | 6/ Backfill, if needed        |
| 7/ Reseed eastern portion | 8/ Maintenance plan          |                               |

## 4. Maintenance Plan

Check all disturbed areas, erosion and sediment controls after each significant rainfall but not less than once per week. Make needed repairs within 24 hours. Replace non-functional silt fence. Maintain all vegetated areas to provide proper ground cover- reseed and fertilize as needed.

# **APPENDIX D**

## **SITE HEALTH AND SAFETY PLAN**

# HEALTH AND SAFETY PLAN (HASP)

## 1. Plan Overview

The project activities consist of pulling core samples to a minimum depth of 6 feet. Collecting a sample from each two-foot section of the core, and performing analytical test of sample material to determine if contamination is present. If any contamination is found the landowner(s) will decide whether to cease all work and leave the property as the designated plan in Phase I work plan, or continue work to excavate contamination, remove and dispose of contaminated material in the proper landfill and backfill if needed. Clean backfill will be transported from an off-site location and placed as needed on-site. All transportation and removal of contaminated material shall be managed in accordance with all applicable Federal, State, and local requirements. All transportation manifests and disposal certificates shall be retained and submitted to ICON for documentation. The site is bound to the west by the drainage ditch, to the south by Southern Railroad track, to the east by Strahan Auto Sales, and to the north by West Pine Street. A site location map is provided as Figure 1 and Figure 2.

---

Glenn Jones, Bonner Analytical Testing Co. Health and Safety Officer      Date

---

Dr. Michael S. Bonner, CEO Bonner Analytical Testing Co.      Date

## 2. Staff Organization

Project Manager      Dr. Michael S. Bonner- As Project Manager on this site, Dr. Bonner will assume responsibility for the overall co-ordination of on-site and off-site activities.

Site Safety Officer      Glenn Jones-As Site Safety Officer ((O, Mr. Jones will be responsible for collecting and maintaining documentation of each worker, conducting and documentation of daily tool box safety meeting, and maintenance of current emergency response and medical assistance phone numbers throughout the project.

Alternate Site Safety Officer(s)

Dr. Michael S. Bonner (BATCO)  
Chris Bonner (BATCO)  
Eric Sanford (BATCO)  
David Kanoly (BATCO)



- Will assume the duties of the SSO when the SSO is not on the project site.

Technicians / Operators Will be responsible for heavy equipment operation and general labor on the site. They will report directly to the Project Manager or SSO.

### 3 Work Activities

Pre-construction site reconnaissance This activity will consist of a general reconnaissance of the site to include locating underground and aboveground utilities and structures that may be present onsite that could be affected by site activities.

Setting preliminary grid to identify core locations This activity consists of the orientation of five core locations on the eastern portion of the site.

Pulling Core Samples Pull five (5) core samples down to a depth of ten (10) feet and then use a PID (Photo Ionization Device) to identify the strongest contamination point of each of the five samples. The section of the highest reading will be analyzed for contamination. If no contamination levels are detected a section of the ten-foot core will still be analyzed for verification purposes.

Run Analytical Test & Review Results This activity will determine if any contamination is evident in the soil on the eastern portion of the site. (1) If none is found, no other work will be done other than reseed the eastern portion and complete the maintenance profile. (2) If contamination is found, the decision will be made by the landowners on whether to cease work and leave the property "capped" as it is. Or (3) excavate the contaminated soil, remove and dispose of in the proper landfill, and backfill the property as needed and perform maintenance.

Backfilling This activity consists of backfilling the site as needed with clean soil from off-site. The backfill shall be free from roots, trash, debris, frozen material, and stones larger than 3 inches.

Storm water Pollution Prevention This activity may consist of one or all of the following: Vegetative controls, structural controls, housekeeping practices, post construction/storm water management measures, implementation, and maintenance.

### 4 Hazard Assessment

Previous environmental assessments indicate that chemical hazards are not present on this site. However, all precautions will be taken to ensure that no site worker comes in contact with any suspicious looking materials (soils, liquids). In the event suspicious materials are encountered, site workers will cease in that area and all appropriate notifications will be made. All site workers will be briefed on the site's previous creosoting activities and the hazards associated with exposure to creosote. An MSDS for Creosote is included as Appendix A in this document and will be reviewed with all site workers.

## 5 General Health and Safety Requirements

In the event an ICON Environmental employee or subcontractor is exposed to a known on-site chemical hazard, that person will then be examined by a qualified medical doctor.

All accidents will be immediately reported to the SSO who will report them immediately to the project manager. The project manager will make the necessary notifications as appropriate. Local emergency services may be called to the site by dialing 911.

If an off-site chemical hazard is identified the subject area will be deemed an exclusion zone. Access to the exclusion zone will be limited to persons in compliance with 29 CFR 1910.120 (HAZWOPER).

No work will be performed during periods of lightning, or other severe weather conditions. No work will be performed in any exclusion zones, or in excavations, which are not in compliance with OSHA regulations related to trenches.

Appropriate PPE and work area visual observations will be conducted as determined by SSO.

## 6 Site Specific Health and Safety Requirements

It is expected that work on this site will be conducted in Level D, generally consisting of hardhat, steel toed boots/shoes, gloves, safety glasses, and hearing protection (as needed). Decontamination at this level will consist of washing shoes/boots upon leaving site and a recommendation to immediately change, or wash daily work clothes upon returning to home/hotel.

Heavy Equipment that is used on-site which comes in contact with contaminated soil will be washed either with potable water and detergent, or with potable water via a pressure washer. The rinsate will either be collected and disposed of off-site or sent to the local POTW, or storm sewer. Disposal to the POTW or storm sewer will be pursued first and ICON Environmental will obtain any necessary permits.

## 7 Emergency Response Procedures

The nearest medical facility is Forrest General Hospital and may be contacted directly by dialing 288-2100. Emergency medical services may be called to the site by dialing 911. The site has no land based telephone service, cell phones will be maintained on-site at all times in case of emergency.

A map showing the route to and from the site to Forrest General Hospital is included as Figure 1.



# Daily Tool Box Safety Meeting Form

## ICON Environmental Solutions, LLC

Project Number / Name: \_\_\_\_\_ Date: \_\_\_\_\_

Location: \_\_\_\_\_ Meeting conducted by: \_\_\_\_\_

Time started: \_\_\_\_\_ Time ended: \_\_\_\_\_ Total minutes: \_\_\_\_\_

Project Manager: \_\_\_\_\_ Site Safety Officer: \_\_\_\_\_

Alternate Site Safety Officer: \_\_\_\_\_

1) Daily scope of work topics:  
 A) \_\_\_\_\_  
 B) \_\_\_\_\_

2) Daily Chemical / Physical Hazards:  
 A) \_\_\_\_\_  
 B) \_\_\_\_\_

Chemical	Exposure Limit	Exposure Route	Symptom	Physical Hazards
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

3) Accidents Reviewed: \_\_\_\_\_

4) Storm Water Controls Necessary? Yes / No List Control Measures

5) Comments / Suggestions: \_\_\_\_\_

6) Personal Protective Levels / Tasks:

Level	PPE Description	Work Task	Type Cartridge
_____	_____	_____	_____
_____	_____	_____	_____

