



# Lion Oil Trading & Transportation, Inc.

Manual ID: LOTT South AR & North LA Spill Response  
Manual

Issue Date: August 11, 2010

Page 1 of 5  
Document #: LTP-TC-004.01

Revision Date: August 29, 2011

## Table of Contents

Section	Title	Page No.	Current Issue Date	Document Number
	<b>Table of Contents</b>	1	August 29, 2011	LTP-TC-004.01
<b>1.0</b>	<b>INFORMATION SUMMARY</b>	1	NA	NA
1.1	Availability of Publication in Foreign Language	1	NA	NA
1.2	Name and Address of Pipeline Operator	1	NA	NA
1.3	Listing and Description of Response Zones	1	NA	NA
1.4	Primary Qualified Company Contact	2	NA	NA
1.5	Alternate Qualified Company Contacts	2	NA	NA
1.6	Line Section Description	2	NA	NA
1.7	Type of Oil and Worst Case Discharge	9	NA	NA
1.8	Pipeline Specifications	11	NA	NA
1.9	Certification of Private Resources	11	NA	NA
<b>2.0</b>	<b>STATE, AREA, &amp; NATIONAL CONTINGENCY PLANS</b>	12	NA	NA
<b>3.0</b>	<b>ENVIRONMENTALLY &amp; ECONOMICALLY SENSITIVE AREAS</b>	13	NA	NA
<b>4.0</b>	<b>NOTIFICATION PROCEDURES</b>	13	NA	NA
4.1	Notification Procedures	13	NA	NA
4.2	Spill Characterization/Reporting	14	NA	NA
4.3	Regulatory Agency Contact Summary	15	NA	NA
4.3.1	Louisiana State Police Reporting Requirements	16	NA	NA
4.3.2	Arkansas Department of Emergency Management	16	NA	NA
4.3.3	Local Emergency Planning Committee Reporting Requirements	16	NA	NA
4.3.4	Local Area Fire Departments Reporting Requirements	16	NA	NA



# Lion Oil Trading & Transportation, Inc.

Manual ID: LOTT South AR & North LA Spill Response  
Manual  
Issue Date: August 11, 2010

Page 2 of 5  
Document #: LTP-TC-004.01  
Revision Date: August 29, 2011

## Table of Contents

	4.3.5	National Response Center Reporting Requirements	16	NA	NA
	4.3.6	Bureau of Land Management Reporting Requirements	17	NA	NA
	4.3.7	Natural Resource Trustee Notification	17	NA	NA
	4.4	Follow-Up Notification Requirements	17	NA	NA
<b>5.0</b>		<b>SPILL DETECTION AND MITIGATION</b>	18	NA	NA
	5.1	Spill Detection Team	18	NA	NA
	5.2	Methods of Spill and Potential Threat Detection	18	NA	NA
	5.3	Methods of Spill Location	18	NA	NA
	5.4	Identification and Mitigation of Substantial Threat of Discharge	20	NA	NA
	5.5	Equipment Available for Spill Mitigation – LOTT, South Arkansas North Louisiana Pipeline Company	21	NA	NA
	5.6	Equipment Operators Available for Spill Response	21	NA	NA
	5.7	Line Section Response Strategies	21	NA	NA
	5.8	Booming Strategies	24	NA	NA
	5.9	Recovered Spill Storage	25	NA	NA
	5.10	Response Waste Disposal	26	NA	NA
	5.11	Dispersant Usage	26	NA	NA
<b>6.0</b>		<b>TIERED RESPONSE TIMES</b>	26	NA	NA
<b>7.0</b>		<b>LION OIL TRADING AND TRANSPORTATION, INC. SPILL RESPONSE TEAM</b>	26	NA	NA
<b>8.0</b>		<b>SPILL RESPONSE OPERATIONS/INCIDENT COMMAND SYSTEM</b>	28	NA	NA
	8.1	Incident and Unified Command	29	NA	NA
	8.2	Qualified Individual	29	NA	NA



# Lion Oil Trading & Transportation, Inc.

Manual ID: LOTT South AR & North LA Spill Response  
Manual

Issue Date: August 11, 2010

Page 3 of 5  
Document #: LTP-TC-004.01

Revision Date: August 29, 2011

## Table of Contents

8.3	ICS Structure	30	NA	NA
8.4	ICS Key Responsibilities	32	NA	NA
8.5	ICS Implementation	33	NA	NA
8.6	ICS Documentation	33	NA	NA
8.7	Chronology for Oil Spill Response	33	NA	NA
<b>9.0</b>	<b>RESPONSE EQUIPMENT RESOURCES</b>	34	NA	NA
9.1	Lion Oil Trading and Transportation, Inc. Available Equipment	34	NA	NA
9.2	Equipment Location	35	NA	NA
9.3	OSRO Available Equipment	35	NA	NA
<b>10.0</b>	<b>METHODS OF COMMUNICATION</b>	35	NA	NA
<b>11.0</b>	<b>EMERGENCY EQUIPMENT MAINTENANCE</b>	36	NA	NA
11.1	LOTT Maintenance and Operability Procedure	36	NA	NA
11.2	OSRO Maintenance and Operability Procedure	36	NA	NA
<b>12.0</b>	<b>RESPONSE PERSONNEL TRAINING</b>	36	NA	NA
12.1	LOTT South Arkansas North Louisiana Pipeline Company Employee Training	36	NA	NA
12.2	OSHA 29CFR 1910.120 Training	37	NA	NA
<b>13.0</b>	<b>TRAINING RECORDS</b>	37	NA	NA
13.1	Training Records Location	37	NA	NA
13.2	Training Log	37	NA	NA
13.3	Contractor Training Records	37	NA	NA
13.4	Instructor and Training Organization Records	38	NA	NA
13.5	Training Records Maintenance	38	NA	NA
<b>14.0</b>	<b>DRILL PROCEDURES</b>	38	NA	NA
14.1	Quarterly Drills	38	NA	NA
14.2	Annual Drills	38	NA	NA



# Lion Oil Trading & Transportation, Inc.

Manual ID: LOTT South AR & North LA Spill Response  
Manual

Issue Date: August 11, 2010

Page 4 of 5  
Document #: LTP-TC-004.01

Revision Date: August 29, 2011

## Table of Contents

14.3	Triennial Drills	38	NA	NA
14.4	Annual OSRO Equipment Deployment Drill	38	NA	NA
14.5	Unannounced Drill	39	NA	NA
14.6	Responsibility for Drill Program	39	NA	NA
14.7	Drill Documentation	39	NA	NA
<b>15.0</b>	<b>PIPELINE SPILL RESPONSE PLAN REVIEW</b>	39	NA	NA
15.1	Operator Review of Response Plan	39	NA	NA
15.2	Re-submittal of Updated Plan	39	NA	NA
15.3	Reasons to Revise the Spill Response Plan	39	NA	NA
15.4	Drill Evaluation and Plan Revision	39	NA	NA
<b>Appendix A</b>			NA	NA
	Contact List		NA	NA
<b>Appendix B</b>			NA	NA
	Terms and Abbreviations		NA	NA
<b>Appendix C</b>			NA	NA
	OSRO Written Agreements and Equipment Lists		NA	NA
<b>Appendix D</b>			NA	NA
	Crude Oil (Sweet) Material Safety Data Sheet		NA	NA
	Crude Oil (Sour) Material Safety Data Sheet		NA	NA
	Diesel Material Safety Data Sheet		NA	NA
	Gasoline Material Safety Data Sheet		NA	NA
<b>Appendix E</b>			NA	NA
	ICS Forms		NA	NA



# Lion Oil Trading & Transportation, Inc.

Manual ID: LOTT South AR & North LA Spill Response  
Manual

Issue Date: August 11, 2010

Document #:

Page 5 of 5

LTP-TC-004.01

Revision Date:

August 29, 2011

---

## Table of Contents

---

### Figure Index and Map Legend

NA

NA

North Louisiana South Arkansas Pipeline System  
Index Map

NA

NA

### Sheets 1-18

NA

NA

Environmentally Sensitive Areas

NA

NA

## Response Zone Appendix and Core Plan Information Summary

Pipeline Information: Owners: Lion Oil Trading and Transportation, Inc.  
Magnolia Pipeline Company, Inc.  
El Dorado Pipeline Company, Inc.  
RSPA Sequence Number: 126  
Geographical Stretch: (south to north) Shreveport, Louisiana to Magnolia, Arkansas; and (west to east) Fouke, Arkansas to Magnolia, Arkansas to El Dorado, Arkansas.  
Pipeline Length: >400 miles of 12" and smaller main lines and gathering lines  
Destination: Lion Oil Company Refinery, El Dorado, Arkansas

Operator: Lion Oil Trading and Transportation, Inc.  
1001 School Street  
El Dorado, Arkansas 71730  
(870) 864-1451

Response Zone: One Response Zone – North Louisiana and South Arkansas

In north Louisiana the response zone traverses the parishes of Caddo, Bossier, Claiborne, and Webster. In south Arkansas the response zone traverses the counties of Columbia, Lafayette, Miller, Nevada, Ouachita, and Union.

Lion Oil Trading and Transportation operates three pipeline systems covered by the Pipeline Spill Response Plan, all of which are all considered to be part of the South Arkansas North Louisiana Pipeline System. The three systems are the Lion Oil Trading and Transportation System that includes gathering and mainline pipelines which transport crude oil between Fouke, Arkansas and El Dorado, Arkansas; the Magnolia Pipeline Company System which includes a mainline pipeline that transports crude oil from Shreveport, Louisiana to Magnolia, Arkansas; and the El Dorado Pipeline Company System that transports crude oil, diesel, and gasoline from Magnolia, Arkansas to El Dorado, Arkansas.

The entire response zone for the South Arkansas North Louisiana Pipeline System is considered to have the potential to cause significant and substantial harm.

### Line Sections:

#### *Fouke to Magnolia (Columbia, Miller and Lafayette County, Arkansas)*

This line section includes gathering and main transmission lines (up to 8-inch) that transport crude oil. This line section poses a threat of significant and substantial harm as it is located within 1-mile radius of potentially affected environmentally sensitive area and could reasonably be expected to reach these areas. Major waters of the US crossed by this line section include the Red River, Bodcau Creek, and Dorcheat Bayou.

#### *Finney Station to Haynesville (Caddo, Bossier, Webster, and Claiborne Parish Louisiana)*

This line section poses a threat of significant and substantial harm as it is located within 1-mile radius of potentially affected environmentally sensitive area and could reasonably be expected to reach these areas. This line section crosses the Red River, areas of Barksdale Air Force Base known to have suitable habitat for bald eagles, numerous wetland areas, Dorcheat Bayou, and Kisatchie National Forest.

#### *Haynesville to Magnolia Station (Claiborne Parish, Louisiana and Columbia County, Arkansas)*

This line section is not located within 1-mile radius of potentially affected environmentally sensitive area and is not reasonably expected to reach these areas.

*Stamps to Magnolia (Lafayette and Columbia County, Arkansas)*

This line section poses a threat of significant and substantial harm as it is located within 1-mile radius of potentially affected environmentally sensitive area and could reasonably be expected to reach these areas. This section crosses Bodcau Creek, Dorcheat Bayou, tributaries to Dorcheat Bayou (Beech Creek), Barlow Branch, and Nations Creek.

*Magnolia Station to El Dorado (Columbia and Union County, Arkansas)*

This line section poses a threat of significant and substantial harm as it is located within 1-mile radius of potentially affected environmentally sensitive area and could reasonably be expected to reach these areas. This line section crosses a Big Cornie Creek, which supports a large wetlands system that is known migratory waterfowl habitat.

*Stephens to Shuler Main Line (Ouachita, Columbia, and Union County Arkansas)*

This line section poses a threat of significant and substantial harm as it is located within 1-mile radius of potentially affected environmentally sensitive area and could reasonably be expected to reach these areas. This line section crosses a Cornie Creek and Smackover Creek.

*Colquitt to Shuler Main Line (Claiborne Parish, Louisiana and Union County, Arkansas)*

This line section poses a threat of significant and substantial harm. This section is not located within 1-mile radius of potentially affected environmentally sensitive area, but could reasonably be expected to reach these areas in adverse weather conditions. This line section crosses Corney Bayou which feeds Corney Lake which is a State Wildlife and Park Area.

*Pace City/Smackover to El Dorado Main Line (Union County, Arkansas)*

This line section poses a threat of significant and substantial harm. This section is not located within 1-mile radius of potentially affected environmentally sensitive area, but could reasonably be expected to reach these areas in adverse weather conditions. This line section crosses tributaries to Smackover Creek (Holmes Creek).

*Lick Creek to El Dorado (Union County, Arkansas)*

This line section poses a threat of significant and substantial harm. This section is not located within 1-mile radius of potentially affected environmentally sensitive area, but could reasonably be expected to reach these areas in adverse weather conditions. This line section crosses is located in relative close proximity and crosses tributaries which drain to the Felsenthal National Wildlife Refuge. This line section crosses is in an area which drains to the Bayou DeLoutre, which supports a large wetlands area south of El Dorado, Arkansas.

*El Dorado Refinery to El Dorado Terminal (Union County, Arkansas)*

This line section poses a threat of significant and substantial harm as it is located within 1-mile radius of potentially affected environmentally sensitive area and could reasonably be expected to reach these areas. This line section crosses is in an area which drains to the Bayou DeLoutre, which supports a large wetlands area south of El Dorado, Arkansas.

Qualified Individual: David Wood, Maintenance Supervisor (Primary QI)  
 Office 870-864-1324  
 (b) [REDACTED]  
 Cellular Phone 870-314-5621

Jack Kingrey, Maintenance Supervisor (Alternate QI)  
 Office 870-864-1216  
 (b) [REDACTED]  
 Cellular Phone 870-314-5610  
 Pager 870-864-3039

Glenn Green, Engineering Supervisor (Second Alternate QI)  
 Office 870-864-1372  
 (b) [REDACTED]  
 Cellular Phone 870-314-2848

Worst Case Discharge: Affected Line Section: (b) (7)(F) [REDACTED]  
 Breakout Tank Volume: (b) (7)(F) [REDACTED]  
 Credit Reduction for Spill Prevention Measures: 65% (b) (7)(F) [REDACTED]  
 Worst Case Discharge Volume: (b) (7)(F) [REDACTED]  
 Contents: Crude Oil, Gasoline, or Diesel  
 Flammable/Combustible Liquid





# PIPELINE SPILL RESPONSE MANUAL

LION OIL TRADING AND  
TRANSPORTATION, INC.

SOUTH ARKANSAS NORTH LOUISIANA  
PIPELINE SYSTEM

RSPA Sequence No. 126

Prepared by:



2001 E. 70<sup>th</sup> Street, Suite 503  
Shreveport, Louisiana 71105  
(318) 797-8636  
Project No. 40-0380



**LION OIL TRADING AND TRANSPORTATION, INC.**  
**SOUTH ARKANSAS NORTH LOUISIANA**  
**PIPELINE SYSTEM**  
**SPILL RESPONSE MANUAL**

**TABLE OF CONTENTS**

<u>Section</u>	<u>Page</u>
<b>1.0 INFORMATION SUMMARY .....</b>	<b>1</b>
1.1 Availability of Publication in Foreign Language .....	1
1.2 Name and Address of Pipeline Operator .....	1
1.3 Listing and Description of Response Zones .....	1
1.4 Primary Qualified Company Contact .....	2
1.5 Alternate Qualified Company Contacts .....	2
1.6 Line Section Description .....	2
1.7 Type of Oil and Worst Case Discharge .....	9
1.8 Pipeline Specifications .....	11
1.9 Certification of Private Resources .....	11
<b>2.0 STATE, AREA, &amp; NATIONAL CONTINGENCY PLANS.....</b>	<b>12</b>
<b>3.0 ENVIRONMENTALLY &amp; ECONOMICALLY SENSITIVE AREAS .....</b>	<b>13</b>
<b>4.0 NOTIFICATION PROCEDURES .....</b>	<b>13</b>
4.1 Notification Procedures .....	13
4.2 Spill Characterization/Reporting .....	14
4.3 Regulatory Agency Contact Summary .....	15
4.3.1 Louisiana State Police Reporting Requirements .....	16
4.3.2 Arkansas Department of Emergency Management .....	16
4.3.3 Local Emergency Planning Committee Reporting Requirements .....	16
4.3.4 Local Area Fire Departments Reporting Requirements .....	16
4.3.5 National Response Center Reporting Requirements .....	16
4.3.6 Bureau of Land Management Reporting Requirements .....	17
4.3.7 Natural Resource Trustee Notification .....	17
4.4 Follow-Up Notification Requirements .....	17
<b>5.0 SPILL DETECTION AND MITIGATION .....</b>	<b>18</b>
5.1 Spill Detection Team .....	18
5.2 Methods of Spill and Potential Threat Detection .....	18
5.3 Methods of Spill Location .....	18
5.4 Identification and Mitigation of Substantial Threat of Discharge .....	20
5.5 Equipment Available for Spill Mitigation – LOTT, South Arkansas North Louisiana Pipeline Company .....	21
5.6 Equipment Operators Available for Spill Response .....	21
5.7 Line Section Response Strategies .....	21
5.8 Booming Strategies .....	24
5.9 Recovered Spill Storage .....	25
5.10 Response Waste Disposal .....	25
5.11 Dispersant Usage .....	26
<b>6.0 TIERED RESPONSE TIMES .....</b>	<b>26</b>



**LION OIL TRADING AND TRANSPORTATION, INC.  
SOUTH ARKANSAS NORTH LOUISIANA  
PIPELINE SYSTEM  
SPILL RESPONSE MANUAL**

<b>7.0</b>	<b>LION OIL TRADING AND TRANSPORTATION, INC. SPILL RESPONSE TEAM.....</b>	<b>26</b>
<b>8.0</b>	<b>SPILL RESPONSE OPERATIONS/INCIDENT COMMAND SYSTEM.....</b>	<b>28</b>
8.1	Incident and Unified Command.....	29
8.2	Qualified Individual.....	29
8.3	ICS Structure.....	30
8.4	ICS Key Responsibilities.....	32
8.5	ICS Implementation.....	33
8.6	ICS Documentation.....	33
8.7	Chronology for Oil Spill Response.....	33
<b>9.0</b>	<b>RESPONSE EQUIPMENT RESOURCES.....</b>	<b>34</b>
9.1	Lion Oil Trading and Transportation, Inc. Available Equipment.....	34
9.2	Equipment Location.....	35
9.3	OSRO Available Equipment.....	35
<b>10.0</b>	<b>METHODS OF COMMUNICATION.....</b>	<b>35</b>
<b>11.0</b>	<b>EMERGENCY EQUIPMENT MAINTENANCE.....</b>	<b>36</b>
11.1	LOTT Maintenance and Operability Procedure.....	36
11.2	OSRO Maintenance and Operability Procedure.....	36
<b>12.0</b>	<b>RESPONSE PERSONNEL TRAINING.....</b>	<b>36</b>
12.1	LOTT South Arkansas North Louisiana Pipeline Company Employee Training.....	36
12.2	OSHA 29CFR 1910.120 Training.....	37
<b>13.0</b>	<b>TRAINING RECORDS.....</b>	<b>37</b>
13.1	Training Records Location.....	37
13.2	Training Log.....	37
13.3	Contractor Training Records.....	37
13.4	Instructor and Training Organization Records.....	38
13.5	Training Records Maintenance.....	38
<b>14.0</b>	<b>DRILL PROCEDURES.....</b>	<b>38</b>
14.1	Quarterly Drills.....	38
14.2	Annual Drills.....	38
14.3	Triennial Drills.....	38
14.4	Annual OSRO Equipment Deployment Drill.....	38
14.5	Unannounced Drill.....	39
14.6	Responsibility for Drill Program.....	39
14.7	Drill Documentation.....	39
<b>15.0</b>	<b>PIPELINE SPILL RESPONSE PLAN REVIEW.....</b>	<b>39</b>
15.1	Operator Review of Response Plan.....	39
15.2	Re-submittal of Updated Plan.....	39
15.3	Reasons to Revise the Spill Response Plan.....	39
15.4	Drill Evaluation and Plan Revision.....	39



**LION OIL TRADING AND TRANSPORTATION, INC.  
SOUTH ARKANSAS NORTH LOUISIANA  
PIPELINE SYSTEM  
SPILL RESPONSE MANUAL**

**Appendix A**

Contact List

**Appendix B**

Terms and Abbreviations

**Appendix C**

OSRO Written Agreements and Equipment Lists

**Appendix D**

Crude Oil (Sweet) Material Safety Data Sheet

Crude Oil (Sour) Material Safety Data Sheet

Diesel Material Safety Data Sheet

Gasoline Material Safety Data Sheet

**Appendix E**

ICS Forms

**Figure Index and Map Legend**

North Louisiana South Arkansas Pipeline System Index Map

**Sheets 1-28**

Environmentally Sensitive Areas



**LION OIL TRADING AND TRANSPORTATION, INC.  
SOUTH ARKANSAS NORTH LOUISIANA  
PIPELINE SYSTEM  
SPILL RESPONSE MANUAL**

## 1.0 INFORMATION SUMMARY

### 1.1 Availability of Publication in Foreign Language

Lion Oil Trading and Transportation, Inc. (LOTT) has no foreign speaking employees that may be responsible for carrying out the responsibilities of the Response Plan. As such, the Response Plan is available only in English.

### 1.2 Name and Address of Pipeline Operator

Lion Oil Trading and Transportation, Inc.  
1001 School Street  
El Dorado, AR 71730  
(800) 344-5325 Phone  
(870) 864-1341 Fax

### 1.3 Listing and Description of Response Zones

The entire pipeline system, known as the South Arkansas North Louisiana Pipeline System is operated by LOTT. Because the entire system is operated and managed by LOTT and all response actions would be managed and directed by LOTT, the entire system is considered to be a single response zone. See Figure Index for an overview of the geographical reach of the response zone. A brief description of the pipeline system is provided in following paragraph.

From the south, a main pipeline begins in South Caddo Parish, Louisiana, near Wallace Lake, at a 3<sup>rd</sup> party facility known as Finney Station. The pipeline segment, owned by the Magnolia Pipeline Company (MPC) and known as the Magnolia Pipeline proceeds northeast to Magnolia, Arkansas, where LOTT 6 to 8-inch main lines and smaller gathering lines (upstream of the LOTT main line) from west Arkansas meet the Magnolia Pipeline at the Magnolia Station. From the Magnolia Station, two lines, a LOTT main line and an El Dorado Pipeline Company (EPC) main line proceed east to El Dorado Arkansas. Several smaller LOTT main lines which are fed by LOTT gathering systems intersect and supply the El Dorado Refinery and the lines from Magnolia to El Dorado. The LOTT and EPC main lines from Magnolia to El Dorado terminate at the Lion Oil El Dorado Refinery. Two EPC refined product lines convey gasoline and diesel from the El Dorado Refinery to the Perry Tank Farm at the El Dorado Terminal. (b) (7)(F)

The single response zone is located in north Louisiana and south Arkansas. In north Louisiana the response zone traverses the parishes of Caddo, Bossier, Claiborne, and Webster. In south Arkansas the single response zone traverses the counties of



**LION OIL TRADING AND TRANSPORTATION, INC.**  
**SOUTH ARKANSAS NORTH LOUISIANA**  
**PIPELINE SYSTEM**  
**SPILL RESPONSE MANUAL**

Columbia, Lafayette, Miller, Nevada, Ouachita, and Union. Because the entire pipeline system is in a single response zone, the response zone in which a worst-case discharge could occur is the North Louisiana South Arkansas Response Zone.

#### 1.4 Primary Qualified Company Contact

David Wood, Maintenance Supervisor (Primary QI)

Office 870-864-1324

(b) (6)

Cellular Phone 870-314-5621

#### 1.5 Alternate Qualified Company Contacts

Jack Kingrey, Maintenance Supervisor (Alternate QI)

Office 870-864-1216

(b) (6)

Cellular Phone 870-314-5610

Pager 870-864-3039

Glenn Green, Engineering Supervisor (Second Alternate QI)

Office 870-864-1372

(b) (6)

Cellular Phone 870-314-2848

#### 1.6 Line Section Description

The South Arkansas North Louisiana Pipeline System is divided into multiple line sections. The line sections are identified based on operational and functional characteristics. Due to the multiple drainage areas in each section and for the purposes of this Spill Response Manual, the line sections are further delineated into sub-section, as needed, based on the drainage basins to which a potential spill would drain.

##### **Fouke to Magnolia (Columbia, Miller and Lafayette County, Arkansas)**

This line section includes LOTT gathering and main transmission lines (up to 8-inch) that transport crude oil. This line section poses a threat of significant and substantial harm as it is located within 1-mile radius of potentially affected environmentally sensitive area and could reasonably be expected to reach these areas. Major waters of the US crossed by this line section include the Red River, Bodcau Creek, and Dorcheat Bayou.

##### **Fouke Main Line to Spirit Lake**

This line sub-section starts north of Fouke, near Hwy 71, where gathering lines collect crude oil that is transported to Fouke Station. A (b) (7)(F) [REDACTED] Fouke Station, an LOTT main line transports crude oil to Spirit Lake Junction. Between Fouke and Spirit Lake, an oil spill from the line sub-section



**LION OIL TRADING AND TRANSPORTATION, INC.**  
**SOUTH ARKANSAS NORTH LOUISIANA**  
**PIPELINE SYSTEM**  
**SPILL RESPONSE MANUAL**

would drain to the south. The line sub-section crosses Beech Creek and its tributaries and Red River. (b) (7)(F)  
 r. East of Red River the line sub-section crosses Hwy 82 and proceeds east to Spirit Lake Junction. (b) (7)(F).

Spirit Lake to McKamie

From Spirit Lake Junction, a main pipeline (size varies from 6 to 8-inch) transports crude oil to the southeast to McKamie Junction. An oil spill from this sub-section would drain to the south to intermittent creeks and Bodcau Creek and its tributaries. Bodcau Creek drains to a large wetlands and lake known as Lake Erling. A (b) (7)(F)

McKamie to Magnolia Station

From Spirit Lake Junction, a main pipeline (size varies from 6 to 8-inch) transports crude oil to the southeast towards Magnolia Station. An oil spill from this sub-section would drain to the south to tributaries of Lake Erling and Dorcheat Bayou. A (b) (7)(F). This sub-section crosses Dorcheat Bayou, Big Creek, and Dodson Creek. Several gathering systems connect to this sub-section between Bayou Dorcheat and Magnolia Station. Just east of the Magnolia Station, (b) (7)(F) The line sub-section terminates at Magnolia Station.

**Finney Station to Haynesville (Caddo, Bossier, Webster, and Claiborne Parish Louisiana)**

This line sub-section poses a threat of significant and substantial harm as it is located within 1-mile radius of potentially affected environmentally sensitive area and could reasonably be expected to reach these areas. This line section crosses the Red River, areas of Barksdale Air Force Base known to have suitable habitat for bald eagles, numerous wetland areas, Dorcheat Bayou, and Kisatchie National Forest.

Finney Station to Red River

(b) (7)(F) Between Finney Station and the Red River levee, a release of oil would flow to the northeast to Bayou Pierre. (b) (7)(F). This sub-section is a 12-inch main pipeline.

Red River to US 80

After crossing the Red River, the pipeline proceeds north across alluvial bottom lands which are now developed. The pipeline crosses US 71, Sligo Road and Barksdale AFB. Oil spills in this area would drain to local drainage and then to depressed areas or to the Flat River. On Barksdale AFB the pipeline crosses Flat River and tributaries to Red Chute Bayou.

US 80 to Princeton



**LION OIL TRADING AND TRANSPORTATION, INC.**  
**SOUTH ARKANSAS NORTH LOUISIANA**  
**PIPELINE SYSTEM**  
**SPILL RESPONSE MANUAL**

After crossing Barksdale AFB, the pipeline proceeds northeast. After leaving Barksdale AFB, the pipeline crosses US 80 and then Fifi Bayou. This line sub-section contains 8-inch and 12-inch line. Fifi Bayou drains to the southeast towards Flag Lake on Barksdale AFB. A (b) (7)(F) prior to the pipeline crossing Eastwood Golf Course. The pipeline then crosses Connell Bayou, a tributary that drains northwest to Fifi Bayou. The pipeline then (b) (7)(F).

Princeton to Senior Station

(b) (7)(F) From Princeton, the pipeline crosses Clarke Bayou, LA 528, and Sausman Creek. Just northeast of Clarke Bayou, the pipeline changes back to 12-inch. From Princeton to LA 528, the area generally drains to the southeast into Clarke Bayou. From LA 528 to Senior Station, the area generally drains to the Sausman Creek. (b) (7)(F)

Senior Station to Weller Station

At Senior Station, the line size changes from 12-inch to an 8-inch pipeline. From Senior Station, the pipeline crosses Brushy Creek and Bayou Dorcheat. This is a large bottomland area that drains to the southeast. (b) (7)(F)

(b) (7)(F) This line sub-section crosses portions of the Kisatchie National Forest. This area of this entire line sub-section generally drains to the southeast. This line sub-section crosses a wetland habitat known as Dorcheat Bayou and crosses Kisatchie National Forest in the area of LA 159. (b) (7)(F)

Weller Station to (b) (7)(F)

(b) (7)(F) n. From Weller Station, the pipeline proceeds north, crossing Flat Lick Creek and LA 2. This area generally drains to Flat Lick Creek and Buck Creek, a tributary to Flat Lick Creek. (b) (7)(F)

(b) (7)(F) to Haynesville Station

(b) (7)(F) Before entering the town of Haynesville. This area generally drains to the west to Black Bayou. Some small areas in this sub-section may drain to Bayou D'Arbonne to the east. After crossing LA 2, the pipeline proceeds around Haynesville on its west side crossing LA 615, LA 808, and multiple side roads. After crossing LA 808, the pipeline proceeds easterly across railroad tracks and US 79 to Haynesville Station. North of LA 2, this line sub-section drains east to tributaries of



**LION OIL TRADING AND TRANSPORTATION, INC.**  
**SOUTH ARKANSAS NORTH LOUISIANA**  
**PIPELINE SYSTEM**  
**SPILL RESPONSE MANUAL**

Indian Creek. Areas near the Haynesville Station drain to the west to Middle Fork Bayou D'Arbonne. (b) (7)(F)

**Haynesville to Magnolia Station (Claiborne Parish, Louisiana and Columbia County, Arkansas)**

This line section is not located within 1-mile radius of potentially affected environmentally sensitive area and is not reasonably expected to reach these areas.

From Haynesville Station the main pipeline proceeds north directly to Magnolia Station. This line section does not cross any large creeks or water bodies, but does cross several small tributaries to South Cypress Creek, North Cypress Creek, Christies Branch, and Horsehead Creek. All of these tributaries generally drain to the west. (b) (7)(F)

This line section does cross AR Hwy 98 and several county roads. (b) (7)(F)

**Stamps to Magnolia (Lafayette and Columbia County, Arkansas)**

This line section poses a threat of significant and substantial harm as it is located within 1-mile radius of potentially affected environmentally sensitive area and could reasonably be expected to reach these areas. This section crosses Bodcau Creek, Dorcheat Bayou, tributaries to Dorcheat Bayou (Beech Creek), Barlow Branch, and Nations Creek.

**Stamps to Buckner Station**

Two LOTT main lines transport crude oil to Shiloh Junction. From the south, a 6-inch main line transports crude oil from Rook Storage (near Hwy 82) to Shiloh Junction. From the north, a 6-inch main line transports crude from Bodcau Tie-in, which is supplied by LOTT gathering lines. An oil spill from these main lines would drain to Bodcau Creek and its tributaries. (b) (7)(F)

n. From the Shiloh Junction, a LOTT main line, known as the Stamps line, transports crude oil to Buckner Station. Between Shiloh and Buckner, the LOTT main line crosses a wetlands area which is connected to Dorcheat Bayou. Buckner Station is located on the east side of Dorcheat Bayou.

**Buckner Station to Magnolia**

From Buckner Station, the LOTT main line proceeds southeast to Magnolia. An oil spill from this sub-section would drain to the south to Beech Creek, Barlow Branch, Nations Creek and their tributaries. (b) (7)(F)



**LION OIL TRADING AND TRANSPORTATION, INC.**  
**SOUTH ARKANSAS NORTH LOUISIANA**  
**PIPELINE SYSTEM**  
**SPILL RESPONSE MANUAL**

(b) (7)(F)

. After leaving the Magnolia area, the line proceeds across Hwy 82 and terminates at Magnolia Station.

**Magnolia Station to El Dorado (Columbia and Union County, Arkansas)**

This line section poses a threat of significant and substantial harm as it is located within 1-mile radius of potentially affected environmentally sensitive area and could reasonably be expected to reach these areas. This line section is comprised of two pipelines located within the same right-of-way. One of the lines is a 12-inch main pipeline owned by EPC. The other line is a crude oil gathering line owned by LOTT. In general, oil spills from this line section area will drain to the south in multiple creeks and waters which drain the area.

**Magnolia Station to (b) (7)(F)**

Just east of Magnolia Station, this line sub-section crosses Little Cornie Creek and Big Cornie Creek, which drain to a large wetlands system that is known migratory waterfowl habitat. (b) (7)(F)

The line sub-section then crosses Hurricane Creek and Garner Creek. (b) (7)(F) Union County, Arkansas. An oil spill from this sub-section would drain to the south to Big Cornie Creek and its tributaries.

**(b) (7)(F) to Shuler Station**

This line sub-section crosses West Three Creek and Three Creek. The Stephens Line intersects the LOTT line in the area of the Three Creek crossing. The LOTT and EPC lines then cross. At the crossover junction, (b) (7)(F) Just east of the crossover junction is the Shuler Station. An oil spill from this sub-section would drain to the south to Three Creek and its tributaries.

**Shuler Station to El Dorado**

From Shuler Station, both lines proceed east. (b) (7)(F)

(b) (7)(F) located at the El Dorado Refinery. Prior to entering the El Dorado Refinery, the line sub-section crosses areas which drain to Bayou DeLoutre, which drains to a large wetlands area south of El Dorado, Arkansas. An oil spill from this sub-section would drain to the south to Dry Creek, Beech Creek, Bayou DeLoutre and their tributaries.

**Stephens to Shuler Main Line (Ouachita, Columbia, and Union County Arkansas)**

This line section poses a threat of significant and substantial harm as it is located within 1-mile radius of potentially affected environmentally sensitive area and could reasonably be expected to reach these areas. This line section crosses a Cornie Creek and Smackover Creek.



**LION OIL TRADING AND TRANSPORTATION, INC.**  
**SOUTH ARKANSAS NORTH LOUISIANA**  
**PIPELINE SYSTEM**  
**SPILL RESPONSE MANUAL**

This line section includes LOTT gathering lines in Ouachita and Columbia Counties (Stephens Oil and Gas Field) that feed to a LOTT 6-inch main line that carries crude oil to El Dorado. From the Stephens Oil and Gas Field, the gathering line proceeds south, near a large wetland area formed by the Little Smackover Creek. (b) (7)(F) [REDACTED]. The line section turns east and crosses Little Smackover Creek and US Hwy 79 and proceeds around the north side of Stephens, Arkansas. (b) (7)(F) [REDACTED]. From US Hwy 79, the line size increases to 6-inch. Oil spills from the line sections in the Stephens Oil and Gas field and in the areas around Stephens, Arkansas would drain to the south to Smackover Creek and its tributaries. (b) (7)(F) [REDACTED]. The line section then proceeds southeast crossing Smackover Creek. Just south of the (b) (7)(F) [REDACTED], 2.1 miles on Columbia County Road 63. The line section then crosses Sand Creek and Cypress Creek. (b) (7)(F) [REDACTED]. The line section then crosses Bethel Creek, Beech Creek, and Camp Creek. From the Smackover Creek Crossing to the US 82 crossing, the line section area drains to the northeast to tributaries of Smackover Creek. After Crossing US Hwy 82, and oil spill from this line section would drain to the south to tributaries of Three Creek. The line section terminates at its junction with the 8-inch LOTT main line from Magnolia to El Dorado.

**Colquitt to Shuler Station (Claiborne Parish, Louisiana and Union County, Arkansas)**

This line section poses a threat of significant and substantial harm. This section is not located within 1-mile radius of potentially affected environmentally sensitive area, but could reasonably be expected to reach these areas in adverse weather conditions. This line section crosses Corney Bayou which feeds Corney Lake which is a State Wildlife and Park Area. Oil spills from this line section generally will drain southeast to Corney Creek and its tributaries.

The line section originates at the Colquitt Station, just north of the intersection of LA Hwy 560 and LA Hwy 2. The line section proceeds east across Doe Branch and then turns northeast. The Kisatchie National Forest is located within 1 mile of the line section. The line section proceeds northeast across Steep Creek and Little Corney Bayou, which are tributaries of Corney Bayou. (b) (7)(F) [REDACTED]. The line then crosses Corney Bayou, US Hwy 161 and Three Creeks. (b) (7)(F) [REDACTED]. The line section proceeds northeast crossing Sheppard Branch. The line section terminates at its intersection with Shuler Station.



**LION OIL TRADING AND TRANSPORTATION, INC.**  
**SOUTH ARKANSAS NORTH LOUISIANA**  
**PIPELINE SYSTEM**  
**SPILL RESPONSE MANUAL**

**Pace City/Smackover to El Dorado Main Line (Ouachita, Union County, Arkansas)**

This line section poses a threat of significant and substantial harm. This section is not located within 1-mile radius of potentially affected environmentally sensitive area, but could reasonably be expected to reach these areas in adverse weather conditions. This line section crosses tributaries to Smackover Creek (Holmes Creek).

**Pace City to Smackover**

A series of 4-inch and smaller LOTT gathering lines collect crude oil that is transported to Smackover Station. These gathering lines stretch from Pace City Storage to the west in Ouachita County to northern Union County. These gathering lines cross Smackover Creek and its tributaries.

**Smackover to El Dorado Main Line**

From the Smackover Station, a LOTT 6-inch gathering line transports crude oil to the EPC main line. This sub-section crosses Holmes Creek and its tributaries. An oil spill from this sub-section would drain to the northeast. (b) (7)(F)

**Lick Creek to El Dorado (Union County, Arkansas)**

This line section poses a threat of significant and substantial harm. This section is not located within 1-mile radius of potentially affected environmentally sensitive area, but could reasonably be expected to reach these areas in adverse weather conditions. This line section is located in relative close proximity and crosses tributaries which drain to the Felsenthal National Wildlife Refuge. This line section crosses is in an area which drains to the Bayou DeLoutre, which supports a large wetlands area south of El Dorado, Arkansas.

**Lick Creek to Urbana Station**

A series of 8-inch and smaller LOTT gathering lines collect crude oil from the east parts of Union County and transport the crude oil to Urbana Station. An oil spill from this sub-section would drain to the southeast to LaPile Creek, which drains towards Felsenthal National Wildlife Refuge.

**Urbana Station to El Dorado Main Line**

From Urbana Station, a 6-inch LOTT gathering line transports crude oil to the El Dorado Main Line. An oil spill from the sub-section would drain to the south to tributaries of Bayou DeLoutre. At Urbana Station, gathering lines tie together from Champagnolle/East Field and Urbana.



**LION OIL TRADING AND TRANSPORTATION, INC.**  
**SOUTH ARKANSAS NORTH LOUISIANA**  
**PIPELINE SYSTEM**  
**SPILL RESPONSE MANUAL**

**El Dorado Refinery to El Dorado Terminal (Union County, Arkansas)**

This line section poses a threat of significant and substantial harm as it is located within 1-mile radius of potentially affected environmentally sensitive area and could reasonably be expected to reach these areas. This line section crosses is in an area which drains to the Bayou DeLoutre, which supports a large wetlands area south of El Dorado, Arkansas.

A LOTT main line and an EPC main line transport crude oil, diesel, and gasoline between the El Dorado Refinery and the Perry Tank Farm at the El Dorado Terminal. Numerous tie-ins, road crossings, and sensitive public receptors are located in this area. (b) (7)(F). An oil spill from this line section would likely be diverted by local drainage prior to entering natural drainage pathways. An oil spill from the southern half of this line section would eventually drain to the south to Bayou DeLoutre and its tributaries. An oil spill from the northern half of this line section would eventually drain to the north to Flat Creek and its tributaries.

**1.7 Type of Oil and Worst Case Discharge**

The oil transported through the South Arkansas North Louisiana Pipeline System is a medium petroleum crude oil with a specific gravity of 0.85 and an API gravity of 33 – 34. The crude oil may be sweet or sour (see MSDSs in Appendix D). In the EPC line between the El Dorado Refinery and the Perry Tank Farm at the El Dorado Terminal, the pipeline may be used to transport diesel or gasoline (see MSDSs in Appendix D).

(b) (7)(F)

For the purposes of calculating the WCD and as a conservative planning measure, the spill detection time and response time to close pipeline valves is assumed to be 1 hour aggregate.

(b) (7)(F)



**LION OIL TRADING AND TRANSPORTATION, INC.**  
**SOUTH ARKANSAS NORTH LOUISIANA**  
**PIPELINE SYSTEM**  
**SPILL RESPONSE MANUAL**

(b) (7)(F)

One breakout tank is used in the South Arkansas North Louisiana Pipeline System. The breakout tank is provided with independent secondary containment for 100% of the volume of each tank. (b) (7)(F)

(b) (7)(F) breakout tank is calculated below taking credit for spill prevention measures, as specified by PHMSA's Onshore Pipeline Breakout Tank Worst Case Discharge Reduction Credit Policy.

Spill Prevention Measures	Percent Reduction Allowed	Perry Breakout Tank (b) (7)(F) bbl)	Applicable Credit for Spill Prevention Measures (b) (7)(F)
Secondary containment capacity greater than 100% capacity of tank and designed according to NFPA 30.	50%	YES	
Tank built, rebuilt, and repaired according to API Std 620/650/653.	10%	YES	
Automatic high-level alarms/shutdowns designed according to NFPA/API RP 2350.	5%	NO	
Testing/cathodic protection designed according to API Std 650/651/653.	5%	YES	
Tertiary containment/drainage/treatment per	5%	NO	



**LION OIL TRADING AND TRANSPORTATION, INC.**  
**SOUTH ARKANSAS NORTH LOUISIANA**  
**PIPELINE SYSTEM**  
**SPILL RESPONSE MANUAL**

Spill Prevention Measures	Percent Reduction Allowed	Perry Breakout Tank (Total Volume (b) (7) bbl)	Applicable Credit for Spill Prevention Measures
NFPA 30.			
Maximum allowable credit or reduction	75%	65%	(b) (7)(F)

The WCD for the (b) (7)(F) Tank is calculated as the remaining tank volume not credited, which is:

(b) (7)(F)

(b) (7)(F)

### 1.8 Pipeline Specifications

The South Arkansas North Louisiana Pipeline is comprised of steel pipe gathering lines and main lines ranging in size from 2" to 12". The system is more than 400 miles in length from (south to north) Shreveport, Louisiana to Magnolia, Arkansas and from (west to east) Fouke, Arkansas to Magnolia, Arkansas to El Dorado, Arkansas.

MAOP varies for different line sections in the pipeline system. The line is buried except at pump and inspection stations.

### 1.9 Certification of Private Resources

LOTT has entered into agreements with Oil Spill Response Organizations (OSROs) to provide spill response resources including equipment and personnel in the event of a worst case discharge of oil. Written agreements are provided in Appendix C with the lists of response resources. LOTT has qualified and entered into agreements with the following companies to provide spill control services in the event of a spill:



**LION OIL TRADING AND TRANSPORTATION, INC.**  
**SOUTH ARKANSAS NORTH LOUISIANA**  
**PIPELINE SYSTEM**  
**SPILL RESPONSE MANUAL**

**Primary OSRO**

Garner Environmental Services, Inc.  
 Hotline All Offices (800) 424-1716

5048 Houston Ave.  
 Port Arthur, TX 77640  
 Office: (409) 983-5646

(Class MM/W1/W2/W3) – Rivers & Canals,  
 Inland  
*Port Arthur*

**Additional OSROs**

Environmental Safety and  
 Health Consulting Services, Inc.

(Class MM/W1/W2/W3) – Rivers & Canals  
*Port Arthur*

Hotline: (877) 444-4237

US Environmental Services, LLC  
 1075 Mendex Davis Drive  
 Jackson, MS 39272  
 601-372-3232  
 888-279-9930

(Class MM/W1/W2/W3) – Rivers & Canals  
 (Class MM/W1/W2) - Inland  
*Memphis*

**2.0 STATE, AREA, & NATIONAL CONTINGENCY PLANS**

The applicable Area Contingency Plan (ACP) for the portions of Arkansas and Louisiana in the Response Zone is incorporated in the United States Environmental Protection Agency (USEPA) Region VI Regional Integrated Contingency Plan (RICP). The USEPA Region VI RICP is an integrated contingency plan with includes the ACP and the Regional Contingency Plan (RCP). The USEPA Region VI RICP is applicable to the Response Zone for the South Arkansas North Louisiana Pipeline System.

LOTT has reviewed the National Oil and Hazardous Substance Pollution Contingency Plan (NCP, ref. 40 CFR 300) and the applicable ACP and hereby certifies this Oil Spill Response Plan has been prepared to be consistent with the NCP and the USEPA Region VI RICP. No other local, state, or area contingency plans are applicable to the Response Zone.



**LION OIL TRADING AND TRANSPORTATION, INC.**  
**SOUTH ARKANSAS NORTH LOUISIANA**  
**PIPELINE SYSTEM**  
**SPILL RESPONSE MANUAL**

### 3.0 ENVIRONMENTALLY & ECONOMICALLY SENSITIVE AREAS

The South Arkansas North Louisiana Pipeline traverses or is located in close proximity to environmentally and/or economically sensitive areas. The enclosed figures show the water intakes, public water supply wells, wellhead protection areas, and aquifers that may be impacted by oil spills that are located within a five-mile radius of the pipeline. The enclosed figures also show the location of the environmentally and/or economically sensitive areas identified within a one-mile radius of the pipeline.

Protection priorities for the sensitive areas identified in this plan will be established on a case-by-case basis. The protection priorities will be consistent the general protection prioritization outlined in the USEPA Region VI Regional Integrated Contingency Plan (RICP), Section 1602.3 and 40 CFR 300.317, as further described in Section 5.7 of this document. The following threatened or endangered species have been identified in the counties and parishes traversed by the pipeline.

<b>County (Arkansas) /Parish (Louisiana)</b>	<b>Species</b>	<b>Scientific Name</b>
Caddo Parish	Bald Eagle Pallid Sturgeon Interior Least Tern	<i>Haliaeetus leucocephalus</i> <i>Scaphirhynchus albus</i> <i>Sterna antillarum athalassos</i>
Bossier Parish	Bald Eagle Pallid Sturgeon Interior Least Tern Red-cockaded Woodpecker	<i>Haliaeetus leucocephalus</i> <i>Scaphirhynchus albus</i> <i>Sterna antillarum athalassos</i> <i>Picoides borealis</i>
Claiborne Parish	Bald Eagle	<i>Haliaeetus leucocephalus</i>
Webster Parish	Bald Eagle Red-cockaded Woodpecker	<i>Haliaeetus leucocephalus</i> <i>Picoides borealis</i>
Columbia County	Red-cockaded Woodpecker	<i>Picoides borealis</i>
Lafayette County	Bald Eagle Red-cockaded Woodpecker	<i>Haliaeetus leucocephalus</i> <i>Picoides borealis</i>
Miller County	Interior Least Tern	<i>Sterna antillarum athalassos</i>
Nevada County	None	None
Ouachita County	Ouachita Rock Pocketbook	<i>Arkansia helleri</i>
Union County	Bald Eagle Red-cockaded Woodpecker	<i>Haliaeetus leucocephalus</i> <i>Picoides borealis</i>

Response provisions for threatened and endangered species and their habitats are consistent with the Fish and Wildlife Spill Response Contingency Plan of the USEPA Region VI RICP, as described in Section 5.7 of this plan.

### 4.0 NOTIFICATION PROCEDURES

#### 4.1 Notification Procedures

Any LOTT employee who may discover or receive notification of any spill shall report



**LION OIL TRADING AND TRANSPORTATION, INC.**  
**SOUTH ARKANSAS NORTH LOUISIANA**  
**PIPELINE SYSTEM**  
**SPILL RESPONSE MANUAL**

the spill to the QI. In the event that the QI is unavailable, the spill should be reported to the Alternate QI. The QI will delegate the responsibility for making additional regulatory notifications to the Information Officer, as listed in this section. The QI will delegate responsibility for notifying the Spill Management Team and members of the Incident Command System (ICS) to the Information Office, as indicated in Section 8 of this document. The QI will delegate subsequent notification requirements to the Information Officer.

The following pages describe the regulatory agencies and other parties to which oil spill notification must be made. It details under what circumstances the notification should be made. The list should be followed in sequence beginning with number 1. Further information on the particular regulatory agencies involved is detailed in the pages following the Spill Characterization/Reporting Guideline in Section 4.

#### 4.2 Spill Characterization/Reporting

**In no event should the inability to obtain this information delay reporting the spill to the appropriate government agencies.**

To make proper notification of the spill event, the following information should be collected for the initial notification:

1. The name, address and telephone number of the person making the report;
2. The date, time, and location of the spill or discharge;
3. A specific description or identification of the oil, hazardous substance, or other substances discharged or spilled;
4. An estimate of the quantity discharged or spilled;
5. The duration of the incident;
6. The name of the surface water or a description of the waters in the state affected or threatened by the discharge or spill;
7. The source of the discharge or spill;
8. A description of the extent of actual or potential water pollution or harmful impacts to the environment and an identification of any environmentally sensitive areas or natural resources at risk;
9. The names, addresses, and telephone numbers of the responsible person and the contact person at the location of the discharge or spill;
10. A description of any actions that have been taken, are being taken, and will be taken to contain and respond to the discharge or spill;
11. Any known or anticipated health risks;
12. The identity of any governmental representatives, including local authorities or third parties, responding to the discharge or spill; and
13. Any other information that may be significant to the response action.

The operator will also extensively question the caller regarding the specifics of the spill in order to prepare the incident report and to determine which agency has



**LION OIL TRADING AND TRANSPORTATION, INC.**  
**SOUTH ARKANSAS NORTH LOUISIANA**  
**PIPELINE SYSTEM**  
**SPILL RESPONSE MANUAL**

jurisdiction. Review the questions as listed below and be prepared to answer them before calling the Hotline. Other regulatory agencies will ask these same questions. You will be given a control number upon completion as your confirmation that you did report the spill - record the control number for your own protection. In summary:

1. Be prepared to provide the above-listed information.
2. Call the appropriate government agency.
3. Record the control or report number as issued by the operator.

#### 4.3 Regulatory Agency Contact Summary

Based on the location and characteristics of the spill, actual notification should be made using the list below. All calls should be made in the same order as listed. Before calling each individual regulatory agency, the caller should reference the detailed information under each agency description in this section. This will ensure that the caller is prepared with all information that may be asked by each respective agency.

<b>Federal Agencies</b>	
National Response Center (Immediate Notification for oil spills which reach shorelines or waters of US/surface waters or cause a sheen on waters of the US.)	(800) 424-8802
EPA Region VI – Dallas, Texas	(866) 372-7745
<b>Louisiana Agencies</b>	
Louisiana State Police Hotline (Immediate Notification for all spills)	(225) 925-6592
Louisiana Department of Environmental Quality	(225) 765-3908
Louisiana Oil Spill Coordinator	(225) 219-5800
<b>Arkansas Agencies</b>	
Arkansas Department of Emergency Management (Immediate Notification for spills which may or have reached waters of state/surface waters)	(501) 730-9750
<b>Local Agencies</b>	
Local Police and Fire Departments	911
Local Emergency Planning Committees	
Caddo Parish	(318) 425-5351
Bossier Parish	(318) 425-5351
Claiborne Parish	(318) 927-3575
Webster Parish	(318) 377-8222
Columbia County	(870) 234-6010
Lafayette County	(870) 921-4808



**LION OIL TRADING AND TRANSPORTATION, INC.**  
**SOUTH ARKANSAS NORTH LOUISIANA**  
**PIPELINE SYSTEM**  
**SPILL RESPONSE MANUAL**

Miller County	(870) 773-0709
Nevada County	(870) 871-2418
Ouachita County	(870) 837-2206
Union County	(870) 864-1906

#### 4.3.1 Louisiana State Police Reporting Requirements

The Louisiana State Police requires immediate notification for all spills. There should be **no delay** in making the initial notification. The information listed in Section 4.2 should be provided, if available, for the initial notification for all oil spills in the state of Louisiana.

#### 4.3.2 Arkansas Department of Emergency Management

The Arkansas Department of Emergency Management requires immediate notification for all reportable spills. There should be **no delay** in making the initial notification. The information listed in Section 4.2 should be provided, if available, for the initial notification for all oil spills which may enter or have entered waters of the state of Arkansas.

#### 4.3.3 Local Emergency Planning Committee Reporting Requirements

Notification must be made the appropriate Local Emergency Planning Committees for spills which may endanger the public.

#### 4.3.4 Local Area Fire Departments Reporting Requirements

##### **CALL 911**

Applicable Fire Departments must be notified as required by dialing 911. Be prepared to give the 911 operator instructions to the location of the incident.

#### 4.3.5 National Response Center Reporting Requirements

The National Response Center requires immediate notification for all reportable spills. There should be **no delay** in making the initial notification. The information listed in Section 4.2 should be provided, if available, for the initial notification for all oil spills which may enter or have entered adjoining shorelines or waters of the US or for spills which cause a sheen on waters of the US.

It is the responsibility of the National Response Center to inform other Federal Regulatory agencies such as the Environmental Protection Agency (EPA) as to the nature and extent of any incident you may report.



**LION OIL TRADING AND TRANSPORTATION, INC.**  
**SOUTH ARKANSAS NORTH LOUISIANA**  
**PIPELINE SYSTEM**  
**SPILL RESPONSE MANUAL**

#### 4.3.6 Bureau of Land Management Reporting Requirements

For reportable spills occurring on BLM or Indian Lands, Call: **601-977-5400**

#### 4.3.7 Natural Resource Trustee Notification

The OSC shall notify the applicable Natural Resource Trustees of "significant" discharges of oil for spills which exceed 500 gallons (12 bbls).

The Natural Resource Trustees are: Federal: NOAA, Department of Interior (DOI), Dept. of Energy, Dept. of Defense, and Department of Agriculture.

#### 4.4 Follow-Up Notification Requirements

Certain regulatory agencies require: A) updates during the course of spill response; B) mitigation efforts; C) follow-up information; and D) reports after clean-up efforts have been completed. Agencies requiring follow-up are indicated under each respective regulatory agencies information detail in this section, however, any agency may require ad hoc reports or follow-up reports as they deem necessary.

Follow-up notification information will include, but not be limited to the following:

1. Name of Pipeline Operator.
2. Time of discharge.
3. Location of discharge.
4. Name or type of oil spilled.
5. Reason for discharge.
6. Estimated volume of oil discharged.
7. Weather conditions on scene.
8. Actions taken by persons on scene.
9. Actions planned by persons on scene.

Job-in-progress reports or follow-up reports may include the following information in addition to that listed above:

1. Status of response actions.
2. Location of the spill, if changed.
3. Advice on health risks.
4. Details of the circumstances and events leading to the emergency condition.
5. Quantity of pollutant spilled, if new information becomes available affecting earlier estimates.
6. Method of disposing of the pollutant.
7. Procedures or measures enacted to prevent a recurrence of the incident.

It shall be the responsibility of the Information Officer to prepare and otherwise communicate verbal or written reports as required by regulation or which may be requested by regulatory agencies from time to time.



**LION OIL TRADING AND TRANSPORTATION, INC.**  
**SOUTH ARKANSAS NORTH LOUISIANA**  
**PIPELINE SYSTEM**  
**SPILL RESPONSE MANUAL**

## **5.0 SPILL DETECTION AND MITIGATION**

### **5.1 Spill Detection Team**

The LOTT Spill Detection Team is composed of the same personnel that make up the Spill Response Team, as follows:

1. David Wood - QI
2. Jack Kingrey - AQI
3. Glenn Green - AQI
4. Field Gaugers

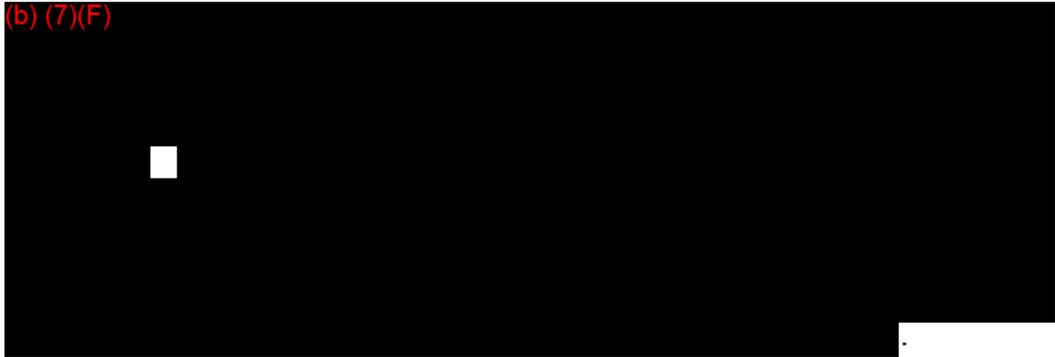
### **5.2 Methods of Spill and Potential Threat Detection**

1. Automatic low pressure shut-down devices.
2. Aerial or vehicular inspection of the pipeline. This occurs 26 times a year at a minimum of once every 3 weeks.
3. Transfer measurements taken on a constant basis using a computer monitoring system.
4. Periodic physical inspections by gaugers while performing routine maintenance and service.

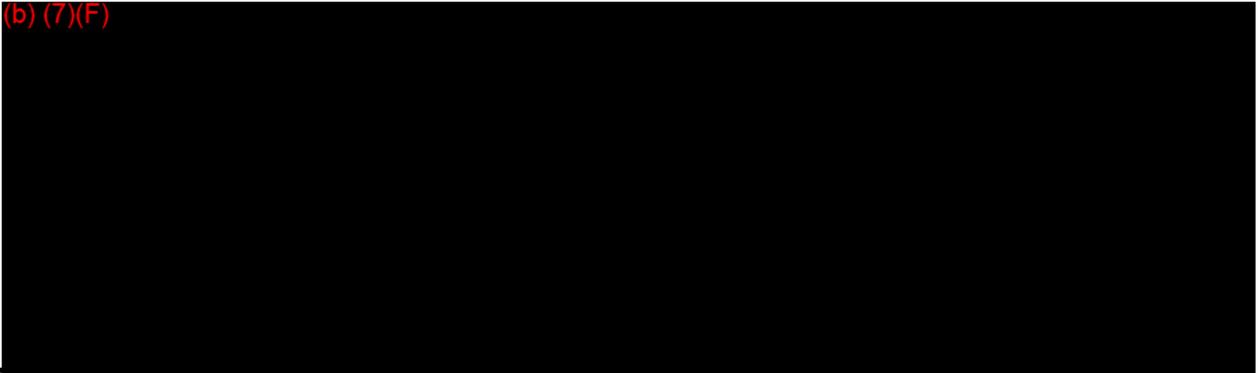
### **5.3 Methods of Spill Location**

#### Transmission Lines

(b) (7)(F)



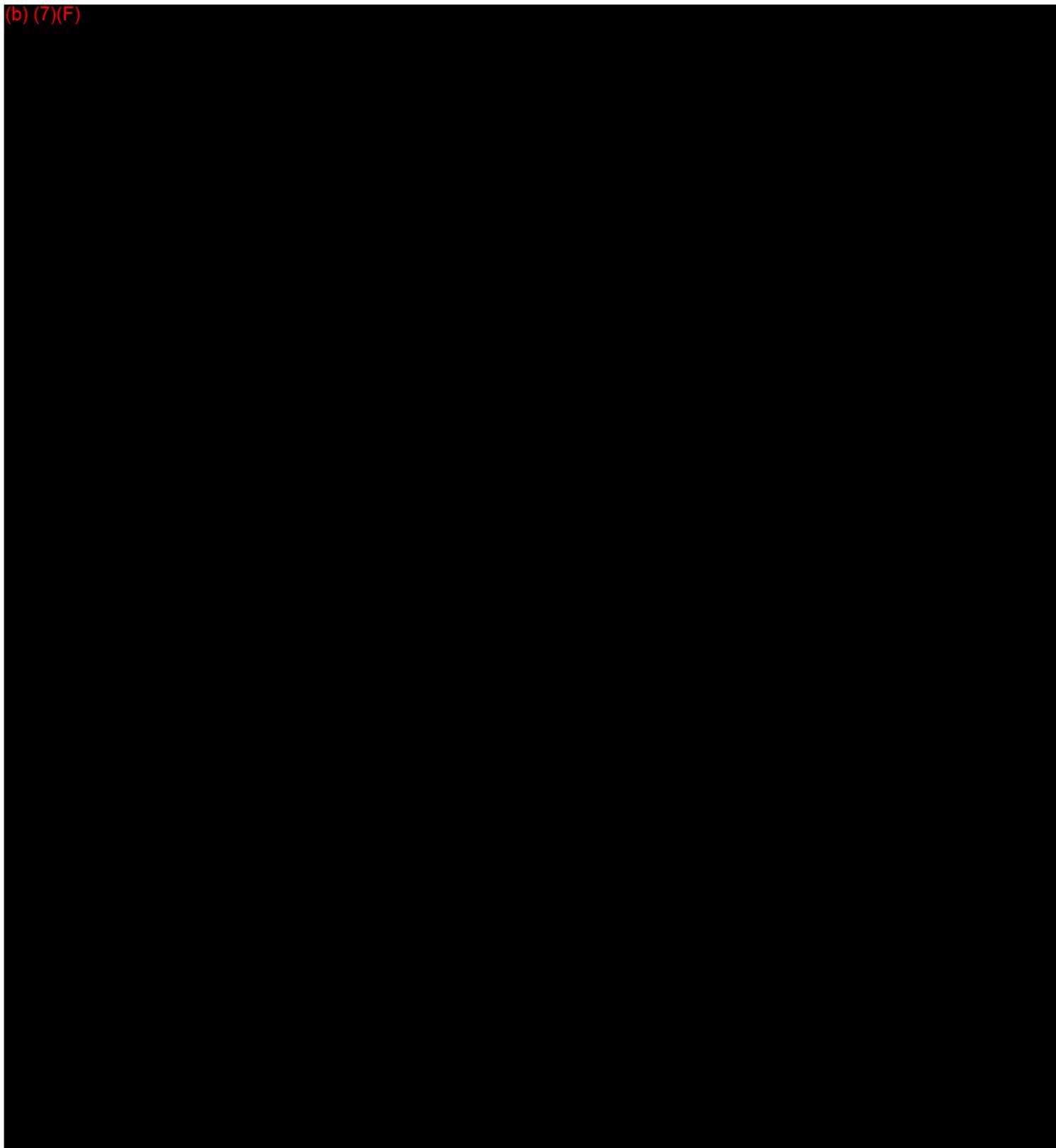
(b) (7)(F)





**LION OIL TRADING AND TRANSPORTATION, INC.**  
**SOUTH ARKANSAS NORTH LOUISIANA**  
**PIPELINE SYSTEM**  
**SPILL RESPONSE MANUAL**

(b) (7)(F)





**LION OIL TRADING AND TRANSPORTATION, INC.**  
**SOUTH ARKANSAS NORTH LOUISIANA**  
**PIPELINE SYSTEM**  
**SPILL RESPONSE MANUAL**

patrols, the actual spill location will be identified through physical inspection of the pipeline by using company vehicles to locate the spill.

#### 5.4 Identification and Mitigation of Substantial Threat of Discharge

To identify and mitigate potential substantial threats of discharge, LOTT has identified certain events and conditions that can pose a threat of Worst Case Discharge. Based on those identified events and conditions, LOTT has taken action to mitigate the possibility of occurrence. The substantial threat conditions are considered to be the same conditions which might otherwise be considered to be abnormal operations, as defined in 49 CFR 195.402(d). As a requirement of 49 CFR 195, LOTT has developed operating procedures and a Pipeline Operations Manual to document these procedures for conducting normal operations and handling abnormal operations. This manual is incorporated in this document by reference. The specific potential abnormal operations (substantial threat conditions) addressed in the manual include:

1. Responding to, investigating, and correcting the cause of:
  - i. Unintended closure of valves or shutdowns:
  - ii. Increase or decrease in pressure or flow rate outside normal operating limits
  - iii. Loss of communications
  - iv. Operation of any safety device
  - v. Any other malfunction of a component, deviation from normal operation, or personnel error, which could cause a hazard to persons or property
2. Checking variations from normal operation after abnormal operation has ended at sufficient critical locations in the system to determine continued integrity and safe operation
3. Correcting variations from normal operation of pressure and flow equipment and controls
4. Notifying responsible operator personnel when notice of an abnormal operation is received
5. Periodically reviewing the response of operator personnel to determine the effectiveness of the procedures controlling abnormal operation and taking corrective action where deficiencies are found.

The mitigating and preventative measures to be taken by LOTT for these potential threats of a Worst Case Discharge are addressed as abnormal operations in the LOTT's Pipeline Operations Manual.



**LION OIL TRADING AND TRANSPORTATION, INC.**  
**SOUTH ARKANSAS NORTH LOUISIANA**  
**PIPELINE SYSTEM**  
**SPILL RESPONSE MANUAL**

**5.5 Equipment Available for Spill Mitigation – LOTT, South Arkansas North Louisiana Pipeline Company**

Nacogdoches, Texas

1. One 35 ft. trailer for transporting equipment
2. One 15 ft. wide flat bottom boat with a 20 hp outboard motor
3. 300 ft. of river boom
4. 4 rolls of non-woven oil absorbent pads
5. Piping and other required materials to construct an overflow dam

El Dorado, Arkansas:

1. 3 backhoes
2. 2 track-hoes
3. All terrain vehicle
4. 3 vacuum trucks – 325 CFM vac blowers (121 GPM de-rated).
5. Trailers for trucks
6. Cessna 180 aircraft
7. Jon boats and motors
8. Portable pumps (2) – three inch Honda gasoline powered rated at 300 GPM (60 GPM de-rated).

Magnolia, Arkansas

1. Weirs
2. 200 feet of absorbent boom

**5.6 Equipment Operators Available for Spill Response**

LOTT has obtained, through contract and other approved means, the personnel and equipment to response to a worst case discharge.

<u>Response Resource</u>	<u>Phone</u>
1. Garner Environmental Services, Inc.	800-424-1716
2. US Environmental Services, LLC	888-279-9930
3. Environmental Safety and Health, Inc.	877-444-4237

**5.7 Line Section Response Strategies**

Upon discovery of a spill, the QI, or one of the AQI's will be notified immediately. The QI will notify the Information Office to delegate responsibility to initiate the Incident Command System (ICS) and make notifications, which are described in Section 8. The Response Team's first priority will be to contain the spill and protect environmentally and economically sensitive areas. For each of the Line



**LION OIL TRADING AND TRANSPORTATION, INC.**  
**SOUTH ARKANSAS NORTH LOUISIANA**  
**PIPELINE SYSTEM**  
**SPILL RESPONSE MANUAL**

Sections, the following general strategies are applicable to the unique requirements of the Response Zone:

General Strategy-Protection Priorities

The following protection priorities will be followed for all response activities:

a) Safety of human life must be given the top priority during every response action. This includes any search and rescue efforts in the general proximity of the discharge and the insurance of safety of response personnel.

(b) Stabilizing the situation to preclude the event from worsening is the next priority. All efforts must be focused on saving a vessel that has been involved in a grounding, collision, fire, or explosion, so that it does not compound the problem. Comparable measures should be taken to stabilize a situation involving a facility, pipeline, or other source of pollution. Stabilizing the situation includes securing the source of the spill and/or removing the remaining oil to prevent additional oil spillage, to reduce the need for follow-up response action, and to minimize adverse impact to the environment.

(c) The response must use all necessary containment and removal tactics in a coordinated manner to ensure a timely, effective response that minimizes adverse impact to the environment.

(d) All parts of this response strategy should be addressed concurrently, but safety and stabilization are the highest priorities. The OSC should not delay containment and removal decisions unnecessarily and should take actions to minimize adverse impact to the environment that begins as soon as a discharge occurs, as well as actions to minimize further adverse environmental impact from additional discharges.

(e) The priorities set forth in this strategy are broad in nature, and should not be interpreted to preclude the consideration of other priorities that may arise on a site-specific basis.

General Strategy-Response Provisions for Wildlife including Threatened and Endangered Species and Their Habitats

The following strategy will be followed for identifying, prioritizing, and implementing response provisions for wildlife including threatened and endangered species and their habitats:

1. Identify sensitive habitats, fish and wildlife impacted or likely to be impacted by the spill. Use the Sensitive Area Maps (Sheets 1-28) included in this plan to identify these areas.
2. Identify available fish and wildlife response capabilities, including containment, prevention of contact, deterrence of wildlife from entering area, wildlife rescue and rehabilitation,
3. Notify appropriate Natural Resource Trustees to select and coordinate implementation of fish and wildlife response activities. Prompt notification will enhance the ability of the response personnel to utilize the expertise of the Natural Resource Trustee members. **It is the responsibility of the On-Scene Coordinator to notify the members as soon as a threat is suspected. The**



**LION OIL TRADING AND TRANSPORTATION, INC.**  
**SOUTH ARKANSAS NORTH LOUISIANA**  
**PIPELINE SYSTEM**  
**SPILL RESPONSE MANUAL**

Trustees then activate the United States Fish and Wildlife Spill Response Contingency Plan.

4. Evaluate the potential environmental impacts of the response activities under consideration. The line segment response strategies described in this section of the plan may be useful in selecting appropriate and effective response strategies to protect sensitive habitat and wildlife.
5. Consider potential impacts and other strategies associated with the identification and protection of areas of economic significance and historic/archeological significance.
6. Implement and monitor the response activities effectiveness. Monitoring activities may include visual observation, sampling, data collection and evaluation, and maintenance of the response activities, all of which should be appropriately conducted in consultation with natural resource trustees.

General Strategy-Minimizing the Volume of Oil Released

If a release occurs, the oil flow should be stopped by shutting down the pump at the closest station. Pumps may have automatically been shut down, but shut down should be verified. The closest block valves on each side of the spill location should be immediately closed.

General Strategy-Environmentally Sensitive Areas

Where possible, booms or other diversion should be installed to prevent oil from entering or contacting an environmentally sensitive areas. For the areas shown on the figures enclosed with this plan, methods of diversion may include earthen berm, booming, or other physical means to prevent oil from entering an environmentally sensitive area.

General Strategy-Containment Using Earthen Contours

As equipment becomes available, the first response will be to utilize existing land contours and to construct earthen dams to contain the spill and prevent overland flow to a water body. If the spill has flowed to a water body via overland flow, responders should go to accessible locations along the water body to identify the distance traveled by the spill. Booms should then be installed across the water body to contain floating oil and convey the floating oil to the shoreline for collection using a vacuum truck or skimmer (see Section 5.8 Booming Strategies). If possible, a boom should be placed at the point where the water body enters the next water body.

General Strategy-Clay Slopes

For oil accumulations on wave cut clay platforms and scraps/steep clay slopes, the oil should be removed along with oily debris. Usually oil will not adhere to the clay and additional cleanup is not required.

General Strategy-Shorelines/Mud Flats

Oil that collects along the shoreline or mud flats in pools should be recovered by using absorbents wherever possible. Oil from mud flats should be removed by flooding the area with water. The free oil should be directed to absorbent booms or



**LION OIL TRADING AND TRANSPORTATION, INC.**  
**SOUTH ARKANSAS NORTH LOUISIANA**  
**PIPELINE SYSTEM**  
**SPILL RESPONSE MANUAL**

collection points where a vacuum truck or absorbents can recover the oil. Mud flats are highly sensitive areas and require immediate attention in the event of a spill. Where possible, these areas should be protected with diversion booms prior to the oil reaching the mud flat.

General Strategy-Vegetated Shorelines

Vegetated shorelines should be cleaned by flooding or low, pressure, cold-water flushing to force free oil out away from the vegetation. The flow of oil should be directed toward an absorbent boom or collection point where a vacuum truck can recover the oil. Badly soaked vegetation may have to be removed and disposed of in drum or a dumpster for off site disposal.

General Strategy-Gravel Shorelines

Oil stained debris along gravel, mixed sand and gravel, and sand shorelines should be removed. The shoreline should then be cleaned by flooding or low, pressure, cold-water flushing. The free oil should be directed to absorbent booms or to a central collection point where the oil can be recovered with a vacuum truck. On sandy shorelines, some physical removal of the oil and the saturated sand may be required. This sand and oil mix should be collected in drums or dumpsters for off site disposal.

General Strategy-Manmade Structures

Exposed walls, bridges, docks, or other man made structures should be cleaned by first collecting any pools of oil with absorbents or a vacuum truck. Debris that is stained with oil should be removed for off site disposal. The area can then be flooded with water or low, pressure, cold-water rinsed to remove the oil. The oil should be recovered using absorbents or a vacuum truck. High-pressure washing may be required for persistent oil. Cleanup of these surfaces is usually not required as oil does not adhere to these surfaces for long. Exposed and sheltered riprap should be cleaned using high-pressure washing or flooding while the oil will still flow readily. Freed oil should be recovered using booms, skimmer, or a vacuum truck.

General Strategy-Wetlands

Wetland or marsh areas should be cleaned up using low, pressure, cold-water flushing or flooding to force free oil out of the vegetated areas. The free oil should be recovered with absorbents or vacuum. Care must be taken not to damage wetlands or marshes as they are highly sensitive environments. A survey of fauna should be made in case animal rescue efforts are required or booms need to be place to deflect the oil away from critical flora and fauna.

**5.8 Booming Strategies**

Lake Response Strategy - Boom will be applied to encircle the spill area to protect as much shoreline as possible. Due to the nature of this area, loss of containment is improbable but boom should be applied regardless. Every effort should be made to boom off tributaries discharging to the lake



**LION OIL TRADING AND TRANSPORTATION, INC.**  
**SOUTH ARKANSAS NORTH LOUISIANA**  
**PIPELINE SYSTEM**  
**SPILL RESPONSE MANUAL**

prior to commingling with the lake and to protect environmentally sensitive receptors within the path of migrating oil.

**River Response Strategy -** Should the spill occur at one of the pipeline river crossing (100' to 500' wide) boom should be applied at a 20 degree angle with the southern most end of the boom located on the west shore of the river, preferably at a point that allows the easiest access by vehicle. Every effort should be made to boom off tributaries prior to entering the main channel of the river. Every effort should be used to protect environmentally sensitive receptors and navigable waterways.

**Wetland Response Strategy**—Booms will be applied to prevent spills from entering wetlands and sensitive marsh areas, wherever possible. This strategy is intended to divert spills from sensitive areas to areas where it may be easier to conduct cleanup and recovery operations; and to reduce the impact to the environment.

#### 5.9 **Recovered Spill Storage**

Spilled oil and contaminated water collected during the spill response will be stored in frac tanks on location of the release or moved to one of the pumping stations until properly disposed of either at the refinery or at a permitted waste oil handling facility.

#### 5.10 **Response Waste Disposal**

After transport to one of the locations listed above, collected oil and contaminated water will be stored. The water, oil, and residual solids will then be separated via gravity and mechanical means as necessary. The separated oil and water will be either treated and disposed at the refinery or at a permitted waste oil handling facility. Any oil that can be recovered for use in the refinery will be stored at the refinery until it can be utilized in the refinery processes. The separated solids will be segregated for storage pending characterization and disposal either off-site or land farmed on site.

Contaminated soil and debris from spill path and shoreline cleanup will be staged at the scene in contained areas and/or roll-off containers as needed until the solids can be characterized for off-site disposal at a permitted facility or land farmed at an approved site.

The actual disposal will be depended on the characteristics of the waste materials. Potential disposal methodologies will include:

- Landfill,



**LION OIL TRADING AND TRANSPORTATION, INC.**  
**SOUTH ARKANSAS NORTH LOUISIANA**  
**PIPELINE SYSTEM**  
**SPILL RESPONSE MANUAL**

- Land farm,
- Reprocessing, or
- Reclamation/Recycling.

#### 5.11 Dispersant Usage

The use of dispersants of other chemicals will be implemented only after approval from the USEPA and applicable state agencies. The USEPA Environmental Response Team has expertise in the use of dispersants, which can be utilized in identifying appropriate use and application.

To expedite the approval process, only dispersants listed in the current NCP Product Schedule Notebook will be considered for use. As required by the NCP, the Federal On-Scene Coordinator is responsible for determining, whether and in what quantities; a dispersant may be used to control a spill.

#### 6.0 TIERED RESPONSE TIMES

The Red River is listed in 49 CFR 194 Appendix B as a high volume area. Although the Red River is listed in Appendix B, the definition of high volume area in 49 CFR 194.5 includes the stipulation that the definition is applicable to oil pipelines with a nominal diameter of 20 inches or more. Since the South Arkansas North Louisiana Pipeline is a 12-inch pipeline at the Red River, the crossing of the Red River by the South Arkansas North Louisiana Pipeline System is not classified as a High Volume Area. Consequently, the applicable response Tiers for the Response Zone are as follows:

##### South Arkansas North Louisiana Pipeline System

	<u>Tier 1</u>	<u>Tier 2</u>	<u>Tier 3</u>
Tiered Response Times	12 Hrs	36 Hrs	60 Hrs

Based on the tiered response times listed, all of the equipment listed in this plan is available to respond within the Tier I (12 hr) response time.

#### 7.0 LION OIL TRADING AND TRANSPORTATION, INC. SPILL RESPONSE TEAM

The LOTT, Oil Spill Response Team/Incident Command System is comprised of the following employees:

TEAM MEMBER	RESPONSE TIME (Minutes)	DAYTIME CONTACT PROCEDURE	EVENING CONTACT PROCEDURE
David Wood Maint. Supervisor Qualified Individual  40 Hr. Hazwoper Trained	Daytime/Evening  3-6 Hours Depending on Location	Phone: (870) 864-1324 Cellular: (870) 314-5621	(b) (6)



**LION OIL TRADING AND TRANSPORTATION, INC.**  
**SOUTH ARKANSAS NORTH LOUISIANA**  
**PIPELINE SYSTEM**  
**SPILL RESPONSE MANUAL**

TEAM MEMBER	RESPONSE TIME (Minutes)	DAYTIME CONTACT PROCEDURE	EVENING CONTACT PROCEDURE
Jack Kingrey Maint. Supervisor Alternate QI  40 Hr. Hazwoper Trained	Daytime/Evening  3-6 Hours Depending on Location	Phone: (870) 864-1216 Pager: (870) 864-3039 Cellular: (870) 314-5610	Home Phone: (b) (6) Pager: (870) 864-3039 Cellular: (870) 314-5610
Glenn Green Eng. Supervisor Alternate QI  40 Hr. Hazwoper Trained	Daytime/Evening  3-6 Hours Depending on Location	Phone (870) 864-1372 Cellular: (870) 314-2848	Home Phone: (b) (6) Cellular: (870) 314-2848
John H. Warren LOTT General Manager	Daytime/Evening  3-6 Hours Depending on Location	Phone: (870) 864-1451 Cellular: (870) 310-8630	Home Phone: (b) (6) Cellular: (870) 310-8630
Fred Green President & COO	Daytime/Evening  3-6 Hours Depending on Location	Phone: (615) 224-1168 Cellular: (615) 347-9348	Home Phone: (b) (6)  Cellular: (615) 347-9348
Kyle Michael Management Control Supervisor / Safety  40 Hr. Hazwoper Trained	Daytime/Evening  3-6 Hours Depending on Location	Phone: (870) 864-1323 Cellular: (870) 310-6840	Home Phone: (b) (6) Cellular: (870) 310-6840
Donny Cole Operations Supervisor  40 Hr. Hazwoper Trained	Daytime/Evening  3-6 Hours Depending on Location	Phone: (870) 864-1347 Cellular: (870) 310-8633	Home Phone: (b) (6) Cellular: (870) 310-8637
Lamar Bryant Title Logistics/Finance  40 Hr. Hazwoper Trained	Daytime/Evening  3-6 Hours Depending on Location	Phone: (870) 864-1374 Cellular: (870) 314-0005	Home Phone: (b) (6) Cellular: (870) 314-0005

The members of the Spill Response Team are available at the LOTT phone number or their home numbers on a 24-hour basis. In the event of sickness or vacation, an alternate employee will be named as part of the spill response team by the QI.

It is the responsibility of the QI to notify all team members of an incident by any means deemed necessary, e.g., cellular phone, home phone, or physical contact.

## 8.0 SPILL RESPONSE OPERATIONS/INCIDENT COMMAND SYSTEM

The LOTT, Pipeline Incident Command System (ICS) is patterned after the National Interagency Incident Management System (NIIMS) Incident Command System (ICS). The ICS has the capabilities to expand or contract to meet the needs of the incident. For small spills or releases, the Incident Commander (Qualified Individual) can manage all of the



**LION OIL TRADING AND TRANSPORTATION, INC.  
SOUTH ARKANSAS NORTH LOUISIANA  
PIPELINE SYSTEM  
SPILL RESPONSE MANUAL**

components of the ICS.

### 8.1 Incident and Unified Command

For small response actions, a sole incident command will adequately address the needs of the response. In this case, the LOTT's QI is the Incident Commander (IC) until or unless a state or federal agency assumes authority as the IC.

For larger response actions that may require extensive resources, a Unified Command System (UCS) and control support mechanism may be implemented. The UCS may include the Federal On-Scene Coordinator, the State On-Scene Coordinator, and LOTT's QI. The UCS allows for open and frank discussion to utilize all available resource and knowledge in the response action.

Under the UCS, LOTT's personnel and resources will act under direct supervision of the UCS and IC. This may include working and interfacing directly with state and local responders and the Federal On-Scene Coordinator.

### 8.2 Qualified Individual

The QI is the Incident Commander and is responsible for the on-scene management of the ICS until command authority is transferred to another person (state or federal agency OSC), who then becomes the Incident Commander.

The QI will be one of the following personnel:

#### Primary QI

David Wood

LOTT

(870) 864-1324 (Office)

(870) 314-5621 (Cellular)

(b) (6)

#### Alternate QI

Jack Kingrey

LOTT

(870) 864-1216 (Office)

(870) 864-3039 (Pager)

(870) 314-5610 (Cellular)

(b) (6)

#### Alternate QI

Glenn Green

LOTT

(870) 864-1372 (Office)

(870) 314-2848 (Cellular)

(b) (6)



**LION OIL TRADING AND TRANSPORTATION, INC.**  
**SOUTH ARKANSAS NORTH LOUISIANA**  
**PIPELINE SYSTEM**  
**SPILL RESPONSE MANUAL**

Each of these Qualified Individuals are English-speaking representatives of LOTT, located in the United States, available on a 24-hour basis, and have full authority for the following responsibilities:

1. Activate and contract with required Oil Spill Response Organizations;
2. Activate personnel and equipment maintained by LOTT;
3. Act as liaison with the OSC; and
4. Obligate any funds required to carry out all required or directed oil response activities.

The IC is responsible for the overall success and safety of the response. His or her priorities will be to ensure the safety of human health and life, stabilize the situation, and provide an effective response to stop the discharge or release. These priorities may be accomplished through:

- Directing and coordinating strategic and tactical response activities.
- Assessing the situation based on the magnitude, severity, and threat to public health and welfare that the situation poses.
- Defining the class of threat.
- Determining what resources are available and how to procure them.
- Coordinating during response actions with all stakeholders for review of progress and results. This may include other agency trustees, the public, and the business community.
- Determining the applicability of various response and removal options.
- Determining when the situation no longer poses a threat .

### 8.3 ICS Structure

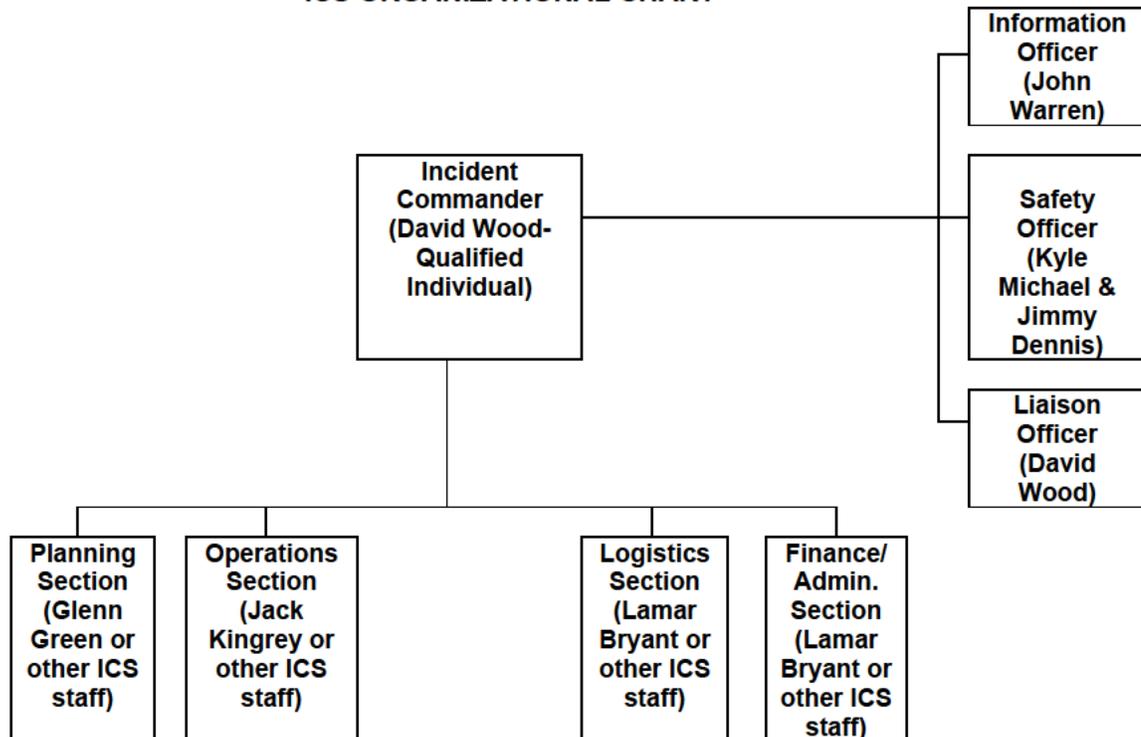
For large-scale situations, the QI delegate authority and tasks in the five major ICS components:

1. Command – management of the ICS.
2. Planning – collect, evaluate, disseminate, and use information on the incident.
3. Operations – carry out response activities.
4. Logistics – provide materials, services, and facilities for response.
5. Finance/administration – track incident costs and reimbursement, accounting.

The following chart demonstrates the ICS organizational relationships.



### ICS ORGANIZATIONAL CHART



The QI will expand or contract the ICS and delegate responsibility based on the following hierarchy of incident priorities:

1. Life Safety
2. Incident Stability
3. Property Conservation

The QI may also delegate staff functions in the following areas:

1. Information Officer – make internal and external notifications, handle media inquiry, and coordinate information release. The Information Officer's duties include being the point of contact for all media representatives, to direct the information dissemination activities, to assist the IC with all press-related meetings and documents, and to provide IC authorized information to the public. The Information Office is also responsible for answering public questions and for transmitting those concerns to the IC.
2. Safety Officer – monitor conditions and implement measures to protect assigned personnel. The Safety Officer assess the safety hazards and develops measures to ensure personnel safety. The Safety Officer has the authority to bypass the chain of command when it is necessary to correct unsafe acts immediately. The Safety Officer works closely with the General Section Chiefs to ensure compliance with worker [health and safety regulations](#), provide necessary safety monitoring, and to provide technical advice.



**LION OIL TRADING AND TRANSPORTATION, INC.**  
**SOUTH ARKANSAS NORTH LOUISIANA**  
**PIPELINE SYSTEM**  
**SPILL RESPONSE MANUAL**

3. Liaison Officer– on scene contact for other agencies. The Liaison Officer ([Federal, State, and Local Government](#)) is the point of contact for assisting or coordinating agencies. The Liaison Officer's duties include:
  - i. gathering all information or questions from the agencies to transmit to the IC
  - ii. providing reception and assistance services to each responding agency
  - iii. coordinating transmission from the IC to the agency representatives

#### 8.4 ICS Key Responsibilities

If deemed necessary by the QI, the assigned personnel will assume the following Section Chief responsibilities:

##### Operation Section Chief

The Operation Section Chief is responsible for the implementation of plans and response activities directed by the Incident Commander. The activities will include recovery and protection, emergency response, and wildlife recovery. The Operations Section Chief must oversee daily activities and ensure coordination with other Section Chiefs.

##### Planning Section Chief

The Planning Section Chief is responsible for the collection, evaluation, dissemination, and implementation of all information related to the incident and functions as a strategic member of the ICS. The Planning Section Chief develops effective plans for near-term and long-term response to the incident. The activities will include accurate assessment of the incident, and maintenance of information about the resources, event impacts, and the effectiveness of response actions. The Planning Section Chief must oversee daily information handling activities and ensure coordination with other Section Chiefs.

##### Logistics Section Chief

The Logistics Section Chief is responsible for providing tangible resources and manpower for the response. Tangible resources will include facilities, equipment, and other physical inventory. Logistics is a supply group supporting the operations authorized by the IC. The Logistics Section Chief is responsible for providing communications equipment to all responders and ensuring adequate communications and maintenance of the communications between all responders. The Logistics Section Chief will establish a communications plan to establish and maintain communications between all responders. Depending on the size and complexity of the response, the Logistics Section Chief may delegate implementation of the Communications Plan to a designated Communications Unit Leader, who will be responsible for issuance and maintenance of communications equipment for all responders.

##### Finance Section Chief

The Finance Section Chief is responsible for tracking all incident costs, providing contract oversight, coordinating financial claims information, and evaluating the financial impact of the incident. Finance is the financial accounting group for all



**LION OIL TRADING AND TRANSPORTATION, INC.**  
**SOUTH ARKANSAS NORTH LOUISIANA**  
**PIPELINE SYSTEM**  
**SPILL RESPONSE MANUAL**

sections in support of the actions authorized by the IC.

#### **8.5 ICS Implementation**

The ICS will immediately go into effect upon activation of the system by the QI after initial evaluation of the incident. The QI will assume responsibility over any emergency event. He will coordinate and direct all joint efforts of employees and outside responders. The QI is the Incident Commander and is responsible for the on-scene management until command authority is transferred to another person, who then becomes the Incident Commander. When the ICS is activated, LOTT employees will be under the direction of their Supervisor who will be directed by the QI or his designee. Employees are to respond as directed by their supervisor.

#### **8.6 ICS Documentation**

Response actions will be documented using ICS Forms from the USEPA Region 6, Regional Integrated Contingency Plan. The forms will be used to document response decisions, activities, and costs.

The forms that may be used, at the direction of the IC, are included in Appendix E.

#### **8.7 Chronology for Oil Spill Response**

In the event of a reportable spill, the following chronology or response will be followed in sequence. When notified of a spill event, the LOTT's Spill Response Team (LSRT) should not waste valuable time in putting together the material and equipment necessary for clean up operations. The purpose of the first response by the LSRT is mitigation through shutdown and containment, not clean up. This chronology is intended as a quick reference to guide personnel quickly and efficiently through a first response to a spill incident. It is an abbreviated chronology with more detailed information on each step located throughout this Response Plan.

1. Notify the QI or AQI of the spill event.
2. The QI or the AQI will instruct the employees in the most advantageous position for shutting down the pipeline and begin shutdown procedures.
3. The QI, or the AQI, will then notify Information Officer to delegate responsibility for notifying the remaining members of the ICS. Appropriate instructions will be given for coordinating the response effort based on the location of the individual LSRT members and the unique nature of the particular spill.
4. Team members will load up the oil spill containment equipment and supplies and transport them to the spill location.
5. Upon arrival at the spill location, the QI, or AQI, will assess the spill and all appropriate regulatory agencies will be notified as per applicable reportable quantities and circumstances.
6. The QI or AQI will determine whether outside support for spill containment is required. If so, the contracted OSROs will be notified by the QI OSRO



**LION OIL TRADING AND TRANSPORTATION, INC.**  
**SOUTH ARKANSAS NORTH LOUISIANA**  
**PIPELINE SYSTEM**  
**SPILL RESPONSE MANUAL**

notification may be delegated to the Logistics Section Chief.

7. Spill containment and mitigation procedures will be implemented.
8. Once containment is achieved, the QI or AQI will begin planning cleanup operations in concert with the regulatory agencies and the OSRO(s).
9. Once a cleanup operating plan is agreed upon between the QI (or AQI) and the Oil Spill Response Organization (OSRO), the appropriate cleanup supplies and equipment will be ordered. All independent contractors identified within this plan are set up to deliver equipment and materials as needed. Manpower needs will be assessed and ordered.
10. A Command Center convenient to the spill site will be chosen along with an employee(s) to man the Command Center at all times that spill operations are in progress.
11. Manpower will be organized into teams, and team leaders chosen where the spill event is of such size as to require this level of response.
12. Establish method of communication between the team leaders, the FOSC (if applicable), and Regulatory Agency personnel in order to provide a continuing and coordinated effort in the field.
14. Once all parties are present, hold short tailgate meeting to confirm chain of command. This will be determined on a case-by-case basis depending on the size and unique characteristics of any given spill. There should be a definite understanding between all parties as to the chain of command when the tailgate meeting is completed.
14. Another brief tailgate meeting should be scheduled at the end of each day between QI, the OSRO, state and local regulatory agencies and the team leaders to discuss strategies, logistics, and response planning and current status of the spill.
15. After the spill cleanup is complete, a final meeting will be held between all team leaders, OSRO leaders, the QI and AQI, and State and Local Regulatory Agency officials. Discussion of problems encountered and how to avoid them in the future will be discussed as well as successful strategies and how to ensure their continuance. Final reports, where required, will be completed.

## **9.0 RESPONSE EQUIPMENT RESOURCES**

### **9.1 Lion Oil Trading and Transportation, Inc. Available Equipment**

Nacogdoches Station in Nacogdoches, Texas:

1. One 35 ft. trailer for transporting equipment
2. One 15 ft. wide flat bottom boat with a 20 hp outboard motor
3. 300 ft. of river boom
4. 4 rolls of non-woven oil absorbent pads
5. Piping and other required materials to construct an overflow dam



**LION OIL TRADING AND TRANSPORTATION, INC.**  
**SOUTH ARKANSAS NORTH LOUISIANA**  
**PIPELINE SYSTEM**  
**SPILL RESPONSE MANUAL**

El Dorado Field Office in El Dorado, Arkansas:

1. 3 backhoes
2. 2 track-hoes
3. All terrain vehicle
4. 3 vacuum trucks – 325 CFM vac blowers (121 GPM de-rated). This de-rated capacity is assumed to be at optimum conditions (i.e., pooled oil with little or no water). In actual deployment in surface waters, the recovery capacity of the vacuum trucks would be limited by the skimmers collecting the oil. For the purpose of establishing a de-rated capacity of the vacuum trucks for deployment in surface water recovery activities, the de-rated capacity is estimated to be 5 GPM for each vacuum truck during actual deployment.
5. Trailers for trucks
6. Cessna 180 aircraft
7. Jon boats and motors
8. Portable pumps (2) – 3 inch Honda gasoline powered trash pumps, 300 GPM (60 GPM de-rated for transfer operations and limited recovery operations)

Magnolia Station, in Magnolia, Arkansas

1. Weirs
2. 200 feet of absorbent booms

## 9.2 Equipment Location

The above listed equipment is based at the Magnolia Station, Magnolia, Arkansas; El Dorado Field Office in El Dorado, Arkansas; and at the Nacogdoches Pump Station in Nacogdoches, Texas.

## 9.3 OSRO Available Equipment

See Appendix C for Equipment List and Location

## 10.0 METHODS OF COMMUNICATION

The Logistics Section Chief will develop a Communication Plan to establish and maintain communications between all responders, including response actions for a Worst Case Scenario. The Communications Plan will provide for deployment and use of available communications equipment. Depending on the size and complexity of the response, the Logistics Section Chief may delegate implementation of the Communications Plan to a designated Communications Unit Leader, who will be responsible for issuance and maintenance of communications equipment for all responders.

The following methods of communication are available during a spill event:

1. Telephone landline service.-anticipated to be used for communications from



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**SOUTH ARKANSAS NORTH LOUISIANA**  
**PIPELINE SYSTEM**  
**SPILL RESPONSE MANUAL**

LOTT offices and command center.

2. Cellular Telephone Service - all LOTT's pipeline personnel maintain a company cellular telephone. LOTT will provide six cell phones for spill response. Additional cell phones may be used, as needed. Cell phones are anticipated to be used by field operations and maintenance crews.
3. LOTT maintains a company radio system as well as a cellular telephone for use in the field. Six company vehicles have two-way radios, which will be provided by LOTT for spill response. There are also six hand-held, two-way radios dedicated to spill response. Each maintenance crew is also equipped with cell phones and two-way radios and will be provided, as needed. Two-way radios are anticipated to be used as the primary field operations communications devices.

**List of Available Communications Equipment for Response Activities**

<b>Type</b>	<b>Make/Model</b>	<b># Units Available</b>
Cell Phone	Varies	1 ea. QI, AQI 1 ea. Supervisor 1 ea. Foreman
Two-Way Radio (handheld)	Motorola Model Varies	6 to be assigned
Two-Way Radio (vehicle)	Varies	1 ea. QI, AQI 1 ea. Supervisor 1 ea. Foreman 1 ea. Crew Truck 1 ea. Vac. Truck 1 ea .P/L Operator
Two-Way Radio (base station)	Varies	1 LOTT Office 1 Magnolia Station

It is the responsibility of the Logistics Section to ensure:

1. Outside response agencies (federal, state, local, or private) and all parties involved in the response action are equipped with communications equipment (cell phones) compatible with the systems currently utilized by LOTT. Alternatively, LOTT may provide communications equipment (cell phones and/or two-way radios) to the response agencies to ensure communications can be maintained during response actions.
2. LOTT will provide a list of contact phone numbers for the ICS.



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**SOUTH ARKANSAS NORTH LOUISIANA**  
**PIPELINE SYSTEM**  
**SPILL RESPONSE MANUAL**

## **11.0 EMERGENCY EQUIPMENT MAINTENANCE**

### **11.1 LOTT Maintenance and Operability Procedure**

1. The QI is responsible for tracking maintenance and operability schedules.
2. Preventive maintenance is performed on all vehicles every month or 3000 miles for road vehicles and every month or 75 hours for field equipment.
3. Operability checks are performed on all equipment not operated during any month on a monthly basis.

### **11.2 OSRO Maintenance and Operability Procedure**

1. *Elbert Sirmons* is responsible for tracking maintenance and operability schedules for Garner Environmental Services, Inc.
2. *David Nichols* is responsible for tracking maintenance and operability schedules for ES&H, Inc.
3. *Jason Suggs* is responsible for tracking maintenance and operability schedules for US Environmental Services LLC.
4. Preventive maintenance is performed on all vehicles every month or 3500 miles for road vehicles and every month or 60 hours for spill equipment.
5. Operability checks are performed on all equipment not operated in any given quarter once every three months.

Other contractors specified in this Spill Response Manual are material suppliers and do not require maintenance procedures.

## **12.0 RESPONSE PERSONNEL TRAINING**

### **12.1 LOTT South Arkansas North Louisiana Pipeline Company Employee Training**

All LOTT field personnel will be made aware of all aspects of the Pipeline Spill Response Plan, from reporting requirements to response activities. Each year, after the yearly review and updates, all field employees will be refreshed on the plan and any updates that have occurred during the end of the year review. This refresher will include, but not be limited to the following:

1. Each employees' individual responsibility under the Pipeline Spill Response Plan.
2. The name, address, and phone number of the QI and AQI and the procedure for contacting them on a 24 hour basis.
3. Contents of the information summary in Section 1.
4. The National Response Center telephone number.
5. The Regulatory Agency notification procedure.
6. Characteristics and Hazards of Crude Oil.
7. Conditions likely to worsen emergencies and appropriate corrective actions.
8. Steps necessary to control the discharge and minimize the potential for fire, explosion, or other environmental danger.



**LION OIL TRADING AND TRANSPORTATION, INC.**  
**SOUTH ARKANSAS NORTH LOUISIANA**  
**PIPELINE SYSTEM**  
**SPILL RESPONSE MANUAL**

9. The proper firefighting procedures and related equipment.

Should changes to the plan occur during the year that necessitate filing an amended plan with the RSPA, a special training session will be held to update all field personnel on changes made to the Spill Response Plan.

If no changes are made to the Spill Response plan during the year, or at the end of the year review, a special refresher will still be made for the benefit of all field employees.

#### 12.2 OSHA 29CFR 1910.120 Training

Since all LOTT, South Arkansas North Louisiana Pipeline Company field employees are required to become intimately involved in the containment, mitigation, and remediation of oil spills, all personnel will be required to train in the 40 hour Hazardous Material Technician Level. The QI will be trained at the 48 hour Supervisor Level of Hazardous Materials Specialist.

All employees must take the 8 hour HAZWOPER refresher on a yearly basis.

### 13.0 TRAINING RECORDS

#### 13.1 Training Records Location

All training records for LOTT personnel responsible for the Pipeline Spill Response Plan will be kept at the main office in El Dorado, Arkansas.

#### 13.2 Training Log

A file will be maintained on each employee with a cover sheet to indicate:

1. Employee Name.
2. Position Title
3. Courses Taken
4. Date Courses Completed
5. Training Courses and Hours Required
6. Training Provider
7. Course Test Results (where applicable)

All certificates of course completion, test copies, and other training records are to be contained within.

#### 13.3 Contractor Training Records

LOTT will require all contract personnel who respond, or may respond, to an oil spill, to ensure their employees have received the proper training, including HAZWOPER. During the yearly Pipeline Spill Response Plan review, LOTT will make a written request to all contractors named in the plan to send a Training Certification Letter.



**LION OIL TRADING AND TRANSPORTATION, INC.**  
**SOUTH ARKANSAS NORTH LOUISIANA**  
**PIPELINE SYSTEM**  
**SPILL RESPONSE MANUAL**

This letter will contain a list of all current spill response personnel, training received, and dates of training. All contractor training records will be maintained by the contractor.

#### **13.4 Instructor and Training Organization Records**

LOTT will request and keep all instructor and training organization records at its main office in El Dorado, Arkansas.

#### **13.5 Training Records Maintenance**

Training records will be kept on all LOTT employees for as long as that employee is assigned duties under the Response Plan.

### **14.0 DRILL PROCEDURES**

#### **14.1 Quarterly Drills**

The LOTT Internal Notification drill for unmanned pipelines will be conducted on a quarterly basis. This drill will involve the notification procedures required in the event of an as-yet undetermined spill event. The spill event will be changed on a quarterly basis. Assigned operating personnel will make notification to the QI, and the QI will make all proper notifications to the appropriate regulatory agencies, announcing at the beginning of the call that this is a drill. The QI will record the spill type and the procedures followed in a report to include areas needing improvement.

#### **14.2 Annual Drills**

The following drills will be done on an annual basis:

1. Table Top Spill Management Team Drills
2. LOTT Equipment Deployment Drills-deployment of representative key LOTT equipment to a Worst Case Discharge.

#### **14.3 Triennial Drills**

Once every 3 years, a drill will be held involving actual deployment of LOTT, OSRO, and other contractor equipment to a mock spill site. This drill will test the entire response plan for the Response Zone. The drill will include notification, equipment deployment (OSRO and LOTT), tabletop exercises, and an evaluation of the drill effectiveness.

#### **14.4 Annual OSRO Equipment Deployment Drill**

On an annual basis, contracted OSROs will conduct an equipment deployment drill. The equipment deployment drill will include the deployment of representative key equipment listed in the plan to a potential spill location.



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**SOUTH ARKANSAS NORTH LOUISIANA**  
**PIPELINE SYSTEM**  
**SPILL RESPONSE MANUAL**

#### 14.5 Unannounced Drill

At least one unannounced drill will be implemented every three years. The drill may be any type, except for the Quarterly notification drills.

#### 14.6 Responsibility for Drill Program

It shall be the responsibility of the QI to operate and maintain the Drill program.

#### 14.7 Drill Documentation

Documentation of all drills shall be kept for a period of 3 years at the main office in El Dorado, Arkansas, and be available to representatives of the RSPA. This documentation shall include a list of conducted drills, accomplished objectives, and evaluations of results. This documentation will be signed by the QI.

### 15.0 PIPELINE SPILL RESPONSE PLAN REVIEW

#### 15.1 Operator Review of Response Plan

LOTT will review this Response Plan at least once every five years after the last plan approval date by RSPA and modify the plan to address new or different operating conditions and/or information.

#### 15.2 Re-submittal of Updated Plan

Upon review and updating, the updated Spill Response Plan will be submitted to the RSPA for review and approval. If the plan did not require updating, a letter to RSPA can be submitted to document that no plan revisions were required.

#### 15.3 Reasons to Revise the Spill Response Plan

1. New Pipeline construction or purchase;
2. Changes to worst-case discharge volume;
3. Change in commodities transported;
4. Change in Oil Spill Response Organizations
5. Change in Qualified Individual
6. Change in an NCP or ACP that have a significant impact on the appropriateness of response equipment or response strategies.
7. Change in Response Procedures
8. Change in Pipeline Ownership

#### 15.4 Drill Evaluation and Plan Revision

Should drill procedures result in needed changes to the Spill Response Plan, the improvements must be incorporated into the plan. Post-incident evaluation results



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**SOUTH ARKANSAS NORTH LOUISIANA**  
**PIPELINE SYSTEM**  
**SPILL RESPONSE MANUAL**

must also be incorporated into the plan. When completed, the Spill Plan must be resubmitted within 30 days to the RSPA for review and approval.



**LION OIL TRADING AND TRANSPORTATION, INC.**  
**SOUTH ARKANSAS NORTH LOUISIANA**  
**PIPELINE SYSTEM**  
**SPILL RESPONSE MANUAL**

**PLAN APPENDIX A**  
**CONTACT LIST**

David Wood	LOTT	870-864-1324 Office (b) (6) 870-864-3036 Pager 870-314-5621 Cellular
Jack Kingrey	LOTT	870-864-1216 Office (b) (6) 870-864-3039 Pager 870-314-5610 Cellular
Glenn Green	LOTT	870-864-1372 Office (b) (6) 870-314-2848 Cellular
John H. Warren Manager of Pipeline	LOTT	870-864-1451 Office (b) (6) 870-310-8630 Cellular
Lee Lampton President	Lion Oil Company	601-933-3000 Office (b) (6)
Larry Hartness Senior V.P. Operations	LOTT	601-933-3000 Office (b) (6) 601-209-6186 Cellular
Paul Young V.P. EH&S	ERGON, Inc.	601-933-3000 Office (b) (6) 601-594-6467 Cellular
Garner Environmental Services		409-983-5646 Office 800-424-1716 Hotline
US Environmental Services, LLC		601-372-3232 888-279-9930
ES&H, Inc.		318-688-4231 Office 866-444-4237 Hotline
Insurance Contact:	Steadfast Insurance Company (Policy # BOG93039) 1400 American Lane Schaumburg, Illinois 60196-1056 (847) 605-6429	



**LION OIL TRADING AND TRANSPORTATION, INC.**  
**SOUTH ARKANSAS NORTH LOUISIANA**  
**PIPELINE SYSTEM**  
**SPILL RESPONSE MANUAL**

**APPENDIX B**  
**TERMS AND ABBREVIATIONS**

FRP	Facility Response Plan
IFR	Interim Final Rule
ACP	Area Contingency Plan
NCP	National Contingency Plan
RSPA	Research and Special Programs Administration
FOSC	Federal On-Scene Coordinator
CFR	Code of Federal Regulations
QI	Qualified Individual
AQI	Alternate Qualified Individual
LCSMT	Lion Oil Trading and Transportation, Inc.'s Spill Management Team
OSRO	Oil Spill Response Organization
WCD	Worst Case Discharge
LOTT	Lion Oil Trading and Transportation



**LION OIL TRADING AND TRANSPORTATION, INC.  
SOUTH ARKANSAS NORTH LOUISIANA  
PIPELINE SYSTEM  
SPILL RESPONSE MANUAL**

**APPENDIX C  
OSRO WRITTEN AGREEMENTS AND EQUIPMENT LISTS**

**COPY**

## GARNER ENVIRONMENTAL SERVICES WORK AGREEMENT

This Work Agreement to provide as an independent contractor clean-up services, under OPA-90 guidelines meeting Tier 1, Tier 2 and Tier 3\* requirements, on an as needed first come first serve basis, for the El Dorado, AR geographic area with a Tier 2 response, not to exceed 10.5 hours, between LION OIL COMPANY, 1001 School Street, El Dorado, AR 71730, hereinafter called "Owner", and GARNER ENVIRONMENTAL SERVICES INC., a Texas Corporation, with offices at 314 Allen Genoa Road, Houston, Texas, 77017, hereinafter called "Contractor", from 15 July 1994 to 14 July 1995, and as long thereafter as necessity for same continues; it being understood and agreed that either party may cancel this contract by giving the other party thirty (30) days written notice of cancellation, but neither party hereto shall, by the termination of this contract, be relieved of such party's respective liabilities arising from, growing out of, or incident to work performed hereunder prior to the time such contract is terminated. It is specifically understood that Garner Environmental Services, Inc. intends to commit response resources to Lion Oil Company in the event of an oil spill response, provided that Garner Environmental Services, Inc. has not committed all its resources to another on going spill response. It is further understood that if resources are committed to an on going spill that the response resources may not be immediately available. Further, it is understood that by signing this agreement that Garner Environmental Services, Inc. will permit the U.S. Coast Guard to verify the availability of the response resources through tests, inspections and drills. The types of work contemplated to be done by Contractor are: **Spill Response Control/Clean-Up**, and such other work as is generally performed by Contractor in its usual line of service. The work to be performed will be as requested by an authorized representative of Owner and directed to you as "Contractor, and shall be performed under the following terms and conditions:

### 1. BEGIN WORK

This contract being a time and materials contract, Contractor will begin each part of the work covered by this contract at such time as Owner initiates a request for response to a spill of a substance by a direct telephone call to Contractor at (713) 920-1300. The person initiating the response shall provide Contractor with:

- His or her name and title
- Owner's name, address, telephone number
- The location of the spill
- The nature of the substances involved in the spill
- The approximate time of the spill
- Any other pertinent information relating to the spill

Upon receiving the call, Contractor will use due diligence to mobilize resources within two (2) hours.

- Tier 1 - 6 hrs. arrival time
- Tier 2 - 30 hrs. arrival time
- Tier 3 - 54 hrs. arrival time

## 2. LABOR VERIFICATION

Time sheets will be filled out daily by the Contractor for services performed. Daily time sheets will be verified and signed by the Contractor's Supervisor and attached to the invoice.

## 3. RATE SCHEDULE

Owner will pay Contractor for work performed or services rendered hereunder in accordance with the Rate Schedule attached hereto as "Attachment 1" and made a part of this contract within fifteen days of receipt of invoice by and approval of Owner. It is understood that the rates and prices set forth in the attached Rate Schedule are subject to change by Contractor upon ten days written notice to Owner. Any change shall not apply to work then in progress or on order. The rates to be paid to Contractor by Owner shall be for the actual performance of the work and shall be in lieu of any charges for materials or supplies furnished by Contractor for use in the work and any charges for transportation of tools, equipment and labor or time required to transport tools, equipment and labor to and from the job, unless otherwise specified in the Rate Schedule.

## 4. SUPERVISION, LABOR, EQUIPMENT, SUPPLIES, AND SAFETY

Contractor shall at Contractor's expense and in a diligent and workmanlike manner, furnish supervision, labor, equipment, machinery, tools, material, and supplies necessary for the performance of the work herein contemplated. At the time of signing of this agreement, Contractor has the equipment and personnel identified in attachment "2" which it agrees to utilize, subject to the conditions of availability and necessity, within the tiered response time, in the event of a spill and call out by Lion Oil Company, El Dorado, AR facility. In the event the number of personnel or equipment falls substantially below that listed, Contractor agrees to provide immediate notification, in writing, to Lion Oil Company, 1001 School Street, El Dorado, AR 71730.

## 5. INDEPENDENT CONTRACTOR RELATIONSHIPS

In the performance of the work herein contemplated Contractor is an independent contractor, with the authority to control and direct the performance of the details of the work, Owner being interested only in the results obtained; but the work contemplated herein shall meet the approval of Owner and be subject to the general right of Owner to inspect the work to secure the satisfactory completion thereof.

## 6. INDEMNITIES AND INSURANCE

### A. Contractor agrees to:

1. Pay and satisfy all just claims for labor, materials and supplies furnished to Contractor hereunder; to pay all carrier's and cartman's charges, and to allow no lien or charge to become fixed upon any property of Owner;
2. Pay and satisfy all claims for damage to property in any manner arising from Contractor's operations hereunder;

3. Comply with all laws, rules, and regulations, Federal, State, and Municipal, which are now, or in the future may become, applicable to Contractor, Contractor's business, equipment, and personnel engaged in operations covered by this instrument, or accruing out of the performance of such operations; and

4. Pay and satisfy any and all claims which may be asserted or assessed against Owner because of any infraction or violation of any Federal, State, or Municipal law, rule, or regulation, or for nonpayment of taxes, which are now, or in the future may become, applicable to Contractor, Contractor's business or personnel, arising from Contractor's operations hereunder, or operations of any subcontractor to whom Contractor may have sublet any phase of it;

**B. Contractor and Owner agree that:**

1. **Garner Environmental Services, Inc.** agrees to protect, defend, indemnify and hold harmless Owner, its officers, directors and employees, and any of Owner's contractors or subcontractors and their employees, from and against all claims, demands, causes of action of every kind and character without limit and without regard to the cause or causes thereof or the negligence or fault (active or passive) of any person or entity (including the sole, joint or concurrent negligence or fault of Owner on any theory), and any theory of strict liability and any defect of premises or unseaworthiness of any vessel (whether or not pre-existing the date of the Agreement) made, brought by or on behalf of **Garner Environmental Services, Inc.** employees, subcontractors or invitees or employees of such subcontractors or invitees, arising out of this Agreement on account of personal injury, illness or death.

2. Owner agrees to protect, indemnify and hold harmless **Garner Environmental Services, Inc.** its officers, directors and employees, and any of **Garner Environmental Services, Inc.** subcontractors and their employees from and against all claims, demands causes or action of every kind and character without limit and without regard to the cause or causes thereof or the negligence or fault (active or passive) of any person or entity (including the sole, joint or concurrent negligence or fault of **Garner Environmental Services, Inc.** on any theory), and any theory of strict liability and any defect of premises or the unseaworthiness of any vessel (whether or not pre-existing the date of the Agreement) made, brought by or on behalf of Owner's employees, subcontractors or invitees or employees of such subcontractors or invitees, arising out of this Agreement on account of personal injury, illness or death.

3. With respect to property damage sustained by **Garner Environmental Services, Inc.** or Owner or their employees, subcontractors, or invitees or employees of such kind and character shall be determined at law, except as otherwise expressly provided within this Agreement.

4. In the event that bodily injury, death or property damage is sustained by a person or entity not referred to above, the rights and obligations between the parties to this Agreement shall be determined at law, except as otherwise provided in this Agreement.

**C.** Contractor agrees to carry or will cause to be carried with an insurance company or companies satisfactory to Owner and authorized to do business in the State wherein work is to be performed for Owner by Contractor, insurance coverage with limits of not less than those set forth in the next succeeding paragraph hereof, such coverage to include Contractor's liability assumed under the indemnity and hold harmless provisions in this Section 6. A certificate of such coverage shall be furnished to Owner by Contractor's carrier. Such certificate shall contain an agreement that carrier shall not cancel such coverage without giving ten days notice to Owner.

Worker's Compensation and Employer's Liability Insurance covering all of Contractor's employees.

**Comprehensive General Liability including Contractual Liability:**

General Aggregate	\$1,000,000.00
Products-Comp.Ops Aggregate	\$1,000,000.00
Each Occurrence	\$1,000,000.00

**Automobile Liability, including all owned, non-owned and hired automotive equipment used in connection with Contractor's operations hereunder:**

Combined Single Limit	\$1,000,000.00
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**Pollution Legal Liability:**

Each Occurrence	\$1,000,000.00
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**Excess Liability (Umbrella Form):**

Each Occurrence	\$4,000,000.00
Aggregate	\$4,000,000.00

**Worker's Compensation and Employer's Liability Insurance covering all of Contractor's employees:**

Each Accident	\$1,000,000.00
Disease-Policy Limit	\$1,000,000.00
Disease-Each Employee	\$1,000,000.00

D. In addition, for all work performed in the Gulf of Mexico, or in any other navigable waters, including but not limited to any bay, lake, river or stream, the following insurance requirements are applicable:

1. Endorsements to the Worker's Compensation and Employers' Liability Policy extending the policy to provide when applicable:
  - a. Federal Longshoremen's and Harbor Worker's Compensation Insurance and extended to the Outer Continental Shelf.
  - b. Extension of Coverage B to provide Employer's Liability under Admiralty jurisdiction including the Jones Act, with Marine and Voluntary Compensation endorsed for transportation, maintenance and wages with limits of not less than \$1,000,000.00 per occurrence.
  - c. In Rem Endorsement.
  - d. Extension of territorial limits to include the Gulf of Mexico.

2. Endorsements to the Comprehensive General Liability Policy extending the policy to provide:
  - a. Deletion of watercraft exclusion provision to cover all vessels not insured under a Protection and Indemnity Policy.
  - b. In Rem Endorsement.
  - c. Extension of territorial limits to include the Gulf of Mexico.
  
3. Hull and Machinery Insurance including collision liability equal at least to the full value of the vessel naming Owner as additional insured and providing adequate navigation limits to perform the work contracted hereunder.
  
4. Protection and Indemnity Insurance in an amount not less than the value of the vessel or \$200,000, whichever is greater, naming Owner as additional insured and providing adequate navigation limits to perform the work contracted hereunder. Contractor may cover Contractor's obligation for loss of life or bodily injury to the crew of the vessel by extension of the Worker's Compensation Policy under Paragraph C.1.b.

## **7. ACCIDENT REPORTS TO BE FURNISHED BY CONTRACTOR**

Contractor shall furnish Owner a copy of Contractor's accident report covering each accident occurring on the premises covered by this contract during the performance of this contract.

## **8. RETENTION OF RECORDS**

Contractor agrees to retain all pertinent books, payrolls, and records relating to work performed hereunder for a period of not less than three years after completion thereof, and Owner and its duly authorized representatives shall have access at all times to the books, payrolls, and records maintained by Contractor relating to any of the work performed hereunder, and shall have the right to audit books, payrolls, and records at any reasonable time or times.

## **9. CONFLICT WITH OTHER CONTRACTS OR UNDERTAKINGS**

In the event there should be any conflict between the provisions of this contract and any filed work order, Contractor's work ticket, invoice, statement, purchase order, or any other type of written memoranda, or with any other contracts, whether written or oral, between Owner and Contractor pertaining to the subject matter hereof, the provisions of this contract shall control.

## **10. ASSIGNMENT OF CONTRACT**

Should Contractor attempt to sublet or assign this contract without the written consent of Owner, this contract may be terminated at the option of the Owner.

11. NON-EXCLUSIVITY

Owner will use Contractor's services as Owner elects and nothing in this Agreement should be construed as a commitment to purchase services on the part of Owner. However, should Owner request by telephone or in writing Contractor's services, and acting on this request Contractor mobilize its equipment and personnel, and Owner subsequently terminates this request before services are performed, then Owner is obligated to those equipment and personnel fees, on a portal-to-portal basis, in accordance with Contractor's Rate Schedule.

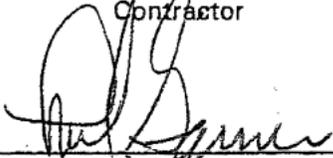
12. ACCEPTANCE OF CONTRACT

The foregoing contract is signed by the undersigned as Contractor, this \_\_\_\_\_ day of \_\_\_\_\_ 19\_\_\_\_, subject to all of its terms and provisions, including the attached Certificate of Compliance, with the understanding that it will not be binding upon Owner until Owner has noted its acceptance, and with the further understanding that unless contract is thus executed by Owner, Contractor shall be in no manner bound by Contractor's signature hereto.

ACCEPTED:

GARNER ENVIRONMENTAL SERVICES, INC.

Contractor



Signature: \_\_\_\_\_

By: ~~Nelson J. Fetgetter~~ LYNDAL D. GARNER  
Title: ~~Vice-President Operations~~ PRESIDENT

LION OIL COMPANY

Owner

Signature: R.E. Perkins

By: R.E. PERKINS  
Title: Manager of Pipeline

**ADDENDUM #1**  
**MSA (July 15, 1994)**

Lion Oil Company desires to clarify the above-referenced Master Service Agreement as contained herein. The first paragraph of the above-referenced MSA provides that the agreement is between Garner Environmental Services, Inc. and Lion Oil Company (the Parties). The Parties agree that Garner Environmental Services, Inc. will provide those services set forth in the Master Service Agreement for Lion Oil Company. The purpose of this letter is to evidence our mutual agreement that the referenced services agreement be amended to provide that in addition to Lion Oil Company, Garner Environmental Services, Inc. agrees to provide the services contemplated by the agreement to Lion Oil Company's subsidiary companies listed below, whether same be at Lion Oil Company's request in its capacity as administrative services provider to those subsidiary companies, or pursuant to a direct request for services by such companies. In terms of executing the contract, each of these companies is authorized to procure emergency response and general industrial service contracting in addition to and on behalf of Lion Oil Company. The companies include:

Lion Oil Trading and Transportation, Inc.
Paline Pipeline Company
Magnolia Pipeline Company
El Dorado Pipeline Company
J. Christy Construction Company

In witness whereof, the parties listed below have caused this agreement to be executed as of the 31 day of May, 2002.

WITNESS:

*Faith Loughner*  
FAITH LOUGHNER

GARNER ENVIRONMENTAL SERVICES, INC.

By: *Otis Chambers*  
Otis Chambers  
Title: Executive Vice President

WITNESS:

*Kirk Latson*

LION OIL COMPANY

By: Kirk Latson  
*Kirk Latson*  
V.P. Product Distribution and Supply

**ORIGINAL**

**GARNER ENVIRONMENTAL SERVICES, INC.**

**1717 West 13<sup>th</sup> Street  
Deer Park, Texas 77536  
(280) 930-1200  
(800) 424-1716**

**RESPONSE EQUIPMENT SCHEDULE**

Corporate

Operations

## Response Equipment Schedule

Schedule

Rev. 08/01

## BOOM EQUIPMENT

Name of Manufacturer	Model Number	Boom Type Code	Invent Length (feet)	Skirt Size (in.)	Float Size (in.)	End Connector Type Code	Time to Deploy	Storage Location	Owner
Acme Products Co., Inc.	"OK CORRAL"	R	32,000	12	6	Z	6.0	Deer Park	Garner
Acme Products Co., Inc.	"OK CORRAL"	R	750	12	12	Z	6.0	Deer Park	Garner
Acme Products Co., Inc.	"SUPER-MINI"	R	200	4	2.5	BOLT	2.0	Deer Park	Garner
Acme Products Co., Inc.	"OK CORRAL"	R	8,700	12	6	Z	6.0	La Marque	Garner
Acme Products Co., Inc.	"OK CORRAL"	R	1,000	28	8	Z	2.0	La Marque	Garner
Acme Products Co., Inc.	"OK CORRAL"	R	1,400	34	8	Z	2.0	La Marque	Garner
Acme Products Co., Inc.	"SUPER-MINI"	R	50	4	2.5	BOLT	1.0	La Marque	Garner
Expandi	"EXPANDI"	SI	200	34	8	OT	2.0	La Marque	Garner
Petro Boom	"PETRO-BOOM"	R	1,400	34	8	Z	3.0	La Marque	Garner
Acme Products Co., Inc.	"OK CORRAL"	R	4,000	12	6	Z	2.5	Port Arthur	Garner
Acme Products Co., Inc.	"SUPER-MINI"	R	100	4	2.5	BOLT	0.5	Port Arthur	Garner
Acme Products Co., Inc.	"OK CORRAL"	R	7,000	12	6	Z	6.0	N. Orleans	Garner
Acme Products Co., Inc.	"OK CORRAL"	R	2,000	12	6	Z	2.0	Freeport	Garner
Acme Products Co., Inc.	"OK CORRAL"	R	3,000	12	6	Z	2.0	Fort Worth	Garner
Acme Products Co., Inc.	"SUPER-MINI"	R	450	4	2.5	BOLT	2.0	Fort Worth	Garner
Acme Products Co., Inc.	"OK CORRAL"	R	1,000	18	6	Z	2.0	San Antonio	Garner
Acme Products Co., Inc.	"SUPER-MINI"	R	300	4	2.5	BOLT	2.0	San Antonio	Garner

<b>Corporate</b>	<b>Response Equipment Schedule</b>	<b>Schedule</b>
<b>Operations</b>		<b>Rev. 08/01</b>

COMMUNICATIONS TYPE CODES			
AF	Aviation Frequency	MF	Marine Frequency
CP	Cellular Phone	PAG	Pager
COM	Command Post	PHH	Portable Hand Held
MOD	Computer w/modem	SSB	Single Side Band
FAX	Facsimile	TP	Telephone
FBS	Fixed Base Station	OT	Other

COMMUNICATIONS EQUIPMENT										
Name of Manufacturer	Model Number	Comm Type	Nr. of Units	Frequency	Band	Range (miles)	Field Tunable		Storage Location	Owner
							Yes	No		
Motorola	A05J	PAG	40	931.462	FM	150		✓	Deer Park	Garner
Motorola	F09LF	CP	30	152.840	FM	200		✓	Deer Park	Garner
Motorola	MTX900	PHH	10	896.901	FM	30		✓	Deer Park	Garner
26' Communications Trailer		COM	1				✓		Deer Park	Garner
Motorola	A05J	PAG	13	931.462	FM	150		✓	La Marque	Garner
NEXTEL		PHH	22					✓	La Marque	Garner
Motorola	A05J	PAG	19	931.462	FM	150		✓	Port Arthur	Garner
Motorola	F09LF	CP	8	152.840	FM	200		✓	Port Arthur	Garner
NEXTEL		PHH	12	896.901	FM	30		✓	Port Arthur	Garner
Motorola	MTX8000	PHH	6	896.901	FM	100		✓	N. Orleans	Garner
Nextel		CP	12					✓	Fort Worth	Garner

<b>Corporate</b>	<b>Response Equipment Schedule</b>	<b>Schedule</b>
<b>Operations</b>		<b>Rev. 08/01</b>

HEAVY EQUIPMENT RESPONSE VEHICLES						
Name of Manufacturer	Heavy Equipment / Response Vehicle	Number of Units	Wide Load Permit Needed		Storage Location	Owner
			Yes	No		
Ford	Pick-up Truck, 1 ton, w/mobile phone	24		✓	Deer Park	Garner
Sooner	Emergency Response Trailer, 28'	1		✓	Deer Park	Garner
Sooner	Emergency Response Trailer, 32'	2		✓	Deer Park	Garner
Modern Mfg.	Spill Trailer, 16' Lo-Boy	3		✓	Deer Park	Garner
Unknown	Emergency Haz-Mat Response Van, 20'	1		✓	Deer Park	Garner
Mercedes-Benz	Automobile, Superintendent, w/mobile phone	1		✓	Deer Park	Garner
Falcon	Trailer, Drum Skimmer, 20', Stand-by/Rescue	1		✓	Deer Park	Garner
Ford	Pick-up Truck, 1 ton, w/mobile phone	10		✓	La Marque	Garner
Garner	Roll-Off Box, 20 yd <sup>3</sup>	6		✓	La Marque	Garner
Sooner	Emergency Respons Trailer, 32'	1		✓	La Marque	Garner
Sooner	Boom Trailer, 28' Gooseneck	4		✓	La Marque	Garner
Modern Mfg.	Spill Trailer, 16' Lo-Boy	2		✓	La Marque	Garner
Ford	Pick-up Truck, 1 ton, w/mobile phone	7		✓	Port Arthur	Garner
Sooner	Emergency Response Trailer, 28'	1		✓	Port Arthur	Garner
Modern Mfg.	Trailer, Spoill Response, 16' Lo-Boy	1		✓	Port Arthur	Garner
Modern Mfg.	Trailer, Boom, Gooseneck, 24'	2		✓	Port Arthur	Garner
Gemini Cargo	Trailer, Ham-Mat, 19'	1		✓	Port Arthur	Garner
Garner	Trailer Cage, Ship to Shore, 8'	1		✓	Port Arthur	Garner
Garner	Roll-Off Box, 20 yd <sup>3</sup>	7		✓	Port Arthur	Garner
Ford	Pick-up Truck, 1 ton, w/mobile phone	6		✓	N. Orleans	Garner
Modern Mfg.	Spill Trailer, 20' Lo-Boy	2		✓	N. Orleans	Garner

<b>Corporate</b>	<b>Response Equipment Schedule</b>	<b>Schedule</b>
<b>Operations</b>		<b>Rev. 08/01</b>

HEAVY EQUIPMENT RESPONSE VEHICLES						
Name of Manufacturer	Heavy Equipment / Response Vehicle	Number of Units	Wide Load Permit Needed		Storage Location	Owner
			Yes	No		
Ford	Pick-up Truck, 1 ton, w/mobile phone	3		✓	Freeport	Garner
Modern Mfg.	Boom Trailer, 20' Lo-Boy	1		✓	Freeport	Garner
Modern Mfg.	Boom Trailer, 20' Lo-Boy	1		✓	Freeport	Garner
Ford	Pick-up Truck, 1 ton w/mobile phone	7		✓	Fort Worth	Garner
Freightliner	Truck, Bobtail	1		✓	Fort Worth	Garner
Kenworth	Truck, Tractor	1		✓	Fort Worth	Garner
ESP	Roll-Off Trailer, Double Hauler	1		✓	Fort Worth	Garner
Breco	Roll-Off Box, 20 yd <sup>3</sup>	32		✓	Fort Worth	Garner
Breco	Roll-Off Box, 40 yd <sup>3</sup>	1		✓	Fort Worth	Garner
Modern Mfg.	Trailer, Boat, Gooseneck, 3 deck	1		✓	Fort Worth	Garner
C&S Trailer	Trailer, 16', Flatbed	2		✓	Fort Worth	Garner
Wells Cargo	Emergency Response Trailer, 14'	1		✓	Fort Worth	Garner
Wells Cargo	Emergency Response Trailer, 16'	1		✓	Fort Worth	Garner
Sooner	Emergency Response Trailer, 28' Gooseneck	1		✓	Fort Worth	Garner
Kenworth	Emergency Response Trailer, 22', 4 door	1		✓	Fort Worth	Garner
Sooner	Flatbed Trailer, 24' Gooseneck	1		✓	Fort Worth	Garner
JCB	Backhoe, 4-Wheel Drive	1		✓	Fort Worth	Garner
Ford	Pick-up Truck, 1 ton w/mobile phone	2		✓	San Antonio	Garner
Breco	Roll-Off Box, 20 yd <sup>3</sup>	7		✓	San Antonio	Garner
Wells Cargo	Emergency Response Trailer, 16'	1		✓	San Antonio	Garner
Modern Mfg.	Trailer, Roll-Off	1		✓	San Antonio	Garner
Modern Mfg.	Trailer, Boat, 3 deck	1		✓	San Antonio	Garner
C&S Trailer	Trailer, 16', Flatbed	1		✓	San Antonio	Garner

<b>Corporate</b>	<b>Response Equipment Schedule</b>	<b>Schedule</b>
<b>Operations</b>		<b>Rev. 08/01</b>

MISCELLANEOUS BOOM EQUIPMENT					
Name of Manufacturer	Model Number	Equipment Type	Quantity	Storage Location	Owner
Norfloat	A2	Buoy, Anchor Marker, Inflatable, 18" dia.	30	Deer Park	Garner
Polycord	600x¼	Rope, Polypropylene, ¼" x 600'	20	Deer Park	Garner
Polycord	600x½	Rope, Polypropylene, ½" x 600'	20	Deer Park	Garner
Polycord	600x¾	Rope, Polypropylene, ¾" x 600'	2	Deer Park	Garner
U.S. Anchor Mfg., Inc.	18#	Anchor, Galvanized Steel, 18 lb., Danforth Style	50	Deer Park	Garner
U.S. Anchor Mfg., Inc.	22#	Anchor, Galvanized Steel, 22 lb., Danforth Style	11	Deer Park	Garner
U.S. Anchor Mfg., Inc.	40#	Anchor, Galvanized Steel, 40 lb., Danforth Style	11	Deer Park	Garner
U.S. Anchor Mfg., Inc.	55#	Anchor, Galvanized Steel, 55 lb., Danforth Style	4	Deer Park	Garner
U.S. Anchor Mfg., Inc.	75#	Anchor, Galvanized Steel, 75 lb., Danforth Style	2	Deer Park	Garner
U.S. Anchor Mfg., Inc.	18#	Anchor, Galvanized Steel, 18 lb., Danforth Style	1	La Marque	Garner
U.S. Anchor Mfg., Inc.	22#	Anchor, Galvanized Steel, 22 lb., Danforth Style	14	La Marque	Garner
U.S. Anchor Mfg., Inc.	40#	Anchor, Galvanized Steel, 40 lb., Danforth Style	5	La Marque	Garner
U.S. Anchor Mfg., Inc.	75#	Anchor, Galvanized Steel, 75 lb., Danforth Style	39	La Marque	Garner
U.S. Anchor Mfg., Inc.	100#	Anchor, Galvanized Steel, 75 lb., Danforth Style	4	La Marque	Garner
U.S. Anchor Mfg., Inc.	18#	Anchor, Galvanized Steel, 18 lb., Danforth Style	5	N. Orleans	Garner
U.S. Anchor Mfg., Inc.	22#	Anchor, Galvanized Steel, 22 lb., Danforth Style	20	N. Orleans	Garner

<b>Corporate</b>	<b>Response Equipment Schedule</b>	<b>Schedule</b>
<b>Operations</b>		<b>Rev. 08/01</b>

MISCELLANEOUS EQUIPMENT						
Name of Manufacturer	Heavy Equipment / Response Vehicles	Number of Units	Wide Load Permit Needed		Storage Location	Owner
			Yes	No		
Drager	Pump & Large Variety of Tubes	4		✓	Deer Park	Garner
Inficon	Portable Gas Chromatograph/Mass Spectrometer	1		✓	Deer Park	Garner
Isuzu	Diesel Steam Cleaner, 20 hp	1		✓	Deer Park	Garner
MSA	4-Gas Monitor, LEL, H <sub>2</sub> S, O <sub>2</sub> , CO	6		✓	Deer Park	Garner
MSA	Personnel Sampling Pump	5		✓	Deer Park	Garner
Rae	5-Gas Photo-Ionization Detector	4		✓	Deer Park	Garner
Rae	Multi-Rae Photo-Ionization Detector	4		✓	Deer Park	Garner
Rae	Personnel/Area Photo-Ionization Detector	7		✓	Deer Park	Garner
Scott & MSA	Self-Contained Breathing Apparatus	12		✓	Deer Park	Garner
Honda	Generator / Light Plant	2		✓	Deer Park	Garner
Honda	Generator	1		✓	Deer Park	Garner
Drager	Accuro Pump	1		✓	Deer Park	Garner
Unknown	Weed Eater	6		✓	Deer Park	Garner
Unknown	Chain Saw	2		✓	Deer Park	Garner
Unknown	Scare Gun, Bird	1		✓	Deer Park	Garner
MSA	4-Gas Meter	3		✓	La Marque	Garner
Honda	Generator / Light Plant	2		✓	La Marque	Garner
Drager	Accuro Pump	1		✓	La Marque	Garner
Rae	Photo-Ionization Detector	1		✓	La Marque	Garner
MSA	4-Gas Meter	1		✓	Port Arthur	Garner
Drager	Accuro Pump	1		✓	Port Arthur	Garner
Rae	Photo-Ionization Detector	1		✓	Port Arthur	Garner
Ingersol-Rand / Power Profile	Air Compressor, 3.5 hp	2		✓	Port Arthur	Garner

<b>Corporate</b>	<b>Response Equipment Schedule</b>	<b>Schedule</b>
<b>Operations</b>		<b>Rev. 08/01</b>

MISCELLANEOUS EQUIPMENT						
AIM	4-Gas Monitor	2	✓	N. Orleans	Garner	
Draeger	Accuro Pump	2	✓	N. Orleans	Garner	
Draeger	CMS Meter	1	✓	N. Orleans	Garner	
Various	Weedeater	5	✓	N. Orleans	Garner	
Various	Generator, 4 kw	3	✓	N. Orleans	Garner	
Rae	Mini-Rae 2000 Portable VOC Meter	2	✓	N. Orleans	Garner	
Quest	Single Gas Personal Meter	1	✓	N. Orleans	Garner	
MSA	Escort Particulate Air Monitor	1	✓	N. Orleans	Garner	
Sper Scientific	ph Meter	1	✓	N. Orleans	Garner	
Dexsil	PetroFlag Hydrocarbon Test Kit	1	✓	N. Orleans	Garner	
Various	Steam Cleaner	3	✓	N. Orleans	Garner	
Campbell/Hausfeld	Air Compressor, 10.3 cfm	2	✓	N. Orleans	Garner	
Various	Light Stand, Portable	2	✓	N. Orleans	Garner	
Coppus	Coppus Blower	1	✓	N. Orleans	Garner	
Casio	Digital Camera	1	✓	N. Orleans	Garner	
Paulan	Chain Saw	1	✓	N. Orleans	Garner	
Chlorine Institute	"C" Kit	1	✓	N. Orleans	Garner	
Various	Self-Contained Breathing Apparatus (SCBA)	9	✓	N. Orleans	Garner	
Betz	Tank Truck Emergency Transfer Valve	1	✓	N. Orleans	Garner	
Toftejorg	Tank/Railcar Wash Head System	1	✓	N. Orleans	Garner	
	Tank/Railcar Injector Vessel	1	✓	N. Orleans	Garner	
	Tank/Railcar Manifold	1	✓	N. Orleans	Garner	
	Air Horn, 6"	1	✓	N. Orleans	Garner	
	Decontamination Pool, 16' x 55'	1	✓	N. Orleans	Garner	
	Fan, Ventilation, 48"	1	✓	N. Orleans	Garner	
	Fan, Ventilation, 16" Port-A-Cool with water mister	1	✓	N. Orleans	Garner	
	Drop Light, Explosion Proof, 100w	2	✓	N. Orleans	Garner	
Homelite	Blower, Hand	6	✓	Fort Worth	Garner	
Ryobi	Weedeater	6	✓	Fort Worth	Garner	

Corporate	Response Equipment Schedule	Schedule
Operations		Rev. 08/01

MISCELLANEOUS EQUIPMENT						
Honda	Pressure Washer, 2500 psi	2	✓	Fort Worth	Garner	
Minuteman	Hepa Vacuum	3	✓	Fort Worth	Garner	
ARO	M2 Poly Pump	3	✓	Fort Worth	Garner	
Craftsman	Drum Head Vacuum	2	✓	Fort Worth	Garner	
MSA	Self-Contained Breathing Apparatus	8	✓	Fort Worth	Garner	
MSA	4-Gas Meter	4	✓	Fort Worth	Garner	
Orion	pH Meter	1	✓	Fort Worth	Garner	
Rae	Photo-Ionization Detector	3	✓	Fort Worth	Garner	
Drager	CMS Unit	2	✓	Fort Worth	Garner	
Drager	CMS Chip Meter	1	✓	Fort Worth	Garner	
Environmental Instruments	Photo Ionization Detector	1	✓	Fort Worth	Garner	
Multiquip	Generator, 3600	2	✓	Fort Worth	Garner	
Honda	Generator, 6500	2	✓	Fort Worth	Garner	
MSA	Escape Pack	4	✓	Fort Worth	Garner	
Coppus	Ventilation Fan	3	✓	Fort Worth	Garner	
Drager	Accuro Pump	2	✓	Fort Worth	Garner	
DBI/SALA	Tripod w/retrieval device	3	✓	Fort Worth	Garner	
AMS	Subsurface Sampline Equipment	2	✓	Fort Worth	Garner	
Kidde	Fire Extinguisher, ABC	12	✓	Fort Worth	Garner	
Allis Chalmers	Forklift	1	✓	Fort Worth	Garner	
Kappler	Personal Protective Equipment, Level A Suit	10	✓	Fort Worth	Garner	
Gage Equipment	Pressure Washer, 3,500 psi, heated	1	✓	Fort Worth	Garner	
MSA	4-Gas Meter	2	✓	San Antonio	Garner	
Minuteman	HEPA Vacuum	1	✓	San Antonio	Garner	
MSA	Self-Contained Breathing Apparatus	4	✓	San Antonio	Garner	
Orion	ph Meter	1	✓	San Antonio	Garner	
Rae	Photo-Ionization Detector	1	✓	San Antonio	Garner	



<b>Corporate</b>	<b>Response Equipment Schedule</b>	<b>Schedule</b>
<b>Operations</b>		<b>Rev. 08/01</b>

PUMP CODES		DRIVE CODES	
A	Auger/Screw	D	Diesel
C	Fire	E	Electric
P	Parastolic	G	Gasoline
R	Reciprocating	H	Hydraulic
I	Rotary/Flexible Impeller	P	Pneumatic
OT	Other	OT	Other

PUMP EQUIPMENT								
Name of Manufacturer	Model Number	Pump Type Code	Drive Type Code	Suction/ Disch Size (inches)	Mfg. Pump Rate (gpm)	Quantity	Storage Location	Owner
Acme Products Co., Inc.	FS-150A	I	G	1.5	275	3	Deer Park	Garner
Honda	WXT-20	C	G	2.0	180	3	Deer Park	Garner
Wilden	Model M	OT	P	3.0	240	2	Deer Park	Garner
Yanmar	LD-40/2	C	D	2.0	180	9	Deer Park	Garner
Honda	WXT-20	C	G	2.0	180	7	La Marque	Garner
Wilden	Model M	OT	P	3.0	240	7	La Marque	Garner
Acme Products Co., Inc.	FS-150A	I	G	1.5	275	1	Port Arthur	Garner
Honda	WXT-20	C	G	2.0	180	2	Port Arthur	Garner
Yanmar	LD-40/3	C	D	2.0	200	1	Port Arthur	Garner
Versa-Matic		OT	p	2.0		1	Port Arthur	Garner
Versa-Matic		OT	p	1.5		1	Port Arthur	Garner
Honda	EPT2	C	G	3.0		1	New Orleans	Garner
Honda	FLOTO	C	G	2.0		2	New Orleans	Garner
Wisconsin/Multi Quip		C	D	3.0	85	1	New Orleans	Garner
Yamada	POLY	C	P	3.0		1	New Orleans	Garner
Various		C	D	2.0	200	5	New Orleans	Garner
Various		C	G	2.0	190	2	New Orleans	Garner



<b>Corporate</b>	<b>Response Equipment Schedule</b>	<b>Schedule</b>
<b>Operations</b>		<b>Rev. 08/01</b>

RESPONSE BOAT TYPE CODES		TRANSPORTATION METHOD CODES	
BAY	Bay Waters	NT	Normal Trailer
JB	Jon Boat	WO	Water Only
LFB	Large Flat Bottom	WL	Wideload Trailer
OFF	Offshore	OT	Other
PRO	Protected Waters		
TC	Towing Capable		
OT	Other		

RESPONSE BOATS										
Name of Manufacturer	Model Number	Boat Type Code	Horse Power	Normal Crew Size	Length/Beam	Draft Limit	Number of Boats	Transport Method Code	Storage Location	Owner
Alumaweld	1650	JB	30	3	16'6"	1'	4	NT	Deer Park	Garner
Alumaweld	21	LFB	90	3	21'6"	2'	1	NT	Deer Park	Garner
Bayhawk	21	BAY	90	3	21'6"	3'	3	NT	Deer Park	Garner
Deck Barge Boat		OT	2-200		30'10"		1	WL	Deer Park	Garner
Alumaweld	1650	JB	30	3	16'6"	1'	4	NT	La Marque	Garner
Custom Boat Mfg.	1649R	JB	25	2	16'6"	2'	1	NT	La Marque	Garner
Monarch	21	BAY	300	2	21'6"	2'	1	NT	La Marque	Garner
Alumaweld	1650	JB	30	2	16'6"	1'	5	NT	Port Arthur	Garner
Alumaweld	20	BAY	4	3	20'0"	4'	1	NT	Port Arthur	Garner
Alumaweld	1650	JB	25	2	14'0"	2"	1	NT	Port Arthur	Garner
Air Boat/Trail Boss	20	LFB	500	2	20'0"	6"	1	NT	Port Arthur	Garner
Custom Boat Mfg.	1650	JB	25	3	16'6"	1'	4	NT	New Orleans	Garner
Deck Barge Boat		OT	150		30'10"		1	WL	New Orleans	Garner
Duracraft	21	LFB	40	3	21'6"	2'	1	NT	New Orleans	Garner
Pirogue		OT	0	1	12'2"	3"	1	NT	New Orleans	Garner
Various		JB	25	1	12'3"	1'	2	NT	New Orleans	Garner



<b>Corporate</b>	<b>Response Equipment Schedule</b>	<b>Schedule</b>
<b>Operations</b>		<b>Rev. 08/01</b>

## SKIMMER TYPE CODES

<b>FS</b>	Floating Suction	<b>HIP</b>	Hydrodynamic Inclined Plane
<b>IV</b>	Induced Vortex	<b>OB</b>	Oleophilic Belt
<b>OD</b>	Oleophilic Disk	<b>OR</b>	Oleophilic Rod
<b>PW</b>	Paddle-Wheel	<b>SK</b>	Sock
<b>W</b>	Weir	<b>OT</b>	Other

## SKIMMER EQUIPMENT

Name of Manufacturer	Model Number	Skimmer Type Code	Number of Units	Mfg. Recovery Rate (gpm)	Hose Size Suction/ Discharge (inches)	Time to Deploy	Storage Location	Owner
Acme Products Co., Inc.	FS400ASK-39T	W	3	275	3.0	1.5	Deer Park	Garner
Containment Systems, Inc.	MW-41	OT	1	35			Deer Park	Garner
DiscOil Company	DISCOIL	OD	1	70	2.0	.5	Deer Park	Garner
Crucial Inc.	1D18P-23	OT	2	25	2.0	.5	Deer Park	Garner
Crucial Inc.	1D18P-36	OT	1	36	2.0	.5	Deer Park	Garner
Marco	Slidewinder 14	OB	1	70		.5	Deer Park	Garner
Acme Products Co., Inc.	FS400ASK-39T	W	4	275	3.0	1.0	La Marque	Garner
DiscOil Company	DISCOIL	OD	1	70	2.0	.5	La Marque	Garner
Crucial Inc.	1D18P-23	OT	2	25	2.0	.5	La Marque	Garner
Acme Products Co., Inc.	FS400ASK-39T	W	1	275	3.0	.5	Port Arthur	Garner
Crucial Inc.	1D18P-23	OT	1	25	2.0	.5	Port Arthur	Garner
De Smithske (DESMI)	D-2	FS	2	500	6.0	1.5	Port Arthur	Garner
DiscOil Company	DISCOIL	OD	1	70	2.0	.5	New Orleans	Garner
Douglas Engineering	4200SH Skim-Pak	FS	1	5 - 68	2.0	.5	New Orleans	Garner
Marco	Harbor 28	OB	1	70		.5	New Orleans	Garner
Elastec	Mini Max	OT	1	20			New Orleans	Garner
De Smithske (DESMI)	D-2	FS	1	500	6.0	1.5	New Orleans	Garner/DEMS
Acme Products Co., Inc.	FS400ASK-39T	W	1	275	3.0	1.0	Fort Worth	Garner





<b>Corporate</b>	<b>Response Equipment Schedule</b>	<b>Schedule</b>
<b>Operations</b>		<b>Rev. 08/01</b>

SORBENT TYPE CODE		COMPOSITION CODE	
B	Boom	M	Mineral
PAD	Pad	NO	Natural Organic
PT	Particulate	S	Synthetic
ST	Sheet	OT	Other
SW	Sweep		
OT	Other		

SORBENTS										
Name of Manufacturer	Model Number	Sorbet Type Code	Composition Type Code	Normal Inventory	Special Appl. Equip. Needed		Special Rcvg. Equip. Needed		Storage Location	Owner
					Yes	No	Yes	No		
Int'l Permalite Corp.	GES-DICA18	PT	MS	1500		✓		✓	Deer Park	Gamer
Oil Mop, Inc.	OS-15	OT	S	1000		✓		✓	Deer Park	Gamer
Complete Environmental	GES-P100	PAD	S	1000		✓		✓	Deer Park	Gamer
Complete Environmental	GES-P200	PAD	S	250		✓		✓	Deer Park	Gamer
Complete Environmental	GES-EP100	PAD	S	500		✓		✓	Deer Park	Gamer
Complete Environmental	GES-P500	PAD	S	150		✓		✓	Deer Park	Gamer
Complete Environmental	GES-B510	B	S	300		✓		✓	Deer Park	Gamer
Complete Environmental	GES-B810	B	S	500		✓		✓	Deer Park	Gamer
Complete Environmental	GES-R144	ST	S	150		✓		✓	Deer Park	Gamer
Complete Environmental	GES-SW100	SW	S	300		✓		✓	Deer Park	Gamer
Complete Environmental	GES-PART25	PT	S	10		✓		✓	Deer Park	Gamer
Int'l Permalite Corp.	GES-DICA18	PT	MS	550		✓		✓	La Marque	Gamer
Oil Mop, Inc.	OS-15	OT	S	150		✓		✓	La Marque	Gamer
Complete Environmental	GES-P100	PAD	S	250		✓		✓	La Marque	Gamer
Complete Environmental	GES-P200	PAD	S	100		✓		✓	La Marque	Gamer
Complete Environmental	GES-P50	PAD	S	100		✓		✓	La Marque	Gamer
Complete Environmental	GES-B510	B	S	100		✓		✓	La Marque	Gamer

<b>Corporate</b>	<b>Response Equipment Schedule</b>	<b>Schedule</b>
<b>Operations</b>		<b>Rev. 08/01</b>

SORBENTS										
Name of Manufacturer	Model Number	Sorbent Type Code	Composition Type Code	Normal Inventory	Special Appl. Equip. Needed		Special Rcvg. Equip. Needed		Storage Location	Owner
					Yes	No	Yes	No		
Complete Environmental	GES-B810	B	S	125		✓		✓	La Marque	Garner
Complete Environmental	GES-R144	ST	S	125		✓		✓	La Marque	Garner
Complete Environmental	GES-SW100	SW	S	150		✓		✓	La Marque	Garner
Complete Environmental	GES-PART25	P	S	10		✓		✓	La Marque	Garner
Int'l Permalite Corp.	GES-DICA18	PT	MS	500		✓		✓	Port Arthur	Garner
Oil Mop, Inc.	OS-15	OT	S	150		✓		✓	Port Arthur	Garner
Complete Environmental	GES-P100	PAD	S	100		✓		✓	Port Arthur	Garner
Complete Environmental	GES-P200	PAD	S	75		✓		✓	Port Arthur	Garner
Complete Environmental	GES-B510	B	S	50		✓		✓	Port Arthur	Garner
Complete Environmental	GES-B810	B	S	50		✓		✓	Port Arthur	Garner
Complete Environmental	GES-R144	ST	S	25		✓		✓	Port Arthur	Garner
Complete Environmental	GES-SW100	SW	S	50		✓		✓	Port Arthur	Garner
Int'l Permalite Corp.	GES-DICA18	PT	MS	600		✓		✓	New Orleans	Garner
Oil Mop, Inc.	OS-15	OT	S	250		✓		✓	New Orleans	Garner
Complete Environmental	GES-P100	PAD	S	325		✓		✓	New Orleans	Garner
Complete Environmental	GES-P200	PAD	S	200		✓		✓	New Orleans	Garner
Complete Environmental	GES-EP100	PAD	S	500		✓		✓	New Orleans	Garner
Complete Environmental	GES-B510	B	S	100		✓		✓	New Orleans	Garner
Complete Environmental	GES-B810	B	S	150		✓		✓	New Orleans	Garner
Complete Environmental	GES-R144	ST	S	50		✓		✓	New Orleans	Garner
Complete Environmental	GES-SW100	SW	S	100		✓		✓	New Orleans	Garner

<b>Corporate Operations</b>	<b>Response Equipment Schedule</b>	<b>Schedule Rev. 08/01</b>
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SORBENTS										
Name of Manufacturer	Model Number	Sorbent Type Code	Composition Type Code	Normal Inventory	Special Appl. Equip. Needed		Special Rcvg. Equip. Needed		Storage Location	Owner
					Yes	No	Yes	No		
Int'l Permalite Corp.	GES-DICA18	PT	MS	150		✓		✓	Fort Worth	Garner
Complete Environmental	GES-P100	PAD	S	75		✓		✓	Fort Worth	Garner
Complete Environmental	GES-P200	PAD	S	20		✓		✓	Fort Worth	Garner
Complete Environmental	GES-B810	B	S	30		✓		✓	Fort Worth	Garner
Complete Environmental	GES-B510	B	S	20		✓		✓	Fort Worth	Garner
Complete Environmental	GES-SW100	SW	S	10		✓		✓	Fort Worth	Garner
Int'l Permalite Corp.	GES-DICA18	PT	MS	50		✓		✓	San Antonio	Garner
Complete Environmental	GES-P100	PAD	S	50		✓		✓	San Antonio	Garner
Complete Env.	GES-P200	PAD	S	10		✓		✓	San Antonio	Garner
Complete Environmental	GES-B810	B	S	25		✓		✓	San Antonio	Garner
Complete Environmental	GES-B510	B	S	10		✓		✓	San Antonio	Garner
Complete Environmental	GES-SW100	SW	S	5		✓		✓	San Antonio	Garner

**GARNER ENVIRONMENTAL SERVICES, INC.**

1717 West 13<sup>th</sup> Street  
Deer Park, Texas 77536  
(281) 930-1200  
(800) 424-1716

**RESPONSE RATE SCHEDULE  
DOMESTIC**

<b>Corporate</b>	<b>Response Rate Schedule Domestic</b>	<b>Schedule</b>
<b>Operations</b>		<b>Rev. January 2002</b>

## Tables of Contents

SPILL PERSONNEL PHONE LIST .....	iii
DEER PARK .....	iii
Spill Response .....	iii
Haz-Mat Incidents .....	iii
Dispatcher .....	iii
PORT ARTHUR .....	iii
LA MARQUE/GALVESTON .....	iii
FORT WORTH .....	iii
NEW ORLEANS .....	iii
SAN ANTONIO .....	iii
Automotive Equipment .....	iv
Equipment Decontamination / Washout .....	iv
Haz-Mat Rates .....	iv
Insurance .....	iv
Personnel .....	iv
Replacement of Damaged or Contaminated Equipment .....	iv
Roll-Off Boxes .....	iv
Stand-By Rates .....	v
Subcontract Services / Third-Party Services .....	v
Taxes .....	v
Terms .....	v
Place of Performance .....	v
Travel, Lodging and Per Diem .....	vi
PERSONNEL .....	1
EQUIPMENT .....	1
Automotive .....	1
Communications Equipment .....	2
Containment Boom .....	2
Marine Equipment .....	3
Miscellaneous .....	3
Monitoring .....	4
Personal Protective Equipment .....	5
Boots .....	5

Corporate	Response Rate Schedule	Schedule
Operations	Domestic	Rev. January 2002

Gloves .....	5
Respiratory Protection .....	5
Pumps and Hoses .....	6
Sampling and Testing .....	6
Skimmers .....	7
<b>MATERIAL</b> .....	<b>7</b>
Chemicals .....	7
Miscellaneous .....	7
Sorbent Material .....	8
<b>EQUIPMENT, MATERIAL AND SUPPLIES AT COST PLUS</b> .....	<b>9</b>

<b>Corporate</b>	<b>Response Rate Schedule Domestic</b>	<b>Schedule</b>
<b>Operations</b>		<b>Rev. January 2002</b>

**SPILL PERSONNEL PHONE LIST**

	<u>HOME</u>	<u>PAGER</u>	<u>MOBILE</u>
<b>DEER PARK – Office / Phone: (281) 930-1200 / (800) 424-1716 Fax: (281) 478-0296</b>			
<b>Spill Response</b>	<b>(b) (6)</b>		
John Pavlicek		(888) 278-8146	(713) 817-1395
Clyde McKissack		(281) 322-5527	(713) 724-4862
Seddrick Taylor		(281) 322-0295	
David Asher		(281) 322-5506	(281) 898-3922
<b>Haz-Mat Incidents</b>			
John Temperilli		(877) 295-0440	(713) 254-7985
Mike Carpenter		(281) 322-0089	(281) 728-5745
Mikie Sopczak		(281) 322-1660	(713) 823-3867
<b>Dispatcher</b>			
Bruce Dumesnil	(281) 322-5623	(713) 252-2262	
<b>PORT ARTHUR – Office / Phone: (409) 983-5646 / (800) 983-7634 Fax: (409) 983-5851</b>			
Elbert Simons	<b>(b) (6)</b>	(409) 723-7772	(409) 963-7994
Tony Waldrop	<b>(b) (6)</b>	(409) 723-7774	(409) 718-6420
Curtis Galloway	<b>(b) (6)</b>	(409) 933-7101	(409) 766-0428
<b>LA MARQUE/GALVESTON – Office / Phone: (409) 935-0308 / (800) 935-0308 Fax: (409) 935-0678</b>			
Kim Albright	<b>(b) (6)</b>	(888) 509-2929	(409) 682-3623
Ricky Ybarra	<b>(b) (6)</b>	(409) 933-7172	(409) 682-3686
<b>FORT WORTH – Office / Phone: (817) 535-7222 / (888) 654-0111 Fax: (817) 535-8187</b>			
J. Salzer	<b>(b) (6)</b>	(888) 983-0512	(817) 614-2823
Kevin Brant	<b>(b) (6)</b>	(888) 856-8397	(817) 614-5983
<b>NEW ORLEANS – Office / Phone: (504) 254-2444 / (800) 975-2444 Fax: (504) 254-3004</b>			
Kenny Sconza	<b>(b) (6)</b>	(504) 423-9940	(504) 453-4143
Larry Fonte	<b>(b) (6)</b>	(504) 423-9941	(504) 722-2665
Sammy Jones	<b>(b) (6)</b>	(504) 423-9942	(504) 453-4144
Walter Diamond	<b>(b) (6)</b>	(504) 423-9944	(504) 722-6814
<b>SAN ANTONIO – Office / Phone: (888) 818-5310 Fax: (210) 496-5312</b>			
Todd Johnson	<b>(b) (6)</b>	(888) 702-1453	(210) 260-1714
Brent Camfield	<b>(b) (6)</b>	(888) 278-3197	(210) 219-7436

<b>Corporate</b>	<b>Response Rate Schedule Domestic</b>	<b>Schedule</b>
<b>Operations</b>		<b>Rev. January 2002</b>

### **Automotive Equipment**

**Automotive Equipment Hourly Rates** charges are portal to portal. A four (4) hour minimum time will be charged on all call-outs. A mileage charge of \$0.50 per mile after the first 50 miles will be added for all automotive equipment, except for automobiles and pick-up trucks which will have a mileage charge of \$0.35 per mile added.

### **Equipment Decontamination / Washout**

Time and Material charges are portal to portal and will continue through decontamination and/or washout of any and all equipment used on the job.

### **Haz-Mat Rates**

Haz-Mat rates will be charged when the material being dealt with has a hazard rating of two or greater on the NFPA 704 labeling system or hazardous material identifying system, or if a job requires the use of respiratory protection.

### **Insurance**

The rates in this RATE SCHEDULE include insurance coverage for Worker's Compensation, General Liability, Pollution and Automobile Liability. A Certificate of Insurance will be forwarded upon request. These rates do not include work performed under the U.S. Longshoremen's and Harbor Workers Act (33 USC ss 901-950). For work performed under this statute, an additional 69% surcharge per \$100.00 of wages will be assessed on labor only.

### **Personnel**

Experienced consulting, supervisory, technical instructor and equipment operating personnel are available for complete emergency spill response and spill cleanup operations and vacuum service, 24 hours a day, 7 days a week. Normal hours of operation are from 0730 (7:30 a.m.) through 1600 (4:00 p.m.) daily, Monday through Friday.

All labor charges will be in accordance with Garner Environmental Services, Inc. service receipts. Charges for personnel are portal-to-portal. Garner Environmental Services, Inc. will invoice for personnel and the time required to mobilize, service, repair, and restock all vehicles and equipment used in the performance of the services for customer. Overtime for personnel will be charged at time and a half between 1600 (4:00 pm) through 0730 (7:30 am) Monday through Thursday; weekends from 1600 (4:00 p.m.) Friday through 0730 (7:30 am) Monday. **DOUBLE TIME RATES** will be charged for all National Holidays. **4-Hour Minimum Service Charge On All Labor Call-Outs.**

In the event Garner Environmental Services, Inc. responds to a request from Customer and/or on behalf of Customer for record gathering and/or litigation support services, Customer will pay for personnel provided and/or requested in the amount corresponding to the personnel designation in the rate sheet.

### **Replacement of Damaged or Contaminated Equipment**

If, during performance of a service and/or services for a customer, equipment and/or material sustain damage which renders the equipment and/or material beyond repair or renders decontamination impossible, said equipment and/or material will be subject to a replacement charge at Garner Environmental Services, Inc.'s cost plus 15% unless said damage was sustained as a result of misuse by Garner Environmental Services, Inc. personnel.

### **Roll-Off Boxes**

Roll-Off Box delivery and pickup charges vary according to the distance from the site location. The cost for roll-off box liners is \$50.00 each. Box Liners are not mandatory, but if the Roll-Off Box requires cleaning at the end of the rental period, the customer will incur the cleaning charges.

<b>Corporate</b>	<b>Response Rate Schedule Domestic</b>	<b>Schedule</b>
<b>Operations</b>		<b>Rev. January 2002</b>

### Stand-By Rates

Stand-By Rates will be equal to the daily rates in this schedule unless otherwise agreed to in writing on a case-by-case basis. Full rates will apply for personnel and per diem.

### Subcontract Services / Third-Party Services

When Garner Environmental Services, Inc.'s equipment is available, Garner Environmental Services, Inc. will use and bill Customer for said equipment at rates published in the rate schedule. For any item that is identified on Garner Environmental Services, Inc.'s rate sheet and which Garner acquires through or from a third party vendor or supplier, Customer will pay to Garner Environmental Services, Inc. the higher of Garner Environmental Services, Inc.'s rate or Garner Environmental Services, Inc.'s cost plus a 20% handling charge.

A 20% handling charge will apply and be invoiced for all shipping and transportation of equipment, materials and goods regardless of whether such equipment, materials and goods appear on Garner Environmental Services, Inc.'s rate schedule. In addition, for all items not listed on Garner Environmental Services, Inc.'s rate schedule, including but not limited to personnel, equipment, materials and goods, laboratory services, testing services, damage waivers and/or other services, said items will be billed at Garner Environmental Services, Inc.'s cost plus a 20% handling charge.

Cost, as used herein, is defined as the amount invoiced to Garner Environmental Services, Inc. by a third-party supplier of material and/or goods and/or material and/or labor and/or equipment and/or services.

### Taxes

All domestic federal, state and municipal taxes, except income taxes and ad-valorem taxes, now and hereinafter imposed with respect to services rendered, to rental equipment, to the processing, manufacture, repair, and to the delivery and transportation of equipment and supplies will be added to and become part of the total price payable by the Customer. If a Customer claims an exemption from payment of Texas Sales and Use Tax, the Customer will be required to render an Exemption Certificate or a Resale Certificate to Garner Environmental Services, Inc. for said exemption to apply to the services rendered. If for any reason the services rendered result in the assessment of foreign income taxes, excise taxes, or other fees alleged as owing to a foreign state or government, the Customer will pay directly the amount of any assessment or fee. In the event Company pays any such foreign tax or fee directly, Customer will promptly reimburse Company for same.

### Terms

The term of payment for all invoices is *Net 30 Days* from the date of invoice. The balance of any invoice not timely paid will accrue a finance charge computed at the periodic rate of one and one-half percent (1.5%) per month (18% per annum) beginning on the thirty-first (31st) day from the date of the invoice. Customer is obligated to make payment to Garner Environmental Services, Inc. at its principal office at 1717 West 13th Street, Deer Park, TX 77536 in Harris County, Texas.

### Place of Performance

The procurement of Garner Environmental Services, Inc.'s services may not be in the same county as the work site area. Customer is obligated to make payment to Garner Environmental Services, Inc. in Harris County, Texas for services provided. Because this agreement has been procured in Harris County, Texas and is being managed and administered from Garner Environmental Services, Inc.'s central office in Harris County, Texas, this agreement is being performed in Harris County, Texas. The validity, interpretation and performance of the services and payment and the contents herein are to be interpreted and enforced pursuant to the laws of the State of Texas and any suit in connection herewith will be filed in Harris County, Texas.

<b>Corporate</b>	<b>Response Rate Schedule Domestic</b>	<b>Schedule</b>
<b>Operations</b>		<b>Rev. January 2002</b>

### **Travel, Lodging and Per Diem**

For all employees who do not reside in the local commuting area for the work site, Garner Environmental Services, Inc. will be reimbursed for costs incurred for employee travel to and from the work site on the basis of Garner Environmental Services, Inc.'s incurred costs plus 20% for all commercial transportation. A minimum Per Diem charge of \$90.00 per day for all employees who do not reside in the local commuting area of the work site will be due for each day that such employee is present in the locale of the work site.

<b>Corporate</b>	<b>Response Rate Schedule</b> <b>Domestic</b>	<b>Schedule</b>
<b>Operations</b>		<b>Rev. January 2002</b>

**HOUSTON - FORT WORTH - LaMARQUE - PORT ARTHUR - SAN ANTONIO - NEW ORLEANS**

**PERSONNEL**

		<b>Hourly Rate</b>	
		<b>Regular</b>	<b>Overtime</b>
PERS-1001	Project/Operations Manager .....	125.00	187.50
PERS-1002	Health & Safety Manager .....	100.00	150.00
PERS-1003	Site Manager/Superintendent .....	70.00	105.00
PERS-1004	Site Safety Officer .....	55.00	82.50
PERS-1005	Supervisor .....	50.00	75.00
PERS-1005-HM	Supervisor, Haz-Mat .....	75.00	112.50
PERS-1006	EMT / Paramedics .....	45.00	67.50
PERS-1007	Foreman .....	40.00	60.00
PERS-1007-HM	Foreman, Haz-Mat .....	55.00	82.50
PERS-1008	Industrial Hygiene Supervisor .....	55.00	82.50
PERS-1009	Industrial Hygiene Technician .....	45.00	67.50
PERS-1010	Mechanic .....	40.00	60.00
PERS-1011	Rescue Supervisor .....	55.00	82.50
PERS-1012	Rescue Technician .....	50.00	75.00
PERS-1018	Rescue Attendant .....	45.00	67.50
PERS-1013	Resource Coordinator .....	40.00	60.00
PERS-1014	Operator, Heavy Equipment .....	40.00	60.00
PERS-1014-HM	Operator, Heavy Equipment, Haz-Mat .....	55.00	82.50
PERS-1015	Operator, Response Equipment .....	35.00	52.50
PERS-1015-HM	Operator, Response Equipment, Haz-Mat .....	50.00	75.00
PERS-1016	Technician .....	27.00	40.50
PERS-1016-HM	Technician, Haz-Mat .....	45.00	67.50
PERS-1016-TO	Technician/Operator .....	35.00	52.50
PERS-1016-TS	Technician, Sampling .....	45.00	67.50
PERS-1017	Field Clerk .....	30.00	45.00

**EQUIPMENT**

**Automotive Equipment**

		<b>Hourly Rate</b>
AUTO-1001	Super Sucker, 80 bbl Capacity (See Note) .....	125.00
AUTO-1002	Cyclone Unit .....	50.00
AUTO-1003	Vacuum Truck, 80 bbl Capacity, Stainless Steel Unit (See Note) .....	95.00
AUTO-1004	Vacuum Truck, 80 bbl Capacity (See Note) .....	70.00
AUTO-1005	Vacuum Truck, 130 bbl Capacity (See Note) .....	85.00
AUTO-1006	Vacuum Truck, Liquid Ring (See Note) .....	150.00
AUTO-1007	Roll-Off Truck (See Note) .....	75.00
AUTO-1008	Meyers Unit, Truck Mounted (See Note) .....	60.00
AUTO-1009	Mini Roll-Off Unit (See Note) .....	60.00
(Note: Operator Included)		
		<b>Daily Rate</b>
AUTO-1017	Meyers Unit, Trailer Mounted .....	350.00
AUTO-1010	ATV, 4-Wheel .....	225.00
AUTO-1011	ATV Utility Trailer .....	75.00
AUTO-1012	Automobile .....	75.00

*All rates listed in this schedule are subject to change without notice.*

Corporate	Response Rate Schedule	Schedule
Operations	Domestic	Rev. January 2002

## Automotive Equipment (cont.)

		Daily Rate
AUTO-1012	Automobile.....	75.00
AUTO-1013	Backhoe .....	425.00
AUTO-1018	Pick-Up Truck, 1 ton or smaller .....	115.00
AUTO-1019	Pick-Up Truck, 1 ton, Haz-Mat Quick-Response Unit.....	200.00
AUTO-1020	Pick-Up Truck, 1 ton, w/liftgate.....	130.00
AUTO-1023	Pick-Up Truck, 1 ton, 4x4 .....	220.00
AUTO-1024	Skid-Steer Loader.....	350.00
AUTO-1028	Tractor/Trailer, Haz-Mat Response Unit, 32' .....	750.00
AUTO-1025	Trailer, Boom, 20 foot .....	75.00
AUTO-1026	Trailer, Equipment Hauler, Gooseneck, 24 foot .....	75.00
AUTO-1029	Trailer, Haz-Mat Response, 24' .....	350.00
AUTO-1033	Trailer, Haz-Mat Transfer .....	500.00
AUTO-1035	Trailer, Rescue/Emergency Response.....	150.00
AUTO-1030	Trailer, Response, Gooseneck, 32' Oil Response .....	300.00
AUTO-1021	Trailer, Response, 18'.....	200.00
AUTO-1031	Trailer, Transfer, Ship to Shore .....	125.00
AUTO-1032	Trailer, Utility.....	75.00
AUTO-1034	Truck, Bobtail.....	300.00

## Communications Equipment

		Daily Rate
COMM-1001	Cellular Telephone (Each) .....	25.00
COMM-1002	Computer, Laptop/Desktop w/Printer .....	125.00
COMM-1003	Fax Machine .....	25.00
COMM-1004	GPS, Hand Held .....	25.00
COMM-1005	ICOM Aircraft Radio, Hand Held .....	25.00
COMM-1006	MCC #1 Mobile Command & Control Trailer + Fuel.....	1,700.00
(NOTE: Any items not returned to the Command Unit upon completion of work will be charged back to the customer at cost plus 20%.)		
COMM-1007	Radio Portable.....	25.00
COMM-1008	VHF Marine Radio, Hand Held .....	25.00
COMM-1009	VHF Mobile Radio Marine Radio w/8' Antenna .....	30.00

## Containment Boom

		Daily Rate
CBM-1001	Containment Boom, 48" Offshore.....	6.00 ft/day
CBM-1002	Containment Boom, 42" Offshore.....	6.00 ft/day
CBM-1003	Containment Boom, 36".....	3.00 ft/day
CBM-1004	Containment Boom, 18".....	1.40 ft/day
CBM-1005	Mini-Boom.....	.75 ft/day
CBM-1006	Containment Boom, 12".....	1.00 ft/day
CBMA-100	Boom Anchor, 100 lb. ....	100.00/day
CBMA-18	Boom Anchor, 18 lb. ....	18.00/day
CBMA-22	Boom Anchor, 22 lb. ....	22.00/day
CBMA-40	Boom Anchor, 40 lb. ....	40.00/day
CBMA-75	Boom Anchor, 75 lb. ....	75.00/day

All rates listed in this schedule are subject to change without notice.

<b>Corporate</b>	<b>Response Rate Schedule Domestic</b>	<b>Schedule</b>
<b>Operations</b>		<b>Rev. January 2002</b>

**Haz-Mat****Unit Rate**

MSE-1005	Betz Emergency Off-Loading Valve .....	500.00
HMS-1001	Cylinder Refill, Nitrogen .....	50.00
HMS-1002	Chlorine Emergency Kit "A" .....	500.00
HMS-1004	Chlorine Emergency Kit "B" .....	750.00
HMS-1005	Chlorine Emergency Kit "C" .....	1000.00
MSE-1010	Compressor, Corken, 2" .....	1,500.00
MSE-1018	Decontamination Kit (Personnel, Pool, Brush, Bucket, Soap) .....	50.00
MSE-1025	Railcar Transfer Equipment .....	500.00
HME-1005	Vacuum Cleaner, Stainless Steel, Mercury, HEPA .....	250.00

**Marine Equipment****Daily Rate**

MAR-1001	Airboat .....	500.00
MAR-1002	Deck Barge, 30', w/twin 150hp engines, radar .....	800.00
MAR-1003	Fast Response Boat, 30', w/twin 200hp engines, radar, 14 bbl store cap ..	800.00
MAR-1004	Flat Boat, w/o motor .....	115.00
MAR-1005	Flat Boat, 14' to 16' w/motor .....	225.00
MAR-1006	Piroque .....	30.00
MAR-1007	Fast Response Boat, 17' to 23' .....	250.00
MAR-1008	Work Boat, 24', 150 hp Twin Engine .....	500.00

**Miscellaneous Equipment****Daily Rate**

MSE-1004	Back-Pack Blower .....	30.00
MSE-1006	Camera, Digital .....	50.00
MSE-1006-1	Photo-Processing, Digital Camera, Each Frame .....	2.50
MSE-1007	Camera, Video, Event Recording .....	250.00
MSE-1008	Cargo Lights .....	12.50
MSE-1009	Chain Saw .....	75.00
MSE-1049	Compressor, Air, 11.8 cfm, 90 psi output .....	185.00
MSE-1011	Compressor, Hydraulic, 2" .....	200.00
MSE-1012	Confined Space Rescue Kit .....	50.00
MSE-1045	Coppus Blower .....	50.00
MSE-1048	Drum Crusher .....	250.00
MSE-1013	Drum Dolly .....	25.00
MSE-1014	Drum Grabber .....	25.00
MSE-1015	Drum Gripper, Forklift .....	100.00
MSE-1016	Drum Pump, Poly .....	25.00
MSE-1017	Drum Sling .....	25.00
MSE-1019	Generator w/work lights .....	110.00
MSE-1020	Generator, 4 kw .....	100.00
MSE-1046	Hand Tool (Pitch Fork, Rake, Shovel, Squeegee, etc) .....	17.00
MSE-1023	Power Pack, Hydraulic, 50 hp or less .....	500.00
MSE-1024	Pressure Washer, 3,000 psi or less .....	250.00
MSE-1026	Saw, Air Powered .....	75.00
MSE-1027	Saw, Portable .....	75.00
MSE-1028	Scare Cannon plus Fuel .....	60.00
MSE-1029	Sewer Plug .....	100.00

*All rates listed in this schedule are subject to change without notice.*

Corporate	Response Rate Schedule Domestic	Schedule
Operations		Rev. January 2002

## Miscellaneous Equipment

		Daily Rate
MSE-1030	Sprayer, Pump, Hand-Held .....	30.00
MSE-1001	Stainless Steel Stinger, 2" .....	50.00
MSE-1031	Steam Cleaner (3,000 psi or less) .....	250.00
MSE-1032	Vacuum Cleaner, Wet/Dry .....	50.00
MSE-1033	Vapor Lights, High Intensity .....	65.00
MSE-1034	Weed Eater .....	75.00
MSE-1035	Wheelbarrow .....	25.00
MSE-1047	Hose, ADS, 6" (Foot) .....	1.75

## Monitoring Equipment

		Daily Rate
MTE-1014	3M 3500 Passive VOC Monitoring Badges .....	35.00
MTE-1021	25mm Particulate Sampling Cassette .....	4.00
MTE-1022	37mm Three Piece HEPA Particulate Sampling Cassette .....	5.00
MTE-1001	4-Gas Meters .....	95.00
MTE-1004	Anemometer / Mass Air Sensor .....	75.00
MTE-1005	Audio Dosimeter .....	75.00
MTE-1006	Black Light, Mercury Detection .....	40.00
MTE-1023	Chemsticks / Chemstrips .....	10.00
MSE-1024	Coconut Charcoal VOC Sampling Tubes .....	5.00
MTE-1007	Crowcon Monitor, 5 gas .....	150.00
MTE-1008	Drager CMS Unit .....	300.00
MTE-1015	Drager Pump .....	30.00
MTE-1034	FID Detector, Handheld .....	200.00
ST-1005	Head Space Analyzer for GC / MS .....	300.00
ST-1012	Gas Chromatograph / Mass Spectrometer w/computer, Portable .....	1,500.00
MTE-1026	Gas Chromatograph / Mass Spectrometer Carrier Gas .....	147.45
MTE-1035	Gas Chromatograph / Mass Spectrometer Internal Gas Standard .....	140.00
MTE-1009	Infrared Sensor .....	25.00
MTE-1003	Jerome Mercury Vapor Analyzer .....	175.00
MTE-1011	ph Meter .....	30.00
MTE-1012	Photoionization Detector (PID), MiniRae .....	75.00
MTE-1036	Photoionization Detector, Ultra (PID), Ultra MiniRae .....	100.00
MTE-1010	Radiation Monitor .....	75.00
MTE-1013	Wibget - Portable Heat Stress Monitor .....	100.00

## Unit Rate

MTE-1037	FID Detector Hydrogen Refill .....	35.00
MTE-1029	Head Space 40ml Teflon Septa Vials .....	4.00
MTE-1020	Intrinsically Safe Thermometer .....	15.00
MTE-1030	Pentane Calibration Gas - One (1) Calibration .....	20.00
MTE-1018	Sensodyne Pump .....	30.00
MTE-1031	Quad Gas Calibration Gas - One (1) Calibration .....	25.00
MTE-1032	Tedlar Bag w/Stainless Fittings - 1 Liter .....	26.00
MTE-1033	Tedlar Bag w/Stainless Fittings - 5 Liter .....	40.00

*All rates listed in this schedule are subject to change without notice.*

<b>Corporate</b>	<b>Response Rate Schedule</b>	<b>Schedule</b>
<b>Operations</b>	<b>Domestic</b>	<b>Rev. January 2002</b>

### Personal Protective Equipment

		Daily Rate
PPE-1005	Bunker Gear (Pants, Coat, Gloves, Helmet, Boots) .....	150.00
PPE-1006	Chest Waders .....	35.00
PPE-1007	Cool Vest .....	50.00
PPE-1020	Harness, Safety, w/lanyard .....	25.00
PPE-1030	Safety Lifeline .....	15.00
		Unit Rate
PPE-1001	Apron, Tyvek .....	1.50
PPE-1008	Coveralls, Poly-Coated Tyvek Hood and Boots .....	16.00
PPE-1009	Coveralls, Saranex .....	18.00
PPE-1010	Coveralls, Tyvek .....	10.00
PPE-1021	Level A, Responder, Each .....	900.00
PPE-1022	Level B, Fully-Encapsulated (CPF 4), Each .....	225.00
PPE-1023	Level B, Encapsulated (CPF 3), Each .....	90.00
PPE-1024	Level C, Hood, Boot, Splash Guard (CPF 3), Each .....	75.00
PPE-1025	Level C, Hood, Boot (CPF 3), Each .....	60.00
PPE-1026	Level C, Hood, Boot (CPF 2), Each .....	45.00
PPE-1027	Level C, Hood, Boot (CPF 1), Each .....	20.00
PPE-1034	Level D, PPE .....	35.00
PPE-1033	Slicker Suit, Rain .....	25.00

### Boots

		Unit Rate
PPE-1002	Boot, Chemical, NFPA Approved, Pair .....	90.00
PPE-1003	Boot, Rubber, Steel-toe, Pair .....	45.00
PPE-1004	Booties, Latex, Pair .....	7.00

### Gloves

		Unit Rate
PPE-1011	Glove, Latex, Sample, Pair .....	1.00
PPE-1012	Glove, Leather, Pair .....	5.95
PPE-1013	Glove, Neoprene, Pair .....	5.95
PPE-1014	Glove, NEOX, Pair .....	3.75
PPE-1029	Glove, Nitrile, Inner, Pair .....	1.00
PPE-1015	Glove, Nitrile, Outer, Pair .....	3.75
PPE-1016	Glove, Petroflex, Pair .....	3.50
PPE-1017	Glove, "Black Knight", Pair .....	3.25
PPE-1018	Glove, "Silver Shield", Pair .....	8.00
PPE-1019	Glove Liner, Cotton, Pair .....	1.00

### Respiratory Protection

		Unit Rate
HME-1001	Air Regulator .....	50.00
HME-1002	Breathing Air Cylinder .....	10.00
HME-1011	Breathing Air Compressor .....	500.00
HME-1012	Breathing Air Compressor Cool Pack .....	50.00
HME-1011	Breathing Air Hose, 50' Section .....	12.00

*All rates listed in this schedule are subject to change without notice.*

Corporate	Response Rate Schedule	Schedule
Operations	Domestic	Rev. January 2002

## Respiratory Protection

		Unit Rate
PPE-1028	Respirator Cartridge, HEPA .....	7.50
PPE-1031	Respirator Cartridge, HEPA/OV/AG, Pair .....	24.00
PPE-1032	Respirator Cartridge, Mercury Vapor .....	30.00
HME-1003	Escape Mask .....	25.00
HME-1004	Escape Pack .....	125.00
HME-1007	Full-Face Respirator .....	25.00
HME-1008	Half-Face Respirator (Organic Mask, Disposable) .....	25.00
HME-1010	Half-Face Respirator w/o cartridges .....	12.50
HME-1009	Self-Contained Breathing Apparatus (SCBA) .....	125.00

## Pumps and Hoses

		Daily Rate
PUMP-1001	Pump, 1" .....	100.00
PUMP-1002	Pump, 2" Blackmere Vane, (Hydraulic) .....	200.00
PUMP-1003	Pump, 2" Diaphragm .....	90.00
PUMP-1004	Pump, 2" .....	90.00
PUMP-1006	Pump, 2" Stainless Steel Diaphragm .....	250.00
PUMP-1007	Pump, 2" Acme Mdl 39-G4 Floating Wash Pump .....	150.00
PUMP-1009	Pump, 3" Diaphragm .....	100.00
PUMP-1010	Pump, 3" .....	100.00
PUMP-1011	Rebuild Kit, Diaphragm Pump .....	350.00

## Unit Rate

MSE-1038	Hose, Chemical Resistant, 3" x 20' .....	20.00
MSE-1039	Hose, Chemical Resistant, Hard Gum Rubber, 6" x 25' .....	28.00
MSE-1040	Hose, Fire, 50' section .....	50.00
MSE-1041	Hose, Metal, Flex, 6" x 25' .....	25.00
MSE-1042	Hose, Solid Metal, Joint Pipe, 6" x 12' .....	22.00
MSE-1043	Hose, Suction/Discharge, 2" x 25' .....	8.00
MSE-1044	Hose, Suction/Discharge, 3" x 20' .....	8.00

## Sampling and Testing Equipment and Supplies

		Unit Rate
ST-1003	Drum Thief Sampling Tubes .....	16.00
ST-1004	Haz-Cat Sampling Kit, per test .....	35.00
ST-1007	Mercury Test Kit .....	225.00
ST-1008	PCB Wipe Test Kit .....	30.00
ST-1009	Personnel Sampling Pump .....	50.00
ST-1010	Pipettes, Glass .....	2.00
ST-1011	pH Paper (Roll or Box) .....	20.00
ST-1013	Sample Bomb .....	120.00
ST-1014	Sample Jars .....	5.00
ST-1015	Sample Storage .....	15.00
ST-1016	Soil Sampling Kit .....	35.00
ST-1017	Hydrocarbon Test Kit .....	47.65

*All rates listed in this schedule are subject to change without notice.*

Corporate	Response Rate Schedule	Schedule
Operations	Domestic	Rev. January 2002

### Sampling and Testing Equipment and Supplies (cont.)

		Unit Rate
ST-1017	Hydrocarbon Test Kit.....	47.65

#### Skimmers

		Daily Rate
SKIM-1001	DiscOil Skimmer, w/Power Pack .....	2,250.00
SKIM-1002-70	Drum Skimmer, 70 gpm.....	600.00
SKIM-NO-1003-20	Drum Skimmer, 20 gpm.....	450.00
SKIM-1005	Skimmer, Acme Mdl 39-TG4, Gasoline Powered.....	200.00
SKIM-1006	Skimmer, Acme Mdl 39-T, Vacuum / or Douglas Engineering Skim Pak.....	150.00
SKIM-1007	Skimmer, Desmi .....	5,000.00
SKIM-1008	Skimmer, Marco, "Harbor 28".....	5,000.00
SKIM-1009	Skimmer, Marco, "Sidewinder 14".....	4,200.00

#### Storage

		Daily Rate
STR-1008	Frac Tank, 10,000 gl (Company Owned) .....	25.00
STR-1003	Roll-Off Box, Open Top .....	15.00
STR-1004	Roll-Off Box, Roll Top.....	30.00
STR-1005	Roll-Off Box, Vacuum Box.....	50.00
STR-1006	Storage Tank, Poly, 500 gl capacity .....	30.00
STR-1007	Tarp, Roll-Off Box.....	8.00
STR-1009	Tote, Poly, 250 gl.....	15.00

### MATERIAL

#### Chemicals

		Unit Rate
GES-ACETIC-5	Acetic Acid, Glacial, 5 gl pail .....	87.35
GES-BA50	Boric Acid, 5%, 50 lb bag .....	96.55
GES-CAUSOD55DRY	Caustic Soda, Pearls, 50 lb bag .....	50.15
GES-COREXIT-9500-55	Corexit EC9500A Oil Spill Dispersant, 55 gl drum .....	1,121.45
GES-COREXIT-9527-55	Corexit EC9527A Oil Spill Dispersant, 55 gl drum .....	1,070.85
GES-COREXIT-9580-55	Corexit EC9580A Oil Spill Beach Cleaner, 55 gl drum.....	683.65
GES-CITRIC50B	Citric Acid, 50%, Grade B, 575 lb drum.....	1,048.40
GES-FW-MRED	Degreaser, "Mighty Red".....	9.20
GES-DGR1	Degreaser/Solvent, 1 gl container .....	46.35
GES-MAGOXI-50	Magnesium Oxide (50 lb bag) .....	45.00
GES-MBELSC1	Micro-Blaze, Emergency Liquid Spill Control, 1 gl .....	26.50
GES-MBOL5	Micro-Blaze Out, Firefighting Agent, 5 gl pail .....	215.15
GES-SA50D	Soda Ash, Dense, 50 lb bag.....	22.80
GES-SB50	Sodium Bicarbonate, 50 lb bag .....	36.20
GES-FW-SODHCH	Sodium Hypochlorite, Liquid.....	2.10

**All rates listed in this schedule are subject to change without notice.**

<b>Corporate</b>	<b>Response Rate Schedule</b>	<b>Schedule</b>
<b>Operations</b>	<b>Domestic</b>	<b>Rev. January 2002</b>

**Miscellaneous Material**

		<b>Unit Rate</b>
MSS-1006	Rope, Polypro, 1/2" x 600' .....	75.00
MSS-1007	Rope, Polypro, 1/4" x 600' .....	26.25
MSS-1008	Box Liner, Roll-Off Box .....	50.00
MSS-1009	Epoxy Stick, Sealant .....	9.45
GES-DLPB55-6	Drum Liner, Plastic Bag, 55 gl x 6 ml, 50 per roll .....	53.50
GES-DLPB55-6-ea	Drum Liner, Plastic Bag, 55 gl x 6 ml, each .....	1.05
GES-LP5	Drum, Poly, 5 gl, w/lid .....	16.10
GES-PD30	Drum, Poly, 30 gl, w/lid .....	45.00
GES-PDOH25	Drum, Poly, O/H, R/C, Nestable, 25 gl .....	58.30
GES-PDOH55	Drum, Poly, O/H, R/C, Nestable, 55 gl .....	55.00
GES-PDTH55	Drum, Poly, T/H, w/bungs, 55 gl .....	55.00
GES-OP110	Drum, Poly, Overpack, 110 gl .....	350.00
GES-OP95	Drum, Poly, Overpack, 95 gl .....	200.00
GES-OP95M	Drum, Poly, Overpack, Metric, 95 gl .....	327.50
GES-CTSD55	Drum, Steel, T/H, 55 gl .....	59.00
GES-OTSD55	Drum, Steel, O/H, R/C, 55 gl .....	55.00
GES-SOP110	Drum, Steel, Overpack, 110 gl .....	670.30
GES-SOP85	Drum, Steel, Overpack, 85 gl .....	175.00
GES-PC1	Pollution Can, 20 gl, Each .....	20.10

**Sorbent Material**

		<b>Unit Rate</b>
GES-BMC	BMC Absorb-N-Dry Absorbent .....	8.00
GES-B510	Boom, Sorbent, 5" x 10', 4 boom bale .....	102.05
GES-B810	Boom, Sorbent, 8" x 10', 4 boom bale .....	180.50
GES-UB510	Boom, Sorbent, Universal, 5" x 10', 4 boom bale .....	134.05
GES-UB810	Boom, Sorbent, Universal, 8" x 10', 4 boom bale .....	201.10
GES-GS-22	Floor Gator, Granular, 50 lb bag .....	26.95
GES-GS-25	Cell-U-Sorb, 20 lb bag .....	31.00
GES-IM0077	Imbiber Bead Packet, 36 per case .....	231.65
GES-IM1421	Imbiber Bead Pillow, 3 per case .....	217.20
GES-IM2142	Imbiber Bead Blanket, 2 per case .....	235.30
GES-GATOR030	Oil Gator, 30 lb bag .....	45.05
GES-OSGP30	Oil Sponge GP, General Purpose, 30 lb bag .....	28.75
GES-P100	Pad, Sorbent, 17" x 19" x 3/8", 100 pad bale .....	72.00
GES-P200	Pad, Sorbent, 17" x 19" x 3/16", 200 pad bale .....	76.00
GES-UQ100	Pad, Sorbent, Universal, Gray, 17" x 19" x 3/8", 100 pad bale .....	104.60
GES-HAZPIL10	Pillow, Haz-Mat, Universal, 3" x 18" x 24", 10 pillow bale .....	120.65
GES-HAZPIL17	Pillow, Haz-Mat, Universal, 3" x 11" x 17", 17 pillow bale .....	134.05
GES-PIL10	Pillow, Sorbent, 14" x 25", 10 pillow bale .....	101.90
GES-R144	Roll, Sorbent, 38" x 144' x 3/8", 1 roll bale .....	144.30
GES-OS15	Snare, Viscous Oil, 30 count .....	60.00
GES-OSB50	Snare Boom, Viscous Oil, 50' .....	73.75
GES-OSB100	Snare Boom, Viscous Oil, 100' .....	186.50
GES-OD40	Sorbent, All-Purpose, Oil-Dry .....	12.90
GES-SPHAGSORB2	Sphag Sorb, 2 cf x 24 lb bag .....	42.25
GES-SW100	Sweep, Sorbent, 17" x 100', 1 sweep bale .....	110.60
GES-2950	Zorbent, Absorbent Material .....	62.50

*All rates listed in this schedule are subject to change without notice.*

**EQUIPMENT, MATERIAL AND SUPPLIES AT COST PLUS**

		Unit Rate
MTE-1002	5-Gas Meters .....	Cost +20%
MSE-1002	Air Compressor, 375 cfm, + fuel .....	Cost +20%
MSE-1003	Air Compressor, 185 cfm, + fuel .....	Cost +20%
AUTO-1015	Breathing Air Trailer .....	Cost +20%
HME-1002-RF	Breathing Air Cylinder Refill, 4500 psi .....	Cost +20%
ST-1002	Concrete Coring Device .....	Cost +20%
AUTO-1014	Crane (Rental, Mobilization & Demobilization) .....	Cost +20%
MTE-1025	Drager PID Chips, Test Specific .....	Cost +20%
MTE-1016	Drager Colorimetric Tubes .....	Cost +20%
MTE-1017	Drager Haz-Cat Identification Kit .....	Cost +20%
HME-1006	Filters and Decontamination, HEPA Mercury Vacuum Cleaner .....	Cost +20%
STR-1001	Frac Tank .....	Cost +20%
STR-1002	Frac Tank Mobilization, Decontamination and Demobilization .....	Cost +20%
ST-1001	Gas Detection Tubes .....	Cost + 20%
MTE-1028	Glassware, Additional .....	Cost +20%
ST-1006	Lab Analysis, Accredited Third Party .....	Cost +20%
SKIM-1010	Oleophilic Pad Replacement, <i>Marco Skimmer</i> .....	Cost +20%
MTE-1017	Passive Badges, Other .....	Cost +20%
GES-REAGENT	Reagent, Miscellaneous .....	Cost +20%
MTE-1019	Sensodyne Tubes .....	Cost +20%

*All rates listed in this schedule are subject to change without notice.*

<b>Corporate</b>	<b>Disaster Response Rate Schedule Domestic</b>	<b>Schedule</b>
<b>Operations</b>		<b>Rev. 01/02</b>

**GARNER ENVIRONMENTAL SERVICES, INC.**

1717 West 13<sup>th</sup> Street  
Deer Park, Texas 77536  
(281) 930-1200  
(800) 424-1716

**DISASTER RESPONSE RATE SCHEDULE  
DOMESTIC**

<b>Corporate</b>	<b>Disaster Response Rate Schedule Domestic</b>	<b>Schedule</b>
<b>Operations</b>		<b>Rev. 01/02</b>

## Tables of Contents

Automotive Equipment .....	ii
Equipment Decontamination / Washout .....	ii
Fuel Surcharge .....	ii
Haz-Mat Rates .....	ii
Insurance .....	ii
Personnel .....	ii
Replacement of Damaged or Contaminated Equipment .....	ii
Roll-Off Boxes .....	iii
Stand-By Rates .....	iii
Subcontract Services .....	iii
Taxes .....	iii
Terms .....	iii
Travel, Lodging and Per Diem .....	iii

### EQUIPMENT

Generators, Light Towers .....	1
Pumps, Hoses, Fittings .....	3
Miscellaneous (Tents, Modular Units, Etc.) .....	4
Water & Ice .....	4
Coolers & Freezers .....	4
Heavy Equipment .....	5
Chillers, Warmers, Air Handling Equip .....	6
Field Catering Equipment .....	7
Personnel .....	8
Transportation & Other .....	9
Field Invoice Summary .....	10

Corporate	Disaster Response Rate Schedule Domestic	Schedule
Operations		Rev. 09/01

### Automotive Equipment

**Automotive Equipment Daily Rates** charges are portal to portal. A four (4) hour minimum time will be charged on all call-outs. A daily charge of \$95.00 per day will be assessed on all automotive equipment.

### Equipment Decontamination / Washout

Time and Material charges are portal to portal and will continue through decontamination and/or washout of any and all equipment used on the job.

### Fuel

Fuel cost will be invoiced on all equipment at our Cost plus a 15% Handling Charge consumed by both automotive and non-automotive equipment due to the increased fuel prices.

### Haz-Mat Rates

Haz-Mat rates will be charged when the material being dealt with has a hazard rating of two or greater on the NFPA 704 labeling system or hazardous material identifying system, or if a job requires the use of respiratory protection.

### Insurance

The rates in this RATE SCHEDULE include insurance coverage for Worker's Compensation, General Liability, Pollution and Automobile Liability. A Certificate of Insurance will be forwarded upon request. These rates do not include work performed under the U.S. Longshoremen's and Harbor Workers Act (33 USC ss 901-950). For work performed under this statute, an additional 69% surcharge per \$100.00 of wages will be assessed on labor **only**.

Insurance Waivers or Additional Equipment Insurance cost incurred on leased equipment (i.e., Generators, Forklifts, Pumps, etc.) will be billed at Cost plus a 15% Handling Charge. This insurance coverage will be for damage, theft, fire or other items.

### Personnel

Experienced consulting, supervisory, technical instructor and equipment operating personnel are available for complete Disaster Emergency Response, Emergency HazMat/Oil Spill Response, Spill Cleanup Operations and Vacuum Service Operations; 24 hours a day, 7 days a week. Normal hours of operation are from 0730 (7:30 a.m.) through 1600 (4:00 p.m.) daily, Monday through Friday.

All labor charges will be in accordance with Garner Environmental Services, Inc. service receipts. Charges for personnel are portal-to-portal. Garner Environmental Services, Inc. will invoice for personnel and the time required to mobilize, service, repair, and restock all vehicles and equipment used in the performance of the services for customer.

Overtime for personnel will be charged at time and a half between 1600 (4:00 pm) through 0730 (7:30 am) Monday through Thursday; weekends from 1600 (4:00 p.m.) Friday through 0730 (7:30 am) Monday. **DOUBLE TIME RATES** will be charged for all National Holidays. **4-Hour Minimum Service Charge On All Labor Call-Outs.**

### Replacement of Damaged or Contaminated Equipment

If, during performance of a service and/or services for a customer, equipment and/or material sustain damage which renders the equipment and/or material beyond repair or renders decontamination impossible, said equipment and/or material will be subject to a replacement charge at Garner Environmental Services, Inc.'s cost plus a 15% Handling Charge unless said damage was sustained as a result of misuse by Garner Environmental Services, Inc. personnel.

<b>Corporate</b>	<b>Disaster Response Rate Schedule Domestic</b>	<b>Schedule</b>
<b>Operations</b>		<b>Rev. 09/01</b>

### Roll-Off Boxes

Roll-Off Box delivery and pickup charges vary according to the distance from the site location and location of the job. These charges will be billed at Cost plus a 15% Handling Charge. The cost for roll-off box liners is \$50.00 each. Box Liners are not mandatory, but if the Roll-Off Box requires cleaning at the end of the rental period, the customer will incur the cleaning charges.

### Subcontract Services

The compensation paid Garner Environmental Services, Inc. for all equipment services, third party freight and third party rental equipment and personnel not listed in the Rate Schedule, whether requested by the Company or needed to complete work in progress will be subject to a 15% Handling Charge.

### Taxes

All federal, state and municipal taxes, except income taxes and ad-valorem taxes, now and hereinafter imposed with respect to services rendered; to rental equipment; to the processing, manufacture, repair, delivery, transportation of equipment and supplies shall be added to and become part of the total price payable by the client. If a client claims an exemption from payment of Texas Sales and Use Tax, the client will be required to render an Exemption Certificate or a Resale Certificate to Garner Environmental Services, Inc. This includes all Federal, State, County and local Agencies while under Disaster Response Protocols.

### Terms

The term of payment for all invoices is *Net 30 Days* from the date of invoice., unless prior arrangements for earlier payments are made. A Finance Charge computed at the periodic rate of one and one-half percent (1.5%) per month (18% per annum) will be applied to all invoices with an unpaid balance beginning on the thirty-first (31st) day from the date of invoice. All payments will be made to Garner Environmental Services, Inc., 1717 West 13th Street, Deer Park, TX 77536. Disaster Response Invoices will be completed weekly.

### Travel, Lodging and Per Diem

For all employees who do not reside in the local commuting area for the work site, Garner Environmental Services, Inc. will be reimbursed for costs incurred for employee travel to and from the work site on the basis of Garner's incurred costs plus 15% Service Fee for all commercial transportation. A minimum Per Diem charge of \$90.00 per day for all employees who do not reside in the local commuting area of the work site will be due for each day that such employee is present in the locale of the work site.

### Debris Removal Contractors

Debris Removal Contractors will be required to submit a competitive bid based on the estimated debris amount, local disposal cost, local resources available to them. The most competitive bid that meets standards set by the Robert T. Stafford Act will be contracted to perform services in this area. Debris Contractor Invoices to Garner Environmental Services will be billed to the customer at Cost plus a 15% Handling Charge.

Revised: January 2002

## Garner Environmental Disaster Response Rate Schedule

Qty	Description	WK RT	U	Amt	Approved
	10 kW Generator	\$460.00	WK		
	15 kW Generator	\$562.50	WK		
	20 kW Generator	\$950.00	WK		
	25 kW Generator	\$950.00	WK		
	30 kW Generator	\$950.00	WK		
	35 kW Generator	\$1,061.25	WK		
	40 kW Generator	\$1,100.00	WK		
	45 kW Generator	\$1,150.00	WK		
	50 kW Generator	\$1,260.00	WK		
	60 kW Generator	\$1,300.00	WK		
	70 kW Generator	\$1,350.00	WK		
	75 kW Generator	\$1,400.00	WK		
	80 kW Generator	\$1,450.00	WK		
	90 kW Generator	\$1,500.00	WK		
	100 kW Generator	\$1,600.00	WK		
	110 kW Generator	\$1,650.00	WK		
	125 kW Generator	\$1,900.00	WK		
	150 kW Generator	\$2,100.00	WK		
	175 kW Generator	\$2,350.00	WK		
	180 kW Generator	\$2,500.00	WK		
	200 kW Generator	\$2,750.00	WK		
	250 kW Generator	\$3,100.00	WK		
	300 kW Generator	\$3,500.00	WK		
	350 kW Generator	\$3,700.00	WK		
	400 kW Generator	\$4,000.00	WK		
	450 kW Generator	\$4,250.00	WK		
	500 kW Generator	\$4,575.00	WK		
	675 kW Generator	\$6,000.00	WK		
	750 kW Generator	\$6,750.00	WK		
	800 kW Generator	\$7,250.00	WK		
	1000 kW Generator	\$7,750.00	WK		
	1250 kW Generator	\$8,225.00	WK		
	1400 kW Generator	\$9,000.00	WK		
	1500 kW Generator	\$10,531.70	WK		
	1750 kW Generator	\$12,525.80	WK		
<b>Page #1 Total</b>				<b>\$0.00</b>	



Revised: January 2002

## Garner Environmental Disaster Response Rate Schedule

Qty	Description	WK RT	U	Amt	
	<i>Pumps, Hose &amp; Fittings</i>				
	2" x 2" Diesel Pump	\$325.00	E/W		
	3" x 3" Diesel Pump	\$375.00	E/W		
	4" x 4" Diesel Pump	\$535.00	E/W		
	8" x 8" Diesel Pump	\$1,035.00	E/W		
	10" x 10" Diesel Pump	\$1,625.00	E/W		
	12" x 12" Diesel Pump	\$2,025.00	E/W		
	24" Diesel Pump	\$3,040.00	E/W		
	2" Suction / Discharge Hose 50' Section	\$32.50	E/W		
	3" Suction / Discharge Hose 50' Section	\$38.75	E/W		
	4" Suction / Discharge Hose 50' Section	\$53.75	E/W		
	6" Suction / Discharge Hose 50' Section	\$111.25	E/W		
	8" Suction / Discharge Hose 50' Section	\$180.00	E/W		
	10" Suction / Discharge Hose 50' Section	\$222.50	E/W		
	12" Suction / Discharge Hose 50' Section	\$265.00	E/W		
	24" Suction / Discharge Hose (Per Foot)	\$12.00	P/F		
	6" Vacuum Assist Pump	\$1,500.00	E/W		
	12" Vacuum Assist Pump	\$2,600.00	E/W		
	4 Inch Submersible Hydraulic Pump	\$1,000.00	E/W		
	6 Inch Submersible Hydraulic Pump	\$1,350.00	E/W		
	8 inch Submersible Hydraulic Pump	\$1,800.00	E/W		
	12 Inch Submersible Hydraulic Pump	\$2,200.00	E/W		
	100 GPM Pump	\$172.50	WK		
	200 GPM Pump	\$225.00	WK		
	300 GPM Pump	\$276.00	WK		
	400 GPM Pump	\$211.00	WK		
	500 GPM Pump	\$380.00	WK		
	750 GPM Pump	\$466.00	WK		
	800 GPM Pump	\$621.00	WK		
	1000 GPM Pump	\$795.00	WK		
	1200 GPM Pump	\$932.00	WK		
	1500 GPM Pump	\$1,242.00	WK		
	2000 GPM Pump	\$1,656.00	WK		
	3000 GPM Pump	\$2,875.00	WK		
	12" x 6" Custom Manifolds	QUOTE	WK		QUOTED BY AREA OF THE U.S.
	24 Inch Hydraulic Pump	\$18,200.00	MO		
	20 Inch Hydraulic Pump	\$18,200.00	MO		
X	<i>Page #3 Total</i>	X	X	<b>\$0.00</b>	

Revised: January 2002

## Garner Environmental Disaster Response Rate Schedule

Qty	Description	WK RT	U	Amt	
	<b>MISCELLANEOUS</b>				
	Portable Fence; 8' x 200' Section	QUOTE	WK		QUOTED BY AREA OF THE U.S.
	Power Cords - High Voltage	\$252.00	WK		
	Pallet Grabbers w/Chain	\$35.00	WK		
	Chain Saws	\$550.00	WK		
	Miscellaneous Hand Tools	\$125.00	WK		
	Comfort Station - 10 Stall Unit	QUOTE	E/W		QUOTED BY AREA OF THE U.S.
	Comfort Station - 26 ft. BT Unit	QUOTE	E/W		QUOTED BY AREA OF THE U.S.
	Shower Units - 4 Stall	QUOTE	E/W		QUOTED BY AREA OF THE U.S.
	Shower Units - 6 Stall	QUOTE	E/W		QUOTED BY AREA OF THE U.S.
	Shower Units - 12 Stall with 6 Sinks	QUOTE	E/W		QUOTED BY AREA OF THE U.S.
	Tents - 60' x 100' x 7'; Seats 500	QUOTE	E/W		QUOTED BY AREA OF THE U.S.
	Tents - 30' x 90' x 7'; Sleeps 125	QUOTE	E/W		QUOTED BY AREA OF THE U.S.
	Tents - 30' x 60' x 7'; Sleeps 100	QUOTE	E/W		QUOTED BY AREA OF THE U.S.
	Tent Setup Fee	QUOTE	EA		QUOTED BY AREA OF THE U.S.
	8' x 28' Modular Unit	\$250.00	E/W		
	10' x 44' Modular Unit	\$450.00	E/W		
	12' x 60' Modular Unit	\$600.00	E/W		
	Partition Installation	QUOTE	PIU		QUOTED BY AREA OF THE U.S.
	Block / Unblock Unit	QUOTE	EA		QUOTED BY AREA OF THE U.S.
	Anchor / Unanchor Unit	QUOTE	EA		
	4000 PSI Pressure Washer	\$1,250.00	WK		
	20,000 PSI Pressure Washer	\$1,750.00	WK		
	Cots for Shelters	QUOTE	EA		QUOTED BY AREA OF THE U.S.
	<b>Water / Ice</b>				
	Water; 1 Gallon Bottles; 6 per Case	\$5.00	CS		
	Water; Truckload; 5,040 Gallon Bottles	\$4,200.00	TL		
	Ice; 8 LB. Bag	\$1.00	BAG		
	Ice; 8 LB. Bag; Lots of 500 Bags	\$500.00	LOT		
	<b>Coolers / Freezers</b>				
	Walk In Cooler	QUOTE	WK		QUOTED BY SIZE & AREA OF U.S.
	Walk In Freezer	QUOTE	WK		QUOTED BY SIZE & AREA OF U.S.
	<b>Sand Bagging Equipment</b>				
	Dump Truck with Sandbagging Unit Attachment / With Operator	\$1,500.00	DY		
	Sandbags (No Sand)	\$0.17	EA		
	Sand Bagging Truck w/ Bagger / NO Operator	\$6,900.00	WK		
X	<b>Page #4 Total</b>	X	X	<b>\$0.00</b>	





Revised: January 2002

## Garner Environmental Disaster Response Rate Schedule

Qty	Description	WK RT	U	Amt	
	<i>Field Catering</i>				
	700 Man Camp, 3 Meals / Day / POB	QUOTE ONLY	DY/MAN		QUOTED BY AREA OF THE U.S. THESE FIGURE REFLECT OR ADDRESS ANY PER DEIM ISSUES FOR GARNER EMPLOYEES
	Steward Overtime / Over 12 hrs / Day	QUOTE ONLY	HR		
	Night Cook Overtime / Over 12 hrs / Day	QUOTE ONLY	HR		
	Galley Hand Overtime / Over 12 hrs / Day	QUOTE ONLY	HR		
	Utility Hand Overtime / Over 12 hrs / Day	QUOTE ONLY	HR		
	10' x 40' Galley Unit (see attached drawing)	QUOTE ONLY	E/W		
	8' x 40' Walk-in Refrig. Unit (3 per site)	\$7,560.00	E/W		
	2000 Gallon Potable Water Tank	\$210.00	E/W		
	Dual Water Distribution System	\$210.00	E/W		
	Power Cords (4 per Site)	\$252.00	E/W		
	Water Hoses (2 per Site)	\$60.00	E/W		
	Chairs	\$2.00	E/W		
	8' Banquet Tables	\$19.00	E/W		
	55' Strand Lighting	\$105.00	E/W		
	<i>Page #7 Total</i>			\$0.00	





Revised: January 2002

## Garner Environmental Disaster Response Rate Schedule

FIELD INVOICE SUMMARY			
	<i>Page #1 Total</i>		
	<i>Page #2 Total</i>		
	<i>Page #3 Total</i>		
	<i>Page #4 Total</i>		
	<i>Page #5 Total</i>		
	<i>Page #6 Total</i>		
	<i>Page #7 Total</i>		
	<i>Page #8 Total</i>		
	<i>Page #9 Total</i>		
	<b>Total Field Invoice</b>		<b>\$0.00</b>

*Please Note that this is an Estimation only and applies to the quantities shown on this form. Actual charges will be reflected on this type form.*

Garner Representative: \_\_\_\_\_

Date: \_\_\_\_\_

Customer Representative: \_\_\_\_\_

Date: \_\_\_\_\_



# ENVIRONMENTAL SERVICES AGREEMENT

United States Environmental Services, L.L.C., will provide spill response, containment, cleanup, and other environmental services, as discussed in Section 3, agreed upon to Lion Oil Company and its wholly-owned subsidiaries as listed in Exhibit A ("CUSTOMER"), and both parties agree to the following terms and conditions as set forth in this Environmental Services Agreement ("Agreement"), effective as of the date executed.

## 1. DEFINITIONS

- 1.1 **Hazardous Substances** – "Hazardous substances" shall include any and all substances defined or identified as hazardous substances, hazardous wastes, or hazardous materials under the Resource Conservation and Recovery Act (42 U.S.C. § 6921 et seq.), the Comprehensive Environmental Response, Compensation and Liability Act (42 U.S.C. § 9601 et seq.), the Louisiana Environmental Quality Act, and other applicable Federal and State statutes or regulations as of the date of this Agreement, and petroleum (including crude oil and any of its fractions and oils; Groups I through 5 as defined in OPA 90 response guideline documents NVIC 7-92 and 8-92), but shall not include high level radioactive materials as defined by the Atomic Energy Act or materials or substances designed or produced for use as explosives.

## 2. SPILL RESPONSE

- 2.1 **Scope of Spill Response** - CUSTOMER acknowledges that spill response activities provided by U.S. ENVIRONMENTAL under this Agreement are provided on a best efforts and an emergency basis; that the purpose of each spill response is to minimize, to the extent practicable, the environmental damage and health and safety risks resulting from a spill of hazardous substances; and that the hazardous substances involved in the spill may not be eliminated from the scene of the spill or other affected areas by the spill response. U.S. ENVIRONMENTAL does not warrant, by the terms of this Agreement or by undertaking a spill response pursuant to this Agreement, that such response will render the location of the spill, or areas affected by the spill, safe for any form of human activity, or in compliance with any state, local, or federal laws.

Notwithstanding the foregoing, U.S. ENVIRONMENTAL shall use its best efforts and professional ability to perform all work under this Agreement and shall, as a minimum, conform to the standards of care, skill and diligence normally exercised by a professional in good standing in the performance of services of a similar nature. U.S. ENVIRONMENTAL warrants that it shall operate and perform all activities in accordance with the intent and requirements of this Agreement.

2.2 **Personnel; Equipment** - In order to provide **CUSTOMER** with emergency spill response services, **U.S. ENVIRONMENTAL** shall:

- (a) Maintain rapid response teams stationed on 24-hour call. Each team shall consist of individuals trained in current spill control and cleanup technology and capable of performing the response to spills of hazardous substances required by this Agreement;
- (b) Maintain emergency spill response equipment per the USES Equipment List;
- (c) Upon receipt of an initiation of spill response ("Initiation") as provided in Section 2.4, promptly dispatch an emergency response team to the scene of the spill;
- (d) Provide all necessary labor, equipment, materials, water, tools, temporary light, power, temporary heat, transportation and subcontracted items necessary to the emergency spill response services, and other facilities necessary for the execution and completion of the emergency spill response services;
- (e) Use equipment that is well maintained and in good operating condition and shall immediately repair, or cause to be repaired, all such equipment, at its sole cost and expense;
- (f) Following any emergency response, shall remove all of its rubbish, equipment, tools, tool boxes, surplus materials, temporary sheds and structures of all kinds from the premises;
- (g) Use its best skill, efforts and judgment in furthering the interest of **CUSTOMER**;
- (h) Furnish efficient administration and supervision of the services and of its employees, agents and subcontractors (and their employees and agents);
- (i) Be fully responsible to **CUSTOMER** for the errors, acts and omissions of its employees, its subcontractors (and their employees), and of all persons, firms and corporations (and their employees) directly or indirectly employed or engaged by it or any of its subcontractors, all as if such errors, acts, and omissions were its own;
- (j) Perform the services in the best way and most expeditious and economical manner consistent with the best industry practices and techniques and the interests of **CUSTOMER**;
- (k) Perform the services so as to cause the least disruption to **CUSTOMER'S** business; and

- (l) At all times while work is in progress, maintain adequate safety equipment at the site of any response action or other work for the safety of the general public, employees, and the site. Further, **U.S. ENVIRONMENTAL** shall ensure that its personnel and subcontractors are adequately trained in the use of such equipment. **CUSTOMER** reserves the right to review **U.S. ENVIRONMENTAL**'s Occupational Safety and Health Administration Accident ("OSHA") Summary Logs or Safety Work Plan at any time during the term of this Agreement, and **U.S. ENVIRONMENTAL** shall promptly furnish any such safety records or work plans to **CUSTOMER** upon request. Occupational injuries, illnesses, near misses, their cause and what actions have been taken to prevent recurrence must be reported to **CUSTOMER** immediately, as well as, when reportable, to OSHA authorities.

**2.3 Coordination** - At **CUSTOMER**'s request, **U.S. ENVIRONMENTAL** shall act as **CUSTOMER**'s coordinator or assist **CUSTOMER**'s Qualified Individual (as defined below) for an emergency spill response; coordinate the spill response activities of **U.S. ENVIRONMENTAL** personnel, **CUSTOMER**'s personnel and subcontractors, and such subcontractors as **U.S. ENVIRONMENTAL** in its opinion deems necessary or desirable to perform the spill response required by this Agreement; and maintain a spill response coordinator in the vicinity of the spill area, reasonably available to **CUSTOMER** at all times until the emergency spill response has been concluded.

**2.4 Initiation of Spill Response**

**2.4.1 INITIATION** - **CUSTOMER** may initiate a response to any hazardous substance incident by a direct telephone call to **U.S. ENVIRONMENTAL** at 888-279-9930. The person initiating the response shall provide **U.S. ENVIRONMENTAL** with:

- (a) His or her name and title;
- (b) **CUSTOMER**'s name;
- (c) The location of the spill;
- (d) The nature of the hazardous substance(s), including Material Safety Data Sheet information for all substances involved or potentially involved in the incident;
- (e) The approximate time of the spill;
- (f) Any other pertinent information relating to the spill.

**2.4.2 QUALIFIED INDIVIDUAL** - **CUSTOMER** shall identify and have available an individual ("Qualified Individual") who is familiar with the work site and activities, and has authority to approve changes or render decisions promptly with regard to the incident.

- 2.5 **Mobilization Standby** - **CUSTOMER** may limit its Initiation to a notice of mobilization-standby. If **CUSTOMER** so limits its Initiation, **U.S. ENVIRONMENTAL** shall not dispatch equipment or personnel to the scene of the spill until **CUSTOMER** instructs **U.S. ENVIRONMENTAL** to respond to the spill in the manner provided in Section 2.4.
- 2.6 **Site Information** - Upon **U.S. ENVIRONMENTAL**'s reasonable request and to the extent readily available, **CUSTOMER** shall furnish, at no cost to **U.S. ENVIRONMENTAL**, accurate and complete information concerning the site, including, the physical characteristics of the site, prior soil reports and subsurface investigations, if available, legal limitations, a legal description of the property, locations of any installations and underground utilities, and other characteristics and information that may be reasonably requested and readily available.
- 2.7 **Access** - Lawful access to the site shall be rendered to **U.S. ENVIRONMENTAL** for the purpose of performing its obligations under this Agreement. **U.S. ENVIRONMENTAL** shall cooperate with **CUSTOMER**'s representative to identify **U.S. ENVIRONMENTAL**'s employees and agents when they enter the site and when they leave the site. The site shall also bear the weight of **U.S. ENVIRONMENTAL**'s equipment and vehicles required to performed requested work. Normal wear and tear of any pavements rendered during the performance of the work shall not be the responsibility of **U.S. ENVIRONMENTAL**. **U.S. ENVIRONMENTAL** shall at all times keep the site as neat and safe as possible, and at the end of each day free of rubbish and debris. Upon completion of the services, the site shall be returned to **CUSTOMER** neat and in useable condition. **U.S. ENVIRONMENTAL** shall repair all damage to the site or surrounding areas resulting from the services provided hereunder.
- 2.8 **Financial Assurance** - **CUSTOMER** shall furnish, within a reasonable time, evidence satisfactory to **U.S. ENVIRONMENTAL** that sufficient funds are available and committed for the cost of the work to be performed if **U.S. ENVIRONMENTAL** so requests. Evidence of pollution or environmental liability insurance coverage with the **CUSTOMER** as the insured or named insured shall be an adequate form of financial assurance. Such financial assurance shall not delay the immediate spill response by **U.S. ENVIRONMENTAL** provided under this Agreement.
- 2.9 **Violation Free** - **CUSTOMER** shall warrant that the work to be performed under this Agreement shall not, to best of **CUSTOMER**'S actual knowledge, violate any final court order or any final ruling of any governmental agency.
- 2.10 **Taxes** - **U.S. ENVIRONMENTAL** shall not be responsible for payment of any taxes for which **CUSTOMER** claims it is exempt or for which **CUSTOMER** issues **U.S. ENVIRONMENTAL** direct-pay permits or any form of exemption certificate. If any

gross receipts, sales taxes, hazardous waste disposal, use or similar taxes are incurred in the performance of the work, CUSTOMER shall be solely responsible for the payment of such taxes.

2.11 **Priority - U.S. ENVIRONMENTAL** shall, on a best efforts basis, give CUSTOMER response priority equal to the priority given to other customers, to the extent personnel and equipment are available. Subject to the foregoing, CUSTOMER acknowledges that U.S. ENVIRONMENTAL may determine in its sole discretion, which Initiation(s) U.S. ENVIRONMENTAL shall respond to in the event that U.S. ENVIRONMENTAL at any time receives more Initiations than it can respond to with its available personnel and equipment. CUSTOMER further acknowledges that this Agreement does not obligate U.S. ENVIRONMENTAL to remove personnel or equipment from work initiated prior in time to CUSTOMER's Initiation if such personnel and equipment are in U.S. ENVIRONMENTAL's judgment necessary to complete the prior work whether such prior response was initiated by CUSTOMER or some other party.

2.12 **REPRESENTATIONS AND WARRANTIES - U.S. ENVIRONMENTAL** represents and warrants to CUSTOMER that it and all sub-contractors has all necessary licenses and permits to conduct the services to be performed and that it is a licensed contractor in the State of Mississippi and that it is licensed to practice environmental engineering and emergency response services in Mississippi. U.S. ENVIRONMENTAL represents to CUSTOMER that the education, training and experience of its personnel are sufficient to provide the services required hereunder. U.S. ENVIRONMENTAL represents and warrants that it will keep available personnel, equipment, instruments, tools and materials necessary to provide prompt and effective response to any emergency condition and is capable of taking necessary action to address emergency conditions. U.S. ENVIRONMENTAL further represents to CUSTOMER that it is currently a Mississippi Department of Environmental Quality response action contractor.

### 3. **ADDITIONAL ENVIRONMENTAL SERVICES**

If CUSTOMER requires additional environmental services as a result of a spill that is the subject of a spill response by U.S. ENVIRONMENTAL pursuant to Section 2 of this Agreement, CUSTOMER and U.S. ENVIRONMENTAL shall, in good faith, negotiate for performance of such additional environmental and industrial services. Authorization shall be provided by CUSTOMER in writing before changing the scope of work.

#### 4. TERM; TERMINATION

4.1 **Term** - This Agreement shall commence on the date that it is executed by both **CUSTOMER** and **U.S. ENVIRONMENTAL** (the "Commencement Date") and shall continue in effect until it is terminated by either party by a least 90 days written notice to the other. Notwithstanding the foregoing, should **U.S. ENVIRONMENTAL** fail to comply with its obligations under this Agreement, **CUSTOMER** may immediately terminate this Agreement and pursue any and all remedies available under the law. Either party to the Agreement shall have the right to terminate this Agreement upon notice to the other party in the event of any one of the following, such termination being effective upon receipt of notice: liquidation; insolvency or bankruptcy, whether voluntary or involuntary; appointment of a trustee or receiver; or any assignment for the benefit of creditors.

4.2 **Termination** - Upon termination of this Agreement, **U.S. ENVIRONMENTAL** shall prepare a final invoice for all services performed to the date of termination, and **CUSTOMER** shall pay such invoice pursuant to the terms of Section 5 below. If such termination is at the request of **CUSTOMER**, and if termination is not due to a breach of this Agreement by **U.S. ENVIRONMENTAL**, **CUSTOMER** shall reimburse **U.S. ENVIRONMENTAL** for any actual, necessary, ordinary and reasonable costs **U.S. ENVIRONMENTAL** incurs to effect site demobilization, and **U.S. ENVIRONMENTAL** shall take all actions necessary to reduce any such costs.

4.3 **Survival of Terms** - The termination of this Agreement shall not affect **CUSTOMER**'s obligation to pay the charges and expenses payable under Section 5, provided such charges and expenses are incurred prior to termination. The obligations of the parties under Section 7 shall survive termination of this Agreement.

#### 5. FEES AND CHARGES

5.1 **Expenses** - **CUSTOMER** shall reimburse **U.S. ENVIRONMENTAL** for all reasonable and necessary out-of-pocket expenses incurred by **U.S. ENVIRONMENTAL** in connection with **U.S. ENVIRONMENTAL**'s provision of services to **CUSTOMER**, including but not limited to, expenses for travel (including local travel), personnel, meals and lodging, reproductions, deliveries, equipment rental, freight, and subcontractor charges. All such expenses shall be billed to **CUSTOMER** in accordance with Exhibit B, Rate Schedule. **CUSTOMER**'s obligation to reimburse **U.S. ENVIRONMENTAL** is subject to the following limitations.

- a. If third party rental equipment is used by **U.S. ENVIRONMENTAL** in a response and it is deployed for more than five (5) working days on the

site, then billing shall be reduced to the actual weekly or monthly actual rental rate plus 10% markup;

- b. **U.S. ENVIRONMENTAL** shall be responsible for maintaining all equipment in good working order and **CUSTOMER** shall not be billed for repairs made to equipment that becomes inoperable unless such damage or breakage was caused by the **CUSTOMER's** gross negligence;
- c. **CUSTOMER** shall not be billed for the use or rental of equipment that becomes inoperable, during the period in which it remains inoperable. Any initial charges or fees for such inoperable equipment (other than rent or usage fees for the time period in which the equipment is operable), shall be reduced *pro rata* in proportion to the period of time the equipment remains inoperable;
- d. If **U.S. ENVIRONMENTAL** contracts for third party services on **CUSTOMER's** behalf, then such services shall be billed at their actual cost plus 10%. **CUSTOMER** may elect to contract for third party services directly and may convert subcontracts to direct obligations of the **CUSTOMER**. In such cases, **U.S. ENVIRONMENTAL** shall not be owed a markup for such third party services delivered after the **CUSTOMER** has made such an election;
- e. Equipment or consumables brought to the site shall not be billable until such equipment or consumables are actually activated in the emergency response unless **CUSTOMER** specifically requests or approves that equipment be held in reserve for the exclusive benefit of the **CUSTOMER**; and
- f. Equipment rental rates quoted by **U.S. ENVIRONMENTAL** cover costs of maintenance, depreciation, wear and tear, and all other costs of operation.

5.2 **Governmental Requirements** - **CUSTOMER** acknowledges that spill responses and other services that may be provided by **U.S. ENVIRONMENTAL** under this Agreement are governed and regulated by certain state, federal, and local laws and the regulations and other requirements of various government agencies with jurisdiction over spill events and other environmental matters (collectively referred to as "governmental requirements"). To the extent that any governmental requirement increases the scope of the services to be rendered and the expenses associated with such services, and the **CUSTOMER** has been advised of the increased scope by the governmental authorities and/or **U.S. ENVIRONMENTAL**, **CUSTOMER** shall pay **U.S. ENVIRONMENTAL** for all such

services and expenses as provided in this Section. **U.S. ENVIRONMENTAL** agrees to comply with all applicable state, federal, and local laws regulating spill response activities.

- 5.3 **Invoicing and Records** - **U.S. ENVIRONMENTAL** shall invoice **CUSTOMER** after job completion, or every two weeks, or upon **CUSTOMER**'s termination for all current charges and expenses. **U.S. ENVIRONMENTAL** shall maintain accurate records of all labor, materials, supplies, and other items provided to **CUSTOMER** under this Agreement and shall provide **CUSTOMER**'s representative with a daily accounting of equipment, consumables and hours worked at the close of each day on site. **U.S. ENVIRONMENTAL** shall retain and make such records available to **CUSTOMER** during business hours at **U.S. ENVIRONMENTAL**'s main office in Meraux, Louisiana two years after the conclusion of the spill response or the provision of additional environmental services to which the records relate.

**U.S. ENVIRONMENTAL** agrees that when working from our Emergency Response (ER) labor rates that consideration will be given to changing to our Industrial/Planned Action Work (Industrial) rates at a point when the emergency response is over and the remediation phase is beginning. The decision of when to change from Emergency Response rates to Industrial rates will be mutually decided and agreed upon by both USES and Ergon. When working from the **U.S. ENVIRONMENTAL** Oil Spill Emergency Response (Oil Spill) rates the rate schedule shall remain consistent for the entire duration of the spill cleanup.

- 5.4 **Payment** - **CUSTOMER** shall pay the full amount of all invoiced charges and expenses to **U.S. ENVIRONMENTAL** within 30 days after **CUSTOMER**'s receipt of an invoice. Payment shall be due sixty (60) days after **CUSTOMER**'s receipt of invoice for any services for which **CUSTOMER** has insurance coverage, after **CUSTOMER**'s deductible has been satisfied. If **CUSTOMER** fails to make any payment when due, **U.S. ENVIRONMENTAL** may assess a late charge of 1 percent per month (or the maximum rate permitted by law, whichever is less) on the unpaid balance until paid. **CUSTOMER**'s Qualified Individual shall be presumed to have the authority to sign invoices on behalf of **CUSTOMER** unless **U.S. ENVIRONMENTAL** is notified otherwise by **CUSTOMER**, in writing. If an error, discrepancy, or dispute is identified, the parties shall endeavor to resolve the matter within 10 days. If the invoice dispute is not communicated within this time frame, the invoice shall be paid upon receipt. Notwithstanding the foregoing, no failure to dispute the invoice within such 10-day period shall prevent **CUSTOMER** from later challenging it. If, within this 10-day period, the situation is not resolved, the disputed amount shall be excepted from the total invoice amount until the matter is resolved mutually or, as a last resort, through other legal proceedings.

5.5 **Payment Deductions.** CUSTOMER shall be entitled to offset from any sum or sums owing to U.S. ENVIRONMENTAL hereunder, any amounts owed by U.S. ENVIRONMENTAL to CUSTOMER, including, without limitation amounts due or to become due to CUSTOMER arising out of indemnification provisions of this Agreement.

## 6. HAZARDOUS SUBSTANCES

6.1 **General** - In its performance of this Agreement, U.S. ENVIRONMENTAL may handle certain hazardous substances, as defined in Section 1.1 of this Agreement. CUSTOMER acknowledges that CUSTOMER shall be deemed to have exclusive title to all hazardous substances and any real or personal property contaminated with or otherwise affected by such substances. CUSTOMER further acknowledges that U.S. ENVIRONMENTAL:

- (a) is not, has not been, and shall not be the generator (as that term is defined by law) of any hazardous substance;
- (b) has not taken and shall not take title to or otherwise own any hazardous substance; and
- (c) is not, has not been and shall not be in possession or control of any hazardous substance, except as CUSTOMER'S agent.

6.2 **Selection of Facility; Transport** - If performance of this Agreement requires the treatment or disposal of any hazardous substance, U.S. ENVIRONMENTAL shall transport the substance, or cause the substance to be transported, only to a recycling, disposal or treatment facility selected by CUSTOMER. Any transportation undertaken or arranged by U.S. ENVIRONMENTAL under this Agreement is undertaken or arranged by U.S. ENVIRONMENTAL solely as CUSTOMER's agent and under CUSTOMER's direction.

6.3 **Permits for Transportation and Disposal** - CUSTOMER hereby designates U.S. ENVIRONMENTAL as CUSTOMER's agent for the purpose of obtaining all permits and authorizations required in connection with the transportation of hazardous substances to the disposal and/or treatment facility selected by CUSTOMER. All manifests will be signed by CUSTOMER or CUSTOMER's agent.

6.4 **Generator Numbers** - If any hazardous substance is designated by any governmental authority as a hazardous waste (or any similar designation) then, as a condition precedent to U.S. ENVIRONMENTAL's performance under this Agreement with respect to such substance, CUSTOMER shall provide U.S. ENVIRONMENTAL with CUSTOMER's EPA identification number and any other

identification or authorization required by law or assigned to **CUSTOMER** by any governmental authority for such substance. If **CUSTOMER** does not have an EPA identification number or other required identification or authorization, **U.S. ENVIRONMENTAL** shall assist **CUSTOMER** in obtaining the same.

- 6.5 **Additional Agreements** - In the event that **U.S. ENVIRONMENTAL**'s performance of a spill response or additional environmental services may cause **U.S. ENVIRONMENTAL** to be engaged in the storage, treatment, or disposal (as those terms are defined by law) of any hazardous substance, **CUSTOMER** shall, at **U.S. ENVIRONMENTAL**'s request and as a condition precedent to **U.S. ENVIRONMENTAL**'s engagement in such storage, treatment or disposal activities, enter into such additional contracts, Agreements, or amendments to this Agreement as **U.S. ENVIRONMENTAL** deems necessary.

## 7. LIMITS OF LIABILITY

- 7.1 **Hazardous Substances** - **U.S. ENVIRONMENTAL** shall not be liable to **CUSTOMER** (or any person claiming through **CUSTOMER**) in any amount for any personal injury, illness, death or property damage caused in whole or in part by a hazardous substance or any other substance regulated by law, handled by **U.S. ENVIRONMENTAL** in the performance of this Agreement, **CUSTOMER** hereby releases **U.S. ENVIRONMENTAL** from any and all such liability. The release from liability described in this paragraph is limited by Sections 2.1 and 7.2 of this Agreement.

- 7.2 To the fullest extent permitted by law, **U.S. ENVIRONMENTAL**, on behalf of itself, its agents, employees and subcontractors (collectively referred to as "indemnitors"), shall fully indemnify, save and hold **CUSTOMER**, its members, principals, agents, employees, partners, successors and anyone else acting for or on behalf of any of the foregoing (collectively referred to as "indemnitees") harmless from and against all liability, damage, loss, claims, demands, actions, fines, penalties and expenses of any nature whatsoever incurred in good faith, including, but not limited to, reasonable attorney's fees, which arise out of or are connected with, or are claimed to arise out of or be connected with:

1. Any breach of any item, provision or warranty contained in this Agreement by the indemnitors;
2. Any breach of the standards of care, skill, and diligence normally exercised by a professional in good standing in the performance of services of a similar nature

3. Any negligent act or omission or any willful misconduct by any indemnitor in the performance of the services to be performed hereunder; or
4. Any violation by the indemnitors, or their respective employees, subcontractors, agents, representatives, and/or consultants, of any laws, regulations or ordinances relating to the services provided hereunder.

Without limiting the foregoing, the indemnity hereinabove set forth shall include all liability, damages, loss, claims, demands and actions on account of personal injury, death or property loss to any indemnitee, any of indemnitee's employees, agents, licensees, or invitees, or to any other persons, whether based upon or claimed to be based upon statutory, contractual, tort or other liability of any indemnitee or any other persons.

**U.S. ENVIRONMENTAL** and **CUSTOMER** shall, in the event of liability arising out of their joint or concurrent acts or omissions, be liable to the other and any damaged third party in proportion to their relative degree of fault or responsibility.

The indemnification obligation set forth herein shall survive any termination of this Agreement.

- 7.3 Liens: Indemnification of CUSTOMER - **U.S. ENVIRONMENTAL** shall pay as due all claims for labor, materials, and services resulting from **U.S. ENVIRONMENTAL**'s performance of this Agreement and shall keep **CUSTOMER**'s property free from any liens other than liens created by **CUSTOMER**. **U.S. ENVIRONMENTAL** shall indemnify and hold harmless **CUSTOMER** from and against any and all liability, losses, claims, demands, damages, suits, costs, expenses (including attorney's fees at trial on appeal or petition for review) and causes of action arising out of any lien placed upon **CUSTOMER**'s property as a result of services or materials provided, or work performed, under this Agreement.

## 8. INSURANCE

**U.S. ENVIRONMENTAL** shall maintain during the term of this Agreement:

- (a) Comprehensive general, pollution, and professional liability insurance with a combined single limit of \$5,000,000 for personal injury and property damage;
- (b) Automobile liability insurance with a combined single limit of \$1,000,000;
- (c) Excess coverage on (a) and (b) above up to \$10,000,000; (total \$10,000,000)

- (d) Workmen's Compensation insurance and employer's liability insurance, in compliance with the requirements of the state where the services are performed; and
- (e) Insurance under the United States Longshoremen's and Harbor Worker's Act, where applicable.

Certificates evidencing such insurance and requiring 10 days written notice to **CUSTOMER** prior to any change or cancellation shall be furnished to **CUSTOMER** as soon as practicable after the Commencement Date. **CUSTOMER** shall be named as an additional insured on all policies of insurance maintained by U.S.ENVIRONMENTAL or others pursuant to Section 8 of this Agreement.

This insurance coverage shall in no way be construed as **U.S. ENVIRONMENTAL's** assumption of any liability.

**CUSTOMER** shall be responsible for **CUSTOMER's** own liability insurance, as well as property insurance located at the site for the full cost of replacement at the time of any loss. Physical loss or damage insurance shall be maintained through "All Risk" insurance. Such insurance shall protect **U.S. ENVIRONMENTAL**, all subcontractors and **CUSTOMER**, as interests may appear, against all physical loss or damage to the work, or any part thereof, and to the materials, equipment, and other items incorporated into or intended for incorporation into any part of the work while at or near the site. This requirement by **CUSTOMER** shall not relieve **U.S. ENVIRONMENTAL** of its duty to maintain insurance pursuant to Section 8 of this Agreement.

## 9. MISCELLANEOUS

- 9.1 **Relation of Parties** - Notwithstanding any other provision of this Agreement including but not limited to Section 2, **U.S. ENVIRONMENTAL** is not **CUSTOMER's** employee and shall be considered an independent contractor for all purposes of this Agreement and otherwise. **U.S. ENVIRONMENTAL** shall not be deemed liable for **CUSTOMER's** selection of any parties contracted by **CUSTOMER** for any purpose or for the acts or omissions of such parties. It is expressly understood that **U.S. ENVIRONMENTAL** shall perform the work hereunder as an independent contractor. The **CUSTOMER** specifically recognizes that **U.S. ENVIRONMENTAL** is contracting with **CUSTOMER** to provide services, which are part of the **CUSTOMER's** trade business or occupation. In all cases where **U.S. ENVIRONMENTAL's** or its subcontractor's employees are covered by the Louisiana Worker's Compensation Act, La. R.S. 23:1021 *et seq.*, the **CUSTOMER** (as principal) and **U.S. ENVIRONMENTAL** or its subcontractors (as direct employer) agree to recognize the **CUSTOMER** as the statutory employer of employees of **U.S.**

**ENVIRONMENTAL** or its subcontractors while such employees are providing services to the **CUSTOMER** under this Agreement. This provision is included for the sole purpose of establishing a statutory employer relationship to gain the benefits expressed in La. R.S. 23:1031 (C-E) and La. R.S. 23:1061(A), and is not intended to create an employer/employee relationship for any other purpose. Irrespective of the **CUSTOMER's** status as the statutory employer or special employers (as defined in La. R.S. 23:1031 (C), *et seq.*) of **U.S. ENVIRONMENTAL's** and its subcontractors' employees, **U.S. ENVIRONMENTAL** and its subcontractors shall remain primarily responsible for the payment of Louisiana Worker's Compensation benefits to its employees, and shall not be entitled to seek recovery for any such payments of compensatory benefits from the **CUSTOMER**. This Section applies only for work performed in the State of Louisiana.

- 9.2 **Assignment** - This Agreement shall not be assigned by either **U.S. ENVIRONMENTAL** or **CUSTOMER** without the written consent of the other party; provided, however, that **U.S. ENVIRONMENTAL** may without **CUSTOMER's** consent enter into subcontract(s) for the performance of its obligations under this Agreement as **U.S. ENVIRONMENTAL** deems necessary or desirable.
- 9.3 **Modification** - This Agreement may not be modified except by an Agreement in writing signed by both **U.S. ENVIRONMENTAL** and **CUSTOMER**.
- 9.4 **Attorney's Fees** - If any suit or action is instituted to interpret or enforce any term of this Agreement, the party not prevailing in such action or suit shall be responsible for the payment of any attorney's fees and related costs incurred by the other party in such suit or action.
- 9.5 **Compliance with Law**
- 9.5.1 **U.S. ENVIRONMENTAL** - In providing services under this Agreement, **U.S. ENVIRONMENTAL** shall comply with all applicable laws in effect at the time that such services are performed and shall comply with the Fair Labor Standards Act, as amended, and all valid rules and regulations of federal and state agencies regarding nondiscrimination in employment practices, to the extent that such rules and regulations apply to employment at the locations covered by this Agreement.
- 9.5.2 **CUSTOMER - CUSTOMER** shall, at its sole cost and expense, comply with all laws relevant to the subject matter of this Agreement, including all laws applicable to hazardous substances.
- 9.6 **Permits, Access, and Cooperation** - **CUSTOMER** shall at its sole cost and expense obtain and maintain all governmental permits and approvals (to the extent

that such permits and approvals can be obtained solely by **CUSTOMER**), and any permission to enter onto the property of any third parties, as may be required in connection with the performance of this Agreement.

9.7 **Force Majeure** - Neither **CUSTOMER** nor **U.S. ENVIRONMENTAL** shall be considered in default in the performance of its obligations under this Agreement, except obligations to make payments pursuant to Sections 5 and 7, to the extent that the performance of any such obligation is prevented or delayed by acts of God, a public enemy, restraint of the government (including governmental requirements as described in Section 5.4), strikes or any causes of any nature that could not with reasonable diligence be controlled or prevented by the party whose performance is prevented or delayed. In the event that any governmental requirement, as defined in Section 5.4, or any force majeure event described in this Section delays or increases the time required to **U.S. ENVIRONMENTAL's** performance under this Agreement, the time for such performance shall be extended for as long as is reasonably required by **U.S. ENVIRONMENTAL** to meet such governmental requirement or for as long as is reasonably necessary in light of such force majeure event. In the event that the cost of **U.S. ENVIRONMENTAL's** performance of this Agreement is increased by any force majeure event described in this Section, **CUSTOMER** shall pay all increased costs reasonably resulting from such force majeure event.

9.8 **Exhibits** - The Exhibits attached hereto are by this reference incorporated into this Agreement.

9.9 **Notices** - All notices required under this Agreement shall be given to **UNITED STATES ENVIRONMENTAL SERVICES, L.L.C.** at:

**United States Environmental Services, L.L.C.**  
P. O. Box 949  
Meraux, LA 70075  
ATTN: Legal

and to **CUSTOMER** at:

**Lion Oil Company**  
Post Office Box 1639  
Jackson, MS 39215-1639  
Attn: Mr. John Ryan

All such notices shall be personally delivered or sent by registered or certified first-class mail, postage prepaid. Notices shall be deemed given when personally delivered or, if sent by U.S. Mail, registered or certified, return receipt requested,

three (3) business days after the same have been deposited in the United States Mail, addressed and postage prepaid as set forth above or, if sent by Federal Express (or other nationally recognized overnight carrier), the day after delivery to Federal Express (or other nationally recognized overnight carrier) or, if sent electronically, upon verification of receipt.

- 9.10 **Entire Agreement** - This Agreement constitutes the entire Agreement between **CUSTOMER** and **U.S. ENVIRONMENTAL** relating to the subject matter of the Agreement and supersedes any previous Agreements or understandings.
- 9.11 **Severability** - If in any judicial proceeding a court shall refuse to enforce all the provisions of this Agreement, the scope of any unenforceable provision shall be deemed modified and diminished to the extent necessary to render such provision valid and enforceable. In any event, the validity or enforceability of any such provision shall not affect any other provision of this Agreement, and this Agreement shall be construed and enforced as if such provision had not been included.
- 9.12 **Governing Law** - This Agreement shall be governed and construed under the laws of the State of Mississippi.
- 9.13 **Waiver** - Any waiver with respect to the provisions of this Agreement shall not be effective unless in writing and signed by the party against whom it is asserted. No such waiver constitutes a waiver of any subsequent breach or default.
- 9.14 **Confidential Information** - **CUSTOMER** has developed and will continue to develop, through its own expense and effort, designs, business plans, trade secrets, customers, contacts, business connections, lists of clients and contacts, cost and pricing information, computer programs and other confidential information (all such assets, whether now existing or hereafter coming into existence, whether or not evidenced by a writing including but not limited to skills and information memorialized by the **U.S. ENVIRONMENTAL**, collectively referred to as the "Confidential Information"), all of which are valuable, special, and unique assets of **CUSTOMER**. The Confidential Information derives its value from not being generally known to and not being readily ascertainable by proper means by other persons who can obtain economic value from their disclosure or use, which disclosure or use would adversely affect **CUSTOMER**. In the course of its engagement by **CUSTOMER**, **U.S. ENVIRONMENTAL** may have access to the Confidential Information. Great loss would befall **CUSTOMER** should **U.S. ENVIRONMENTAL** disclose or use the Confidential Information in competition with **CUSTOMER**.

**U.S. ENVIRONMENTAL** shall not at any time or place during or after the term of engagement of **U.S. ENVIRONMENTAL** by **CUSTOMER** disclose or distribute any

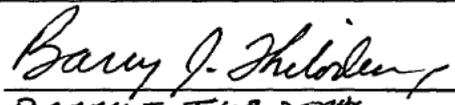
of the Confidential Information to any person, firm, corporation, association or any other entity for any reason or purpose whatsoever, nor use the same except with **CUSTOMER's** express written consent, regardless of whether **U.S. ENVIRONMENTAL** has participated in the discovery or development of any of the Confidential Information. **U.S. ENVIRONMENTAL's** obligation to not disclose the Confidential Information applies regardless of whether the Confidential Information is the subject of pending or granted patent rights, copyright, or any other form of statutory protection. The Confidential Information and any and all items of property relating to **CUSTOMER's** business, whether or not prepared by **U.S. ENVIRONMENTAL**, shall remain the exclusive property of **CUSTOMER** and shall not be removed from **CUSTOMER's** premises without the prior written consent of **CUSTOMER**. In the event of a breach or threatened breach by **U.S. ENVIRONMENTAL** of the provisions of this paragraph, **CUSTOMER** shall, in addition and not in lieu of such other remedies as shall be available to **CUSTOMER** at law, including, without limitation, damages, be entitled to a temporary restraining order and an injunction restraining **U.S. ENVIRONMENTAL** from disclosing or using, in whole or in part, such Confidential Information for any reason or purpose.

- 9.15 **Return of Assets.** **U.S. ENVIRONMENTAL** agrees that on or before the termination of its engagement, for whatever reason, or at any other time promptly upon the request of **CUSTOMER**, **U.S. ENVIRONMENTAL** will deliver to

**CUSTOMER**, without keeping any copies, or any information from which copies can be derived, the following information:

- (a) All Confidential Information, including without limitation, items relating to **CUSTOMER's** or any client's or customer's trade secrets or confidential business information, whether in human or machine readable form, and whether they exist in written form or are contained or stored on any other medium, including without limitation computer disk or diskette, videotape, audiotape, and digital recording, including, but not limited to, all records, flow charts, plans, drawings, documents, papers, and computer software;
- (b) All other physical items that are the property of **CUSTOMER** such as computer equipment, supplies, keys, identification cards, customer lists, reference manuals, books and tools; and
- (c) All written records of any passwords and user identification codes used for computer access.

IN WITNESS WHEREOF, the parties hereto have entered into this Agreement effective as of the date executed, below.

<b>CUSTOMER</b>	<b>UNITED STATES ENVIRONMENTAL SERVICES, L.L.C.</b>
By:  John M. Ryan	By:  BARRY J. THIBODEAUX
Title: <u>Sr. Environmental Scientist</u>	Title: <u>PRESIDENT / CEO</u>
Date: <u>11-15-04</u>	Date: <u>11-16-04</u>

**Exhibit A** – List of Lion Oil Company's Wholly-owned Subsidiary Companies (covered by this agreement)

**Exhibit B** – USES Schedule of Rates, November 2003

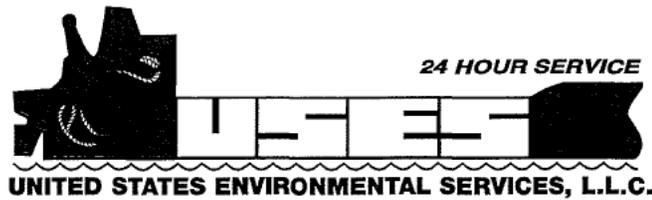
**Exhibit A:**

**List of Lion Oil Company's Subsidiary Companies**

Lion Oil Trading and Transportation, Inc.  
Paline Pipeline Company  
Magnolia Pipeline Company  
El Dorado Pipeline Company  
J. Christy Construction Company

**Exhibit B:**

**USES Schedule of Rates, November 2003**



**United States Environmental Services, LLC**  
**Schedule of Rates - Emergency Response and Industrial Services**  
**1-888-279-9930**  
**November, 2003**

**Personnel**

1. Personnel are charged Portal-to-Portal, with a four-hour minimum upon activation.
2. Straight Time rates apply 0800-1200 and 1300-1700, Monday through Friday. All other hours worked, including Saturdays, Sundays and holidays, will be charged at the Overtime rate, except that Christmas Day shall be charged at double the Straight Time rate. The following are paid holidays for USES employees: New Years Day, Mardi Gras Day (Mobile and Louisiana Offices only), Good Friday, Memorial Day, Independence Day, Labor Day, and Thanksgiving Day. When these holidays fall on a weekend, the nearer weekday will be charged at the Overtime rate as well.
3. Subsistence will be charged at \$95.00 per day per person for work performed fifty miles from the employee's normal U.S. Environmental Services location when overnight accommodations are required. When overnight accommodations are not required, but work exceeds 12 hours, \$25.00 per day per person will apply.
4. To ensure proper hydration, ice, water and sports drinks will be provided to site workers at a charge of \$10.00 per employee per day (will appear as "Stress Relief" on the invoice).
5. Preparation of reports and other documents will be charged at the applicable Straight Time rates.
6. Response to incidents involving chemical or biological terrorism, real or perceived, will be charged at 1.5 times the below referenced rate schedule.

**LABOR**

**Emergency Response:**

	Hourly Rate <b><u>Straight Time</u></b>	Hourly Rate <b><u>Overtime</u></b>
Senior Project Manager .....	\$105.00	No OT
Project Manager.....	\$80.00	No OT
Certified Industrial Hygienist.....	\$105.00	No OT
Toxicologist.....	\$95.00	No OT
Safety Professional/Industrial Hygienist.....	\$80.00	No OT
Chemist, Geologist, Biologist or other professional position.....	\$90.00	No OT
Health and Safety Manager.....	\$60.00	\$90.00
Supervisor.....	\$75.00	\$112.50
Foreman.....	\$55.00	\$82.50
Transportation and Disposal Coordinator.....	\$50.00	\$75.00
Logistics Administrator.....	\$50.00	\$75.00
Heavy Equipment Operator.....	\$50.00	\$75.00
Boat Operator.....	\$45.00	\$67.50
Mechanic.....	\$45.00	\$67.50
Recovery Technician.....	\$42.00	\$63.00
Field Clerk .....	\$45.00	\$67.50
Truck Driver .....	\$30.00	\$45.00
Vacuum Truck Operator.....	\$30.00	\$45.00

\* See Page 12, Item 8 for Mississippi tax information regarding soil excavation projects.

**Oil Spill Emergency Response:**

"Oil" is defined as crude oil, bunker oils or other petroleum products that are not listed or defined as DOT hazardous materials, OSHA regulated hazardous substances, CERCLA hazardous substances or RCRA hazardous waste.

	<u>Straight Time</u>	<u>Overtime</u>
Senior Project Manager.....	\$90.00	No OT
Project Manager.....	\$65.00	No OT
Certified Industrial Hygienist.....	\$85.00	No OT
Toxicologist.....	\$95.00	No OT
Chemist, Geologist, Biologist or other professional position.....	\$85.00	No OT
Health and Safety Manager.....	\$55.00	\$82.50
Supervisor.....	\$50.00	\$75.00
Foreman.....	\$42.00	\$63.00
Transportation and Disposal Coordinator.....	\$45.00	\$67.50
Logistics Administrator.....	\$45.00	\$67.50
Heavy Equipment Operator.....	\$45.00	\$67.50
Boat Operator.....	\$40.00	\$60.00
Mechanic.....	\$36.00	\$54.00
Recovery Technician.....	\$36.00	\$54.00
Pollution Laborer.....	\$30.00	\$45.00
Field Clerk.....	\$32.00	\$48.00
Truck Driver.....	\$30.00	\$45.00
Vacuum Truck Operator.....	\$30.00	\$45.00

**Industrial/Planned Action Work:**

	<u>Straight Time</u>	<u>Overtime</u>
Senior Project Manager.....	\$80.00	No OT
Project Manager.....	\$60.00	No OT
Certified Industrial Hygienist.....	\$85.00	No OT
Toxicologist.....	\$85.00	No OT
Chemist, Geologist, Biologist or other professional position.....	\$85.00	No OT
Health and Safety Manager.....	\$45.00	\$67.50
Supervisor.....	\$50.00	\$75.00
Foreman.....	\$42.00	\$63.00
Transportation and Disposal Coordinator.....	\$40.00	\$60.00
Logistics Administrator.....	\$40.00	\$60.00
Heavy Equipment Operator.....	\$40.00	\$60.00
Boat Operator.....	\$35.00	\$52.50
Mechanic.....	\$35.00	\$52.50
Recovery Technician.....	\$30.00	\$45.00
Field Clerk.....	\$35.00	\$52.50
Truck Driver.....	\$30.00	\$45.00
Vacuum Truck Operator.....	\$30.00	\$45.00

**VEHICLES, TRAILERS, VESSELS, HEAVY TRUCKS AND HEAVY EQUIPMENT****Vehicles:**

	<u>Rate</u>	<u>Unit</u>
Vehicles - Vehicle daily and mileage charges are portal-to-portal		
Automobile.....	\$90.00	Day
Pick-up Truck, 2WD (F-150 to F-350 or equivalent).....	\$105.00	Day

Pick-up Truck, 2WD (F-450 to F-550 or equivalent) .....	\$150.00	Day
Pick-up Truck, 4WD (F-150 to F-350 or equivalent).....	\$175.00	Day
Pick-up Truck, 4WD (F-450 to F-550 or equivalent).....	\$195.00	Day
Passenger Van, 16 Occupants.....	\$150.00	Day
Stake Bed (One Ton 2WD).....	\$175.00	Day
Stake Bed (One Ton 2WD), with hydraulic crane.....	\$225.00	Day
Mileage Charge (Pickup Trucks and Autos).....	\$0.50	Mile

**Vacuum Trucks and other Heavy Trucks:**

Charged Portal to Portal

Vacuum Truck, 70-80 Barrel (Operator not included).....	\$55.00	Hour
Vacuum Truck, Stainless Steel 80 Barrel (Operator not included).....	\$80.00	Hour
King Vac (Operator not included).....	\$105.00	Hour
Guzzler (Operator not included).....	\$135.00	Hour
Vacuum Truck Washout (Residue Only with Minimal Solids)	\$175 plus rinsate disposal	
Mileage Charge on Vacuum Truck.....	\$1.50	Mile
Dump Truck, to 16 Cubic Yards (Driver not included).....	\$25.00	Hour
End-Dump Trailer (Driver not included).....	\$35.00	Hour
Water Truck (Driver not included).....	\$25.00	Hour
Mileage Charge on Dump and Water Truck.....	\$0.50	Mile
Box Trailer, Greater than 40' with Tractor (Driver not included)	\$80.00	Hour
OTR Truck/Tractor Mileage.....	\$0.50	Mile
Box Trailer (Greater than 40') without Tractor.....	\$275.00	Day
Low-Boy Trailer with Tractor (Driver and permits not included)	\$80.00	Hour

**Heavy Equipment:**

2-WD Rubber-Tire Backhoe.....	\$250.00	Day
4-WD Rubber-Tire Backhoe.....	\$275.00	Day
4-WD Backhoe with Extend-a-hoe Attachment.....	\$285.00	Day
Mini-Excavator.....	\$225.00	Day
Skid Steer Loader.....	\$225.00	Day
Forklift Attachment for Backhoe or Skid Steer.....	\$35.00	Day
Excavators and Bull-Dozers Quoted per Occurrence		

**Vessels:**

10' x 30' Barge Boat, Twin Outboards over 100-HP .....	\$725.00	Day
20' -26' Fast Response Boat, Twin Outboards over 100-HP..	\$550.00	Day
20' -26' Fast Response Boat, One Outboard over 200-HP....	\$550.00	Day
20' -26' Fast Response Boat, Twin Outboards up to 100-HP.	\$450.00	Day
18' - 25' Fast Response Boat, Twin Outboards up to 100-HP	\$400.00	Day
18' -25' Fast Response Boat, One Outboard over 50-HP.....	\$350.00	Day
16' - 18' Work Boat over 20-HP Outboard.....	\$195.00	Day
16' - 18' Work Boat with Go-Devil.....	\$250.00	Day
16' - 18' Work Boat without Motor.....	\$100.00	Day
10' - 14' Flat-Bottom Boat with Motor.....	\$150.00	Day
10' - 14' Flat-Bottom Boat without Motor .....	\$100.00	Day
20' "Goo-Gobbler" - Skimmer Response Vessel.....	\$750.00	Day
26' "Goo-Gobbler" - Skimmer Response Vessel.....	\$3,500.00	Day

▶ Fuel for all vessels will be charged at Cost + 20%

▶ Vessels are equipped with paddles and personal flotation devices for **USES** personnel.

**Trailers:**

36' - 40' Response Trailer with Command Post.....	\$550.00	Day
32' - 35' Response Trailer (Enclosed).....	\$450.00	Day
28' - 31' Response Trailer (Enclosed).....	\$350.00	Day
20' - 27' Response Trailer (Enclosed).....	\$225.00	Day
Response Trailer, Less than 20' (Enclosed).....	\$175.00	Day
Boom Trailer.....	\$130.00	Day
Boom Trailer with Work Boat, Motor, Pump, Spill Supplies.....	\$200.00	Day
Box Trailer (Greater than 40').....	\$275.00	Day
Command/Air Monitoring Equipment Trailer to 32'.....	\$450.00	Day
Equipment Trailer, Greater than 20'.....	\$175.00	Day
Equipment Trailer, Less than 20'.....	\$125.00	Day
Equipment Trailer with Hydraulic Crane.....	\$250.00	Day

**PUMPS, HOSE, FITTINGS AND ASSOCIATED EQUIPMENT****Pumps:**

2" Diesel Trash Pump.....	\$100.00	Day
2" Gas Trash Pump.....	\$85.00	Day
3" Diesel Trash Pump.....	\$135.00	Day
3" Gas Trash Pump.....	\$100.00	Day
3" Diesel Diaphragm Pump.....	\$225.00	Day
3" Polyethylene Air Diaphragm Pump.....	\$350.00	Day
3" Aluminum Air Diaphragm Pump.....	\$125.00	Day
2" Aluminum Air Diaphragm Pump.....	\$100.00	Day
2" Stainless Steel Air Diaphragm Pump.....	\$250.00	Day
2" Polyethylene Air Diaphragm Pump.....	\$250.00	Day
2" Kynar Air Diaphragm Pump.....	\$375.00	Day
1" Polyethylene Air Diaphragm Pump.....	\$150.00	Day
1" Aluminum Air Diaphragm Pump.....	\$100.00	Day
Submersible Pump (to 1").....	\$150.00	Day
1" Lutz Pump.....	\$125.00	Day
Rotary Petroleum Pump, Manual.....	\$25.00	Day
Drum Pump, Disposable.....	\$25.00	Each
Chemical Pump, Manual.....	\$25.00	Day

**Hose:**

1" Suction/Discharge Hose (Petroleum), 20'.....	\$20.00	Day
2" Suction/Discharge Hose (Petroleum), 20'.....	\$30.00	Day
3" Suction/Discharge Hose (Petroleum), 20'.....	\$35.00	Day
2" Suction/Discharge Teflon Chemical Hose, 20'.....	\$150.00	Day
1" Suction/Discharge Chemical Hose, 20' (UHMWP).....	\$75.00	Day
2" Suction/Discharge Chemical Hose, 20' (UHMWP).....	\$100.00	Day
3" Suction/Discharge Chemical Hose, 20' (UHMWP).....	\$135.00	Day
4" - 6" Flexible Corrugated Poly Hose.....	\$1.95	Foot
3/4" Air Compressor Hose, 50'.....	\$15.00	Day
Fire Hose:		
1.75"-3.0".....	\$0.75	Foot/Day
4.0" - 5.0".....	\$1.00	Foot/Day

**Associated Fittings, Skimmers and Capping Kits:**

Betts Emergency Unloading Valve.....	\$325.00	Day
Butterworth Spin-Jet Nozzle, Stainless Steel.....	\$175.00	Day
Chlorine "A" Kit.....	\$500.00	Day
Chlorine "B" Kit.....	\$500.00	Day
Chlorine "C" Kit.....	\$500.00	Day
Conversion Kit, Metric Thread to Standard Pipe Thread.....	\$250.00	Day
Cylinder Coffin.....	\$750.00	Day
Dome Lid Gasket.....	\$125.00	Each
Drum Vacuum, Stainless Steel, 2".....	\$225.00	Day
Fittings Charge for Transfers.....	\$225.00	Day
Foam Eduction Nozzle.....	\$50.00	Day
<b>Gaskets</b>		
1".....	\$6.00	Each
1.5".....	\$6.00	Each
2".....	\$9.00	Each
3".....	\$10.00	Each
4".....	\$12.00	Each
6".....	\$15.00	Each
Gasket Cutter Kit.....	\$50.00	Day
Gasket Material.....	\$125.00	2' square sheet
H <sub>2</sub> S Capping Kit.....	\$500.00	Day
High Pressure Gauge Test Kit.....	\$35.00	Day
"Lid Loc" Dome Clamp (MC-406/306 Model).....	\$250.00	Day
"Lid Loc" Dome Clamp (MC-407/307 Model).....	\$350.00	Day
Midland Capping Kit.....	\$800.00	Day
Nitrogen Purge System (Includes 1 nitrogen cylinder).....	\$300.00	Transfer
Rupture Disc.....	\$65.00	Each
Rupture Disc, ICD Intermodal Container.....	\$125.00	Each
Sight Glass, 2" Stainless Steel.....	\$75.00	Day
Skimmer, Drum, 24".....	\$475.00	Day
Skimmer, Duck Bill.....	\$45.00	Day
Skimmer, Weir, 18" to 24".....	\$125.00	Day
Stinger, Stainless Steel or Polyethylene.....	\$50.00	Day
Trident Quick Frame Magnetic Patch.....	\$300.00	Day

*Upon completion of projects involving chemical transfers, equipment such as pumps, hoses, gaskets, elastomers, valves, etc. will be inspected for deterioration resulting from chemical degradation. Any repairs, including pump rebuilds, that result from chemical degradation of equipment will be invoiced at cost with no mark-up.*

**BOOM AND SORBENTS****Boom:**

18" Containment Boom.....	\$1.25	Foot/Day
10" - 12" Containment Boom.....	\$1.15	Foot/Day
4" - 6" Containment Boom.....	\$1.00	Foot/Day
<b>Boom Anchors</b>		
22-Pound.....	\$65.00	Job
40-Pound.....	\$110.00	Job
65-Pound.....	\$210.00	Job
Boom Lights, Electric Strobe.....	\$15.00	Day
Boom Lights, 12-Hour Chemical.....	\$8.00	Each

**Sorbents:**

Cell-U-Sorb.....	\$28.00	Bag
Chemsorb Pillows.....	\$18.00	Each
Fiberpearl.....	\$28.00	Bag
Floor Dry.....	\$15.00	Bag
Oil Gator.....	\$25.00	Bag
Oil Snare.....	\$45.00	15 Pound Box
Sorbent Boom		
8" x 10' x 4' Section (4 Sections per Bag).....	\$155.00	Bag
5" x 10' x 4' Section (4 Sections per Bag).....	\$90.00	Bag
Sorbent Pads, Chemical, 100 per bale.....	\$60.00	Bale
Sorbent Pads, Petroleum, 100 per bale.....	\$55.00	Bale
Sorbent Roll.....	\$115.00	Roll
Sorbent Sweeps.....	\$125.00	Bale
Vermiculite.....	\$28.00	Bag

**HEALTH, SAFETY, MONITORING AND PERSONNEL PROTECTIVE EQUIPMENT****Protective Clothing:**

Acid Suit, Encapsulated.....	\$160.00	Each
Acid Suit, Two-Piece.....	\$90.00	Each
Boot Covers, Latex.....	\$8.00	Pair
Chemical Resistant Boot, Steel Toe.....	\$35.00	Pair
Chemical Resistant Duct Tape.....	\$25.00	Roll
Chemical Resistant Suit (CPF-2) or equivalent.....	\$35.00	Each
Chemical Resistant Suit (CPF-3) or equivalent.....	\$50.00	Each
Chemical Resistant Suit (CPF-4) or equivalent.....	\$65.00	Each
Chemical Resistant Suit, Tyvek/NexGen.....	\$15.00	Each
Firefighter Structural Turn-out Gear/Bunker Gear.....	\$250.00	Day
Flame Retardant Coveralls.....	\$25.00	Day
Flash Suit, Level A, Disposable.....	\$1,800.00	Each
Fully Encapsulated Level B (CPF-3) or equivalent.....	\$125.00	Each
Fully Encapsulated Level B (CPF-4) or equivalent.....	\$185.00	Each
Gloves/Boot Covers, SilverShield.....	\$15.00	Pair
Gloves-Butyl, w/inner gloves.....	\$38.00	Pair
Gloves, Inner.....	\$1.00	Pair
Gloves, Leather.....	\$8.00	Pair
Gloves-PVC, Nitrile, Neoprene, w/inner gloves.....	\$12.00	Pair
Gloves-Viton, w/inner gloves.....	\$75.00	Pair
Level A, Disposable.....	\$750.00	Each
Level A Suit Pressure Test Kit.....	\$25.00	Test
Level D Modified (Includes 2 Tyvek/NexGen coveralls or 1 CPF-2 and 2 pair gloves).....	\$40.00	Man/Day
PVC-Coated Tyvek Suit.....	\$20.00	Each
Rain Suit.....	\$20.00	Each
Safety Vest, Fluorescent.....	\$5.00	Day
Splash Shield.....	\$5.00	Each
Tyvek/NexGen.....	\$15.00	Each

**Fall Protection and Confined Space Entry Equipment:**

Confined Space Rescue Equipment.....	\$150.00	Job
Full Body Harness.....	\$35.00	Day
Life Safety Rope.....	\$1.25	Foot
Lock Out/Tag Out Kit.....	\$50.00	Job
Retrieval Tripod with Winch.....	\$150.00	Day
Tank Car Entry Ladder.....	\$30.00	Day

**Respiratory Protection:**

Air Hose (50' section).....	\$10.00	Section/Day
Air System Recharge Fee.....	\$25.00	Bottle
Breathing Air Trailer (Does not include ancillary equipment)	\$250.00	Day
Cascade System:		
Per Person including hip mounted unit, 50' air hose and mask.....	\$175.00	Day
Dust Mask, Disposable.....	\$2.50	Each
Respirator, Advantage 1000 Chem/Bio APR.....	\$100.00	Day
Respirator Cartridges, Advantage 1000 Chem/Bio.....	\$50.00	Each
Respirator Cartridges, Mercury.....	\$40.00	Pair
Respirator Cartridges, Organic.....	\$35.00	Pair
Respirator, Full Face, APR.....	\$75.00	Day
Self Contained Breathing Apparatus, 60-Minute.....	\$225.00	Day

**Traffic Control Equipment:**

Traffic Control Trailer with barrels, cones, signs, sign lights, signal flags, etc for 0.25 - 1.0 mile of lane closure.....	\$1,000.00	Day
Individual barrels, cones, signs, sign lights, signal flags, etc. for less than 0.25 or greater than 1.0 mile lane closure.....	\$25.00	Each/Day
Flashing Arrow Trailer, Solar Powered.....	\$250.00	Day
Traffic Wand LED Light.....	\$10.00	Day
Traffic Safety Vest.....	\$5.00	Day
Traffic Control Supervisor.....	\$65.00/Hour	\$97.50/OT Rate
Traffic Control Technician.....	\$42.00/Hour	\$63.00/OT Rate
Traffic Barricades, Water Filled.....	\$30.00	Day

**Field Instrumentation and Supplies:****Air Monitoring Equipment**

4-Gas Meter Plus PID.....	\$225.00	Day
Colorimetric Detector Tube (MSA and Draeger).....	\$15.00	Each
Colorimetric Tube Pump (MSA, Draeger).....	\$65.00	Day
Combustible Gas Indicator.....	\$125.00	Day
Jerome 431-X Portable Mercury Vapor Analyzer.....	\$200.00	Day
Laboratory Analysis for Filter Tubes, Vacuum Canisters and Tedlar Bags.....	Cost + 20%	
Miran SapphIRe Portable Ambient Air Analyzer.....	\$550.00	Day
OVA (FID).....	\$250.00	Day
OVM (PID).....	\$200.00	Day
Random Aerosol Monitor (Mini Ram).....	\$125.00	Day
Sampling Pump, Personnel.....	\$25.00	Day
Sampling Tube, Charcoal.....	\$10.00	Tube
Sampling Tube, PUF.....	\$30.00-60.00	Tube
Sampling Tube, Silica Gel.....	\$12.00	Tube

Sampling Tube, TDT.....	\$65.00	Tube
Sampling Tube, Teflon/Tygon, to 1/4" I.D.....	\$3.00	Foot
Tedlar Bag.....	\$60.00	Bag
Toxic Gas Detector, Multiple Gases.....	\$200.00	Day
Toxic Gas Detector, Single Gas.....	\$125.00	Day
Vacuum Canister.....	\$45.00	Canister
Weather Station, Portable with Computer Interphase.....	\$175.00	Day
<b>Testing/Sampling Equipment</b>		
Bailer, Polyethylene (Disposable).....	\$18.00	Each
Biological Threat Alert Kit.....	\$250.00	Day
Biological Threat Tests.....	\$75.00	Each
Clor-N-Oil Test Kit.....	\$25.00	Each
Clor-N-Soil Test Kit.....	\$35.00	Each
Clor-D-Tect Test Kit.....	\$30.00	Each
Coliwasa, Disposable Glass.....	\$15.00	Each
Conductivity Meter.....	\$50.00	Day
HazCat Testing		
HazCat Kit.....	\$75.00	Day
Portable Vented Hood with Explosion Proof Exhaust Fan... Tests.....	\$150.00 \$5.00	Day Each
pH Indicator Strips.....	\$20.00	Pack
pH Meter.....	\$50.00	Day
pH Pen.....	\$20.00	Day
Radiation Survey Meter.....	\$125.00	Day
Sample Bottles, 4-12 ounce.....	\$6.00	Each
Sample Bottles, 16-32 ounce.....	\$8.00	Each
Sample Bottles, VOC.....	\$3.50	Each
Sample Kit.....	\$25.00	Each
Soil Auger, Stainless Steel.....	\$50.00	Day
Thermometer, Infrared Laser.....	\$50.00	Day

### **DECONTAMINATION, CLEANING SUPPLIES AND NEUTRALIZING AGENTS:**

#### **Decontamination Equipment:**

Biological Agent Decontamination Kit.....	\$50.00	Day
Bloodborne Pathogen Decontamination Kit.....	\$25.00	Day
Decontamination Brushes.....	\$15.00	Each
Decontamination Pool.....	\$25.00	Each
Emergency Shower, Portable.....	\$100.00	Day
Eye Wash Station, Portable.....	\$20.00	Day
Personnel Decon Station (1 poly pool, brushes, decon solution, rubber matting, 2 pump sprayers).....	\$90.00	Job
Pump Sprayer.....	\$30.00	Job

#### **Cleaning Supplies, Neutralizing Agents and Inoculants**

Alcohol, Isopropyl (Pesticide Grade).....	\$20.00	Liter
Bleach, Household Strength (5%).....	\$3.00	Gallon
Citric Acid, 50 lbs.....	\$68.00	Bag
Citrus Cleaner.....	\$18.00	Gallon
Degreaser, General Purpose Petroleum Based.....	\$25.00	Gallon
Degreaser, Hot Tank, 55 Gallon Drum.....	\$515.00	Drum
Degreaser, Hot Tank.....	\$12.00	Gallon
Degreaser, "Walter", 55 Gallon Drum.....	\$385.00	Drum

Degreaser, "Walter".....	\$10.00	Gallon
Detergent (Dawn, Joy, etc.).....	\$4.00	12 oz
Detergent, Liqui-Nox .....	\$12.00	Quart
Detergent, Phosphate Free (Alconox,Alcojet), 4 lbs.....	\$25.00	Box
Ferrous Sulfate, 50 lbs.....	\$25.00	Bag
Hand Cleaner.....	\$5.00	Tube
Hydrochloric/Muratic Acid (Minimum 30% Strength).....	\$8.00	Gallon
Hydrochloric/Muratic Acid, 55 Gallon Drum.....	\$285.00	Drum
Hydrogen Peroxide, 55 Gallon Drum.....	\$515.00	Drum
Lime, Agricultural, 50 lbs.....	\$12.00	Bag
Lime, Hydrated, 50 lbs.....	\$16.00	Bag
Lubricant/Rust Inhibitor (WD-40, LPS, Liquid Wrench, etc).....	\$25.00	Gallon
Lubricant/Rust Inhibitor (WD-40, LPS, Liquid Wrench, etc).....	\$8.00	12 oz Spray
Micro Blaze.....	\$195.00	5-Gallons
Simple Green.....	\$18.00	Gallon
Super Clean.....	\$18.00	Gallon
Soda Ash, 50 lbs.....	\$20.00	Bag
Sodium Bicarbonate, 50 lbs (Industrial Grade).....	\$36.00	Bag
Sodium Hydroxide Solution (Minimum 50% Strength).....	\$5.00	Gallon
Sodium Hydroxide Solution, 55 Gallon Drum.....	\$185.00	Drum
Sodium Hypochlorite Solution (Minimum 10% Strength).....	\$7.00	Gallon
Sodium Hypochlorite Solution, 55 Gallon Drum.....	\$250.00	Drum
Trisodium Phosphate, 50 lbs.....	\$50.00	Bag

#### **Mercury Spill Control Equipment:**

Heat Gun.....	\$35.00	Day
Jerome 431-X Portable Mercury Vapor Analyzer.....	\$200.00	Day
Mercon Solution.....	\$125.00	Gallon
Mercon Wipes (Package of 70).....	\$60.00	Each
Mercury Check Swab.....	\$10.00	Each
Mercury Granular Absorbent.....	\$125.00	2,500 grams
Mercury Indicator Powder.....	\$50.00	250 grams
Mercury Vacuum.....	\$175.00	Day

#### **COMMUNICATIONS AND OFFICE EQUIPMENT**

Cellular Phone.....	\$25.00	Day
Copier.....	\$55.00	Day
Digital Camera.....	\$20.00	Day
Electronic Copies of Reports, Documents, Photographs		
3.5" Diskette.....	\$5.00	Each
Compact Disk.....	\$10.00	Each
Fax Machine.....	\$55.00	Day
Global Positioning System Receiver.....	\$20.00	Day
Laptop Computer with Printer.....	\$55.00	Day
Radio, 2-way Hand-Held.....	\$25.00	Day
Radio, 2-way Hand Held (Intrinsically Safe).....	\$50.00	Day
Satellite Phone (Includes 30 minutes airtime).....	\$125.00	Day
Video Camera.....	\$75.00	Day

**MISCELLANEOUS EQUIPMENT AND SUPPLIES**

Air Compressor, to 12 CFM.....	\$35.00	Day
Air Compressor, trailer-mounted (110 - 185 CFM).....	\$150.00	Day
Air Compressor, trailer-mounted (250 CFM).....	\$185.00	Day
Air Horn/Coppus Blower.....	\$35.00	Day
ATV (4-wheeler).....	\$250.00	Day
Binoculars.....	\$10.00	Day
Blower, Leaf.....	\$75.00	Day
Chain Saw.....	\$75.00	Day
Chop Saw.....	\$75.00	Day
Chop Saw Blade.....	\$20.00	Each
Cutting Torch, Gauges & Gas (1 oxygen & 1 acetylene cyl.)	\$150.00	Day
Drill, Pneumatic.....	\$35.00	Day
<b>Drums</b>		
110-Gallon Poly Overpack.....	\$275.00	Each
95-Gallon Poly Overpack.....	\$185.00	Each
85-Gallon Steel Recovery.....	\$150.00	Each
55-Gallon Closed/Open Top Steel.....	\$65.00	Each
55-Gallon Closed/Open Top Poly.....	\$60.00	Each
30 Gallon Steel Drum.....	\$40.00	Each
20-Gallon Pollution Can.....	\$12.00	Each
5-Gallon Bucket with Lid.....	\$12.00	Each
5-Gallon Lab-Pack Bucket with Screw Top.....	\$18.00	Each
Drum Dolly.....	\$25.00	Day
Drum Insert, 55 Gallon (Polyethylene).....	\$20.00	Each
Drum Labels.....	\$2.00	Each
Drum Lift.....	\$20.00	Day
Drum Liners.....	\$1.50	Each
Drum Pump - Disposable.....	\$25.00	Each
Drum Wrench, Non-Sparking.....	\$10.00	Day
Extension Cord, Electrical.....	\$8.00	Day
Fan, Industrial 36" - 48", Non-Intrinsically Safe.....	\$35.00	Day
Fan, Intrinsically-Safe Blower/Exhaust with 50' Duct.....	\$75.00	Day
Fence, Construction Safety, 100'.....	\$55.00	Roll
Fence, Silt, 100'.....	\$38.00	Roll
Fire Extinguisher to 20 lb.....	\$10.00	Day
Form, Bill of Lading.....	\$5.00	Each
Form, Waste Manifest.....	\$5.00	Each
Generator to 4 KW.....	\$100.00	Day
Generator, 4.1 to 8.0 KW.....	\$175.00	Day
Generator, 8.1 to 12 KW.....	\$225.00	Day
Grounding/Bonding Equipment, Rods and Cables.....	\$10.00	Each/Day
Heat Gun.....	\$35.00	Day
Impact Wrench, 1".....	\$50.00	Day
Ladder, Step or Extension.....	\$20.00	Day
<b>Lighting</b>		
Flashlight, Intrinsically Safe.....	\$10.00	Day
Flashlight, Non Intrinsically Safe.....	\$5.00	Day
Flood Light, Explosion Proof.....	\$75.00	Day
Light Plant, Trailer Mounted.....	\$125.00	Day
Light Stand, Portable.....	\$25.00	Day
Lock Out/Tag Out Kit.....	\$50.00	Job
Pallet Jack.....	\$35.00	Day
Paste, Kolor Kut.....	\$5.00	Tube

Pipe Cutter & Threader (Manual).....	\$35.00	Day
Plugging, Epoxy Stick.....	\$12.00	Each
Plugging/Patching Kit.....	\$30.00	Plug/Patch
Polyethylene Sheeting (4-6 ml 40' x 100').....	\$125.00	Roll
Polyethylene Sheeting (4-6 ml 20' x 100').....	\$75.00	Roll
<b>Pressure Washing Equipment</b>		
Hydroblaster, to 10,000 psi.....	\$475.00	Day
Hydroblaster, 10,001 to 20,000 psi.....	\$575.00	Day
Pressure Washer.....	\$150.00	Day
Steam Cleaner.....	\$225.00	Day
Steam Cleaner, trailer-mounted,self-contained with water tank.....	\$500.00	Day
<b>Rope</b>		
1/4".....	\$55.00	Roll
3/8".....	\$75.00	Roll
1/2".....	\$85.00	Roll
3/4".....	\$100.00	Roll
Silicone Caulk.....	\$10.00	Tube
"T" Post.....	\$5.00	Each
"T" Post Driver.....	\$10.00	Day
Table, Polyethylene.....	\$8.00	Day
Tank, Polyethylene to 2,000 Gallons.....	\$50.00	Day
Tank, Polyethylene 2,001 to 4,000 gallons.....	\$100.00	Day
Tank, Polyethylene 4,001 to 6,000 gallons.....	\$150.00	Day
<b>Tape</b>		
Barrier.....	\$35.00	Roll
Chemical Resistant Duct Tape.....	\$25.00	Roll
Duct.....	\$9.00	Roll
Electrical.....	\$3.00	Roll
Teflon Tape.....	\$1.75	Roll
Tape Measure, 100' - 300'.....	\$5.00	Day
Tape, Roller-Wheel.....	\$20.00	Day
Tarpaulin, 15' x 15'.....	\$25.00	Day
Teflon Packing Material.....	\$60.00	1-lb/Roll
<b>Tools</b>		
Electric/Battery Powered Hand Tools (Skill Saw, Reciprocating Saw, Drill, Band Saw, etc.).....	\$25.00	Day
Hand Tools-Non Sparking.....	\$25.00	Day
Hand Tools-Shovels, Rakes, Nets, Pitchforks, etc.....	\$20.00	Each/Job
Reciprocating Saw Blade.....	\$2.00	Each
Tool Kit, Non-Sparking.....	\$75.00	Day
Torpedo Heater.....	\$50.00	Day
Tote Container, Polyethylene.....	\$25.00	Day
Tubing, Teflon/Tygon, to 1/4" I.D.....	\$3.00	Foot
<b>Vacuum Equipment</b>		
Drum Vacuum, Stainless Steel, 2".....	\$225.00	Day
HEPA Vacuum.....	\$125.00	Day
Mercury Vacuum.....	\$175.00	Day
Wet/Dry Vacuum.....	\$50.00	Day
Weed Eater, Industrial.....	\$75.00	Day
Weed Eater, Industrial, with Tiller Attachment.....	\$90.00	Day
Welding Machine, Portable with rods, hood, hand tools, etc....	\$225.00	Day
Wheelbarrow.....	\$25.00	Day

**MASTER SERVICE CONTRACT - #LOC-ESH-001**

THIS CONTRACT, made and entered into on this the 3<sup>rd</sup> day of June, 2002, by and between **LION OIL COMPANY** hereinafter referred to as "Company" and **ES&H CONSULTING SERVICES, INC.** hereinafter referred to as "Contractor". In consideration of services provided or work to be performed by Contractor, as herein contemplated, and in consideration of the payments which are to be made by Company to Contractor therefore, Company and Contractor agree as follows:

**1. WORK TO BE PERFORMED:** It is contemplated that Company will, from time to time, through its duly-authorized representatives, request Contractor to perform certain work or furnish certain services to Company (the "Work"). The Work shall include all work or services performed by Contractor from time to time for Company. Contractor shall, at its sole cost, risk, and expense, furnish all labor and materials (unless otherwise specified) necessary to do the Work, and shall diligently pursue the Work to completion in a good and workmanlike manner to Company's satisfaction in accordance with Company's specifications. Company and Contractor shall endeavor to document the details of each item of Work pursuant to written work order or purchase order, which work or purchase orders shall become a part of this Contract. In the event of a conflict between any work or purchase order and this Contract, this Contract shall control. All Work shall be performed in accordance with and subject to the terms and conditions of this Contract, regardless of whether or not such Work is further documented by written work or purchase order. Time is of the essence as to all aspects of this Contract.

**2. INDEPENDENT CONTRACTOR:** It is expressly understood that Contractor is an independent contractor and that neither Contractor nor Contractor's principals, partners, employees, or subcontractors are servants, agents or employees of Company. Contractor shall control the manner and method of executing the Work and shall permit Company's representatives to inspect the Work. As an independent contractor, Contractor agrees to comply with all laws, rules, and regulations, whether federal, state, or municipal, which now or in the future may be applicable to all Work performed hereunder or applicable to Contractor's business, equipment, or employees engaged in or in any manner connected with its performance hereunder. Contractor warrants that it has all requisite skill, knowledge and experience necessary to perform the Work it will perform, that its employees and agents have been trained to follow all applicable laws, rules, and regulations and work safely, and that all of its equipment has been thoroughly tested and inspected and is safe, sufficient and free of any defects, latent or otherwise. Contractor acknowledges that Company will rely upon these representations.

**3. INSURANCE:**

**3.1. Coverage:** Contractor agrees to procure and maintain, at its sole expense, with solvent insurers acceptable to Company, policies of insurance in the coverages and minimum amounts set forth below. The insurance provisions of this Contract are intended to assure that certain minimum standards of insurance protection are maintained by Contractor, and the specification herein of any limits or amounts shall be construed to support but not in any way to limit the liabilities and indemnity obligations of Contractor. Coverage under all insurance required to be carried by Contractor will be primary insurance and exclusive of any other existing valid and collectible insurance, and each policy will be endorsed to name Company (together with its affiliated companies, agents, directors, officers, agents and employees, collectively referred to herein as "affiliates") as additional insureds (except Workers' Compensation) and waive subrogation against Company, its affiliates and its insurers. Company and its affiliates reserve the right to make a claim against Contractor and/or Contractor's insurers for the account of themselves or others and shall be neither precluded nor denied the right to recover because of being named as additional insured under Contractor's policies of insurance.

<p><b>COMMERCIAL GENERAL LIABILITY:</b> Premises/Operations; Independent Contractors Personal Injury; Products/Completed Operations; Blanket Contractual Liability Sudden and Accidental Pollution Liability Limits: <b>\$1,000,000</b></p>	<p><b>AUTOMOBILE LIABILITY:</b> Owned, Non-Owned, Hired Vehicles Limits: <b>\$1,000,000</b></p>	<p><b>WORKERS' COMPENSATION / EMPLOYER'S LIABILITY:</b> Statutory Workers' Compensation for state of hire/operation Employers' Liability: Limits: <b>\$1,000,000</b> Other States Insurance; Alternate Employer/Borrowed Servant</p>
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**3.2. Certificates of Insurance.** Contractor shall furnish to Company Certificates of Insurance evidencing that all insurance required by §3.1 has been secured; and no Work shall be commenced or monies paid for Work performed by Contractor until the proper certificates are furnished to Company (provided that commencement of Work or any payment for Work without a properly completed Certificate of Insurance shall not constitute a waiver of any rights of Company hereunder.) Such insurance policies and certificates must provide that not less than thirty (30) days written notice will be given to Company at the address provided herein prior to the effective date of any material change in or cancellation of said insurance policies. Upon receipt of such notice, Company shall have the right to promptly terminate this Contract, the provisions of Paragraph 7 regarding a thirty (30) day cancellation notice period notwithstanding.

**3.3. Accident Reports.** Contractor will provide immediate written notice to Company of any accidents or occurrences resulting in injuries to persons or property in any way arising out of or related to Contractor's operations or the operation of any Subcontractor of Contractor in connection with the Work or otherwise occurring on Company's property.

**4. INDEMNITY:**

**4.1.** Contractor agrees to indemnify, defend, and save harmless Company and its affiliates from and against any and all claims, demands, judgments, defense costs (including reasonable attorneys fees), or suits for property damage, bodily injury, (including illness, disease, death or for loss of services, or wages or for loss of consortium or society or other losses of any kind): (a) by Contractor or its Subcontractors or their respective employees (or their spouses, relatives, or dependents) in any way arising out of or related to the performance of this Contract or the use by Contractor, its Subcontractors, or their respective employees of, or their presence on, any premises owned, operated, or controlled by Company or its affiliates or used for transportation; and/or (b) which may be asserted against Company or its affiliates by any person or entity in any way arising out of or related to the performance of this Contract or the use by Contractor or its employees of, or their presence on, any premises owned, operated or controlled by Company or its affiliates or use of vehicles incident thereto, provided, however, that Contractor shall not be required to indemnify Company or its affiliates for claims, demands, or suits to the extent attributable to the negligence of the Company or such affiliates.

**4.2.** Contractor represents that none of the tools, equipment, materials and processes which may be used or furnished by Contractor in connection with the Work infringe on any license or patent, and Contractor agrees to defend, indemnify, and hold Company and its affiliates harmless from any and all claims, demands, judgments, defense costs, or suits of every kind and character in favor of, or asserted by or in connection with, any patentee, licensee or claimant of any right or priority, whether for patent infringement, trade secret misappropriation, or otherwise.

**5. SUBCONTRACTING:** Contractor shall not assign this Contract or subcontract any portion of the Work covered hereby, in whole or in part, without Company's prior written consent. Contractor shall not assign any part of the sums payable to Contractor by Company without prior written consent from Company, and any attempted assignment thereof without such consent will not be honored by or be binding upon Company. Any assignment or subcontracting permitted by Company shall not relieve Contractor of its obligations hereunder, and Contractor warrants that any assignee will assume all obligations hereunder including the provisions of Paragraphs 3, 4, 8, and 9. Subject to the foregoing, any contracts made by Contractor for the furnishing of any services or material by a Subcontractor in connection with the Work shall contain indemnity protection and insurance protection for Company, a conflicts provision, and an applicable law provision, all identical to those of Paragraphs 3, 4, 8, and 9. Unless such contracts contain such identical provisions, any personnel engaged and property used in the furnishing of such service or Work shall be deemed agent and employees and property of Contractor for the purpose of determining Contractor's indemnity obligations and Contractor's other obligations under this Contract.

6. **PAYMENT FOR SERVICES:** Contractor shall pay promptly any and all amounts owing for Work performed, services rendered, or materials furnished in connection with the Work so that no lien shall ever be permitted to attach to property of Company, whether real or personal, as the result of such Work and Contractor hereby agrees to defend and indemnify Company for any and all such claims and liens which in any way arise out of or are related to any operations by Contractor hereunder. Without limitation of the foregoing, in the event any such lien or claim is asserted against Company or its property, Company shall be entitled to, but shall not be obligated to, satisfy such claim or lien and set off any amounts paid in connection therewith against any amounts due and owing to Contractor. Upon completion of the Work, Contractor shall furnish to Company satisfactory written evidence that no unpaid claims for labor or materials furnished with respect to the Work exist which would constitute a basis for any such lien or encumbrance. During the forty-eight (48) month period following the performance of any such Work or services or furnishing of materials, Company shall have the right to audit the books, accounts, payrolls, and records maintained by Contractor containing information pertinent to such Work.

7. **TERM:** This Contract will continue in full force and effect until terminated by either party so that Contractor may perform, from time to time, such Work and/or render such services as the parties mutually may agree by execution of a written work order which shall in all respects be governed by and subject to these terms and conditions; it being understood and agreed that either party hereto may cancel this Contract by giving the other party thirty (30) days written notice of such cancellation; provided that termination of this Contract shall not relieve either party of its respective obligations and liabilities hereunder incurred through the effective date of such termination and further provided that Contractor's obligations pursuant to paragraph hereof shall survive termination.

8. **CONFLICT:** The terms, conditions, and requirements of this Contract shall prevail in the event of a conflict with the terms, conditions, or requirements of any work orders, purchase orders, or agreements, oral or written, entered into between the parties through their duly authorized representatives.

9. **APPLICABLE LAW:** This Contract shall be governed by and construed in accordance with the laws of the state of Mississippi without reference to its conflicts of law principles.

10. **SAVINGS CLAUSE:** If any provision herein is held to be partially or completely contrary to law and/or unenforceable, the Contract shall be deemed to be amended to modify partially or completely (including, if necessary, deletion of such provision) such provision or portion thereof to the extent necessary to make it enforceable.

11. **SAFETY:** Contractor shall take all safety precautions necessary to protect its employees, invitees, agents, and subcontractors and the employees and agents thereof, from risks of harm inherent in the nature of the Work hereunder and shall comply in the performance of the Work with all applicable laws, ordinances, and orders of governmental bodies and agencies relating to the safety of employees or to safety in the performance of the Work, including without limitations, all applicable State and Federal Safety Orders and Regulations. Contractor agrees that Company shall have the right (but not the obligation) to inspect Contractor's formal safety program; and, in the event Company deems Contractor's formal safety program to be inadequate for the protection of Contractor's employees, invitees, agents, and subcontractors and the employees and agents thereof, it is expressly understood and agreed that Contractor will implement and enforce Company's formal safety program governing the facility at which Work is being performed by Contractor.

12. **EQUAL EMPLOYMENT OPPORTUNITY:** Contractor agrees to comply with the nondiscrimination clause in Executive Order 11246, as amended, relating to equal employment opportunities and the affirmative action clause regarding the employment of the handicapped, as set forth in 60 CFR741.4, the employment of disabled veterans and veterans of the Vietnam era as set forth in Executive Order 11625, and implementing rules and regulations of the Secretary of Labor, all of which are incorporated herein by reference.

13. **ENFORCEMENT:** If at any time Company shall find it necessary to retain counsel in an effort to enforce Contractor's obligations under this Contract, Company shall be entitled to recover its reasonable attorney fees and litigation expenses incurred in connection with any such efforts.

14. **ARBITRATION.** All disputes, controversies or claims, of whatever kind or character, arising out of or in connection with this agreement shall be settled and determined by binding arbitration in accordance with the Commercial Arbitration Rules of the American Arbitration Association (the "Rules"). Said arbitration shall be conducted by three (3) arbitrators unless Company and Contractor mutually agree that the nature of the dispute requires only one (1) arbitrator and are able to agree on the identity of same. Company and Contractor shall each be entitled to nominate one arbitrator in accordance with the Rules. The two (2) arbitrators so nominated shall nominate the third arbitrator within ten (10) days of confirmation of the first two (2) arbitrators. The arbitration shall be governed by Mississippi law and shall be carried out in the City of Jackson, Mississippi, U.S.A. or such other location as the parties may agree. Company and Contractor shall share equally all administrative fees and expenses related to the Arbitration, including any arbitrator's fees. The award of the arbitrator(s) shall be enforceable in a court of competent jurisdiction.

15. **NOTICES:** Any notice, request, instruction or other document to be given or furnished under this Contract by any party to the other party shall be in writing and shall be delivered personally or shall be sent by facsimile transmission or registered or certified mail, postage prepaid, or by prepaid overnight delivery service to the following addresses or telecopier numbers:

IF TO COMPANY:	IF TO CONTRACTOR:
MS. JANIS ERIKSON P O BOX 1639 2829 LAKELAND DR, SUITE 2000 JACKSON MS 39232-7611 FAX: (601) 933-3367 Attn: Risk Management Dept.	MR. DAVIAN PLOGER ES&H CONSULTING SERVICES, INC. 1730 COTEAU RD. HOUMA, LA 70364 FAX (985) 853-1978

COMPANY: LION OIL COMPANY

CONTRACTOR: ES&H CONSULTING SERVICES, INC.

By: JOHN M. RYAN, P.G.

By: Davian M. Ploger

Title: ENVIRONMENTAL PROJECT SCIENTIST

Title: Sales/Marketing Manager

**ADDENDUM #1**  
**MSA (LOC-ESH-001)**

Lion Oil Company desires to clarify the above-referenced Master Service Agreement as contained herein. The first paragraph of the above-referenced MSA provides that the agreement is between Environmental, Safety, and Health, Consulting Services Inc. and Lion Oil Company (the Parties). The Parties agree that Environmental, Safety, and Health, Consulting Services Inc. will provide those services set forth in the Master Service Agreement for Lion Oil Company. The purpose of this letter is to evidence our mutual agreement that the referenced services agreement be amended to provide that in addition to Lion Oil Company, Environmental, Safety, and Health, Consulting Services Inc. agrees to provide the services contemplated by the agreement to Lion Oil Company's subsidiary companies listed below, whether same be at Lion Oil Company's request in its capacity as administrative services provider to those subsidiary companies, or pursuant to a direct request for services by such companies. In terms of executing the contract, each of these companies is authorized to procure emergency response and general industrial service contracting in addition to and on behalf of Lion Oil Company. The companies include:

Lion Oil Trading and Transportation, Inc.
Paline Pipeline Company
Magnolia Pipeline Company
El Dorado Pipeline Company
J. Christy Construction Company

In witness whereof, the parties listed below have caused this agreement to be executed as of the 3<sup>rd</sup> day of June, 2002.

WITNESS:

Erin B. K...  
M... b...

ES&H CONSULTING SERVICES, INC.

By:

Davian M. Ploger

Davian M. Ploger

Title:

Sales/Marketing Manager

WITNESS:

John M. Ryan

LION OIL COMPANY

By:

Kirk Latson

Kirk Latson  
V.P. Product Distribution and Supply

**ORIGINAL**



## Response Equipment by Location

H - HOUMA	F - FOURCHON	MC - MORGAN CITY
BC - BELLE CHASSE	NI - NEW IBERIA	BR - BATON ROUGE
V - VENICE	R - RESERVE	S - SHREVEPORT

ITEM	RESPONSE EQUIPMENT	H	F	MC	BC	R	S	NI	V	BR
1	OIL SPILL UNIT	2	1	1	1	1	1	1		1
2	HAZMAT UNIT									
3	AIR MONITORING UNIT	4	1	1	1			1	1	1
4	AIR MONITORING METER									
5	SMALL 10" BOOM TRAILER	1	1							
6	SMALL 10" BOOM TRAILER	2	2							
7	LARGE 18" BOOM TRAILER	1			1					
8	SMALL 24" BOOM TRAILER									
9	ADDITIONAL 6" BOOM	2,000 FT		500 FT	500 FT			200 FT		
10	ADDITIONAL 10" BOOM	2,000 FT	1,000 FT	1,000 FT	500 FT	500 FT		1,000 FT	1,000 FT	500 FT
11	ADDITIONAL 18" BOOM	12,000 FT					500 FT	2,000 FT		
12	ADDITIONAL 24" BOOM									
13	ADDITIONAL 36" BOOM	1,000 FT								
14	VACUUM TRUCK									
15	LARGE DRUM SKIMMER	1			1					
16	MEDIUM DRUM SKIMMER	3		1						
17	SMALL DRUM SKIMMER			1						
18	BORE MOB SKIMMER	2								
19	MANTA RAY SKIMMER	4	1	1	1			1	1	1
20	SLURP SKIMMER									
21	SKIM PAK SKIMMER	1	1							
22	32' BARGE BOAT									
23	28' RESPONSE BOAT	1								
24	25' RESPONSE BOAT	2			1					
25	22' BARGE BOAT	1								
26	20' RESPONSE BOAT	2								
27	VACUUM TRUCKS	5	1		1					
28	POLL OFF TRUCKS	1			1					
29	18' JOHN BOAT	5	1	2	1		2		1	
30	14' JOHN BOAT	2	3							
31	14' PIROGUE	1	1	2	1			1		
32	50' BB OIL STORAGE BARGE	2								

ITEM	RESPONSE EQUIPMENT	H	F	MC	BC	R	S	NI	V	BR
33	ROLL-OFF CONTAINERS	25						7		8
34	DECON POOL (10 X 10)	1			1					1
35	DECON POOL (25 X 50)	2								
36	DECON POOL (50 X 100)	1								
37	PRESSURE WASHER	1	1	1	1			1	1	1
38	STEAM CLEANER	2								
39	3" DIESEL DIAPHRAGM PUMP	2			1			1	1	
40	2" GAS DIAPHRAGM PUMP	4		2						
41	WASH PUMP UNIT	10	3	2	3		1	3	3	2
42	3" AIR DIAPHRAGM	6								3
43	1" AIR DIAPHRAGM	2								
44	SORBENT PADS	300	50	100	75		72	50	50	50
45	5" SORBENT BOOM	300	50	50	50		30	50	50	50
46	6" SORBENT BOOM	100	50	50	50		35	60	50	50
47	SORBENT ROLL	40	60	20	20			20	20	20
48	SORBENT SWEEP	30	10	10	10			10	10	10
49	POM-POM SNARE ON ROPE	10	10		50					
50	INDUSTRIAL RUG	10	10	10	10			10	10	10
51	PITCHFORK	20	10	10	10			10	10	10
52	POLLUTION NETS	20	0	10	0			10	10	10
53	POLLUTION CANS	30	10	20	10			10	10	10
54	POLLUTION BAGS (ROLL)	150	30	30	30			30	30	20
55	VISQUEEN (ROLL)	20	10	10	10			10	10	10
56	55 GALLON STEEL DRUM	10	10	10	10			10	10	10
57	55 GALLON PLASTIC DRUM	200	20	20	140			20	20	20
58	65 GALLON OVERPACK	5	5	5	5			5	5	5
59	95 GALLON OVERPACK	20	5	5	10			5	5	5
60	FULL FACE RESPIRATOR	20	10	10	10			10	10	10
61	SCBA	1					4	4		4
62	PVC GLOVES (DOZEN)	50	20	20	20			20	20	20
63	NITRILE GLOVES (BOX)	40	1	1	1			1	1	1
64	PAEK SUITS (CASE)	60	10	10	10			10	10	10
65	SARANEX SUITS (CASE)	40	5	5	5			5	5	5
66	LEVEL "B" SUITS (EACH)	24								
67	LEVEL "A" SUITS (EACH)	6								
68	AIR COMPRESSOR	1					1			

Final Report  
Resource List

(1) 24' Hazmat Trailer	(1) 24' Oil Spill Trailer
(4) SCBA's	(1) Air Compressor
Regular Personal Protective Equipment (PPE)	(1) Medium Drum Skimmer
(1) 4-Wheel Dolly	(1) 2" Diesel Wash Pump
(1) MSA Passport	(1) 2" Transfer Pump
(1) Draeger Pump	(1) 2" Wash Pump
	200' of 2" Suction Hose
	1 ½' Wash Hose - 80"

(2) Trucks
15' Ladder
(1) Laptop
(1) Digital Camera
2600' of Sorbent Boom: 1400' of 8" sorbent boom, 1200' of 5" sorbent boom
Leaf Blower
(1) 16' Boom Trailer: (2) 16' Flat boats with 25 HP Yamahas
500' of 18" Containment Boom
72 Bales of Sorbent Pads
20 Bales of Chemical Sorbent Pads
6 Bags of Oil Gator
6 Bags of Floor Dry
2 Bags of Sodium Bicarbonate
2 Bags of Soda Ash

5/23/02



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**RESPONSE RESOURCE  
SHEET**

**24-HOUR EMERGENCY HOTLINE  
1-877-4ESANDH**

**August 2001**

**\*HOUMA\*FOURCHON\*MORGAN CITY\*NEW IBERIA\*  
\*BELLE CHASSE\*BATON ROUGE\*VENICE\***

**ES&H****Response Resources by Location**

H - HOUMA	F - FOURCHON	MC - MORGAN CITY
BC - BELLE CHASSE	NI - NEW IBERIA	BR - BATON ROUGE
V - VENICE		

ITEM	RESPONSE EQUIPMENT	H	F	MC	BC	NI	V	BR
1	OIL SPILL UNIT	2	1	1	1	1		1
2	HAZMAT UNIT	1			1	1		1
3	AIR MONITORING UNIT	4	1	1	1	1	1	1
4	NORM MONITORING METER	1			1			1
5	SMALL 10" BOOM TRAILER	1	1					
6	SMALL 18" BOOM TRAILER	2	2	1	1	1	1	1
7	LARGE 18" BOOM TRAILER	1			1			
8	SMALL 24" BOOM TRAILER		1					
9	ADDITIONAL 6" BOOM	2000FT		500FT	500FT	200FT		
10	ADDITIONAL 10" BOOM	2000FT	1000FT	1000FT	100FT	1000FT	1000FT	1000FT
11	ADDITIONAL 18" BOOM	12000FT				2000FT		
12	ADDITIONAL 24" BOOM							
13	ADDITIONAL 36" BOOM	1000FT						
14	MARCO SKIMMER	1			1			
15	LARGE DRUM SKIMMER	1			1			
16	MEDIUM DRUM SKIMMER	3	1	1		1	1	1
17	SMALL DRUM SKIMMER			1				
18	ROPE MOP SKIMMER	2						1
19	MANTA RAY SKIMMER	4	1	1	1	1	1	1
20	SLURP SKIMMER							
21	SKIM PAK SKIMMER	1	1					
22	32' BARGE BOAT	1						
23	28' RESPONSE BOAT	1						
24	25' RESPONSE BOAT	2	1		1		2	1
25	22' BARGE BOAT	1						
26	20' RESPONSE BOAT	2		2	1	1		1
27	VACUUM TRUCKS	4	1		1	1		
28	ROLL-OFF TRUCKS	3				1		
29	16' JOHN BOAT	5	1	2	1		1	
30	14' JOHN BOAT	2	3					
31	14' PIROGUE	1	1	2	1	1		
32	50 BBL OIL STORAGE BARGE	2						
33	ROLL-OFF CONTAINERS	24				7		8

**ES&H****Response Resources by Location**

**H - HOUMA    F - FOURCHON    MC - MORGAN CITY**  
**BC - BELLE CHASSE    NI - NEW IBERIA    BR - BATON ROUGE**  
**V - VENICE**

ITEM	RESPONSE EQUIPMENT	H	F	MC	BC	NI	V	BR
34	DECON POOL 10 X 10	1			1			1
35	DECON POOL 25 X 50	2						
36	DECON POOL 50 X 100	1						
37	PRESSURE WASHER	1	1	1	1	1	1	1
38	STEAM CLEANER	2				1		
39	3" DIESEL DIAPHRAGM PUMP	2			1	1	1	
40	2" GAS DIAPHRAGM PUMP	4	1	2				
41	WASH PUMP UNIT	10	3	2	3	3*	3	2
42	3" AIR DIAPHRAGM	6						3
43	1" AIR DIAPHRAGM	2						
44	SORBENT PADS	300	50	100	75	50	50	50
45	5" SOBENT BOOM	300	50	50	50	50	50	50
46	8" SORBENT BOOM	100	50	50	50	50	50	50
47	SORBENT ROLL	40	60	20	20	20	20	20
48	SORBENT SWEEP	30	10	10	10	10	10	10
49	POMPOM SNARE ON ROPE	10	10		50			
50	INDUSTRIAL RUG	10	10	10	10	10	10	10
51	PITCHFORK	20	10	10	10	10	10	10
52	POLLUTION NETS	20	10	10	10	10	10	10
53	POLLUTION CANS	30	10	20	10	10	10	10
54	POLLTION BAGS (ROLL)	150	30	30	30	30	30	20
55	VISQUEEN (ROLL)	20	10	10	10	10	10	10
56	55 GAL DRUM STEEL	10	10	10	10	10	10	10
57	55 GAL DRUM PLASTIC	200	20	20	140	20	20	20
58	85 GAL OVERPACK	5	5	5	5	5	5	5
59	95 GAL OVERPACK	20	5	5	10	5	5	5
60	FULL FACE RESPIRATOR	20	10	10	10	10	10	10
61	SCBA	1				4		4
62	PVC GLOVES (DOZEN)	50	20	20	20	20	20	20
63	NITRILE GLOVES (BOX)	40	1	1	1	1	1	1
64	TYVEK SUITS (CASE)	60	10	10	10	10	10	10
65	SARANEX SUITS (CASE)	40	5	5	5	5	5	5
66	LEVEL "B" SUITS (EACH)	24						
67	LEVEL "A" SUITS (EACH)	6						
68	AIR COMPRESSOR (185)	1						

- ITEM 1** – OIL SPILL UNIT, 1000FT OF CONTAINMENT BOOM (ANCHORS, ROPE, BOUYS, AND LIGHTS), SKIMMER (INCLUDING STORAGE OF 300 GALS OF PRODUCT), WASH PUMPS ( SUCTION HOSE, DISCHARGE HOSE, NOZZLE, AND EXTRA FUEL), SORBENTS (PADS, BOOM, ROLLS), PPE (SUPPORT FOR 6 PEOPLE FOR 3 DAYS) 3 PICK-UP TRUCKS, 6-PERSONNEL, 2 RESPONSE BOATS
- ITEM 2** – HAZMAT UNIT, SCBA'S, PPE (LEVEL "A", LEVEL "B", LEVEL "C" DRESS, GLOVES BOOTIES), SORBENTS (UNIVERSAL PADS, BOOM, AND FLOOR DRY), NUETRALIZERS ( SODIUM BICARBINATE, SODA ASH, LIME), CHEMICAL TRANSFER PUMP (SUCTION AND DISCHARGE HOSES), STORAGE CONTAINERS (SALVAGE DRUMS, OVERPACKS), MONITORING EQUIPMENT ( LEL,O2,S02,H2S BENZENE, PH), CASCADE SYTEM ( 5 BOTTLE RACK AND COMPRESSOR), ENOUGH SUPPORT FOR A FOUR MAN ENTRY TEAM
- ITEM 3** – AIR MONITORING UNIT, MSA PASSPORT (LEL, O2, H2S, CO) MSA QUICK DRAW PUMP (VARIOUS TUBES AS REQUIRED)
- ITEM 4** – NORM MONITORING METER, LUDLUM MODEL
- 
- ITEM 5** – SMALL 10" BOOM TRAILER, 1000FT OF BOOM (ANCHORS, ROPE, BOUYS, AND LIGHTS)
- ITEM 6**– SMALL 18" BOOM TRAILER, 1000FT OF BOOM (ANCHORS, ROPE, BOUYS, AND LIGHTS)
- ITEM 7** –LARGE 18" BOOM TRAILER, 4000FT OF BOOM (ANCHORS, ROPE, BOUYS, AND LIGHTS)
- ITEM 8** – SMALL 24" BOOM TRAILER, 500FT OF BOOM (ANCHORS, ROPE, BOUYS, AND LIGHTS)
- ITEMS 9 – 13** - ADDITIONAL BOOM, STORED IN A WHAREHOUSE AT EACH LOCATION READY FOR LOAD OUT.
- ITEM 14** – MARCO SKIMMER, SELF CONTAINED SHALLOW WATER SKIMMER POWERED BY TWIN 115HP MERCURIES, SELF STORAGE 1200 GAL., CAPABLE OF SPEED UP TO 25 KTS, RECOVERY RATE 350 GPM
- ITEM 15** –LARGE DRUM SKIMMER, TDS 136, RECOVERTE RATE 70 GPM
- ITEM 16** – MEDIUM DRUM SKIMMER, TDS 118, RECOVERY RATE 35 GPM
- ITEM 17** – SMALL DRUM SKIMMER, MAXIUM 15, RECOVERY RATE 20 GPM
- ITEM 18** – ROPE MOP SKIMMER, MODEL II-A,
- ITEM 19** – MANTA RAY SKIMMER, MADE BY SLICKBAR, RECOVERY RATE 5 TO 95 GPM
- ITEM 20** – SLURP SKIMMER, MADE BY SLICKBAR, RECOVERY RATE 2 TO 40 GPM
- ITEM 21** – SKIM PAK SKIMMER, RECOVERY RATE 35 GPM
- ITEM 22** – 32' BARGE BOAT, LARGE OPEN DECK FOR EQUIPMENT TRANSPORT OR WORK PLATFORM, TWIN 150 HP MOTORS
- ITEM 23** – 28' RESPONSE BOAT, ALUMINUM FLAT BOAT WITH TWIN 70 HP MOTORS

ITEM 24 – 25' RESPONSE BOAT, TWIN 60 OR TWIN 115 HP MOTORS

ITEM 25 – 22' BARGE BOAT, LARGE OPEN DECK FOR EQUIPMENT TRANSPORT OR  
WORK PLATFORM

ITEM 26- 20' RESPONSE BOAT

ITEM 27 – VACUUM TRUCKS

ITEM 28 – ROLL-OFF BOX DELIVER TRUCKS W/ ( SINGLE & DOUBLE RAIL TRAILERS)

ITEM 29 – 16' JOHN BOAT, ALUMINUM FLAT BOAT WITH 25 HP MOTOR

ITEM 30 – 14' JOHN BOAT, ALUMINUM FLAT BOAT WITH 15 HP MOTOR

ITEM 31 – SELF EXPLANATORY

ITEM 32 – 50 BBL OIL STORAGE BARGE, 16 FT ALUMINUM, TRAILABLE

ITEM 33 – 20 7 25 CU. YRD CONTAINER, ( ROLL-OFF BOXES ), TRAILABLE

ITEMS 34 – 36 – SELF EXPLANATORY

ITEM 37 – PRESSURE WASHER, COLD WATER 3,000 PSI

ITEM 38 – STEAM CLEANER, HOT WATER MACHINE 3, 000 PSI

ITEMS 49 – 40 – SELF EXPLANATORY

ITEM 41– WASH PUMP UNIT, 2" PUMP, SUCTION HOSE, DISCHARGE HOSE, STRAINER,  
NOZZLE

ITEMS 42 – 67 – SELF EXPLANATORY

ITEM 68- 185 SFPM AIR COMPRESSOR



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**OIL SPILL/HAZMAT  
EMERGENCY RESPONSE**

**RATE SCHEDULE**

**24 HOUR EMERGENCY HOTLINE  
1-877-4ESANDH**

**JUNE 2001**

**\*HOUMA\*FOURCHON\*MORGAN CITY\*NEW IBERIA\*  
\*BELLE CHASSE\*BATON ROUGE\*VENICE\***

## PERSONNEL

Experienced emergency response personnel are available for complete spill clean-up operations, 24 hours a day, 7 days a week. Normal hours of operation are from 0800 through 1700 daily, Monday through Friday. All labor charges will be in accordance with ES&H Daily Tickets. Overtime for personnel will be charged at time and a half between 1700 through 0800 Monday through Friday, weekends from 1700 Friday through 0800 Monday, after eight hours in a day, and all National Holidays. Double time rates will be charged for Christmas Day. Per Diem of \$90.00 per day, per employee will be charged for all work-performed 50 miles outside of employee's home base. There will be a 4-hour minimum service charge on all labor call outs. All call outs will be charged portal-to-portal.

## AUTOMOTIVE EQUIPMENT

A mileage charge of \$0.50 per mile will be charged for all automotive equipment. Fuel for all automotive equipment is included in the \$0.50 per mile charge.

## STAND-BY-RATES

Stand-by rates will be ½ the daily rate for equipment. These rates may be negotiated based upon the circumstances causing the need for a stand-by situation. Full rates will apply for personnel and per diem.

## TAXES

All federal, state, and municipal taxes, except income taxes and advalorem taxes, now and hereinafter imposed with respect to services rendered; to rental equipment; to the processing, manufacture, repair, delivery, transportation of equipment and supplies shall be added to and become part of the total price payable by the client. Unless the proper exemption certificates are furnished.

## TERMS

All equipment not listed in this rate schedule, whether requested by the contracting company or needed to complete work in progress, will be negotiated for price with a client company representative. A 20% handling charge will be added to the cost of any equipment rented or subcontracted, which is or is not listed in this rate schedule.

## REPLACEMENT OF DAMAGED EQUIPMENT

All equipment and supplies are subject to a replacement charge at ES&H cost + 20% if damaged, or if decontamination is impossible.

## DECONTAMINATION OF EQUIPMENT

A mutually agreed price for cleaning contaminated containment boom shall be decided upon and can vary depending on the degree of contamination. The charges for cleaning all other equipment is ½ the daily rental rate. Time and materials will also be included. Any waste water disposal will be at cost + 20%.

## INVOICES

Invoices will be rendered either on a daily basis or at the completion of the job, depending on the duration of the job. Invoices will contain all applicable Federal, State and, Local taxes. All charges are payable NET CASH within thirty (30) days from the date of invoice. Finance charges will be applied to invoices with an unpaid balance beginning thirty-one (31) days from the date of invoice. Finance charges are computed at the periodic rate of 1.5% per month (18% per annum.)

**PERSONNEL**

HOURLY RATE  
Regular      Overtime

Project Manager	-----	\$50.00	\$75.00
Supervisor	-----	\$45.00	\$67.50
Project Acct.	-----	\$45.00	\$67.50
Safety Officer	-----	\$40.00	\$60.00
Disposal Coordinator	-----	\$40.00	\$60.00
Foreman	-----	\$36.00	\$54.00
Mechanic	-----	\$32.00	\$48.00
Operator	-----	\$30.00	\$45.00
Field Acct.	-----	\$30.00	\$45.00
Technician	-----	\$28.00	\$42.00
Logistics Coordinator	-----	\$40.00	\$60.00

**PERSONNEL (HAZMAT)**

Project Manager	-----	\$65.00	\$97.50
Supervisor	-----	\$50.00	\$75.00
Project Acct.	-----	\$50.00	\$75.00
Safety Officer	-----	\$50.00	\$75.00
Foreman	-----	\$45.00	\$67.50
Mechanic	-----	\$45.00	\$67.50
Operator	-----	\$45.00	\$67.50
Field Acct.	-----	\$35.00	\$52.50
Technician	-----	\$35.00	\$52.50

**RESPONSE VEHICLES**

Pick Up Truck	-----	\$95.00 / day
1.5 Ton Truck	-----	\$150.00 / day
Personnel Van	-----	\$125.00 / day
4 x 4 Pick Up	-----	\$200.00 / day
4 x 4 ATV	-----	\$200.00 / day
Command Post	-----	\$400.00 / day
Tractor	-----	\$65.00 / hour
70bbl Vacuum Truck	-----	\$65.00 / hour
Flatbed Freightliner	-----	\$65.00 / hour
Roll Off Delivery (single)	-----	\$95.00 / hour
Roll Off Delivery (double)	-----	\$160.00 / hour
King Vac	-----	\$125.00 / hour

**RESPONSE TRAILERS**

48' Response Trailer	-----	\$175.00 / day
32' Response Trailer	-----	\$150.00 / day
28' Response Trailer	-----	\$135.00 / day
24' Response Trailer	-----	\$130.00 / day
20' Response Trailer	-----	\$120.00 / day
16' Response Trailer	-----	\$ 75.00 / day
8' Response Trailer	-----	\$ 35.00 / day
6' Response Trailer	-----	\$ 25.00 / day

**MARINE EQUIPMENT**

32' Response Boat w/ motor	-----	\$700.00 / day
<del>28' Response Boat w/ motor</del>	-----	<del>\$550.00 / day</del>
28' Response Boat w/ (2) 225 HP Motors	-----	\$750.00 / day
25' Response Boat w/ motor & radar	-----	\$550.00 / day
25' Response Boat w/ motor	-----	\$500.00 / day
25' Barge Boat w/ motor	-----	\$600.00 / day
22' Barge Boat w/ motor	-----	\$400.00 / day
18' - 20' Response Boat w/ motor	-----	\$350.00 / day
16' Response Boat w/ motor	-----	\$200.00 / day
12'-14' Response Boat w/ motor	-----	\$150.00 / day
12'-14' Response Boat w/o motor	-----	\$100.00 / day
Air Boat	-----	\$500.00 / day
Pirogue	-----	\$ 35.00 / day
Oil Barge over 250bbl to 5000bbl	-----	Available upon request
Oil Barge 30bbl to 50bbl	-----	\$175.00 / day
Spud Barge	-----	Available upon request
Deck Barge 120' x 30'	-----	Available upon request

**SPILL CONTROL EQUIPMENT**

6" Containment Boom	-----	\$0.75 / ft / day
10" Containment Boom	-----	\$1.00 / ft / day
18" Containment Boom	-----	\$1.40 / ft / day
24" Containment Boom	-----	\$2.50 / ft / day
36" Containment Boom	-----	\$4.00 / ft / day
42" Containment Boom	-----	\$5.00 / ft / day
48" Containment Boom	-----	\$6.00 / ft / day

**SPILL CONTROL EQUIPMENT cont.**

10 LB Anchor	-----	\$20.00 / day
15 LB Anchor	-----	\$25.00 / day
22 LB Anchor	-----	\$40.00 / day
40 LB Anchor	-----	\$60.00 / day
60 LB Anchor	-----	\$80.00 / day
Boom Lights (small)	-----	\$10.00 / day
Boom Lights (large)	-----	\$20.00 / day
Chemical Boom Lights	-----	\$12.00 / each
Buoys	-----	\$25.00 / job
Boom Stakes	-----	\$10.00 / each

**SKIMMERS**

Marco Skimmer	-----	\$3500.00 / day
Marco Backing Belt (replacement)	-----	Cost + 20%
Marco Light Oil Belt (replacement)	-----	Cost + 20%
Marco Filterbelt Pad (replacement)	-----	Cost + 20%
Marco Diesel Pad (replacement)	-----	Cost + 20%
Drum Skimmer (small)	-----	\$ 400.00 / day
Drum Skimmer (medium)	-----	\$ 500.00 / day
Drum Skimmer (large)	-----	\$ 550.00 / day
Manta Ray	-----	\$ 150.00 / day
Skimpack	-----	\$ 125.00 / day
Aluminum (small)	-----	\$ 150.00 / day
Aluminum (large)	-----	\$ 200.00 / day
Slurp Skimmer	-----	\$ 150.00 / day
Rope Mop I-4	-----	\$ 350.00 / day
Rope Mop II-4	-----	\$ 400.00 / day
Rope Mop II-6	-----	\$ 450.00 / day
Rope Mop II-9	-----	\$ 500.00 / day
12" Tail Pulley	-----	\$ 10.00/day
16" Tail Pulley	-----	\$ 20.00/day
4" Rope Mop (rental)	-----	\$ 1.00/ ft / day
6" Rope Mop (rental)	-----	\$ 1.25/ ft / day
9" Rope Mop (rental)	-----	\$ 1.50/ ft / day
4" Rope Mop (replacement)	-----	\$ 23.75/ ft
6" Rope Mop (replacement)	-----	\$ 26.00/ ft
9" Rope Mop (replacement)	-----	\$ 40.00/ ft
Pelican Skimmer	-----	\$ 100.00 / day
Duck Bill Skimmer	-----	\$ 25.00 / day

**MISCELLANEOUS MATERIALS**

Sorbent Pad (100 / bale)	-----	\$ 45.00 / bale
Sorbent Pad (50 / bale)	-----	\$ 70.00 / bale
5" Sorbent Boom (40' / bale)	-----	\$ 90.00 / bale
8" Sorbent Boom (40' / bale)	-----	\$130.00 / bale
Sorbent Roll (144' x 38')	-----	\$125.00 / roll
Sorbent Sweep (100' / bale)	-----	\$ 85.00 / bale
Pompom Snare (30 / box)	-----	\$ 50.00 / box
Pompom Snare(100' on rope)	-----	\$200.00 / box
Sorbent Part. (27 lb. / bale)	-----	\$ 93.00 / bale
FiberPearl	-----	\$ 25.00 / bag
Industrial Rug	-----	\$250.00 / roll
Spag Sorb. (4cu ft / bag)	-----	\$ 80.00 / bag
Spag Sorb. Boom (32' / box)	-----	\$200.00 / bag
Stay Dry (40 lb)	-----	\$ 15.00 / bag
Sodium Bicarbonate (50lb)	-----	\$ 25.00 / bag
Soda Ash (50lb)	-----	\$ 20.00 / bag
Lime (50lb)	-----	\$ 20.00 / bag
Peat Moss (3.8 cu. ft.)	-----	\$ 25.00 / bag
Oil Gator (50lb)	-----	\$ 25.00 / bag
Pitchfork	-----	\$ 15.00 / each
Rake	-----	\$ 15.00 / each
Shovel (Flat, Spade, Scoop)	-----	\$ 15.00 / each
Flat Shovel (Non-Sparking)	-----	\$ 25.00/each
Squeegee	-----	\$ 15.00 / each
Scrub Brush	-----	\$ 15.00 / each
Rope, 1/4 (roll)	-----	\$ 45.00 / roll
Rope, 3/8 (roll)	-----	\$ 65.00 / roll
Rope, 1/2 (roll)	-----	\$ 75.00 / roll
Pool Net	-----	\$ 20.00 / each
Pollution Net	-----	\$ 20.00 / each
Pollution Bags (50 / roll)	-----	\$ 75.00 / roll
Visqueen	-----	\$ 90.00 / roll

**MISCELLANEOUS MATERIALS cont.**

30 gal. Plastic Drum	-----	\$70.00 / each
55 gal. Plastic Drum	-----	\$60.00 / each
95 gal. Plastic Drum	-----	\$180.00 / each
55 gal. Steel Drum	-----	\$ 55.00 / each
85 gal. Steel Salvage Drum	-----	\$170.00 / each
Duct tape	-----	\$ 5.00 / roll
Pollution Cans	-----	\$ 15.00 / each
Decon Sprayer	-----	\$ 40.00 / each
Barrier tape	-----	\$ 35.00 / each
Hand cleaner	-----	\$ 4.00 / each
Rags / Wipes (box)	-----	\$ 10.00 / box
Roll off Box Liner	-----	\$ 45.00 / each
Disposable Hand-Wipes	-----	\$ 30.00 / each
Outboard Oil	-----	\$ 15.00 / gallon
Hose Condom	-----	\$ 30.00 / roll
Soap (5 gal.)	-----	\$ 35.00 / each
Multec 1500 (5 gallon bucket)	-----	\$ 125.00 / each
Sample Containers	-----	\$ 5.00 / each
2 Bottle Breathing Air Cascade System (high pressure)	-----	\$200.00 / day
4 Bottle Breathing Air Cascade System (high pressure)	-----	\$275.00 / day
6 Bottle Breathing Air Cascade System (high pressure)	-----	\$350.00 / day
8 Bottle Breathing Air Cascade System (high pressure)	-----	\$400.00 / day
Low Pressure Breathing Air Refills	-----	\$ 35.00 / each
High Pressure Breathing Air Refills	-----	\$ 50.00 / each
Breathing Air Compressor	-----	\$200.00 / day

**PERSONAL PROTECTIVE EQUIPMENT**

CPF-1 Suit	-----	\$20.00 / each
CPF-2 Suit	-----	\$70.00 / each
CPF-3 Suit	-----	\$90.00 / each
CPF-4 Suit	-----	\$Cost plus 20%
Tyvek Suit (25 / case)	-----	\$150.00 / case
Saranex Suit	-----	\$30.00 / each
Disposable Slicker Suit	-----	\$10.00 / each
Heavy Duty Slicker Suit	-----	\$ 35.00 / each
Plypro Coveralls	-----	\$12.50 / each
Plycoated Tyvek Coveralls	-----	\$225.00 / case
Nomex Coveralls	-----	\$100.00 / each
Bunker Gear	-----	\$175.00 / each

**PERSONAL PROTECTIVE EQUIPMENT cont.**

Hazmat Boots	-----	\$100.00 /pair
Tyvek Boot Covers	-----	\$5.00 / pair
Rubber Boot Covers	-----	\$20.00 / pair
Chemical Resistant Boots	-----	\$75.00
Hip Boots	-----	\$Cost plus 20%
Chest Waders	-----	\$Cost plus 20%
Cotton Gloves	-----	\$3.00 / pair
PVC Rubber Gloves	-----	\$5.00 / pair
Nitrile Gloves (25/box)	-----	<del>\$45.00 / box</del>
Safety Glasses	-----	\$10.00 /each
Safety Shields	-----	\$20.00 / each
Dust / Particulate Mask	-----	\$3.00 / each
Half Face Respirator	-----	\$25.00 / day
Full Face Respirator	-----	\$50.00 / day
5 Min Escape Pack	-----	\$100.00 / day
SCBA	-----	\$175.00 / day
H.E.P.A. Apr Cartridges	-----	\$24.00 / pair
Organic Vapor / H.E.P.A. Cartridges	-----	\$22.00 / pair
Chemical Vapor APR Cartridges	-----	\$24.00 / pair
Organic Vapor Respirator Cartridges	-----	\$24.00 / pair
Emergency Signal Horn	-----	\$15.00 / day
Safety Harness	-----	\$50.00 / day
Lifeline with Safety Hook	-----	\$ 10.00/ day
Tripod / Winch Retrieval System	-----	\$160.00 / day

\*\*Minimum Protective equipment such as hard hats, life vests, knee boots and steel toe boots are provided by ES&H Consulting Services at a cost of \$35.00 per person for each day the person is on the work site or cost + 20%.

**SAFETY SUPPORT EQUIPMENT**

MSA Passport Air Monitor	-----	\$100.00 / day
FID	-----	\$ 295.00 / day
PID	-----	\$ 275.00 / day
Chemical Tube Pump	-----	\$ 50.00/day
LudLum Model #2 Norm Survey Meter	-----	\$ 50.00/ day
LudLum Model #3 Norm Survey Meter	-----	\$ 50.00/ day
pH Meter	-----	\$ 50.00 / day
Chemical Tubes	-----	\$ 10.00 / each
PCB Test Kit	-----	\$ 20.00 / each

**MISCELLANEOUS SUPPORT EQUIPMENT**

1" Diaphragm Pump (Gas or Air)	-----	\$ 75.00 / day
2" Diaphragm Pump (Gas or Air)	-----	\$ 110.00 / day
3" Diaphragm Pump (Gas or Air)	-----	\$135.00 / day
2" Chemical Transfer Pump	-----	\$250.00 / day
2" Diesel Pump	-----	\$ 90.00 / day
3" Diesel Pump	-----	\$110.00/day
2" Peristaltic Pump (Vac Pump)	-----	\$300.00 / day
<del>2" Gas Pump</del>	-----	<del>\$ 90.00 / day</del>
3" Gas Pump	-----	\$110.00 / day
1/2" Air Diaphragm Pump	-----	\$ 65.00/ day
2.8 kW Generator	-----	\$ 70.00 / day
4 kW Generator	-----	\$ 80.00 / day
8 kW Generator	-----	\$ 90.00 / day
10 kW Generator	-----	\$125.00 / day
12 kW Generator	-----	\$150.00 / day
10 CU ft Air Compressor	-----	\$100.00 / day
100 CU ft Air Compressor	-----	\$150.00 / day
185 CU ft Air Compressor	-----	\$175.00 / day
375 CU ft Air Compressor	-----	\$300.00 / day
Breathing Air Compressor	-----	\$200.00 / day
Scare Cannons	-----	\$ 40.00 / day
3/4 Air Hose	-----	\$ .25 / ft / day
1" Suction/Discharge Hose	-----	\$ .25 / ft / day
2" Suction/Discharge Hose	-----	\$ .40 / ft / day
3" Suction/Discharge Hose	-----	\$ .55 / ft / day
4" Suction/Discharge Hose	-----	\$ .65 / ft / day
5" Suction/Discharge Hose	-----	\$ .75 / ft / day
6" Suction/Discharge Hose	-----	\$ .85 / ft / day
2" Coast Guard Approved Hose	-----	\$ 1.20 / ft / day
3" Coast Guard Approved Hose	-----	\$ 1.50 / ft / day
2" Chemical Hose	-----	\$ 1.00 / ft / day
Generated Light Plant	-----	\$175.00 / day
Explosion Proof Lighting	-----	\$ 70.00/day
Light Tower	-----	\$ 25.00 / day
Foam Machine	-----	\$200.00 / day
Acetylene/ Oxygen Torch Set	-----	\$ 50.00/ day
Rope Ladder	-----	\$ 20.00/ day
24' Fiberglass Extension Ladder	-----	\$ 25.00/day
40' Extension Ladder	-----	\$ 40.00/day

1500psi Pressure Washer	-----	\$ 95.00 / day
3000psi Pressure Washer	-----	\$ 180.00 / day
3000psi Steam Cleaner	-----	\$250.00 / day
Pressure washer Hose	-----	\$ 0.35 /ft /day

**MISCELLANEOUS SUPPORT EQUIPMENT cont.**

12' Extension Pressure Wand	-----	\$ 10.00/ day
Bobcat Escavator	-----	\$250.00 / day
Forklift	-----	\$175.00 / day
Weedeater	-----	\$ 35.00 / day
Air Blower	-----	\$ 35.00 / day
Turbine Air Blower (Ram Fan)	-----	\$ 75.00/day
4" Cone Blower	-----	\$ 55.00/day
5" Cone Blower	-----	\$ 65.00/day
Chain Saw	-----	\$ 35.00 / day
Wheelbarrow	-----	\$ 25.00 / day
Disposable decon pool	-----	\$ 20.00 / day
Decon Pool 10 x 10	-----	\$ 65.00 / day
<del>Decon Pool 25 x 50</del>	-----	<del>\$250.00 / day</del>
Decon Pool 25 x 100	-----	\$350.00 / day
Roll Off Boxes	-----	\$ 25.00 / day

**HAZMAT EQUIPMENT**

Chemical Pads	-----	\$ 125.00/bale
5" Chemical Boom	-----	\$ 120.00/bale
8" Chemical Boom	-----	\$ 175.00/bale
1 1/2" Fire Hose	-----	\$ .75/foot
Industrial Fire Nozzle	-----	\$ 50.00 / day
Non-Sparking Hand Tools	-----	\$ 50.00 / day
Pogo Pump	-----	\$ 25.00 / day
Drum Labels	-----	\$ 2.00/each
Safety Cones	-----	\$ 2.00 / day
Eye Wash Station	-----	\$ 20.00 / day
Pallet Puller	-----	\$ 25.00 / day
Drum Dolly	-----	\$ 25.00 / day
Drum Lift	-----	\$ 25.00 / day
Hazmat Drum Liner	-----	125.00 / roll
Drum Thief	-----	\$ 30.00 / each
Wet / Dry Vac	-----	\$40.00 / day
Plug & Patch Kit	-----	\$500.00 / each

**COMMUNICATIONS EQUIPMENT**

Digital Camera	-----	\$ 50.00 / day
Cellular Phone	-----	\$ 25.00 / day
Cellular Air Time	-----	\$ Cost + 20% or \$2/min
VHF Radio	-----	\$ 25.00 / day
Motorola Radio	-----	\$ 25.00 / day
Portable Radio Repeater	-----	\$275.00 / day
Fax Machine	-----	\$ 25.00 / day
Laptop Computer	-----	\$ 75.00 / day
Enhanced Laptop Computer	-----	\$175.00 / day
<del>Poster Printer</del>	<del>-----</del>	<del>\$250.00 / day</del>
Printer, Text	-----	\$ 50.00 / day
Copier	-----	\$ 50.00 / day
Handheld GPS	-----	\$ 50.00 / day



**LION OIL TRADING AND TRANSPORTATION, INC.**  
**SOUTH ARKANSAS NORTH LOUISIANA**  
**PIPELINE SYSTEM**  
**SPILL RESPONSE MANUAL**

**APPENDIX D**  
**MATERIAL SAFETY DATA SHEETS**

# Lion Oil Company

Product: Crude Oil

Revision No. 7



MSDS No. LO0018

Date of Preparation: 6-08-09

## Section 1 - Chemical Product and Company Identification

Product/Chemical Name: Crude Oil

Chemical Formula: Mixture

CAS Number: 8002-05-9

Synonyms: Crude, Sweet Crude, Sour Crude

Description: Amber to black viscous liquid with a mild sulfur odor.

Manufacturer or Distributor: Lion Oil Co., 1000 McHenry St., El Dorado, AR 71730; (870) 862-8111

24-hr Emergency Phone Number: "FOR CHEMICAL EMERGENCY" Spill, Leak, Fire, Exposure or Accident

CALL CHEMTREC – Day or Night 800-424-9300

MSDS CONTACT: Beverly McFarland – 870-862-3703

## Section 2 - Hazards Identification

☆☆☆☆☆ Emergency Overview ☆☆☆☆☆

**DANGER!****Health****Flammability****Physical Hazard**

HMIS	
<b>H</b>	<b>1*</b>
<b>F</b>	<b>4</b>
<b>PH</b>	<b>0</b>
<b>PPE†</b>	
†Sec. 8	

### Volatile and Flammable Liquid

Keep away from ignition sources. Crude oil vapors are heavier than air and may travel some distance to an ignition source and flash back.

Contains Benzene - long term, prolonged or repeated skin contact may increase the risk of skin cancer, blood and nervous system damage.

May contain hydrogen sulfide gas (H<sub>2</sub>S).

**HARMFUL OR FATAL IF SWALLOWED – Can enter lungs and cause damage.**

May cause eye and skin irritation.

Spills may create a slip hazard.

☆☆☆☆☆ Potential Health Effects ☆☆☆☆☆

**Primary Entry Routes:** Inhalation, Skin Absorption, Ingestion, Skin and/or Eye contact.

**Target Organs:** Eyes, Skin, Respiratory System, Central Nervous System, Liver, and Kidneys

**Carcinogenicity:** Contains Benzene which has been designated a carcinogen by IARC (group 1), NPT, and OSHA.

### **Medical Conditions Aggravated By Long-Term Exposure:**

Benzene – Individuals with liver disease may be more susceptible to toxic effects.

Hexane – Individuals with neurological disease should avoid exposure.

Petroleum Hydrocarbons – Skin contact may aggravate an existing dermatitis.

### Acute Effects

**Inhalation:** Inhalation causes irritation of mouth, throat, and respiratory tract. Can cause headaches, dizziness, drowsiness, convulsions, coma, cyanosis and generalized depression. Large amounts in lungs could cause chemical pneumonitis, which can be fatal. This material may contain hydrogen sulfide (H<sub>2</sub>S) which has rotten – egg odor. Continued exposure to H<sub>2</sub>S may deaden a person's sense of smell. If the rotten – egg odor has stopped, this may not mean that H<sub>2</sub>S is no longer present. High levels of H<sub>2</sub>S can cause shock, convulsions, coma, and death.

**Eye:** Eye contact causes tearing, redness and severe irritation.

**Skin:** Skin contact from prolonged or frequent exposure to liquids or vapors can cause irritation and dermatitis.

**Ingestion: Do Not Induce Vomiting because of danger of aspirating liquid into lungs.** May be harmful or fatal if swallowed. Ingestion can cause blurred vision, vertigo, vomiting and cyanosis. Seek medical attention.

### Chronic Effects

Benzene has been classified as a leukemogen and may produce anemia, leukemia from repeated or prolonged exposure to high concentrations.

Section Ref. (10)

6-08-09

MSDS No. LO0018

Crude Oil

### Section 3 - Composition / Information on Ingredients

Ingredient Name	CAS Number	% wt
Crude oil, including:	8002-05-9	100
Benzene	71-43-2	0.1-1.5
Toluene	108-88-3	0.1-1.5
Xylenes (mixed isomers)	1330-20-7	0.1-1.5
Cyclohexane	110-82-7	0.01-0.5
Ethylbenzene	100-41-4	0.01-0.5
Hexane	110-54-3	0-3.0
Trimethylbenzene	95-63-6	0-0.2
Naphthalene	91-20-3	0-0.2
Cumene	98-82-8	0-0.2
Hydrogen Sulfide	7783-06-4	<0.001

### Section 4 - First Aid Measures

**Inhalation:** Move to fresh air. If overcome by vapor, remove from exposure and call a physician immediately. If breathing is irregular or has stopped, start resuscitation, administer oxygen, if available. Seek medical attention.

**Eye Contact:** Flush with water for 15 minutes. Contact doctor for additional advice.

**Skin Contact:** Remove any contaminated clothing and wash skin with soap and water, launder or dry-clean clothing before reuse.

**Ingestion:** **Do not induce vomiting because of danger of aspirating liquid into lungs.** Large amounts in lungs could cause chemical pneumonitis, which can be fatal. If spontaneous vomiting is about to occur, place victim's head below knees. Seek medical attention.

*After first aid, get appropriate in-plant, paramedic, or community medical support.*

Section Ref. (10)

### Section 5 - Fire-Fighting Measures

**Flash Point:** <0° F

**Flash Point Method:** TCC

**Autoignition Temperature:** 536° F (gasoline)

**LEL:** 1.4 %

**UEL:** 7.6 %

**Emergency Response Guide:** Guide No. 128

**Flammability Classification:** Flammable Liquid Class 1B

**Extinguishing Media:** Dry chemical, Halon, CO<sub>2</sub>, foam, water. Water may not be effective and water fog can be used to cool containers. Water may splash and spread flaming liquid.

**Unusual Fire or Explosion Hazards:** Keep away from heat, sources of ignition and strong oxidizers. Can react violently with oxidizing agents.

**Hazardous Combustion Products:** Fumes, smoke, carbon monoxide, sulfur oxides, and other decomposition products, in the case of incomplete combustion

**Special Fire-Fighting Procedures:** Vapors can readily form explosive mixtures with air. Heavier than air vapors can flow along surfaces to ignition sources and flash back. Used self-contained breathing in enclosed areas.

Section Ref. (4, 10)

NFPA rating®	
<b>H</b>	<b>1</b>
<b>F</b>	<b>4</b>
<b>R</b>	<b>0</b>

### Section 6 - Accidental Release Measures

**"FOR CHEMICAL EMERGENCY" Spill, Leak, Fire, Exposure or Accident**

**CALL CHEMTREC – Day or Night 800-424-9300**

**Spill /Leak Procedures:** Danger, Flammable, eliminate all ignition sources. Equipment used in spill cleanup must be grounded to prevent sparking.

**Small Spills:** Take up with an absorbent material and place in containers, seal tightly for proper disposal.

6-08-09

MSDS No. LO0018

Crude Oil

**Large Spills:** Isolate the hazard area and restrict entry to unnecessary personnel. Shut off source of leak only if it can be done safely or dike and contain the spill. Wear appropriate respirator and protective clothing. Water fog may be useful in suppressing vapor cloud, contain run-off. Remove with vacuum trucks. Soak up residue with sand or other suitable material, place in containers for proper disposal. Flush with water and dispose of flushing solutions as above. Local, state and federal disposal regulations must be followed.

Contact state and local environmental or health authorities. If spilled material could reach any surface waters, then notify The National Response Center (800) 424-8802.

**Regulatory Requirements:** This material or materials contaminated by crude oil may meet the criteria of a hazardous waste as defined by the EPA under RCRA or other state and local regulations. Analysis of the material may be needed to make a correct determination.

Section Ref. (4)

### Section 7 - Handling and Storage

**Handling Precautions:** Do not get in eyes, on skin or on clothing. Do not breathe vapors, mists or fumes. Wear protective equipment described in section 8 if exposure conditions warrant. Use only with adequate ventilation.

**Storage Requirements:** Keep away from open flame, high temperatures, sparks, pilot lights, static electricity, open flames and other sources of ignition. Store in well ventilated area. Store in tightly closed containers. Bond and ground containers during transfer of Crude Oil.

**Other Precautions:** Toxic amounts of Hydrogen Sulfide (H<sub>2</sub>S) may be present in storage tanks and bulk transportation vessels that have contained crude or still contain crude. **Do Not Enter these Compartments** until the Hydrogen Sulfide (H<sub>2</sub>S) level has been determined, and the proper exposure controls are in place to meet the exposure values listed in Section 8.

### Section 8 - Exposure Controls / Personal Protection

Ingredient	OSHA PEL		ACGIH TLV		NIOSH REL		NIOSH IDLH
	TWA	STEL	TWA	STEL	TWA	STEL	
Crude Oil	500 ppm		5mg/m <sup>3</sup> oil mist		350 ppm		1100 ppm
Benzene	1 ppm	5 ppm	0.5 ppm	2.5 ppm	0.1 ppm	1.0 ppm	500 ppm
Toluene	200 ppm	300 ppm	50 ppm		100 ppm	150 ppm	500 ppm
Xylenes (mixed isomers)	100 ppm		100 ppm	150 ppm	100 ppm	150 ppm	900 ppm
Cyclohexane	300 ppm		300 ppm		300 ppm		2000 ppm
Ethylbenzene	100 ppm		100 ppm	125 ppm	100 ppm	125 ppm	800 ppm (10% LEL)
Hexane	500 ppm		50 ppm		50 ppm		1100 ppm (10% LEL)
Trimethylbenzene	N. D.		25 ppm		25 ppm		N. D.
Naphthalene	10 ppm		10 ppm	15 ppm	10 ppm	15 ppm	250 ppm
Cumene	50 ppm		50 ppm		50 ppm		900 ppm (10% LEL)
Hydrogen Sulfide		20 ppm	10 ppm	15 ppm		10 ppm	100 ppm

(LEL) – Lower Explosion Limit

#### Engineering Controls

**Ventilation:** Provide explosion proof ventilation to meet TLV requirements in enclosed work areas.

#### Protective Clothing/Equipment

**Gloves:** Use chemical resistant gloves to prevent skin contact.

**Goggles:** Wear chemical goggles if eye contact is likely.

**Respiratory:** Use organic vapor cartridge respirators for exposures over TLV up to 1000 ppm. Use fresh air or self-contained breathing equipment for unknown or high concentrations.

**Contaminated Equipment:** Launder or dry-clean contaminated clothing before reuse.

Section Ref. (2, 3)

6-08-09

MSDS No. LO0018

Crude Oil

## Section 9 - Physical and Chemical Properties

**Physical State:** Liquid

**Appearance and Odor:** Amber to black viscous liquid with a mild sulfur odor.

**Odor Threshold:** No Data

**Vapor Pressure:** 1.5 – 9.0 psi @ 100° F

**Vapor Density (Air=1):** 3 - 4

**Formula Weight:** No Data

**Density:** No Data

**Specific Gravity (H<sub>2</sub>O=1, at 4 °C):** 0.78 – 0.93

**pH:** NA

**Water Solubility:** Negligible

**Other Solubilities:** No Data

**Boiling Point:** 0 – 1500° F

**Freezing/Melting Point:** NA

**Viscosity:** 1.0 – 400 cst @ 100° F

**Refractive Index:** No Data

**Surface Tension:** No Data

**% Volatile:** 25 – 95%

**Evaporation Rate:** No Data

## Section 10 - Stability and Reactivity

**Stability:** This Material is Stable.

**Polymerization:** Hazardous Polymerization will not occur.

**Chemical Incompatibilities:** Keep away from Oxidizing agents.

**Conditions to Avoid:** Keep away from open flame, high temperatures, and other sources of ignition.

**Hazardous Decomposition Products:** Fumes, smoke, carbon monoxide, sulfur oxides, and other decomposition products, in the case of incomplete combustion

## Section 11- Toxicological Information

**Carcinogenicity:** Contains Benzene, IARC known carcinogen to humans, rating 1  
Crude oil, IARC limited evidence in animals and inadequate evidence in humans, rating 3

**Chronic Effects:** Contains polynuclear aromatics (PAH's) which have been shown to cause skin cancer after prolonged and repeated contact with the skin of test animals.

### Crude oil:

**Skin-Mouse TDLo:** 3744 mg/kg/2Y-I: Carcinogenic effects

**Skin-Mouse TD:** 12,480 mg/kg/2Y-I: Carcinogenic effects

National Technical Information Service (Springfield, VA 22161) (Formerly U.S. Clearinghouse for Scientific and Technical Information) NTIS\*\* CONF-790334-3

**Skin-Mouse TD:** 40 g/kg/10W-I: Equivocal tumorigenic agent

British Empire Cancer Campaign Annual Report (Cancer Research Campaign, 2 Carlton House Terrace, London SW1Y 5AR, England) V.1- 1924-BECCAN 39, 420 , 61

**Skin-Mouse TD:** 21,216 mg/kg/2Y-I: Carcinogenic effects

**Skin-Mouse TD:** 210 mg/kg/2Y-I: Carcinogenic effects

National Technical Information Service (Springfield, VA 22161) (Formerly U.S. Clearinghouse for Scientific and Technical Information) NTIS\*\* CONF-801143

**Skin-Mouse TD:** 3744 mg/kg/2Y-I: Neoplastic effects

Journal of Occupational Medicine (American Occupational Medical Association, 150 N. Wacker Dr., Chicago, IL 60606) V.1- 1959-JOCMA7 21,614,79

**Microsomal Mutagenicity Assay-Salmonella typhimurium 1 mg/plate**

Carcinogenesis (Information Retrieval, 1911 Jefferson Davis Highway, Arlington, VA 22202) V.1- 1980-CRNGDP 3, 21, 78

### HYDROGEN SULFIDE (7783-06-4)

**Inhalation-Rat LC50:** 444 ppm

Personal Communication from Mr. H.B. Lackey, Chemical Products Div., Crown Zellerbach, Camas, WA 98607, to Dr. H.E. Christensen, NIOSH, Rockville, MD 20852, June 9, 1978LacHB# 09JUN78

**Inhalation-Mouse LC50:** 634 ppm/1H

Aerospace Medical Research Laboratory Report. (Aerospace Technical Div., Air Force Systems Command, Wright-Patterson Air Force Base, OH 45433)AMRL\*\* TR-72-62,72

6-08-09

MSDS No. LO0018

Crude Oil

**Inhalation-Rat** TCLo: 20 ppm (female 6-22D post) Reproductive effects  
Toxicology. (Elsevier Scientific Pub. Ireland, Ltd., POB 85, Limerick, Ireland) V.1- 1973-TXCYAC 6,389,90

**Inhalation-Human** LCLo: 600 ppm/30M

"Practical Toxicology of Plastics" Lefaux, R., Cleveland, OH, Chemical Rubber Company,  
196829ZWAE -,207,68

**Inhalation-Man** LDLo: 5700 mg/kg: Central nervous system effects, Pulmonary system effects

Archives des Maladies Professionnelles de Medecine du Travail et de Securite Sociale. (Masson et Cie, Editeurs, 120  
Blvd. Saint-Germain, P-75280, Paris 06, France) V.7- 1946-AMPMAR 44,483,83

**Inhalation-Human** LCLo: 800 ppm/5M

Tabulae Biologicae. (The Hague, Netherlands) V.1-22, 1925-63. Discontinued TABIA2 3,231,33

**Inhalation-Mammal** LCLo: 800 ppm/5M

Naunyn-Schmiedeberg's Archiv fuer Experimentelle Pathologie und Pharmakologie. (Berlin, Germany) V.110-  
253, 1925-66. For publisher information, see NSAPCCAEPPEAE 138,65,28

**Other human data for H<sub>2</sub>S:** It has been reported that 170 to 300 ppm is the maximum concentration that can  
be endured for 1 hour without serious consequences [Henderson and Haggard 1943] and that olfactory  
fatigue occurs at 100 ppm [Poda 1966]. It has also been reported that 50 to 100 ppm causes mild conjunctivitis  
and respiratory irritation after 1 hour; 500 to 700 ppm may be dangerous in 0.5 to 1 hour; 700 to 1,000 ppm  
results in rapid unconsciousness, cessation of respiration, and death; and 1,000 to 2,000 ppm results in  
unconsciousness, cessation of respiration, and death in a few minutes [Yant 1930].

Henderson Y, Haggard HW [1943]. Noxious gases, 2nd ed.; New York, NY; Reinhold Publishing Corp. pg 245

Poda GA [1966]. Hydrogen sulfide can be handled safely. Arch Environ Health 12:795800.

Yant WP [1930]. Hydrogen sulfide in industry: occurrence, effects and treatment. Am J Public Health 20:598608.

**Section Ref. (5, 10)**

## Section 12 - Ecological Information

**Aquatic Toxicity:** This material is toxic to aquatic organisms and should be kept out of all bodies of water.  
If spilled material could reach any surface waters, then notify The National Response Center (800) 424-8802.  
May be dangerous if it enters water intakes. Notify local health and pollution control officials.  
Notify operators of nearby water intakes.

**Section Ref. (10)**

## Section 13 - Disposal Considerations

**Disposal:** Local, state and federal disposal regulations must be followed.

**Disposal Regulatory Requirements:** This material or materials contaminated by crude oil may meet the criteria of a  
hazardous waste as defined by the EPA under RCRA or other state and local regulations. Analysis of the material may  
be needed to make a correct determination.

**Container Cleaning and Disposal: "Empty" Container Warning:** "Empty" containers retain product residue (liquid and/or  
vapor) and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH  
CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION. THEY MAY  
EXPLODE AND CAUSE INJURY OR DEATH.

## Section 14 - Transport Information

### DOT Transportation Data (49 CFR 172.101):

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods  
Regulations, for additional description information.

**DOT Shipping Name:** Petroleum Crude Oil

**DOT Hazard Class:** 3

**DOT ID No.:** UN1267

**DOT Packing Group:** I

**Hazard Label:** Flammable Liquid

6-08-09

MSDS No. LO0018

Crude Oil

### Section 15 - Regulatory Information

**EPA Regulations:**

**RCRA Hazardous Waste Classification (40 CFR 261):** This material or materials contaminated by crude oil may meet the criteria of a hazardous waste as defined by the EPA under RCRA or other state and local regulations. Analysis of the material may be needed to make a correct determination.

**CERCLA Reportable Quantity (RQ) (40 CFR 302.4):**

Compound	CAS Number	RQ
Benzene	71-43-2	10
Toluene	108-88-3	1000
Xylenes (mixed isomers)	1330-20-7	100
Cyclohexane	110-82-7	1000
Ethylbenzene	100-41-4	1000
Hexane	110-54-3	5000
Trimethylbenzene	95-63-6	-----
Naphthalene	91-20-3	100
Cumene	98-82-8	5000
Hydrogen Sulfide	7783-06-4	100
Benzo(a)pyrene	50-32-8	1
Benzo(a)anthracene	56-55-3	10
Dibenz(a,h)anthracene	53-70-3	1
3-Methylcholanthrene	56-49-5	10
7,12-Dimethylbenz(a)anthracene	57-97-6	1
Naphthalene	91-20-3	100
Biphenyl	92-52-4	100
Anthracene	120-12-7	5000
Benzo(rst)pentaphene	189-55-9	10
Phenanthrene	85-01-8	5000
Benzo(g,h,I)perylene	191-24-2	5000
Indeno(1,2,3-cd)pyrene	193-39-5	100
Benzo(b)fluoranthene	205-99-2	1
Fluoranthene	206-44-0	100
Benzo(k)fluoranthene	207-08-9	5000
Benzo(a)phenanthrene	218-01-9	100

**SARA 311/312 Codes (40 CFR 370 / 29 CFR 1910.1200):**

Fire	YES
Pressure	NO
Reactivity	NO
Immediate (acute)	YES
Delayed (chronic)	YES

**SARA Toxic Chemical (40 CFR 372) Section 313:  
Chemicals of Special Concern (40 CFR 372.28)\***

Compound	CAS Number	Concentration %
Benzene	71-43-2	0.1-1.5
Toluene	108-88-3	0.1-1.5
Xylenes (mixed isomers)	1330-20-7	0.1-1.5
Cyclohexane	110-82-7	0.01-0.5
Ethylbenzene	100-41-4	0.01-0.5
Hexane	110-54-3	0-3.0
Trimethylbenzene	95-63-6	0-0.2
Naphthalene	91-20-3	0-0.2

6-08-09

MSDS No. LO0018

Crude Oil

Cumene	98-82-8	0-0.2
Hydrogen Sulfide	7783-06-4	<10 ppm
Benzo(a)pyrene	50-32-8	<50 ppm
Benzo(a)anthracene	56-55-3	<50 ppm
Dibenz(a,h)anthracene	53-70-3	<100 ppm
3-Methylcholanthrene*	56-49-5	<50 ppm
7,12-Dimethylbenz(a)anthracene	57-97-6	<24 ppm
Naphthalene	91-20-3	190 ppm
Biphenyl	92-52-4	<240 ppm
Anthracene	120-12-7	60 ppm
Benzo(rst)pentaphene	189-55-9	<50 ppm
Dibenzo(a,h)pyrene	189-64-0	<50 ppm
Phenanthrene	85-01-8	60 ppm
Benzo(g,h,I)perylene	191-24-2	<100 ppm
Dibenzo(a,l)pyrene	191-30-0	<50 ppm
Dibenzo(a,e)pyrene	192-65-4	<50 ppm
Indeno(1,2,3-cd)pyrene	193-39-5	<100 ppm
7,H-dibenzo(c,g)carbazole	194-59-2	<24 ppm
Benzo(b)fluoranthene	205-99-2	<50 ppm
Benzo(j)fluoranthene	205-82-3	<50 ppm
Fluoranthene*	206-44-0	<50 ppm
Benzo(k)fluoranthene	207-08-9	<50 ppm
Benzo(a)phenanthrene	218-01-9	<50 ppm
Dibenz(a,j)acridine	224-42-0	<24 ppm
Dibenz(a,h)acridine	226-36-8	<24 ppm
Dibenzo(a,e)fluoranthene	5385-75-1	<50 ppm
1-Nitropyrene	5522-43-0	<50 ppm
5-Methylchrysene	3697-24-3	<50 ppm

Crude Oil may contain trace metals which are listed in section 313.

**SARA EHS (Extremely Hazardous Substance) (40 CFR 355):**

Compound	CAS Number	RQ
Hydrogen Sulfide	7783-06-4	100

**TSCA (40 CFR 710):** This product and its components are listed on the Toxic Substance Control Act (TSCA) Chemical Substance Inventory.

**State Regulations:** The following chemicals are specifically listed by individual states, for details on each states regulatory requirements you should contact the appropriate agency in that state.

Compound	CAS Number	States
Benzene	71-43-2	CA, CA65, MA, NY, NJ, TX, FL, IL, PA
Toluene	108-88-3	CA, CA65, MA, NJ, TX, FL, IL, PA
Xylenes (mixed isomers)	1330-20-7	CA, MA, NY, NJ, TX, FL, IL, PA
Cyclohexane	110-82-7	CA, MA, NJ, TX, FL, IL, PA
Ethylbenzene	100-41-4	CA, MA, NJ, TX, FL, IL, PA
Hexane	110-54-3	CA, MA, TX, FL, IL, PA
Trimethylbenzene	95-63-6	MA, TX, FL, PA
Naphthalene	91-20-3	CA, MA, NJ, TX, FL, IL, PA
Cumene	98-82-8	CA, MA, NJ, TX, FL, IL, PA
Hydrogen Sulfide	7783-06-4	CA, MA, NJ, NY, FL, IL, PA, TX
Crude Oil	8002-05-9	MA, FL, PA, TX

CA – CALIFORNIA STATE SUPERFUND HAZARDOUS SUBSTANCE  
 CA65 – CALIFORNIA PROPOSITION 65 CARCINOGENS OR REPRODUCTIVE TOXINS  
 MA – MASSACHUSETTS SUBSTANCE LIST  
 NY – NEW YORK HAZARDOUS SUBSTANCE BULK STORAGE LIST  
 NJ – NEW JERSEY RIGHT TO KNOW HAZARDOUS SUBSTANCE  
 TX – TEXAS AIR CONTAMINANTS WITH HEALTH EFFECTS SCREENING LEVEL  
 FL – FLORIDA TOXIC SUBSTANCE LIST  
 IL – TOXIC SUBSTANCE DISCLOSURE TO EMPLOYEES LIST  
 PA – PENNSYLVANIA HAZARDOUS SUBSTANCE LIST

Section Ref. (6)

**SECTION 16 - Other Information**

**Prepared By:** Tommy Rowland – 6-8-09

**Revision Notes:** Moved Hazard Identification to Section 2 and Composition/ Information on Ingredients to Section 3. Updated Sections 5, 11 and 16.

**Hazardous Materials Information System (U.S.A.)**

HMIS	
<b>H</b>	<b>1*</b>
<b>F</b>	<b>3</b>
<b>PH</b>	<b>0</b>
<b>PPE†</b>	
†Sec. 8	

.....	H – Health	4 – Extreme
.....	F – Fire Hazard	3 – Serious
.....	PH – Physical Hazard	2 – Moderate
.....		1 – Slight
.....		0 – Minimal

\* **Chronic Hazard** - Chronic (long-term) health effects may result from repeated over exposure.

**National Fire Protection Association**

**NFPA Label**

**Chem. name**

**Health (blue)**  
 4 – deadly  
 3 – extreme danger  
 2 – hazardous  
 1 – slightly hazardous  
 0 – normal material

**Fire Hazard (red)**  
 Flash Point Temp.  
 4 – below 73F - v.flam.  
 3 – 73 to 100F – flam.  
 2 – 101 to 200F- comb.  
 1 – over 200F –slightly combustible  
 0 – will not burn

**Reactivity (yellow)**  
 4 – may detonate  
 3 – shock or heat may detonate  
 2 – violent chem. reaction  
 1 – unstable if heated  
 0 – stable

**Specific Hazard**  
 OXY - oxidizer  
 ACID – acid  
 ALK – Alkali  
 COR – corrosive  
 W – use no water  
 RAD - radiation haz.

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**Reference and research:**

- (1) The International Chemical Safety Card - <http://www.cdc.gov/niosh/ipcs/icstart.html>
- (2) NIOSH Pocket Guide to Chemical Hazards - <http://www.cdc.gov/niosh/npg/>
- (3) 2007 Guide to Occupational Exposure Values – Compiled by ACGIH
- (4) 2008 Emergency Response Guidebook - <http://hazmat.dot.gov/pubs/erg/unidnum.htm>
- (5) Sax's Dangerous Properties of Industrial Materials, 9th Edition; Edited by Richard J. Lewis, Sr.; Version 1.6; Copyright © 1997 by John Wiley & Sons, Inc.
- (6) Touchstone Environmental, Inc.; Chemcheck Handbook (educational resource)
- (7) Hawley's Condensed Chemical Dictionary, 13<sup>th</sup> Edition; Edited by Richard J. Lewis, Sr.; Version 1.1 Copyright© 1997 by John Wiley & Sons, Inc.
- (8) Environmental Contaminant Reference Databook; VOLUMES I, II and III; by Jan. C. Prager; Version 2.0; Copyright © 1997 by John Wiley & Sons, Inc.
- (9) Fire Protection Guide to Hazardous Materials, Twelfth Edition; National Fire Protection Association (NFPA 325) Guide to Hazardous Chemical Properties of Flammable Liquids, Gases, and Volatile Solids. 1994 edition.
- (10) Hazardous Materials Handbook; Richard P. Pohanish and Stanley A. Greene, Version 1.3 Copyright© 1997 by Richard P. Pohanish and Stanley A. Greene

# Lion Oil Company

Product: #4 DIESEL

Revision No. 8



MSDS No. LO0005

Date of Preparation: 8-27-09

## Section 1 - Chemical Product and Company Identification

**Product/Chemical Name:** # 4 Diesel**CAS Number:** 68476-34-6**Synonyms:** Unit # 4 Diesel, #2 Diesel, Diesel Fuel, #2 Fuel Oil, High Sulfur Diesel, #8 Charge, #8 Feed**Description:** Process stream, Yellow color with distinct hydrocarbon odor**Manufacturer or Distributor:** Lion Oil Co., 1000 McHenry St., El Dorado, AR 71730; (870) 862-8111**24-hr Emergency Phone Number:** "FOR CHEMICAL EMERGENCY" Spill, Leak, Fire, Exposure or Accident

CALL CHEMTREC – Day or Night 800-424-9300

**MSDS CONTACT:** BEVERLY MCFARLAND - 870-864-1306

## Section 2 - Hazards Identification

☆☆☆☆☆☆☆☆☆☆ Emergency Overview ☆☆☆☆☆☆☆☆☆☆

**Combustible liquid****Material can release vapors that readily form flammable mixtures.****May cause skin irritation.****Prolonged or repeated skin contact may increase the risk of skin cancer.****Vapor accumulation could flash and/or explode if ignited.****Material can accumulate static charges.**

☆☆☆☆☆☆☆☆☆☆ Potential Health Effects ☆☆☆☆☆☆☆☆☆☆

**Primary Entry Routes:** Inhalation, Skin and/or Eye contact.**Target Organs:** Skin, Nervous System**Carcinogenicity:** This material has not been identified as a carcinogen by NTP, IARC, or OSHA.

Contains Polynuclear aromatics, which has been designated as a carcinogen by IARC (group 1). Risk of cancer depends on duration and level of exposure. IARC has classified diesel engine exhaust as a group 2A carcinogen, sufficient evidence in animals, probably carcinogenic to humans.

**Acute Effects****Inhalation:** Irritation, dizziness, headaches, and nausea. Excessive breathing may cause central nervous system effects.**Eye:** May cause irritation of the eye.**Skin:** Excessive skin contact may cause irritation and dermatitis.**Ingestion:** Do Not Induce Vomiting. Causes nausea, vomiting, and cramping; depression of central nervous system ranging from mild headache to anesthesia, coma, and death; pulmonary irritation secondary to exhalation of solvent; signs of kidney and liver damage may be delayed.**Aspiration into Lungs:** Causes severe lung irritation with coughing, gagging, dyspnea, substernal distress, and rapidly developing pulmonary edema; later, signs of bronchopneumonia and pneumonitis; acute onset of central nervous system excitement followed by depression.**Chronic Effects**

Prolonged or repeated contact with this material can cause cancer. IARC has classified diesel fuel as a group 2B carcinogen, sufficient evidence in animals, possibly carcinogenic to humans. Contains polynuclear aromatics, which has been designated as a carcinogen by IARC (group 1). Risk of cancer depends on duration and level of exposure. Liquid contact defats the skin. See Toxicological information (section 11)

**Environmental Effects**

Acute aquatic toxicity may cause toxic effects in the aquatic environment.

## HMIS

<b>H</b>	<b>1</b>
<b>F</b>	<b>2</b>
<b>PH</b>	<b>0</b>
<b>PPE†</b>	
†Sec. 8	

Health

Flammability

Physical Hazard

8-27-09

MSDS No. LO0005

#4 DIESEL

Section Ref. (1, 5)

**Section 3 - Composition / Information on Ingredients**

Ingredient Name	CAS Number	% vol
Diesel Fuel	68476-34-6	100
Including:		
Polynuclear Aromatic Compounds	-----	<0.10
Naphthalene	91-20-3	<0.10
Ethyl benzene	100-41-4	<0.10
Xylenes	1330-20-7	<0.10
Toluene	108-88-3	<0.10
Cumene	98-82-8	<0.10
Cyclohexane	110-82-7	<0.10
1,2,4 Trimethylbenzene	95-63-6	<0.10

**Section 4 - First Aid Measures**

**Inhalation:** Move to fresh air. If breathing is irregular or has stopped, start resuscitation, and then administer oxygen if available. Seek medical attention.

**Eye Contact:** Flush with water for 15 minutes. Seek medical attention.

**Skin Contact:** Wash with soap and water. Remove any contaminated clothing, launder or dry-clean clothing before reuse.

**Ingestion:** Do not induce vomiting. Vomiting may cause aspiration into lungs. If spontaneous vomiting is about to occur, place victim's head below knees. Seek medical attention.

*After first aid, get appropriate in-plant, paramedic, or community medical support.*

Section Ref. (2)

**Section 5 - Fire-Fighting Measures**

**Flash Point:** >140 °F

**Flash Point Method:** PM

**Autoignition Temperature:** No Data

**LEL:** 0.9

**UEL:** 7.0

**Flammability Classification:** Combustible liquid

**Emergency Response Guide:** Guide No. 128

**Extinguishing Media:** Extinguish with dry chemical, CO<sub>2</sub>, foam and water fog. Solid streams of water may be ineffective. Cool affected containers and vessels with flooding quantities of water. Apply water from as great a distance as possible. Keep run off water out of sewers and water sources. Minimize breathing of gases, vapor, fumes, or decomposition products. Use self-contained breathing apparatus for enclosed or confined spaces or as otherwise needed.

**Unusual Fire or Explosion Hazards:** Do not store near strong oxidants or open flame.

**Hazardous Combustion Products:** Under fire conditions – May form toxic materials; carbon dioxide and monoxide, oxides of sulfur and H<sub>2</sub>S, and other decomposition products, in the case of incomplete combustion.

**Fire-Fighting Instructions:** Extinguish with dry chemical, CO<sub>2</sub>, foam and water fog. Solid streams of water may be ineffective. Cool affected containers and vessels with flooding quantities of water. Apply water from as great a distance as possible. Keep run off water out of sewers and water sources. Minimize breathing of gases, vapor, fumes, or decomposition products.

**Special Fire-Fighting Procedures:** Use self-contained breathing apparatus for enclosed or confined spaces or as otherwise needed. Cool exposed containers and vessels with water.

NFPA Rating ®	
H	1
F	2
R	0

Section Ref. (4, 9)

8-27-09

MSDS No. LO0005

#4 DIESEL

### Section 6 - Accidental Release Measures

**“FOR CHEMICAL EMERGENCY” Spill, Leak, Fire, Exposure or Accident  
CALL CHEMTREC – Day or Night 800-424-9300**

**Spill /Leak Procedures:** Shut off sources of ignition. Shut off leak, if possible without risk. Take up with sand or other non-combustible, absorbent material.

**Small Spills:** Take up with an absorbent material and place in containers, seal tightly for proper disposal.

**Large Spills:** Isolate the hazard area and restrict entry to unnecessary personnel. Shut off source of leak only if it can be done so safely or dike and contain the spill. Keep run off out of sewers and water sources. Wear appropriate respirator and protective clothing. If possible remove product with vacuum trucks. Soak up residue with sand or other suitable material, place in containers for proper disposal. Local, state and federal disposal regulations must be followed.

**Regulatory Requirements:** Report any spills that could reach any surface waters to the U.S. Coast Guard National Response Center (800) 424-8802.

Section Ref. (4)

### Section 7 - Handling and Storage

**Handling Precautions:** Do not handle or store near heat, sparks, or flame. This material is a static accumulator it can accumulate static charges which may cause an electrical spark (ignition source). Bond and ground all equipment when transferring from one vessel to another. Material can accumulate static charge by flow or agitation and be ignited by static discharge. The use of explosion-proof equipment is recommended and may be required (see appropriate fire codes). Refer to NFPA-704 and/or API RP 2003-*Protection Against Ignitions Arising out of Static, Lightning, and Stray Currents* for specific bonding/grounding requirements. Do not get in eyes, on skin or on clothing. Do not breathe vapors, mists or fumes. Wear protective equipment described in Section 8 as exposure conditions warrant. Use only with adequate ventilation.

**Storage Requirements:** Do not store near strong oxidants or open flames. Avoid water contamination. Keep container closed. Handle containers with care. Open slowly in order to control possible pressure release. Store in a cool, well-ventilated area. Storage containers should be earthed and bonded.

Section Ref. (4, 10)

### Section 8 - Exposure Controls / Personal Protection

Ingredient	OSHA PEL		ACGIH TLV		NIOSH REL		NIOSH IDLH
	TWA	STEL	TWA	STEL	TWA	STEL	
Diesel Fuel			100 mg/m <sup>3</sup>		100 mg/m <sup>3</sup>		
Polynuclear aromatics	0.2 mg/m <sup>3</sup>		0.2 mg/m <sup>3</sup>		0.1 mg/m <sup>3</sup>		
Naphthalene	10 ppm		10 ppm	15 ppm	10 ppm	15 ppm	250 ppm
Ethyl benzene	100 ppm		100 ppm	125 ppm	100 ppm	125 ppm	800 ppm
Xylenes	100 ppm		100 ppm	150 ppm	100 ppm	150 ppm	900 ppm
Toluene	200 ppm	300 ppm	50 ppm		100 ppm	150 ppm	500 ppm
Cumene	50 ppm		50 ppm		50 ppm		900 ppm
Cyclohexane	300 ppm		300 ppm		300 ppm		1300 ppm
1,2,4 trimethylbenzene	N. D.		25 ppm		25 ppm		N. D.

#### Engineering Controls

**Ventilation:** General mechanical with local exhaust; sufficient to maintain exposure levels below recommended TLV.

#### Protective Clothing/Equipment

**Gloves:** Use chemical resistant gloves to avoid prolonged or repeated skin contact.

8-27-09

MSDS No. LO0005

#4 DIESEL

**Goggles:** Chemical-type goggles or face shield.

**Respiratory:** Self-contained, positive-pressure breathing apparatus when used in confined or enclosed space or when exposure limits are exceeded. Organic vapor respirators can be used with good ventilation when organic vapors are less than 1000 ppm or ten (10) times permissible exposure limit, which ever is less.

Section Ref. (2, 3)

### Section 9 - Physical and Chemical Properties

**Physical State:** Liquid

**Appearance and Odor:** Yellow color with distinct hydrocarbon odor

**Odor Threshold:** No Data

**Vapor Pressure:** 0.19 psi @ 100°F

**Vapor Density (Air=1):** 4+

**Formula Weight:** No Data

**Density:** No Data

**Specific Gravity (H<sub>2</sub>O=1, at 4 °C):** 0.83 – 0.86

**pH:** No Data

**Water Solubility:** Negligible

**Other Solubilities:** No Data

**Boiling Point:** 320°F -680°F

**Pour Point:** 10°F

**Viscosity:** 5.0 cst @ 40°C

**Refractive Index:** No Data

**Surface Tension:** No Data

**% Volatile:** <2

**Evaporation Rate:** 0.02 (Butyl Acetate = 1)

### Section 10 - Stability and Reactivity

**Stability:** Material is stable.

**Polymerization:** Will not occur.

**Chemical Incompatibilities:** Do not store near strong oxidants.

**Conditions to Avoid:** Do not store near open flames.

**Hazardous Decomposition Products:** Under fire conditions – May form toxic materials; carbon dioxide and monoxide, oxides of sulfur and nitrogen, H<sub>2</sub>S, and other decomposition products, in the case of incomplete combustion.

### Section 11- Toxicological Information

**Skin-Rabbit, adult:** 500 mg/24H Moderate irritation effects

**Eye effects-Rabbit, adult:** 100 mg/30S Mild irritation effects

**Oral-Rat LD50:**14,500 mg/kg

"Toxicology of Petroleum Hydrocarbons, Proceedings of the Symposium, 1st, 1982" MacFarland, H.N., et al., eds., Washington, DC, American Petroleum Institute, 198352MLA2 1,1,83

**Oral-Rat LD50:**12.0 g/kg body weight

IARC. Monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Man. Geneva: World Health Organization, International Agency for Research on Cancer, 1972–present (multivolume work), p. V45 256 (1989).

**Skin-Mouse TDLo:**243 g/kg/97W-I: Carcinogenic effects

Fundamental and Applied Toxicology (Academic Press, Inc., 1 E. First St., Duluth, MN 55802) V.1-1981-FAATDF 9, 297, 87

**Skin-Mouse TDLo:** 312 mL/kg/78 week – intermittent: Tumorigenic effects (Skin and Appendages)

National Technical Information Service. (Springfield, VA 22161) Formerly U.S. Clearinghouse for Scientific & Technical Information.

**Peer Review** - Confirmed animal carcinogen - TWA 100 mg/m<sup>3</sup> (skin). The Threshold Limit Values (TLVs) and Biological Exposure Indices (BEIs) booklet issues by American Conference of Governmental Industrial Hygienists (ACGIH), Cincinnati, OH, 1996

Section Ref. (1, 5)

8-27-09

MSDS No. LO0005

#4 DIESEL

### Section 12 - Ecological Information

**Ecotoxicity:** Dangerous to aquatic life in high concentrations. May be dangerous if it enters water intakes. Notify local health and wildlife officials. Notify operators of nearby water intakes. May foul shoreline.

**Aquatic toxicity:** 204 mg/1/24 hr/juvenile American shad/TLm/salt water.

**Waterfowl toxicity:** 20 mg/kg LD50

**Waterfowl toxicity:** (mallard)

**Biological oxygen demand:** NA

Section Ref. (10)

### Section 13 - Disposal Considerations

**Disposal:** Recycle or reclaim wastes or dispose of through licensed hazardous waste management firms. Follow all local, state and federal disposal regulations.

**“Empty” Container Warning:** “Empty” containers retain product residue (liquid and/or vapor) and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.

### Section 14 - Transport Information

#### DOT Transportation Data (49 CFR 172.101):

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description information.

#### Transportation Information for Bulk Shipments

**DOT Shipping Name:** Diesel Fuel

**DOT Hazard Class:** 3

**DOT ID No.:** UN 1202

**DOT Packing Group:** III

**Hazard Label:** Flammable Liquid

Section Ref. (4)

### Section 15 - Regulatory Information

#### CERCLA Reportable Quantity (RQ) (40 CFR 302.4):

Compound	CAS Number	RQ
Toluene	108-88-3	1000
Xylenes (mixed isomers)	1330-20-7	100
Cyclohexane	110-82-7	1000
Ethylbenzene	100-41-4	1000
1,2,4 Trimethylbenzene	95-63-6	-----
Naphthalene	91-20-3	100
Cumene	98-82-8	5000

#### SARA 311/312 Codes (40 CFR 370 / 29 CFR 1910.1200):

Fire	Yes
Pressure	No
Reactivity	No
Immediate (acute)	Yes
Delayed (chronic)	Yes

8-27-09

MSDS No. LO0005

#4 DIESEL

**SARA Toxic Chemical (40 CFR 372) Section 313:**

Compound	CAS Number	Concentration %
Toluene	108-88-3	0-0.1
Xylenes (mixed isomers)	1330-20-7	0-0.1
Cyclohexane	110-82-7	0-0.1
Ethylbenzene	100-41-4	0-0.1
1,2,4 Trimethylbenzene	95-63-6	0-0.1
Naphthalene	91-20-3	0-0.1
Cumene	98-82-8	0-0.1

**SARA EHS (Extremely Hazardous Substance) (40 CFR 355):** None**TSCA (40 CFR 710):** All components of this product are listed on the TSCA Inventory.**State Regulations:** The following chemicals are specifically listed by individual states, for details on each states regulatory requirements you should contact the appropriate agency in that state.

Compound	CAS Number	States
Toluene	108-88-3	CA, CA65, MA, NJ, TX, FL, IL, PA
Xylenes (mixed isomers)	1330-20-7	CA, MA, NY, NJ, TX, FL, IL, PA
Cyclohexane	110-82-7	CA, MA, NJ, TX, FL, IL, PA
Ethylbenzene	100-41-4	CA, MA, NJ, TX, FL, IL, PA
1,2,4 Trimethylbenzene	95-63-6	MA, TX, FL, PA
Naphthalene	91-20-3	CA, MA, NJ, TX, FL, IL, PA
Cumene	98-82-8	CA, MA, NJ, TX, FL, IL, PA

CA – CALIFORNIA STATE SUPERFUND HAZARDOUS SUBSTANCE

CA65 – CALIFORNIA PROPOSITION 65 CARCINOGENS OR REPRODUCTIVE TOXINS

MA – MASSACHUSETTS SUBSTANCE LIST

NY – NEW YORK HAZARDOUS SUBSTANCE BULK STORAGE LIST

NJ – NEW JERSEY RIGHT TO KNOW HAZARDOUS SUBSTANCE

TX – TEXAS AIR CONTAMINANTS WITH HEALTH EFFECTS SCREENING LEVEL

FL – FLORIDA TOXIC SUBSTANCE LIST

IL – TOXIC SUBSTANCE DISCLOSURE TO EMPLOYEES LIST

PA – PENNSYLVANIA HAZARDOUS SUBSTANCE LIST

Section Ref. (6)

**SECTION 16 - Other Information****Prepared By:** Tommy Rowland 8/27/09**Revision Notes:** 11/20/07 – Made editorial corrections

8/27/09 – Moved hazards identification to section 2 and composition/information on ingredients to section 3, updated section 7, 11 and 16.

**Hazardous Materials Information System (U.S.A.).**

HMIS®	
H	1*
F	3
PH	0
PPE†	
†Sec. 8	

Hazard Ratings

H – Health	4 – Extreme
F – Fire Hazard	3 – Serious
PH – Physical Hazard	2 – Moderate
1 – Slight	
0 – Minimal	

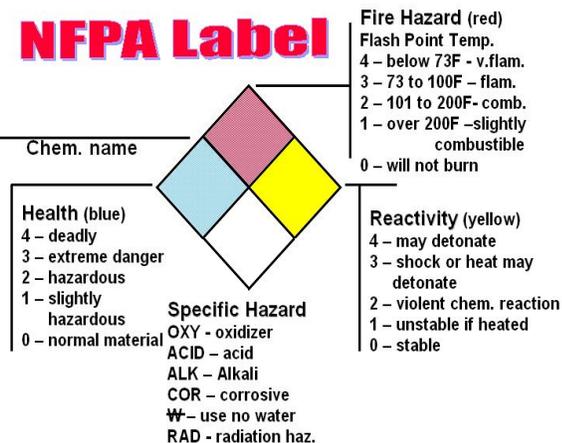
\* **Chronic Hazard** - Chronic (long-term) health effects may result from repeated over exposure.

8-27-09

MSDS No. LO0005

#4 DIESEL

## National Fire Protection Association

**NFPA Label**

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**Reference and research:**

- (1) The International Chemical Safety Card - <http://www.cdc.gov/niosh/ipcs/icstart.html>
- (2) NIOSH Pocket Guide to Chemical Hazards - <http://www.cdc.gov/niosh/npg/>
- (3) 2007 Guide to Occupational Exposure Values – Compiled by ACGIH
- (4) 2008 Emergency Response Guidebook - <http://hazmat.dot.gov/pubs/erg/unidnum.htm>
- (5) Sax's Dangerous Properties of Industrial Materials, 9th Edition; Edited by Richard J. Lewis, Sr.; Version 1.6; Copyright © 1997 by John Wiley & Sons, Inc.
- (6) Touchstone Environmental, Inc.; Chemcheck Handbook (educational resource)
- (7) Hawley's Condensed Chemical Dictionary, 13<sup>th</sup> Edition; Edited by Richard J. Lewis, Sr.; Version 1.1 Copyright© 1997 by John Wiley & Sons, Inc.
- (8) Environmental Contaminant Reference Databook; VOLUMES I, II and III; by Jan. C. Prager; Version 2.0; Copyright © 1997 by John Wiley & Sons, Inc.
- (9) Fire Protection Guide to Hazardous Materials, Twelfth Edition; National Fire Protection Association (NFPA 325) Guide to Hazardous Chemical Properties of Flammable Liquids, Gases, and Volatile Solids. 1994 edition.
- (10) Hazardous Materials Handbook; Richard P. Pohanish and Stanley A. Greene, Version 1.3 Copyright© 1997 by Richard P. Pohanish and Stanley A. Greene

# Lion Oil Company

Product: Gasoline, Light Straight Run

Revision No. 6



MSDS No. LO0019

Date of Preparation: 11-02-10

## Section 1 - Chemical Product and Company Identification

**Product/Chemical Name:** Gasoline, Light Straight Run

**CAS Number:** 64741-46-4

**Synonyms:** LSR, Light Naphtha, Isom Feed, Petroleum Hydrocarbon

**Description:** Clear colored liquid with characteristic sweet hydrocarbon odor.

**Manufacturer or Distributor:** Lion Oil Co., 1000 McHenry St., El Dorado, AR 71730; (870) 862-8111

**24-hr Emergency Phone Number:** "FOR CHEMICAL EMERGENCY" Spill, Leak, Fire, Exposure or Accident

**CALL CHEMTREC – Day or Night 800-424-9300**

**MSDS CONTACT:** Beverly McFarland - 870-864-1306

## Section 2 - Hazards Identification

☆☆☆☆☆☆☆☆☆☆ Emergency Overview ☆☆☆☆☆☆☆☆☆☆

### **DANGER**

**Extremely flammable liquid and vapour.**

**May be fatal if swallowed and enters airways.**

**May cause genetic effects.**

**May cause cancer .**

**Causes skin irritation.**

**May cause drowsiness or dizziness.**

**Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.**

**Use as a motor fuel only. Never use as a solvent.**

**Health**

**Flammability**

**Physical Hazard**

**HMIS**

<b>H</b>	<b>1</b>
<b>F</b>	<b>4</b>
<b>PH</b>	<b>0</b>

**PPE†**  
†Sec. 8

☆☆☆☆☆☆☆☆☆☆ Potential Health Effects ☆☆☆☆☆☆☆☆☆☆

**Primary Entry Routes:** Inhalation, Skin Absorption, Ingestion, Skin and/or Eye contact.

**Target Organs:** Eyes, Skin, Respiratory System, Central Nervous System, Liver, and Kidneys

**Carcinogenicity:** Contains Benzene which has been designated a carcinogen by IARC, NTP, and OSHA.

**Medical Conditions Aggravated By Long-Term Exposure:**

Benzene – Individuals with liver disease may be more susceptible to toxic effects.

Hexane – Individuals with neurological disease should avoid exposure.

Petroleum Hydrocarbons – Skin contact may aggravate an existing dermatitis.

**Acute Effects:**

**Inhalation:** Inhalation causes intense burning of mouth, throat, and respiratory tract. Can cause headaches, dizziness, drowsiness, convulsions, coma, cyanosis and generalized depression. Large amounts in lungs could cause pulmonary edema, which can be fatal.

**Eye:** Eye contact causes tearing, redness and severe irritation.

**Skin:** Skin contact from prolonged or frequent exposure to liquids or vapors can cause irritation and dermatitis.

**Ingestion:** Do Not Induce Vomiting.

May be harmful or fatal if swallowed. Ingestion can cause blurred vision, vertigo, vomiting and cyanosis. Seek medical attention.

**Chronic Effects:** Benzene has been classified as a leukemogen and may produce anemia, leukemia from repeated or prolonged exposure to high concentrations.

11-02-10

MSDS No. LO0019

Gasoline, Light Straight Run

### Section 3 - Composition / Information on Ingredients

Ingredient Name	CAS Number	% wt
A complex mixture of hydrocarbons produced by the distillation of crude oil, including:	64741-46-4	100
Benzene	71-43-2	1-2
Iso-Pentane	78-78-4	20-25
n-Pentane	109-66-0	20-25
Cyclohexane	110-82-7	1-2
n-Hexane	110-54-3	10-15

### Section 4 - First Aid Measures

**Inhalation:** Move to fresh air. If overcome by vapor, remove from exposure and call a physician immediately. If breathing is irregular or has stopped, start resuscitation, administer oxygen, if available. Seek medical attention.

**Eye Contact:** Flush with water for 15 minutes. Contact doctor for additional advice.

**Skin Contact:** Remove any contaminated clothing and wash skin with soap and water, launder or dry-clean clothing before reuse.

**Ingestion:** Aspiration Hazard. If swallowed, vomiting may occur spontaneously, but DO NOT INDUCE. If vomiting occurs, keep head below hips to prevent aspiration into lungs. Never give anything by mouth to an unconscious person. Seek medical attention immediately.

*After first aid, get appropriate in-plant, paramedic, or community medical support.*

### Section 5 - Fire-Fighting Measures

**Flash Point:** -45° F

**Flash Point Method:** TCC

**Autoignition Temperature:** > 536° F

**LEL:** 1.4 % (based on n-pentane)

**UEL:** 8.0 % (based on n-pentane)

**Emergency Response Guide :** Guide No. 128

**Extinguishing Media:** Dry chemical, Halon, CO<sub>2</sub>, foam, water. Water may not be effective and water fog can be used to cool containers. Water may splash and spread flaming liquid; do not use straight streams.

**Unusual Fire or Explosion Hazards:** Keep away from heat, sources of ignition and strong oxidizers. Can react violently with oxidizing agents.

**Hazardous Combustion Products:** Fumes, smoke, carbon monoxide, sulfur oxides, aldehydes and other decomposition products, in the case of incomplete combustion

**Special Fire-Fighting Procedures:** Extremely flammable - Vapors can readily form explosive mixtures with air. Heavier than air vapors can flow along surfaces to ignition sources and flash back. Used self-contained breathing in enclosed areas. Cool exposed tanks with water. Heated containers may rupture violently.

NFPA Rating	
<b>H</b>	<b>1</b>
<b>F</b>	<b>4</b>
<b>R</b>	<b>0</b>

### Section 6 - Accidental Release Measures

**“FOR CHEMICAL EMERGENCY” Spill, Leak, Fire, Exposure or Accident  
CALL CHEMTREC – Day or Night 800-424-9300**

**Spill /Leak Procedures:** Danger, Flammable, eliminate all ignition sources. Equipment used in spill cleanup must be grounded to prevent sparking.

**Small Spills:** Take up with an absorbent material and place in containers, seal tightly for proper disposal.

**Large Spills:** Isolate the hazard area and restrict entry to unnecessary personnel. Shut off source of leak only if it can be done so safely or dike and contain the spill. Wear appropriate respirator and protective clothing. Water fog may be useful in suppressing vapor cloud, contain run-off. Remove with vacuum trucks. Soak up residue with sand or other suitable material, place in containers for proper disposal. Flush with water and disposal of flushing solutions as above. Local, state and federal disposal regulations must be followed.

**Regulatory Requirements:** Recovered non-usable material is regulated by the US EPA as a hazardous waste due to its ignitibility characteristics (D001).

11-02-10

MSDS No. LO0019

Gasoline, Light Straight Run

### Section 7 - Handling and Storage

**Handling Precautions:** Do not get in eyes, on skin or on clothing. Do not breathe vapors, mists or fumes. Wear protective equipment described in Section 8 as exposure conditions warrant. Use only with adequate ventilation.

**Storage Requirements:** Keep away from open flame, high temperatures, sparks, pilot lights, static electricity, open flames and other sources of ignition. Store in well ventilated area. Store in tightly closed containers. Bond and ground containers during transfer of this material.

**Advice on protection against fire and explosion:** Hydrocarbon liquids including this product can act as a non-conductive flammable liquid (or static accumulators), and may form ignitable vapor-air mixtures in storage tanks or other containers. Precautions to prevent static-initiated fire or explosion during transfer, storage or handling, include but are not limited to these examples:

- (1) Ground and bond containers during product transfers. Grounding and bonding may not be adequate protection to prevent ignition or explosion of hydrocarbon liquids and vapors that are static accumulators.
- (2) Special slow load procedures for "switch loading" must be followed to avoid the static ignition hazard that can exist when higher flash point material (such as fuel oil or diesel) is loaded into tanks previously containing low flash point products (such as gasoline or naphtha).
- (3) Storage tank level floats must be effectively bonded. For more information on precautions to prevent static-initiated fire or explosion, see NFPA 77, Recommended Practice on Static Electricity (2007), and API recommended Practice 2003, Protection Against Ignitions Arising Out of Static, Lightning, and Stray Currents (2008).

### Section 8 - Exposure Controls / Personal Protection

Ingredient	OSHA PEL		ACGIH TLV		NIOSH REL		NIOSH IDLH
	TWA	STEL	TWA	STEL	TWA	STEL	
LSR	N.E.*		N.E.*				
iso-Pentane	1000ppm		600 ppm		120 ppm		
n-Pentane	1000ppm		600 ppm		120 ppm		1500 ppm
Cyclohexane	300 ppm		100 ppm		300 ppm		1300 ppm
n-Hexane	500 ppm		50 ppm		50 ppm		1100 ppm
Benzene	1 ppm	5 ppm	0.5 ppm	2.5 ppm	0.1 ppm	1 ppm	

#### Engineering Controls

**Ventilation:** Provide explosion proof ventilation to meet TLV requirements in enclosed work areas.

#### Protective Clothing/Equipment

**Gloves:** Use chemical resistant gloves to prevent skin contact.

**Goggles:** Wear chemical goggles if eye contact is likely.

**Respiratory:** Use organic vapor cartridge respirators for exposures over TLV up to 1000 ppm. Use fresh air or self contained breathing equipment for unknown or high concentrations.

**Contaminated Equipment:** Launder or dry-clean contaminated clothing before reuse.

\*N.E. No exposure limits established

### Section 9 - Physical and Chemical Properties

**Physical State:** Liquid

**Appearance and Odor:** Clear with characteristic light hydrocarbon odor.

**Odor Threshold:** No Data

**Vapor Pressure:** 13.0 – 15.0 psi @ 100 ° F

**Vapor Density (Air=1):** 3 - 4

**Formula Weight:** No Data

**Density:** No Data

**Specific Gravity (H<sub>2</sub>O=1, at 4 °C):** 0.64 – 0.66

**pH:** NA

**Water Solubility:** Negligible

**Other Solubilities:** No Data

**Boiling Point:** 32 – 170 ° F

**Freezing/Melting Point:** NA

**Viscosity:** No Data

**Refractive Index:** No Data

**Surface Tension:** No Data

**% Volatile:** 100%

**Evaporation Rate:** >1 (Butyl Acetate = 1)

11-02-10

MSDS No. LO0019

Gasoline, Light Straight Run

### Section 10 - Stability and Reactivity

**Stability:** This Material is Stable.

**Polymerization:** Hazardous Polymerization will not occur.

**Chemical Incompatibilities:** Keep away from Oxidizing agents.

**Conditions to Avoid:** Keep away from open flame, high temperatures, and other sources of ignition.

**Hazardous Decomposition Products:** Fumes, smoke, carbon monoxide, sulfur oxides and other decomposition products, in the case of incomplete combustion. When heated to decomposition it emits acrid smoke and irritating vapors.

### Section 11- Toxicological Information

**Carcinogenicity:** IARC Group 2B a suspect carcinogen. (gasoline)

**Skin Effects:** Repeated or chronic dermal contact may result in drying of the skin, lesions, and other dermatologic conditions.

**Ingestion Effects:** Grade 1; LD50 = 5 to 15 g/kg

**Iso-pentane:**

**Inhalation-Mouse LCLo:** 419 g/m<sup>3</sup>/2H

Journal of Pharmacology and Experimental Therapeutics. (Williams & Wilkins Co., 428 E. Preston St., Baltimore, MD 21202) V.1- 1909/10-JPETAB 58, 74, 36

**N-pentane:**

**Intravenous-Mouse LD50:** 446 mg/kg

Journal of Pharmaceutical Sciences. (American Pharmaceutical Association, 2215 Constitution Ave., N.W., Washington, DC 20037) V.50- 1961-JPMSAE 67, 566, 78

**Inhalation-Rat LC50:** 364 g/m<sup>3</sup>/4H

Gigiena Truda i Professional'nye Zabolevaniia. Labor Hygiene and Occupational Diseases. (v/o Mezhdunarodnaya Kniga, Kuznetskii Most 18, Moscow G-200, USSR.) V.1- 1957-GTPZAB 32(10), 23, 88

**Inhalation-Mouse LCLo:** 325 g/m<sup>3</sup>/2H

Journal of Pharmacology and Experimental Therapeutics. (Williams & Wilkins Co., 428 E. Preston St., Baltimore, MD 21202) V.1- 1909/10-JPETAB 58, 74, 36

### Section 12 - Ecological Information

**Aquatic Toxicity:**

Dangerous to aquatic life in high concentrations.

Fouling to shoreline.

May be dangerous if it enters water intakes.

Notify local health and wildlife officials.

Notify operators of nearby water intakes.

**FISHES:** young Coho salmon 96h NOLC 100 mg/l

**Biodegradation:** Incubation with natural flora in the groundwater—in presence of the other components of high-octane gasoline (100 ml/l): GLNK0026 biodegradation: 0% after 192 hr at 13°C (initial conc.: 3.29 ml/l).

### Section 13 - Disposal Considerations

**Disposal:** Local, state and federal disposal regulations must be followed.

**Disposal Regulatory Requirements:** Recovered non-usable material is regulated by the US EPA as a hazardous waste due to its ignitibility characteristics (D001).

**Container Cleaning and Disposal: "Empty" Container Warning:** "Empty" containers retain product residue (liquid and/or vapor) and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.

11-02-10

MSDS No. LO0019

Gasoline, Light Straight Run

### Section 14 - Transport Information

#### DOT Transportation Data (49 CFR 172.101):

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description information.

**DOT Shipping Name:** PETROLEUM DISTILLATES, N.O.S.

**DOT Hazard Class:** 3

**DOT ID No.:** UN 1268

**DOT Packing Group:** II

**Hazard Label:** Flammable Liquid

### Section 15 - Regulatory Information

#### .EPA Regulations

**RCRA Hazardous Waste Number:** D001

**CERCLA Reportable Quantity (RQ) (40 CFR 302.4):**

Compound	CAS Number	RQ
Cyclohexane	110-82-7	1000
n-Hexane	110-54-3	5000
Benzene	71-43-2	10

**SARA 311/312 Codes (40 CFR 370 / 29 CFR 1910.1200):**

Fire	YES
Pressure	NO
Reactivity	NO
Immediate (acute)	YES
Delayed (chronic)	YES

**SARA Toxic Chemical (40 CFR 372) Section 313:**

Compound	CAS Number	Concentration %
Cyclohexane	110-82-7	0-1
n-Hexane	110-54-3	0-5
Benzene	71-43-2	1-2

**SARA EHS (Extremely Hazardous Substance) (40 CFR 355):** None

**TSCA (40 CFR 710):** This product and its components are listed on the Toxic Substance Control Act (TSCA) Chemical Substance Inventory.

### SECTION 16 - Other Information

**Prepared By:** Tommy Rowland

**Revision Notes:** 11-02-10 Moved sections 2 and 3. Added reference and research list.

**Hazardous Materials Information System (U.S.A.)**

HMIS	
H	1*
F	4
PH	0
PPE†	
†Sec. 8	

.....	H – Health	4 – Extreme
.....	F – Fire Hazard	3 – Serious
.....	PH – Physical Hazard	2 – Moderate
.....		1 – Slight
.....		0 – Minimal

\* **Chronic Hazard** - Chronic (long-term) health effects may result from repeated over exposure.

**National Fire Protection Association**

**NFPA Label**

Chem. name

**Health (blue)**  
 4 – deadly  
 3 – extreme danger  
 2 – hazardous  
 1 – slightly hazardous  
 0 – normal material

**Fire Hazard (red)**  
 Flash Point Temp.  
 4 – below 73F - v.flam.  
 3 – 73 to 100F – flam.  
 2 – 101 to 200F- comb.  
 1 – over 200F –slightly combustible  
 0 – will not burn

**Reactivity (yellow)**  
 4 – may detonate  
 3 – shock or heat may detonate  
 2 – violent chem. reaction  
 1 – unstable if heated  
 0 – stable

**Specific Hazard**  
 OXY - oxidizer  
 ACID – acid  
 ALK – Alkali  
 COR – corrosive  
 W – use no water  
 RAD - radiation haz.

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**Reference and research:**

- (1) The International Chemical Safety Card - <http://www.cdc.gov/niosh/ipcs/icstart.html>
- (2) NIOSH Pocket Guide to Chemical Hazards - <http://www.cdc.gov/niosh/npg/>
- (3) 2007 Guide to Occupational Exposure Values – Compiled by ACGIH
- (4) 2008 Emergency Response Guidebook - <http://hazmat.dot.gov/pubs/erg/unidnum.htm>
- (5) Sax's Dangerous Properties of Industrial Materials, 9th Edition; Edited by Richard J. Lewis, Sr.; Version 1.6; Copyright © 1997 by John Wiley & Sons, Inc.
- (6) Touchstone Environmental, Inc.; Chemcheck Handbook (educational resource)
- (7) Hawley's Condensed Chemical Dictionary, 13<sup>th</sup> Edition; Edited by Richard J. Lewis, Sr.; Version 1.1 Copyright© 1997 by John Wiley & Sons, Inc.
- (8) Environmental Contaminant Reference Data book; VOLUMES I, II and III; by Jan. C. Prager; Version 2.0; Copyright © 1997 by John Wiley & Sons, Inc.
- (9) Fire Protection Guide to Hazardous Materials, Twelfth Edition; National Fire Protection Association (NFPA 325) Guide to Hazardous Chemical Properties of Flammable Liquids, Gases, and Volatile Solids. 1994 edition.
- (10) Hazardous Materials Handbook; Richard P. Pohanish and Stanley A. Greene, Version 1.3 Copyright© 1997 by Richard P. Pohanish and Stanley A. Greene



**LION OIL TRADING AND TRANSPORTATION, INC.**  
**SOUTH ARKANSAS NORTH LOUISIANA**  
**PIPELINE SYSTEM**  
**SPILL RESPONSE MANUAL**

**APPENDIX E**  
**ICS FORMS**



**CHECK-IN LIST Equipment (ICS FORM 211e-OS)**

**Special Note.** This form is used for equipment check-in only.

**Purpose.** Equipment arriving at the incident can check in at various incident locations. Check-in consists of reporting specific information that is recorded on the form.

**Preparation.** The Check-In List is initiated at a number of incident locations including staging areas, base, camps, helibases, and ICP. Managers at these locations record the information and give it to the Resources Unit as soon as possible.

**Distribution.** Check-In Lists are provided to both the Resources Unit and the Finance/Administration Section. The Resources Unit maintains a master list of all equipment and personnel that have reported to the incident. All completed original forms MUST be given to the Documentation Unit.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Operational Period	Enter the time interval for which the form applies. Record the start and end date and time.
3.	Check-in Location	Check the box for the location where the equipment was checked in.
4.	Equipment Description	Enter a description of the equipment (e.g., 36" open water boom, skimmer, vac truck, etc.).
5.	Equipment Identifier	Enter the Identifier for the equipment (e.g., radio call-sign, vessel name, vendor name, license plate, etc.).
6.	Supplier/Owner	Enter the supplier/owner of the equipment.
7.	Assignment	Work assignment, if known. Arriving equipment may not have an assignment at time of check-in.
8.	Contact Information	Enter the contact information for the person operating equipment.
9.	Initial Incident Check-in?	Check if this is the first time the equipment has been checked in.
10.	Time In/Out	Enter the time the equipment is checked in and/or out (24-hour clock).
11.	Prepared By Date/Time	Enter name and title of the person preparing the form. Enter date (month, day, year) and time prepared (24-hour clock).
12.	Date/Time Sent to Resources Unit	Enter date (month, day, year) and time (24-hour clock) the form is sent to the Resources Unit.



**CHECK-IN LIST Personnel (ICS FORM 211p-OS)**

**Special Note.** This form is used for personnel check-in only.

**Purpose.** Personnel arriving at the incident can be checked in at various incident locations. Check-in consists of reporting specific information that is recorded on the form.

**Preparation.** The Check-In List is initiated at a number of incident locations including staging areas, base, camps, helibases, and ICP. Managers at these locations record the information and give it to the Resources Unit as soon as possible.

**Distribution.** Check-In Lists are provided to both the Resources Unit and the Finance/Administration Section. The Resources Unit maintains a master list of all equipment and personnel that have reported to the incident. All completed original forms MUST be given to the Documentation Unit.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Operational Period	Enter the time interval for which the form applies. Record the start and end date and time.
3.	Check-in Location	Check the box for the check-in location.
4.	Name	Enter the name of the person.
5.	Company/Agency	Enter the company or agency with which the individual is associated.
6.	ICS Section / Assignment / Quals.	Enter ICS Section and assignment, if known, and note any other ICS qualifications, if needed.
7.	Contact Information	Enter the contact information for the person.
8.	Initial Incident Check-in?	Check if this is the first time a person has checked in for this incident.
9.	Time In/Out	Enter the time the person checks in and/or out (24-hour clock).
10.	Prepared By Date/Time Prepared	Enter name and title of the person preparing the form. Enter date (month, day, year) and time prepared (24-hour clock).
11.	Date/Time Sent to Resources Unit	Enter date (month, day, year) and time (24-hour clock) the form is sent to the Resources Unit.

1. Incident Name	2. Date and Time of Message	<b>GENERAL MESSAGE</b> <b>ICS 213-OS</b>
3. TO: <span style="float: right;">ICS Position</span>		
4. FROM: <span style="float: right;">ICS Position</span>		
5. Subject:		
6. Message		
7. Reply		
8. Signature / Position (person replying)		Date / Time of reply
<b>GENERAL MESSAGE</b>	June 2000	<b>ICS 213-OS</b>

**General Message (ICS FORM 213-OS)**

**Purpose.** The General Message is used by:

- Incident personnel to record incoming messages which cannot be orally transmitted to the intended recipients;
- Command Post and other incident personnel to transmit messages to the Incident Communications Center for transmission via radio or telephone to the addressee;
- Incident personnel to send any message or notification to incident personnel which requires a hard-copy delivery;
- Incident personnel to place resource orders.

**Preparation.** This form is prepared by any incident personnel needing to transmit a hard-copy message. The recipient should send a timely reply to the originator, as necessary.

**Distribution.** Upon completion, the General Message may be hand-carried to the addressee or to the incident Communications Center for transmission. Originator retains a copy of the form. All completed original forms MUST be given to the Documentation Unit.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Date and Time of Message	Enter the date and time of message origination.
3.	To	Enter name and ICS position of message recipient.
4.	From	Enter name and ICS position of message sender.
5.	Subject	Indicate the message subject.
6.	Message	Enter message.
7.	Reply	This section to be used by the unit/person who receives the message to reply to your message.
8.	Signature/Position Date/Time of reply	Enter name and position of person replying to this message. Enter date (month, day, year) and time of reply (24-hour clock).





**UNIT LOG (ICS FORM 214-OS)**

**Special Note.** ICS Form 214-OS is used to log activities for an entire unit, whereas the ICS form 214a-OS is designed for individual use.

**Purpose.** The Unit Log records details of unit activity, including strike team activity. These logs provide the basic reference from which to extract information for inclusion in any after-action report.

**Preparation.** A Unit Log is initiated and maintained by Command Staff members, Division/Group Supervisors, Air Operations Groups, Strike Team/Task Force Leaders, and Unit Leaders. Completed logs are submitted to supervisors who forward them to the Documentation Unit.

**Distribution.** The Documentation Unit maintains a file of all Unit Logs. All completed original forms MUST be given to the Documentation Unit.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Operational Period	Enter the time interval for which the form applies. Record the start and end date and time.
3.	Unit Name/Designators	Enter the title of the organizational unit or resource designator (e.g., Facilities Unit, Safety Officer, Strike Team).
4.	Unit Leader	Enter the name and ICS Position of the individual in charge of the Unit.
5.	Personnel Assigned	List the name, position, and home base of each member assigned to the unit during the operational period.
6.	Activity Log	Enter the time and briefly describe each significant occurrence or event (e.g., task assignments, task completions, injuries, difficulties encountered, etc.)
7.	Prepared By	Enter name and title of the person completing the log. Provide log to immediate supervisor, at the end of each operational period.
	Date/Time	Enter date (month, day, year) and time prepared (24-hour clock).



**INDIVIDUAL LOG (ICS FORM 214a-OS)**

**Special Note.** This optional ICS form 214a-OS is a log for individual use, and ICS form 214-OS is designed to log activities for an entire unit.

**Purpose.** The Individual Log, while not required, records details of each individual's activities. These logs provide a basic reference from which to extract information for inclusion in any after-action report.

**Preparation.** An Individual Log can be initiated and maintained by each member of the ICS. Completed logs are forwarded to supervisors who provide copies to the Documentation Unit.

**Distribution.** The Documentation Unit maintains a file of all Individual Logs. The original of each log **MUST** be submitted to the Documentation Unit.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Operational Period	Enter the time interval for which the form applies. Record the start and end date and time.
3.	Individual Name	Enter the name of the individual.
4.	ICS Section	Enter the ICS Section to which the individual is assigned.
5.	Assignment/Location	Enter the assignment or location for the individual.
6.	Activity Log	Enter the time and briefly describe each significant occurrence or event (e.g., task assignments, task completions, injuries, difficulties encountered, etc.)
7.	Prepared By	Enter name and title of the person completing the log. Provide log to immediate supervisor, at the end of each operational period.
	Date/Time	Enter date (month, day, year) and time prepared (24-hour clock).

1. Incident Name			2. Operational Period (Date / Time) From: _____ To: _____										OPERATIONAL PLANNING WORKSHEET ICS 215-OS				
3. Division / Group or Location	4. Work Assignments	5. Resource / Equipment										9. "X" here if 204a Needed					
		Resource											6. Notes / Remarks	7. Reporting Location	8. Requested Arrival Time		
		Req.															<input type="checkbox"/>
		Have															<input type="checkbox"/>
		Need															<input type="checkbox"/>
		Req.															<input type="checkbox"/>
		Have															<input type="checkbox"/>
		Need															<input type="checkbox"/>
		Req.															<input type="checkbox"/>
		Have															<input type="checkbox"/>
		Need															<input type="checkbox"/>
		Req.															<input type="checkbox"/>
		Have															<input type="checkbox"/>
		Need															<input type="checkbox"/>
10. Total Resources Required														13. Prepared by:  Date _____ Time _____			
11. Total Resources On Hand																	
12. Total Resources Needed																	

**OPERATIONAL PLANNING WORKSHEET (ICS FORM 215-OS)**

**Purpose.** This form communicates to the Resources Unit the resources needed as a result of decisions made during the Tactics and Planning meetings. The Worksheet is used by the Resources Unit to complete the Assignment List (ICS form 204-OS) and by the Logistics Section Chief for ordering resources. The worksheet may also be used by the Resources Unit Leader to complete the Assignment List Attachment(s) (ICS form 204a-OS), if the Operations and Planning Section Chiefs deem it necessary.

**Preparation.** This form is initiated at the Tactics Meeting and modified and finalized at the Planning Meeting. For ease of use, the form should be enlarged to poster size. This form is principally crafted by the Operations and Planning Section Chiefs. When decisions are reached, the appropriate resource information should be recorded on the form. Use additional sheets, as needed.

**Distribution.** When the work assignments and accompanying resource allocations are agreed to, the form is distributed to the Resources Unit to help prepare Assignment Lists (ICS form 204-OS) and any needed Assignment List Attachment(s) (ICS form 204a-OS). The Planning Section will use a copy of this worksheet for preparing resource requests for the next operational period. All completed original forms MUST be given to the Documentation Unit.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Operational Period	Enter the time interval for which the form applies. Record the start and end date and time.
3.	Division/Group or Location	Enter the Division/Group or other Location Identifier (e.g., Division A - Segment 1, On-water Group 1, Air Group 1, etc.).
4.	Work Assignments	Enter the specific work assignments given to each Division/Group (e.g., on-water skimming, Shoreline Cleanup Assessment Team, shoreline cleanup crews, conduct overflights, etc.).
5.	Resource/Equipment	Complete resource description. Enter the number of resources required "Req." and the number of resources available "Have" to perform the work assignment. The number of resources needed "Need" is the difference between "Req." and "Have."
6.	Notes/Remarks	Provide any additional information needed for this work assignment.
7.	Reporting Location	Enter the specific location the "needed" resources are to report for the work assignments (staging area, etc.)
8.	Requested Arrival Time	Enter time resources are requested to arrive at reporting location (24-hour clock).
9.	Assignment List Attachment 204a Needed	"X" this box if the Planning and Operations Section Chiefs determine that special instructions are needed for a specific Strike Team, Task Force, or single resource (e.g., work assignment, equipment, environmental considerations, or site-specific safety considerations).

Item #	Item Title	Instructions
10.	Total Resources Required	Enter the total number of resources required. Add all of the "Req." fields above.
11.	Total Resources On Hand	Enter the total number of resources on hand. Add all of the "Have" fields above.
12.	Total Resources Needed	The Total Resources Needed is the difference between the Total Resources Required and the Total Resources On Hand.
13.	Prepared By Date/Time	Enter name and title of the person preparing the form. Enter date (month, day, year) and time prepared (24-hour clock).

<b>RADIO REQUIREMENTS WORKSHEET</b>						1. INCIDENT NAME			2. DATE		3. TIME	
4. BRANCH			5. AGENCY			6. OPERATIONAL PERIOD			7. TACTICAL FREQUENCY			
8. DIVISION/GROUP			DIVISION/ GROUP _____			DIVISION/ GROUP _____			DIVISION/ GROUP _____			
AGENCY _____			AGENCY _____			AGENCY _____			AGENCY _____			
9. AGENCY	ID NO.	RADIO RQMTS	AGENCY	ID NO.	RADIO RQMTS	AGENCY	ID NO.	RADIO RQMTS	AGENCY	ID NO.	RADIO RQMTS	
216 ICS 3-82			PAGE			10. PREPARED BY (COMMUNICATIONS UNIT)						

**RADIO REQUIREMENTS WORKSHEET (ICS FORM 216)**

**Purpose.** The Radio Requirements Worksheet is used to develop the total number of personal portable radios required for each Division/Group and Branch. It provides a listing of all units assigned to each Division, and thus depicts the total incident radio needs.

**Initiation of Form.** The worksheet is prepared by the Communications Unit for each operational period and can only be completed after specific resource assignments are made and designated on Assignment Lists. This worksheet need not be used if the Communications Unit Leader can easily obtain the information directly from Assignment Lists.

**Distribution.** The worksheet is for internal use by the Communications Unit and therefore there is no distribution of the form.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Date	Enter date prepared (e.g., 09/17/1996).
3.	Time Prepared	Enter time prepared (e.g., 1530).
4.	Branch	Enter the Branch number (I, II, etc.) for which radio requirements are being prepared.
5.	Agency	Enter the three-letter designator of the agency staffing the Branch Director position (e.g., VNC, CDF, ANF, LFD, etc.).
6.	Operational Period	Enter the time interval for which the assignment applies (e.g., 9/17/96-0600 to 9/18/96-0600).
7.	Tactical Frequency	Enter the radio frequency to be used by the Branch Director to communicate with each Division/Group Supervisor in the Branch.
8.	Division/Group	Enter for each Division/Group in the Branch the Division/Group identifier (A, B, etc.) and the agency assigned (e.g., LAC, VNC, etc.).
9.	Agency/ID No./Radio Requirements	List all units assigned to each Division/Group. Record the agency designator, unit or resource identification, and total number of radios needed for each unit or resource.
10.	Prepared By	Enter the name and position of the person completing the worksheet.



**RADIO FREQUENCY ASSIGNMENT WORKSHEET (ICS FORM 217)**

**Purpose.** The Radio Frequency Assignment Worksheet is used by the Communications Unit Leader to assist in determining frequency allocations.

**Preparation.** Cache radio frequencies available to the incident are listed on the form. Major agency frequencies assigned to the incident should be added to the bottom of the worksheet.

**Distribution.** The worksheet, prepared by the Communications Unit, is for internal use.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Date	Enter date prepared (e.g., 09/17/1996).
3.	Operational Period	Enter the time interval for which the assignment applies (e.g., 9/17/96-0600 to 9/18/96-0600).
4.	Incident Organization	List frequencies allocated for each channel for each organizational element activated, record the number of radios required to perform the designated function on the specified frequency.
5.	Radio Data	For each radio cache and frequency assigned, record the associated function. Functional assignments are: a. Command b. Support c. Division tactical d. Ground-to-air
6.	Agency	List the frequencies for each major agency assigned to the incident. Also list the function and channel number assigned.
7.	Total Radios Required	Totals for each row and column are calculated automatically. This provides the number of radios required by each organizational unit and the number of radios using each available frequency.
8.	Prepared By	Enter the name and position of the person completing the worksheet.



**SUPPORT VEHICLE INVENTORY (ICS FORM 218)**

**Purpose.** The Support Vehicle Inventory form provides an inventory of all transportation and support vehicles assigned to the incident. The information is used by the Ground Support Unit to maintain a record of the types and locations of vehicles on the incident. The Resources Unit uses the information to initiate and maintain status/resources information on these resources.

**Preparation.** The form is prepared by Ground Support Unit personnel at intervals specified by the Ground Support Unit Leader.

**Distribution.** Initial inventory information recorded on the form should be given to the Resources Unit. Subsequent changes to the status or location of transportation and support vehicles should be provided to the Resources Unit immediately.

**NOTE:**

- a. The Ground Support Unit Leader may prefer to use separate sheets for each type of support vehicle (e.g., buses, pickups, and food tenders).
- b. More than one line may be used to record information on each vehicle. If this is done, separate individual vehicle entries with a heavy line.
- c. Several pages may be used. When this occurs, number the pages consecutively (in the number box at bottom of form).

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Date Prepared	Enter date prepared (e.g., 09/17/1996).
3.	Time Prepared	Enter time prepared (e.g., 1530).
4.	Vehicle Information	Record the following vehicle information:
	Type	a. Specific vehicle type (e.g., bus, stakeside, etc.).
	Make	b. Vehicle manufacturer name (e.g., GMC, International).
	Capacity/Size	c. Vehicle capacity / size (e.g., 30-person bus, 3/4 ton truck).
	Owner	d. Owner of vehicle (agency or private owner).
	ID Number	e. Serial or other identification number.
	Location	f. Location of vehicle.
	Release Time	g. Time vehicle is released from incident.
5.	Prepared By	Enter name of the person completing the form.



## ICS 219\_2 HANDCREWS GREEN COLORED CARD

**Purpose.** Resource Status Cards are used by the Resources Unit to record status and location information on resources, transportation, and support vehicles and personnel. The Resource Status Cards provide a visual display of the status and location of resources assigned to the incident.

**Preparation.** Information to be placed on the cards may be obtained from several sources including but not limited to:

1. ICS Briefing (ICS Form 201)
2. Check-In List (ICS Form 211)
3. Status Change Card (ICS Form 210)
4. Agency supplied information

Detailed information on preparing status cards is found in Resources Unit Position Manual (ICS 221-3).

**Distribution.** The cards are displayed in resource status racks where they can be easily retrieved. Cards will be retained by the Resources Unit until demobilization. At demobilization all cards **MUST** be turned into the Documentation Unit.

Item Title	Instructions
Order/Request No.	Number assigned by dispatching agency.
Home Base	Location at which Handcrew is normally located.
Departure Point	Location from which Handcrew left to reach this incident.
Crew ID No./Name (for Strike Teams)	List commonly used names or numbers to identify the crews which make up the Strike Team.
No. Personnel	Total no. of personnel (including Leader) in Crew or Strike Team.
Manifest	Was a manifest prepared for the Crew/Strike Team?
Weight	Total weight (including equipment and personal belongings) of the Crew/Strike Team.
Destination Point	Next location to which Crew/Strike Team is being sent from the incident.
Method of Travel	Enter the appropriate method of travel (e.g., own, bus, air).
Transportation Needs	Enter the appropriate transportation needs (e.g., own, bus, air).
Status	Choose the appropriate entry from the pop-up menu. If the item is O/S (out-of-service), enter the ETR (estimated time of return) in the ETR field below the Status field.

BLUE CARD STOCK (HELICOPTER)

AGENCY	TYPE	MANUFACTURER NAME/NO.	LD. NO.
ORDER/REQUEST NO.		DATE/TIME CHECK IN	
HOME BASE			
DEPARTURE POINT			
PILOT NAME			
DESTINATION POINT			ETA
REMARKS			
INCIDENT LOCATION			TIME
STATUS			
ETR			
NOTE			
INCIDENT LOCATION			TIME
STATUS			
ETR			
NOTE			
INCIDENT LOCATION			TIME
STATUS			
ETR			
NOTE			
ICS 219-4 (Rev. 4/82) HELICOPTER NFES 1346			

AGENCY	TYPE	MANUFACTURER	LD. NO.
INCIDENT LOCATION			TIME
STATUS			
ETR			
NOTE			
INCIDENT LOCATION			TIME
STATUS			
ETR			
NOTE			
INCIDENT LOCATION			TIME
STATUS			
ETR			
NOTE			
INCIDENT LOCATION			TIME
STATUS			
ETR			
NOTE			
NFES 1346			

**ICS 219\_4 HELICOPTER - BLUE COLORED CARD**

**Purpose.** Resource Status Cards are used by the Resources Unit to record status and location information on resources, transportation, and support vehicles and personnel. The Resource Status Cards provide a visual display of the status and location of resources assigned to the incident.

**Preparation.** Information to be placed on the cards may be obtained from several sources including but not limited to:

1. ICS Briefing (ICS Form 201)
2. Check-In List (ICS Form 211)
3. Status Change Card (ICS Form 210)
4. Agency supplied information

Detailed information on preparing status cards is found in Resources Unit Position Manual (ICS 221-3).

**Distribution.** The cards are displayed in resource status racks where they can be easily retrieved. Cards will be retained by the Resources Unit until demobilization. At demobilization all cards **MUST** be turned into the Documentation Unit.

Item Title	Instructions
Order/Request No.	Number assigned by dispatching agency.
Home Base	Location at which helicopter is normally located.
Departure Point	Location from which helicopter left to reach this incident.
Destination Point	Next location to which helicopter is being sent from the incident.
Incident Location	Assigned location information on helicopters may be the same as other resources (e.g., Division A). However, location could also indicate a "general" working location (e.g., water-dropping in Branch 1; or Crew Transport – Wilson Staging Area).
Status	Choose the appropriate entry from the pop-up menu. If the item is O/S (out-of-service), enter the ETR (estimated time of return) in the ETR field below the Status field.
Manufacturer Name/No.	e.g., Bell 206

ORANGECARD STOCK (AIRCRAFT)

AGENCY	TYPE	MANUFACTURER NAME/NO.	LD. NO.
ORDER/REQUEST NO.		DATE/TIME CHECK IN	
HOME BASE			
DATE TIME RELEASED			
INCIDENT LOCATION		TIME	
STATUS			
ETR			
NOTE			
INCIDENT LOCATION		TIME	
STATUS			
ETR			
NOTE			
INCIDENT LOCATION		TIME	
STATUS			
ETR			
NOTE			
INCIDENT LOCATION		TIME	
STATUS			
ETR			
NOTE			

ICS 219-6 (4/82) AIRCRAFT

AGENCY	TYPE	MANUFACTURER	LD. NO.
INCIDENT LOCATION		TIME	
STATUS			
ETR			
NOTE			
INCIDENT LOCATION		TIME	
STATUS			
ETR			
NOTE			
INCIDENT LOCATION		TIME	
STATUS			
ETR			
NOTE			
INCIDENT LOCATION		TIME	
STATUS			
ETR			
NOTE			

NFES 1348

**ICS 219\_6 AIRCRAFT - ORANGE COLORED CARD**

**Purpose.** Resource Status Cards are used by the Resources Unit to record status and location information on resources, transportation, and support vehicles and personnel. The Resource Status Cards provide a visual display of the status and location of resources assigned to the incident.

**Preparation.** Information to be placed on the cards may be obtained from several sources including but not limited to:

1. ICS Briefing (ICS Form 201)
2. Check-In List (ICS Form 211)
3. Status Change Card (ICS Form 210)
4. Agency supplied information

Detailed information on preparing status cards is found in Resources Unit Position Manual (ICS 221-3).

**Distribution.** The cards are displayed in resource status racks where they can be easily retrieved. Cards will be retained by the Resources Unit until demobilization. At demobilization all cards **MUST** be turned into the Documentation Unit.

Item Title	Instructions
Order/Request No.	Number assigned by dispatching agency.
Home Base	Location at which aircraft is normally located.
Departure Point	Location from which aircraft left to reach this incident.
Destination Point	Next location to which aircraft is being sent from the incident.
Incident Location	Reflect the area of the incident to which aircraft is primarily assigned (e.g., Branch 1).
Status	Choose the appropriate entry from the pop-up menu. If the item is O/S (out-of-service), enter the ETR (estimated time of return) in the ETR field below the Status field.
Manufacturer Name/No.	e.g., Douglas DC-3



**FIGURES**

Maps have been redacted in accordance with the FOIA Exemption 7(F).