

GW - 72

## REPORTS

YEAR(S):

2005 - 1995



**Site Remediation Report**  
**For**  
**Effluent Water Release from**  
**Damaged Wash Bay Sewer Line**

**At**  
**BJ Services Company, USA**  
**2708 West County Road**  
**Hobbs, New Mexico 88240**

**Prepared for:**  
**BJ Services Company, USA**  
**2708 West County Road**  
**Hobbs, New Mexico 88240**

**Submitted to:**  
**State of New Mexico**  
**Energy, Minerals and Natural Resources Department**  
**Oil Conservation Division**

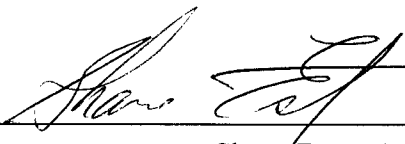
**Prepared by:**  
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**Etech Project No. 016-257-M**  
**Issue Date: July 29, 2005**



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**For**  
**Effluent Water Release from Damaged Wash Bay Sewer Line**  
**At**  
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**Hobbs, New Mexico 88240**

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Shane Estep, P.G.

## Table of Contents

1.0	Executive Summary .....	1
2.0	Introduction / Background .....	2
2.1.	Description of Release .....	2
2.2	Initial Response Actions .....	2
3.0	Site Assessment Activities .....	3
3.1.	Initial Observations .....	3
3.2.	Initial Response Actions .....	3
4.0	Delineation Investigations .....	5
4.1.	Leak Site & Area 1 .....	5
4.2.	Area 2 .....	5
4.3.	Background Sampling .....	6
4.4.	Analytical Laboratory Results Summary .....	6
5.0	Remediation Activities .....	7
5.1.	Excavation and Removal of Contaminated Soils .....	7
5.2.	Confirmation Sampling .....	7
5.3.	Additional Remediation Activities .....	8
5.4.	Backfilling Area 1 and Area 2 Excavation Trenches .....	9

### Appendices

A	Location Map
B	Site Photographs
C	Area 1 and Area 2 Locations
D	Soil Sampling Locations
E	Analytical Laboratory Reports
F	Non-Hazardous Waste Manifests

## 1.0 Executive Summary

BJ Services Company, USA ("BJ Services"), located at 2708 West County Road, Hobbs, New Mexico 88240, discovered a second release of wash bay effluent waters on March 1, 2005 during line integrity testing activities. A 4-inch diameter buried PVC sewer line (the "sewer line") drains effluent waters from BJ Services' truck wash bay and sanitary sewer to the City of Hobbs Publicly Owned Treatment Works ("POTW"). Based on observations made by Etech and BJ Services, the effluent water release was the result of a cracked cleanout fitting (N32° 43' 59.00', W103° 09' 28.00') associated with the sewer line. Initial observations indicated a plug of sand in the sewer line caused over pressurization of the line and subsequently made the effluent waters backup into the cleanout. Visual observations of the release confirmed the effluent waters were confined to the lease roads in a westerly and northwesterly direction.

Initial response actions included immediate repair of the sewer line to stop the flow from the source, and contacting the New Mexico Oil Conservation Division ("NMOCD"). BJ Services then proceeded to define and remediate hydrocarbon and chloride impacts to soil.

Etech Environmental & Safety Solutions, Inc. ("Etech") was contracted by BJ Services to conduct site assessment and remediation activities. The assessment involved determination of the vertical and horizontal extent of contamination. Following the assessment, the contaminated soils were excavated, removed and properly disposed. Confirmation sampling of soils in the excavations was conducted to ascertain that all soils impacted by the release of effluent water from the damaged sewer line had been removed.

Based on the results of Etech's investigations and remedial activities performed, the following conclusions may be drawn:

- All soils potentially contaminated by the release of effluent waters from the damaged sewer pipe were excavated, removed and disposed of properly.
- No further remedial action is warranted to address impacts associated with the effluent water release, therefore BJ Services requests closure without further action.

## **2.0 Introduction / Background**

This report summarizes investigation and remediation activities conducted March 1, 2005 through April 29, 2005 by Etech Environmental & Safety Solutions, Inc. ("Etech") on behalf of BJ Services Company, USA (BJ Services), at the facility located at 2708 West County Road, Hobbs, New Mexico. These field activities were performed to characterize and properly remediate impacted soils associated with a sewer line wastewater release.

In early 1997, BJ Services contracted the construction of a 4 inch PVC sewer line. The line runs west-to-east from the rear of BJ Services' facility, extending east approximately 5,000 feet across property currently owned by the College of the Southwest (formerly owned by Wallach Concrete). The sewer line discharges truck washbay wastewater and sanitary sewer into the City of Hobbs municipal sewer line.

On March 1, 2005, BJ Services was notified by Etech personnel that a break in the sewer line had occurred and was visible at ground surface. Etech personnel found the line leak during a sewer line integrity testing event. BJ Services verbally notified the New Mexico Oil Conservation Division ("NMOCD") on March 1, 2005, following-up with the requested "Release Notification and Corrective Action" report submitted on March 11, 2005. BJ Services also notified Ms. Dean Mooney, College of the Southwest, on March 1, 2005, advising that the break had occurred and steps were being taken to clean up the release. A letter was also sent to Ms. Dean on March 11, 2005.

### **2.1. Description of Release**

A 4-inch diameter, buried PVC sewer line (the "sewer line") drains effluent waters from BJ Services' truck wash bay and sanitary sewer to the City of Hobbs municipal sewer line. Based on observations made by Etech and BJ Services, the wastewater release occurred from a damaged cleanout (N32° 43' 59.00', W103° 09' 28.00') associated with the sewer line. Initial observations indicated the cleanout was cracked at the point of connection to the main sewer line.

Effluent waters from the cleanout flowed approximately 300 feet in a westerly direction from the break, following the oilfield lease road and to the northwest along another oilfield lease road. The westerly flow was stopped by a shallow natural depression the lease road and the northwestern flow was contained in a depression on the lease road immediately prior to leaving the lease road onto a paved roadway.

### **2.2 Initial Response Actions**

Initial response actions included immediate repair of the sewer line to stop the flow of effluent water at the source, and contacting NMOCD. BJ Services then proceeded to provide for assessment and remediation of impacts to environmental media.

### **3.0 Site Assessment Activities**

Etech Environmental & Safety Solutions, Inc. ("Etech") was contracted by BJ Services to conduct site assessment and remediation activities.

#### **3.1. Initial Observations**

Etech arrived at the site (See Appendix A. Location Map) on March 1, 2005, to conduct an integrity test on the sewer line for compliance with their discharge plan. The inspection involved a count of the cleanouts along the sewer line and it was during this count that the leak was discovered. The following is a brief summary of the initial finding of the assessment on the release:

##### **Area 1. West along oilfield service road.**

Length of area:	Approximately 300 feet
Average width of area:	Approximately 10 feet
Average depth of water:	Approximately 12-18 inches

##### **Area 2. Northwest along oilfield service road.**

Length of area:	Approximately 200 feet
Width of area:	Approximately 10 feet
Maximum depth of water:	Approximately 1 foot in depression.

Surface impacts from the release of effluent waters from BJ Services' sewer line appeared to be confined to these two areas. No impacts beyond these two areas were observed.

Some hydrocarbon sheen was observed on the water along the western release pathway.

#### **3.2. Initial Response Actions**

As an initial response action, Etech contracted Controlled Recovery, Inc. (CRI) to remove any free liquid observed within the impacted area.

On March 2, 2005, Etech arrived on-site to excavate around the leaking section of sewer line. Within the trench line of the sewer pipe the excavation was completed to approximately 4 feet deep. During excavation activities, rock was encountered at approximately 2 feet in

depth. A visual inspection of the sewer line revealed a crack at the elbow of the cleanout.

The following morning the excavation was cleaned out and the broken cleanout was cut from the line. While the sewer line was cut in this area a pressure test was conducted on the section of line from the break to the main connection to the city sewer line. After the line was pressured, personnel were stationed at sump within the former BJ Service's yard to determine where the other plug would be placed. The line was pressured and it was observed that the pressure was building and not bleeding off. This lead to the conclusion the sewer line was plugged somewhere before entering the main sewer line.

A plumber was called in on March 4, 2005 to run a drain snake through the sewer line to clear any blockage. Snaking of the line was started at a cleanout inside the former BJ yard and continued east towards the main sewer connection. The blockage was encountered approximately 100 feet east of this cleanout. The drain snake could not pass through the blockage therefore the line was excavated and cut in this area to remove the blockage material. A 10 foot section of sewer line was found to be blocked with densely packed sand. This section was removed and replaced, along with a new set of cleanouts. Subsequent to repairing the line, Etech completed integrity testing by pressurizing the entire length of the line.

## **4.0 Delineation Investigations**

Utilizing a hand-operated soil auger and a backhoe for trenching, Etech conducted investigations to ascertain the vertical and horizontal extent of the contamination, and to collect confirmation soil samples for analyses.

Based on a previous release from the same sewer line, a determination was made as to the chemicals of concern ("COC") for this release. Three (3) soil sampling locations were selected in Area 1, one (1) on the west end, one (1) on the east end and one (1) immediately west of the release site. (See Appendix D. Soil Sampling Locations) Surface soil samples were collected at each of the three (3) locations. These soil samples were submitted to an analytical laboratory for determination of the following analytical parameters (See Appendix E. Analytical Laboratory Reports):

### **Hydrocarbons (EPA Method 8015)**

- Gasoline-range organics (GRO) (C6-C12)
- Diesel-range organics (DRO) (C12-C35)
- Total Hydrocarbon (TPH) (C6-C35)

### **Chlorides (EPA Method 300)**

#### **4.1. Leak Site & Area 1**

Etech completed excavation activities around the leaking cleanout connection to effect repairs on the line. This excavation was also used for delineation purposes with the collection of five (5) soil samples from the bottom and sidewalls. Soil samples were also collected, by hand auger methods, along the release flow pathway outside the excavation (Area 1). Auger refusal was met at approximately 18 inches below ground surface (bgs) throughout Area 1. As observed earlier, it was confirmed that Area 1 measured approximately 10 feet wide by 300 feet long in lateral extent, with the long axis oriented in a general east-west direction along the oilfield service road. The vertical extent of contamination was observed to be approximately 12 inches bgs for most of the area. However, at the eastern section of Area 1, near the release point, contamination was observed to extend to an approximate depth of 48 inches bgs in the excavation trench.

#### **4.2. Area 2**

Etech collected two (2) soil samples along Area 2 to determine vertical and horizontal extent of contamination in this area. Auger refusal was met at approximately 12 to 18 inches within Area 2. One (1) sample was collected northwest of the release point in the flow pathway and the second sample was collected at the end point of this release path.

An area between the two (2) spill pathways was observed to contain water that was suspected to be rainwater. One (1) soil sample was collected in the area between the water and the release site and one (1) water sample was collected from the pool of water.

#### 4.3. Background Sampling

No background sampling was conducted on the leak site since background values for the area had been established during the first line leak in this area.

#### 4.4. Analytical Laboratory Results Summary

The twelve (12) samples of soils and one (1) sample of water collected in the initial delineation phase of this project were submitted to an analytical laboratory for analyses. (See Appendix E. Analytical Laboratory Reports): The following summarizes results of those analyses:

<b>TABLE 1 - Analytical Summary for Contamination Delineation Soil Samples (mg/Kg)</b>				
<b>March 3, 2005</b>				
<b>Sample ID</b>	<b>Chlorides</b>	<b>GRO</b>	<b>DRO</b>	<b>TPH</b>
Area 1: East Rd. from Exc.	86.3	<10.0	<10.0	<10.0
Area 1: West of Exc. Rd.	<b>415</b>	29.1	<b>207</b>	<b>236</b>
Area 1: West end of Rd.	<b>205</b>	J[5.15]	<b>930</b>	<b>930</b>
Excavation Bottom	<b>298</b>	<10.0	<b>105</b>	<b>105</b>
Excavation N. Wall	<b>501</b>	<10.0	<10.0	<10.0
Excavation S. Wall	<b>364</b>	71.9	<b>1130</b>	<b>1200</b>
East End Exc.	244	<10.0	42.0	42.0
West End Exc.	174	<10.0	<10.0	<10.0
Area 2: N/W of Exc. Rd.	<b>613</b>	<b>115</b>	<b>741</b>	<b>856</b>
Area 2: N/W end of Rd.	49.0	<b>311</b>	<b>20100</b>	<b>20400</b>
Marsh	120	<10.0	<10.0	<10.0
Pond (mg/L)	<b>380</b>	NR	NR	NR
NMOCD action levels		100	100	100

J – Detected but below the Reporting Limit; result is an estimated concentration.

Bolded values indicate levels above regulatory action levels.

NR – Indicates analysis not ran on sample.

The same scope of work approved for the first line leak was used for the remediation of this second line leak. The target concentration for hydrocarbons cleanup in soils was to be 100 mg/Kg; and NMOCD further required chloride concentrations in soils not exceed 250 mg/Kg.

## **5.0 Remediation Activities**

Delineation and remediation activities at the site included the excavation of contaminated soils from the leak area, Area 1 and Area 2; disposal of those contaminated soils in a licensed disposal facility; and refilling the excavation trenches to grade with compacted, uncontaminated soils. Confirmation soil samples were to be collected from each area to be analyzed for hydrocarbon and chloride concentrations as determined during the assessment activities.

### **5.1 Excavation and Removal of Contaminated Soils**

Etech arrived at the site on April 25, 2005, to conduct excavation and delineation of contaminated soils. Utilizing a tractor-mounted combination backhoe and front-end loader, Area 1 was excavated to an average depth of approximately 1 foot bgs throughout the release pathway. Area 2 was excavated to a depth of approximately 0.5 foot bgs near the terminus, increasing in depth to approximately 1 foot bgs at the end of the release pathway.

Excavated contaminated soils were loaded into trucks to be transported under manifest to the Controlled Recovery landfill for disposal. A total of approximately 616 cubic yards of contaminated soils were transported and disposed in this manner. (See Appendix F. Non-Hazardous Waste Manifests)

### **5.2 Confirmation Sampling**

Seven (7) confirmation soil samples were collected from each of the remediation areas approximately in the same location as earlier samples. (See Appendix D. Soil Sampling Locations)

<b>TABLE 2 - Analytical Summary for Confirmation Soil Samples (mg/Kg)</b> <b>April 25, 2005</b>				
<b>Sample ID</b>	<b>Chlorides</b>	<b>GRO</b>	<b>DRO</b>	<b>TPH</b>
<b>Area 1: Sample #2 (West of Exc. Rd)</b>	<b>1430</b>	<10.0	<b>967</b>	<b>967</b>
<b>Area 1: Sample #4 (West end of Rd.)</b>	NR	<10.0	<b>279</b>	<b>279</b>
<b>Bottom Exc. - Post</b>	<b>267</b>	<10.0	<10.0	<10.0
<b>South Wall Exc. - Post</b>	147	<10.0	<10.0	<10.0
<b>North Wall Exc. - Post</b>	192	NR	NR	NR
<b>Area 2: Sample #1 (N/W of Exc. Rd.)</b>	25.0	<10.0	<10.0	<10.0
<b>Area 2: Sample #5 (N/W end of Rd.)</b>	NR	<10.0	<10.0	<10.0
NMOCD action levels	250	100	100	100

Concentrations bolded indicate values in excess of NMOCD guidelines.

NR – Indicates analysis not ran on sample.

Analytical results from confirmation sampling indicated that two (2) sections of Area 1 and one (1) section of the leak area excavation were still elevated for either chlorides, TPH or both.

### 5.3. Additional Remediation Activities

In response to analytical results on soil samples collected on April 25, 2005, Etech excavated an additional 6 inches of contaminated soils from Area 1. Following this additional excavation and removal, on April 28, 2005, two (2) confirmation samples were collected from appropriate locations in the deepened excavation at Area 1 (See Appendix D. Soil Sampling Locations)

One (1) sample was collected from the bottom of the leak area excavation after additional excavation activities.

The three (3) samples of soils collected in this confirmation phase of sampling were submitted to an analytical laboratory for analyses. (See Appendix E. Analytical Laboratory Reports): The following summarizes results of those analyses:

<b>TABLE 3 - Analytical Summary for Confirmation Soil Samples</b> <b>(mg/Kg)</b>				
<b>Sample</b>	<b>Chlorides</b>	<b>GRO</b>	<b>DRO</b>	<b>TPH</b>
<b>Area 1: Site #2 (West of Exc. Rd)</b>	72.3	<10.0	67.0	67.0
<b>Area 1: Site #4 (West end of Rd.)</b>	NR	<10.0	<10.0	<10.0
<b>Exc. Bottom</b>	28.8	NR	NR	NR

NR – Indicates analysis not ran on sample.

Based on the results of the above analyses, all impacted soils associated with the leak site, Area 1 and Area 2 had been excavated, removed and properly disposed.

### **5.5 Backfilling Area 1 and Area 2 Excavation Trenches**

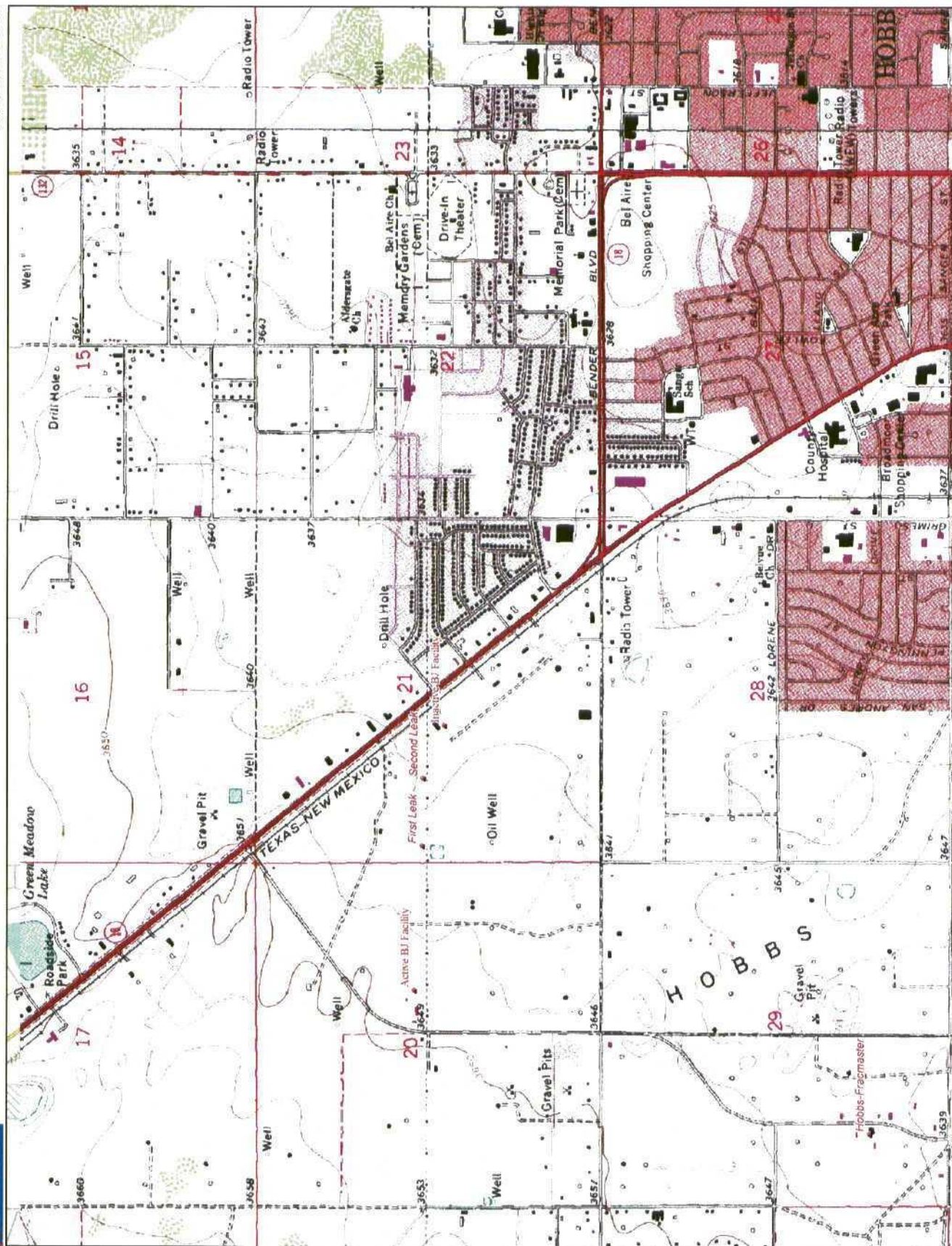
The excavations at the leak site, Area 1 and Area 2, were backfilled to grade with clean fill material.

## **6.0 Conclusions**

Based on the results of investigations and remedial activities conducted at the leak site, Area 1 and Area 2, the following conclusions may be drawn:

- Visual observations and analytical results confirmed that effluent waters were confined to the lease roads as marked as Area 1 and Area 2.
- All soils potentially contaminated by the release of effluent waters from the damaged sewer pipe were excavated, removed and properly disposed from the leak site, Area 1 and Area 2.
- No further remedial action is warranted to address impacts associated with the wastewater release, therefore BJ Services requests closure without further action.

**Appendix A**  
**Location Map**



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www.delorme.com

Scale 1 : 24,000

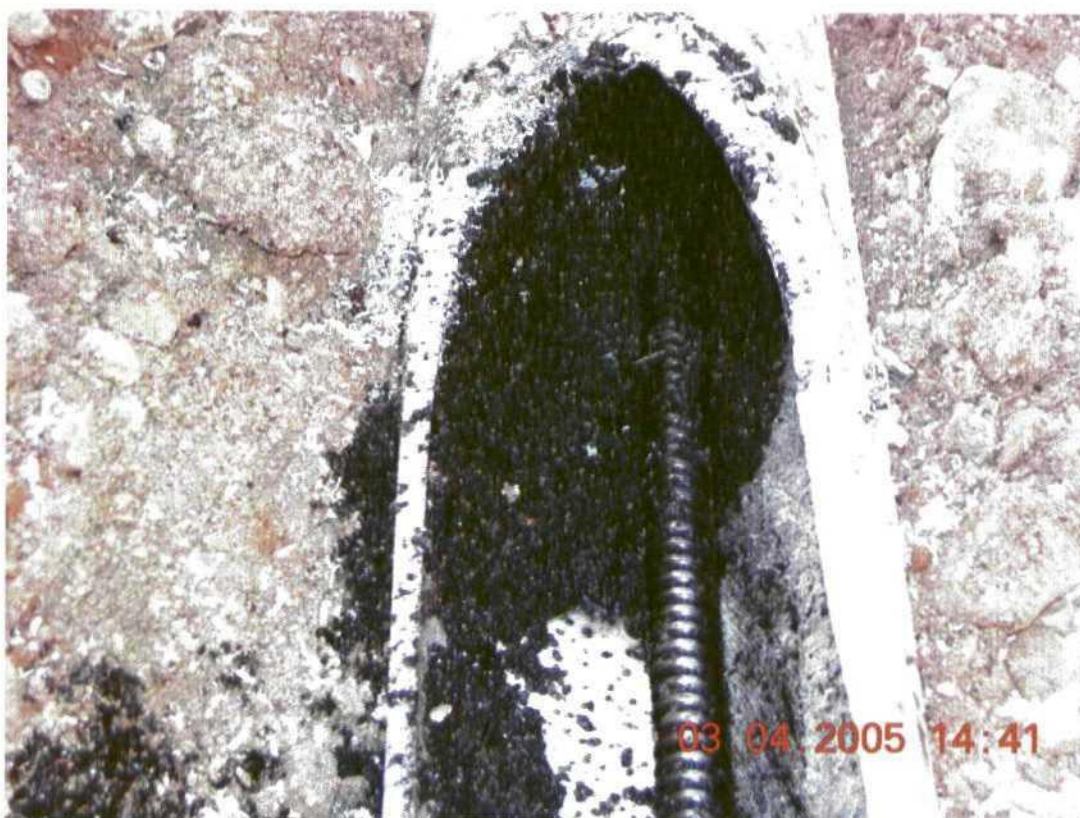
1" = 2,000.0 ft Data Zoom 13-0



**Appendix B**  
**Site Photographs**



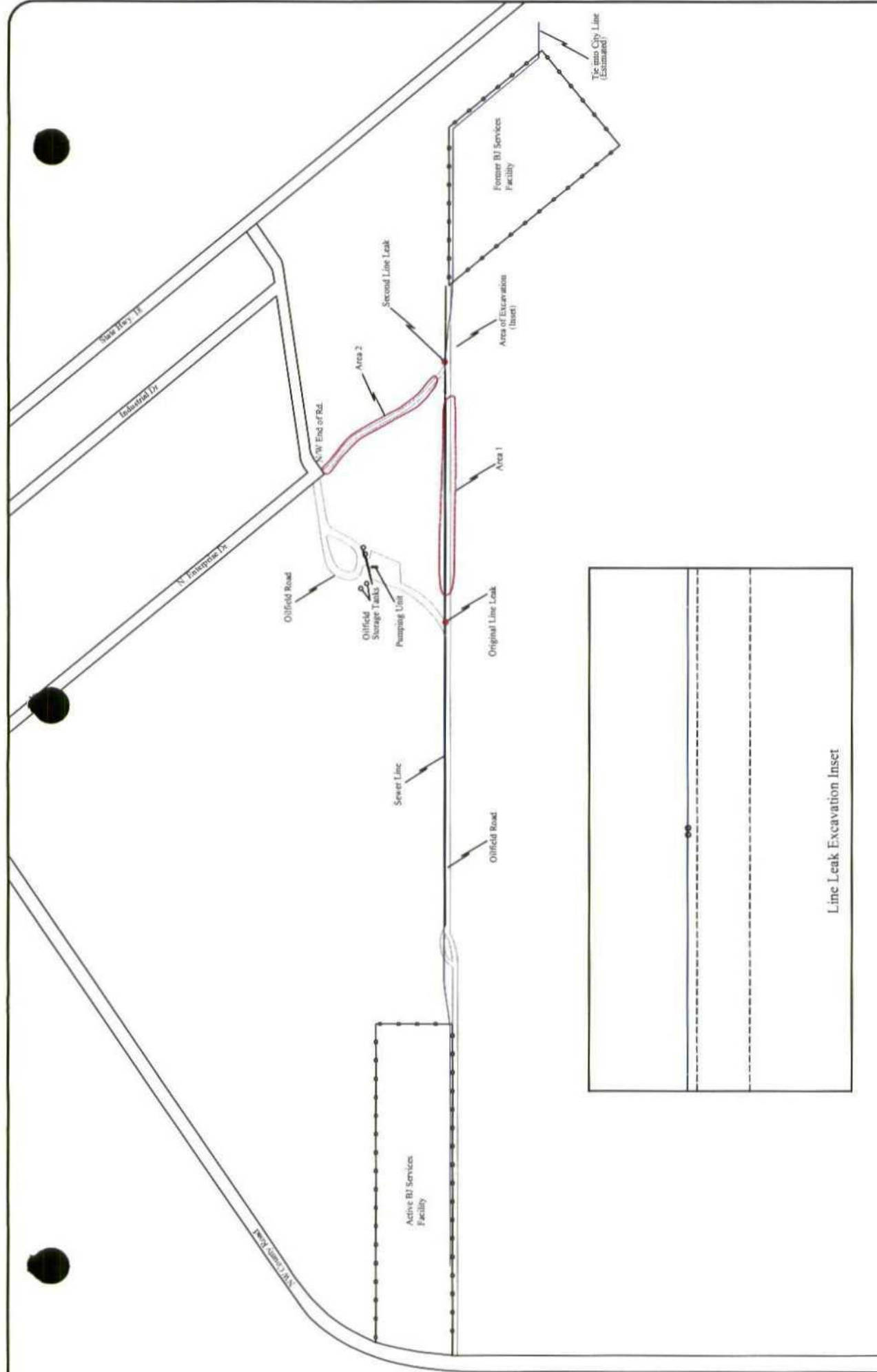








**Appendix C**  
**Area 1 and Area 2 Locations**



# **Site Map - BJ Services Sewer Line Initial Sampling**

BJ Services Company, USA  
 NW County Road  
 Hobbs, New Mexico  
 July 25, 2005

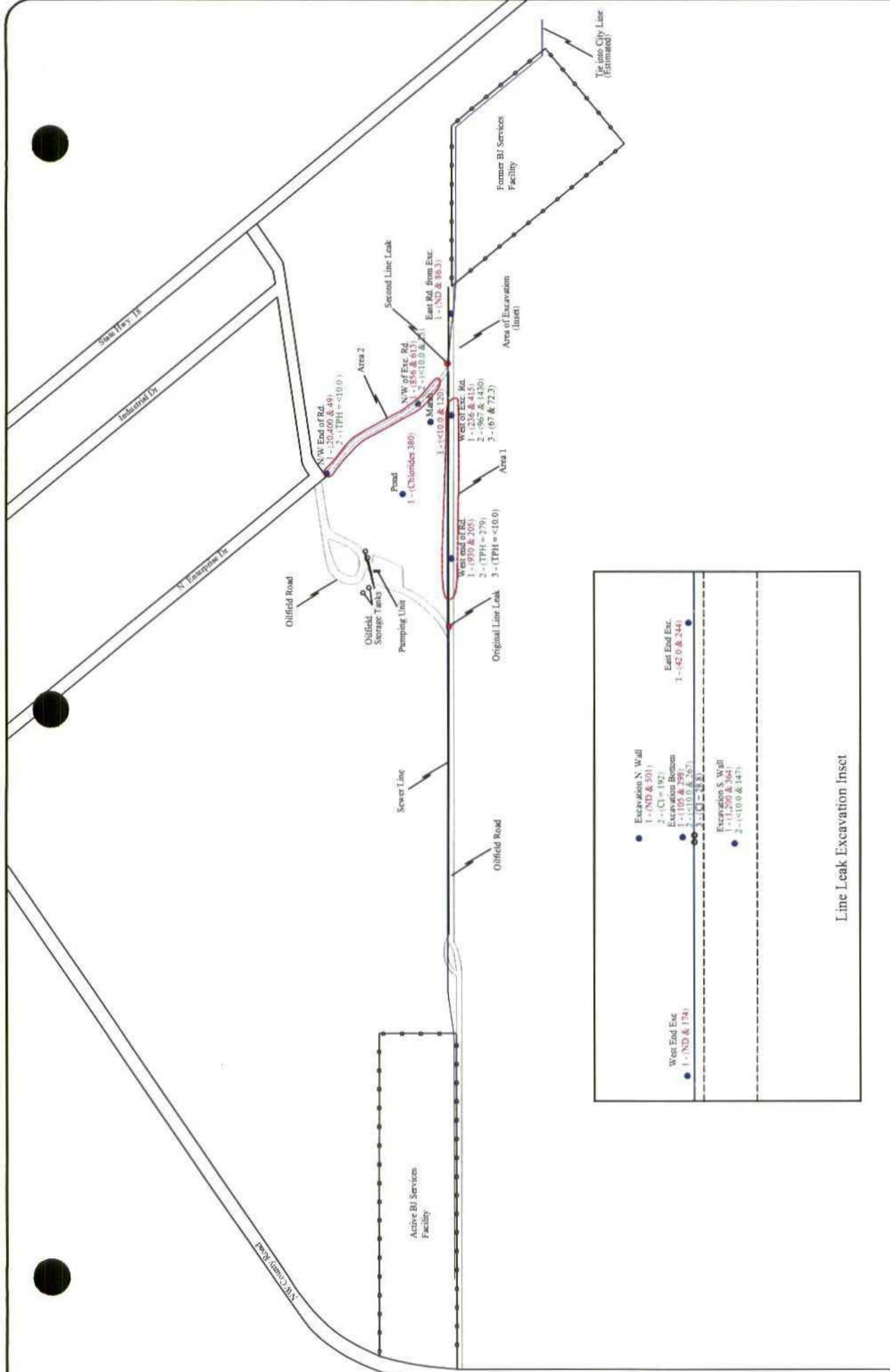
## **Legend**

- Indicates Sewer Line Leak Location

Prepared By:



**Appendix D**  
**Soil Sampling Locations**



## Site Map - BJ Services Sewer Line Initial Sampling

BJ Services Company, USA

NW County Road

Hobbs, New Mexico

July 25, 2005

## Legend

- Indicates Sample Point Location
- Indicates Sewer Line Leak Location (TPH & Chlorides)
- 1 - Red Indicates First Sampling Event
- 2 - Green Indicates Second Sampling Event
- 3 - Black Indicates Third Sampling Event

Prepared By:



**Appendix E**  
**Analytical Laboratory Reports**



12600 West I-20 East - Odessa, Texas 79765

## Analytical Report

**Prepared for:**

Shane Estep

E Tech Environmental & Safety Solutions, Inc.

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Project: BJ Hobbs Washbay Line Leak

Project Number: 016-257

Location: None Given

Lab Order Number: 5C08004

Report Date: 03/14/05

E Tech Environmental & Safety Solutions, Inc.  
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Project: BJ Hobbs Washbay Line Leak  
Project Number: 016-257  
Project Manager: Shane Estep

Fax: 563-2213

Reported:  
03/14/05 15:53

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
East Rd. from Exc.	5C08004-01	Soil	03/02/05 17:10	03/08/05 10:18
West of Exc. Rd.	5C08004-02	Soil	03/02/05 17:15	03/08/05 10:18
N/W of Exc. Rd.	5C08004-03	Soil	03/02/05 17:25	03/08/05 10:18
Marsh	5C08004-04	Soil	03/03/05 14:55	03/08/05 10:18
West end of Rd.	5C08004-05	Soil	03/03/05 14:35	03/08/05 10:18
N/W end of Rd.	5C08004-06	Soil	03/03/05 14:45	03/08/05 10:18
Excavation Bottom	5C08004-07	Soil	03/03/05 15:15	03/08/05 10:18
Excavation N. Wall	5C08004-08	Soil	03/03/05 15:20	03/08/05 10:18
Excavation S. Wall	5C08004-09	Soil	03/03/05 15:25	03/08/05 10:18
East End Exc.	5C08004-10	Soil	03/07/05 12:50	03/08/05 10:18
West End Exc.	5C08004-11	Soil	03/07/05 12:55	03/08/05 10:18
Pond	5C08004-12	Water	03/07/05 13:00	03/08/05 10:18

E Tech Environmental & Safety Solutions, Inc.  
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Project: BJ Hobbs Washbay Line Leak  
Project Number: 016-257  
Project Manager: Shane Estep

Fax: 563-2213  
Reported:  
03/14/05 15:53

**Organics by GC**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>East Rd. from Exc. (5C08004-01) Soil</b>									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EC50812	03/08/05	03/09/05	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		89.6 %	67.6-140		"	"	"	"	
Surrogate: 1-Chlorooctadecane		73.6 %	70-130		"	"	"	"	
<b>West of Exc. Rd. (5C08004-02) Soil</b>									
Gasoline Range Organics C6-C12	29.1	10.0	mg/kg dry	1	EC50815	03/08/05	03/11/05	EPA 8015M	
Diesel Range Organics >C12-C35	207	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	236	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		96.6 %	67.6-140		"	"	"	"	
Surrogate: 1-Chlorooctadecane		93.8 %	70-130		"	"	"	"	
<b>N/W of Exc. Rd. (5C08004-03) Soil</b>									
Gasoline Range Organics C6-C12	115	10.0	mg/kg dry	1	EC50815	03/08/05	03/11/05	EPA 8015M	
Diesel Range Organics >C12-C35	741	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	856	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		90.0 %	67.6-140		"	"	"	"	
Surrogate: 1-Chlorooctadecane		99.0 %	70-130		"	"	"	"	
<b>Marsh (5C08004-04) Soil</b>									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EC50815	03/08/05	03/11/05	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		95.0 %	67.6-140		"	"	"	"	
Surrogate: 1-Chlorooctadecane		86.4 %	70-130		"	"	"	"	
<b>West end of Rd. (5C08004-05) Soil</b>									
Gasoline Range Organics C6-C12	J [5.15]	10.0	mg/kg dry	1	EC50815	03/08/05	03/11/05	EPA 8015M	J
Diesel Range Organics >C12-C35	930	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	930	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		96.8 %	67.6-140		"	"	"	"	
Surrogate: 1-Chlorooctadecane		101 %	70-130		"	"	"	"	

Environmental Lab of Texas

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Environmental Lab of Texas.

E Tech Environmental & Safety Solutions, Inc.  
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Project: BJ Hobbs Washbay Line Leak  
Project Number: 016-257  
Project Manager: Shane Estep

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Reported:  
03/14/05 15:53

**Organics by GC**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>N/W end of Rd. (5C08004-06) Soil</b>									
<b>Gasoline Range Organics C6-C12</b>	<b>311</b>	50.0	mg/kg dry	5	EC50815	03/08/05	03/11/05	EPA 8015M	
<b>Diesel Range Organics &gt;C12-C35</b>	<b>20100</b>	50.0	"	"	"	"	"	"	
<b>Total Hydrocarbon C6-C35</b>	<b>20400</b>	50.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		14.9 %	67.6-140		"	"	"	"	S-06
<i>Surrogate: 1-Chlorooctadecane</i>		22.6 %	70-130		"	"	"	"	S-06
<b>Excavation Bottom (5C08004-07) Soil</b>									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EC50815	03/08/05	03/11/05	EPA 8015M	
Diesel Range Organics >C12-C35	105	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	105	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		83.2 %	67.6-140		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		80.6 %	70-130		"	"	"	"	
<b>Excavation N. Wall (5C08004-08) Soil</b>									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EC50815	03/08/05	03/11/05	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		85.8 %	67.6-140		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		83.4 %	70-130		"	"	"	"	
<b>Excavation S. Wall (5C08004-09) Soil</b>									
<b>Gasoline Range Organics C6-C12</b>	<b>71.9</b>	10.0	mg/kg dry	1	EC50815	03/08/05	03/11/05	EPA 8015M	
<b>Diesel Range Organics &gt;C12-C35</b>	<b>1130</b>	10.0	"	"	"	"	"	"	
<b>Total Hydrocarbon C6-C35</b>	<b>1200</b>	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		90.8 %	67.6-140		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		104 %	70-130		"	"	"	"	
<b>East End Exc. (5C08004-10) Soil</b>									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EC50815	03/08/05	03/11/05	EPA 8015M	
Diesel Range Organics >C12-C35	42.0	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	42.0	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		94.4 %	67.6-140		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		84.2 %	70-130		"	"	"	"	

Environmental Lab of Texas

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E Tech Environmental & Safety Solutions, Inc.  
P.O. Box 8469  
Midland TX, 79708-8469

Project: BJ Hobbs Washbay Line Leak  
Project Number: 016-257  
Project Manager: Shane Estep

Fax: 563-2213

Reported:  
03/14/05 15:53

**Organics by GC**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>West End Exc. (5C08004-11) Soil</b>									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EC50815	03/08/05	03/11/05	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		75.8 %	67.6-140		"	"	"	"	
Surrogate: 1-Chlorooctadecane		76.4 %	70-130		"	"	"	"	

Environmental Lab of Texas

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E Tech Environmental & Safety Solutions, Inc.  
P.O. Box 8469  
Midland TX, 79708-8469

Project: BJ Hobbs Washbay Line Leak  
Project Number: 016-257  
Project Manager: Shane Estep

Fax: 563-2213  
**Reported:**  
03/14/05 15:53

**General Chemistry Parameters by EPA / Standard Methods**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>East Rd. from Exc. (5C08004-01) Soil</b>									
Chloride	86.3	10.0	mg/kg	20	EC51108	03/10/05	03/10/05	EPA 300.0	
% Moisture	13.0	0.1	%	1	EC50904	03/08/05	03/09/05	% calculation	
<b>West of Exc. Rd. (5C08004-02) Soil</b>									
Chloride	415	10.0	mg/kg	20	EC51108	03/10/05	03/10/05	EPA 300.0	
% Moisture	28.5	0.1	%	1	EC50904	03/08/05	03/09/05	% calculation	
<b>N/W of Exc. Rd. (5C08004-03) Soil</b>									
Chloride	613	20.0	mg/kg	40	EC51108	03/10/05	03/10/05	EPA 300.0	
% Moisture	27.7	0.1	%	1	EC50904	03/08/05	03/09/05	% calculation	
<b>Marsh (5C08004-04) Soil</b>									
Chloride	120	5.00	mg/kg	10	EC51108	03/10/05	03/10/05	EPA 300.0	
% Moisture	25.1	0.1	%	1	EC50904	03/08/05	03/09/05	% calculation	
<b>West end of Rd. (5C08004-05) Soil</b>									
Chloride	205	10.0	mg/kg	20	EC51108	03/10/05	03/10/05	EPA 300.0	
% Moisture	22.3	0.1	%	1	EC50904	03/08/05	03/09/05	% calculation	
<b>N/W end of Rd. (5C08004-06) Soil</b>									
Chloride	49.0	5.00	mg/kg	10	EC51108	03/10/05	03/10/05	EPA 300.0	
% Moisture	11.3	0.1	%	1	EC50904	03/08/05	03/09/05	% calculation	
<b>Excavation Bottom (5C08004-07) Soil</b>									
Chloride	298	10.0	mg/kg	20	EC51108	03/10/05	03/10/05	EPA 300.0	
% Moisture	21.4	0.1	%	1	EC50904	03/08/05	03/09/05	% calculation	
<b>Excavation N. Wall (5C08004-08) Soil</b>									
Chloride	501	10.0	mg/kg	20	EC51108	03/10/05	03/10/05	EPA 300.0	
% Moisture	19.2	0.1	%	1	EC50904	03/08/05	03/09/05	% calculation	

Environmental Lab of Texas

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30 Page 5 of 11

E Tech Environmental & Safety Solutions, Inc.  
P.O. Box 8469  
Midland TX, 79708-8469

Project: BJ Hobbs Washbay Line Leak  
Project Number: 016-257  
Project Manager: Shane Estep

Fax: 563-2213  
Reported:  
03/14/05 15:53

**General Chemistry Parameters by EPA / Standard Methods**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Excavation S. Wall (5C08004-09) Soil</b>									
Chloride	364	10.0	mg/kg	20	EC51108	03/10/05	03/10/05	EPA 300.0	
% Moisture	14.9	0.1	%	1	EC50904	03/08/05	03/09/05	% calculation	
<b>East End Exc. (5C08004-10) Soil</b>									
Chloride	244	10.0	mg/kg	20	EC51108	03/10/05	03/10/05	EPA 300.0	
% Moisture	16.3	0.1	%	1	EC50904	03/08/05	03/09/05	% calculation	
<b>West End Exc. (5C08004-11) Soil</b>									
Chloride	174	10.0	mg/kg	20	EC51108	03/10/05	03/10/05	EPA 300.0	
% Moisture	14.5	0.1	%	1	EC50904	03/08/05	03/09/05	% calculation	
<b>Pond (5C08004-12) Water</b>									
Chloride	380	5.00	mg/L	10	EC51110	03/10/05	03/10/05	EPA 300.0	

Environmental Lab of Texas

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31 Page 6 of 11

E Tech Environmental & Safety Solutions, Inc.  
P.O. Box 8469  
Midland TX, 79708-8469

Project: BJ Hobbs Washbay Line Leak  
Project Number: 016-257  
Project Manager: Shane Estep

Fax: 563-2213  
Reported:  
03/14/05 15:53

**Organics by GC - Quality Control**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch EC50812 - Solvent Extraction (GC)**

**Blank (EC50812-BLK1)**

Prepared: 03/08/05 Analyzed: 03/09/05

Gasoline Range Organics C6-C12	ND	10.0	mg/kg wet							
Diesel Range Organics >C12-C35	ND	10.0	"							
Total Hydrocarbon C6-C35	ND	10.0	"							
Surrogate: 1-Chlorooctane	38.9		mg/kg	50.0		77.8	67.6-140			
Surrogate: 1-Chlorooctadecane	36.3		"	50.0		72.6	70-130			

**LCS (EC50812-BS1)**

Prepared: 03/08/05 Analyzed: 03/09/05

Gasoline Range Organics C6-C12	432	10.0	mg/kg wet	500		86.4	76.3-104			
Diesel Range Organics >C12-C35	447	10.0	"	500		89.4	76.1-118			
Total Hydrocarbon C6-C35	879	10.0	"	1000		87.9	81.8-105			
Surrogate: 1-Chlorooctane	38.9		mg/kg	50.0		77.8	67.6-140			
Surrogate: 1-Chlorooctadecane	35.3		"	50.0		70.6	70-130			

**Calibration Check (EC50812-CCV1)**

Prepared & Analyzed: 03/08/05

Gasoline Range Organics C6-C12	440		mg/kg	500		88.0	80-120			
Diesel Range Organics >C12-C35	526		"	500		105	80-120			
Total Hydrocarbon C6-C35	966		"	1000		96.6	80-120			
Surrogate: 1-Chlorooctane	49.6		"	50.0		99.2	67.6-140			
Surrogate: 1-Chlorooctadecane	44.0		"	50.0		88.0	70-130			

**Matrix Spike (EC50812-MS1)**

Source: 5C07010-01

Prepared: 03/08/05 Analyzed: 03/09/05

Gasoline Range Organics C6-C12	527	10.0	mg/kg dry	568	ND	92.8	75.9-114			
Diesel Range Organics >C12-C35	561	10.0	"	568	ND	98.8	85.3-122			
Total Hydrocarbon C6-C35	1090	10.0	"	1140	ND	95.6	84.4-115			
Surrogate: 1-Chlorooctane	52.0		mg/kg	50.0		104	67.6-140			
Surrogate: 1-Chlorooctadecane	41.9		"	50.0		83.8	70-130			

**Matrix Spike Dup (EC50812-MSD1)**

Source: 5C07010-01

Prepared: 03/08/05 Analyzed: 03/09/05

Gasoline Range Organics C6-C12	520	10.0	mg/kg dry	568	ND	91.5	75.9-114	1.34	10.4	
Diesel Range Organics >C12-C35	574	10.0	"	568	ND	101	85.3-122	2.29	10.4	
Total Hydrocarbon C6-C35	1090	10.0	"	1140	ND	95.6	84.4-115	0.00	7.6	
Surrogate: 1-Chlorooctane	50.0		mg/kg	50.0		100	67.6-140			
Surrogate: 1-Chlorooctadecane	40.3		"	50.0		80.6	70-130			

Environmental Lab of Texas

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E Tech Environmental & Safety Solutions, Inc.  
P.O. Box 8469  
Midland TX, 79708-8469

Project: BJ Hobbs Washbay Line Leak  
Project Number: 016-257  
Project Manager: Shane Estep

Fax: 563-2213  
Reported:  
03/14/05 15:53

**Organics by GC - Quality Control**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch EC50815 - Solvent Extraction (GC)**

**Blank (EC50815-BLK1)**

Prepared: 03/08/05 Analyzed: 03/11/05

Gasoline Range Organics C6-C12	ND	10.0	mg/kg wet							
Diesel Range Organics >C12-C35	ND	10.0	"							
Total Hydrocarbon C6-C35	ND	10.0	"							
Surrogate: 1-Chlorooctane	40.9		mg/kg	50.0		81.8	67.6-140			
Surrogate: 1-Chlorooctadecane	35.0		"	50.0		70.0	70-130			

**LCS (EC50815-BS1)**

Prepared: 03/08/05 Analyzed: 03/11/05

Gasoline Range Organics C6-C12	428	10.0	mg/kg wet	500		85.6	76.3-104			
Diesel Range Organics >C12-C35	464	10.0	"	500		92.8	76.1-118			
Total Hydrocarbon C6-C35	892	10.0	"	1000		89.2	81.8-105			
Surrogate: 1-Chlorooctane	38.5		mg/kg	50.0		77.0	67.6-140			
Surrogate: 1-Chlorooctadecane	38.1		"	50.0		76.2	70-130			

**Calibration Check (EC50815-CCV1)**

Prepared: 03/08/05 Analyzed: 03/11/05

Gasoline Range Organics C6-C12	453		mg/kg	500		90.6	80-120			
Diesel Range Organics >C12-C35	537		"	500		107	80-120			
Total Hydrocarbon C6-C35	990		"	1000		99.0	80-120			
Surrogate: 1-Chlorooctane	50.8		"	50.0		102	67.6-140			
Surrogate: 1-Chlorooctadecane	45.6		"	50.0		91.2	70-130			

**Matrix Spike (EC50815-MS1)**

Source: 5C08004-07

Prepared: 03/08/05 Analyzed: 03/11/05

Gasoline Range Organics C6-C12	599	10.0	mg/kg dry	636	ND	94.2	75.9-114			
Diesel Range Organics >C12-C35	777	10.0	"	636	105	106	85.3-122			
Total Hydrocarbon C6-C35	1380	10.0	"	1270	105	100	84.4-115			
Surrogate: 1-Chlorooctane	45.7		mg/kg	50.0		91.4	67.6-140			
Surrogate: 1-Chlorooctadecane	41.1		"	50.0		82.2	70-130			

**Matrix Spike Dup (EC50815-MSD1)**

Source: 5C08004-07

Prepared: 03/08/05 Analyzed: 03/11/05

Gasoline Range Organics C6-C12	617	10.0	mg/kg dry	636	ND	97.0	75.9-114	2.96	10.4	
Diesel Range Organics >C12-C35	799	10.0	"	636	105	109	85.3-122	2.79	10.4	
Total Hydrocarbon C6-C35	1420	10.0	"	1270	105	104	84.4-115	2.86	7.6	
Surrogate: 1-Chlorooctane	46.1		mg/kg	50.0		92.2	67.6-140			
Surrogate: 1-Chlorooctadecane	41.0		"	50.0		82.0	70-130			

E Tech Environmental & Safety Solutions, Inc.  
P.O. Box 8469  
Midland TX, 79708-8469

Project: BJ Hobbs Washbay Line Leak  
Project Number: 016-257  
Project Manager: Shane Estep

Fax: 563-2213

Reported:  
03/14/05 15:53

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch EC50904 - General Preparation (Prep)**

**Blank (EC50904-BLK1)**

Prepared: 03/08/05 Analyzed: 03/09/05

% Moisture ND 0.1 %

**Duplicate (EC50904-DUP1)**

Source: 5C07010-01

Prepared: 03/08/05 Analyzed: 03/09/05

% Moisture 10.7 0.1 % 12.0 11.5 20

**Batch EC51108 - Water Extraction**

**Blank (EC51108-BLK1)**

Prepared & Analyzed: 03/10/05

Chloride ND 0.500 mg/kg

**LCS (EC51108-BS1)**

Prepared & Analyzed: 03/10/05

Chloride 10.3 mg/L 10.0 103 80-120

**LCS Dup (EC51108-BSD1)**

Prepared & Analyzed: 03/10/05

Chloride 10.4 mg/L 10.0 104 80-120 0.966 20

**Calibration Check (EC51108-CCV1)**

Prepared & Analyzed: 03/10/05

Chloride 10.7 mg/L 10.0 107 80-120

**Duplicate (EC51108-DUP1)**

Source: 5C08004-01

Prepared & Analyzed: 03/10/05

Chloride 107 10.0 mg/kg 86.3 21.4 20 S-08

**Batch EC51110 - General Preparation (WetChem)**

**Blank (EC51110-BLK1)**

Prepared & Analyzed: 03/10/05

Chloride ND 0.500 mg/L

E Tech Environmental & Safety Solutions, Inc.  
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Midland TX, 79708-8469

Project: BJ Hobbs Washbay Line Leak  
Project Number: 016-257  
Project Manager: Shane Estep

Fax: 563-2213

Reported:  
03/14/05 15:53

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch EC51110 - General Preparation (WetChem)**

**LCS (EC51110-BS1)**

Prepared & Analyzed: 03/10/05

Chloride	10.3		mg/L	10.0		103	80-120			
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**Calibration Check (EC51110-CCV1)**

Prepared & Analyzed: 03/10/05

Chloride	10.4		mg/L	10.0		104	80-120			
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**Duplicate (EC51110-DUP1)**

Source: 5C08004-12

Prepared & Analyzed: 03/10/05

Chloride	381	5.00	mg/L		380			0.263	20	
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Environmental Lab of Texas

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Page 10 of 11  
35

E Tech Environmental & Safety Solutions, Inc.  
P.O. Box 8469  
Midland TX, 79708-8469

Project: BJ Hobbs Washbay Line Leak  
Project Number: 016-257  
Project Manager: Shane Estep

Fax: 563-2213

Reported:  
03/14/05 15:53

### Notes and Definitions

S-08 Value outside Laboratory historical or method prescribed QC limits.

S-06 The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.

J Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

LCS Laboratory Control Spike

MS Matrix Spike

Dup Duplicate

Report Approved By:

*Raland K. Tuttle*

Date:

3/14/2005

Raland K. Tuttle, Lab Manager  
Celey D. Keene, Lab Director, Org. Tech Director  
Peggy Allen, QA Officer

Jeanne Mc Murrey, Inorg. Tech Director  
James L. Hawkins, Chemist/Geologist  
Sandra Sanchez, Lab Tech.

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If you have received this material in error, please notify us immediately at 432-563-1800.

Environmental Lab of Texas

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Page 11 of 11  
36

12600 West I-20 East  
Odessa, Texas 79763

Phone: 915-563-1800  
Fax: 915-563-1713

### CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

**Project Manager:**

Shane Estep

Shane Estep

Shane Estep

Project Name:

B.J. Hobbs was

**Company Name**

882070.4

~~P.O. BOX 8469~~ ~~etch~~

628 200 0.4  
P.O. Box 8469  
etch

**Company Address:**

Prison

20141 production

82164 71 pr 010M  
1:0. box 8469

City/State/Zip:

Midland

- Mid land, TX 79701

- Midland, TX 79708

**Telephone No.:**

000000

[illegible]

Fax No: 0066-3-2273

**Sampler Signature:**

[illegible]

**12600 West I-20 East  
Odessa, Texas 79763**

Phone: 915-563-1800  
Fax: 915-563-1713

### CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

**Project Manager:**

## Shane Estep

**Company Name**

etch

**Company Address:**

P.O. Box 8469

City/State/Zip:

Midland, TX 79708

Telephone No:

563-2213

**Sampler Signature:**

[illegible]

**Environmental Lab of Texas**  
**Variance / Corrective Action Report – Sample Log-In**

Client: E-Teek

Date/Time: 3/8/05

Order #: SC08004

Initials: CK

**Sample Receipt Checklist**

Temperature of container/cooler?	Yes	No	<u>OK</u> C
Shipping container/cooler in good condition?	<u>Yes</u>	No	
Custody Seals intact on shipping container/cooler?	Yes	No	<u>Not present</u>
Custody Seals intact on sample bottles?	Yes	No	<u>Not present</u>
Chain of custody present?	<u>Yes</u>	No	
Sample Instructions complete on Chain of Custody?	<u>Yes</u>	No	
Chain of Custody signed when relinquished and received?	<u>Yes</u>	No	
Chain of custody agrees with sample label(s) <u>no label</u>	Yes	No	<u>wrote on jar</u> *
Container labels legible and intact?	Yes	No	<u>N/A</u>
Sample Matrix and properties same as on chain of custody?	<u>Yes</u>	No	
Samples in proper container/bottle?	<u>Yes</u>	No	
Samples properly preserved?	<u>Yes</u>	No	
Sample bottles intact?	<u>Yes</u>	No	
Preservations documented on Chain of Custody?	<u>Yes</u>	No	
Containers documented on Chain of Custody?	<u>Yes</u>	No	
Sufficient sample amount for indicated test?	<u>Yes</u>	No	
All samples received within sufficient hold time?	<u>Yes</u>	No	
VOC samples have zero headspace?	<u>Yes</u>	No	Not Applicable

Other observations:

\* Labels are present on last 3 samples

**Variance Documentation:**

Contact Person: - \_\_\_\_\_ Date/Time: \_\_\_\_\_ Contacted by: \_\_\_\_\_  
 Regarding: \_\_\_\_\_

Corrective Action Taken:



12600 West I-20 East - Odessa, Texas 79765

## Analytical Report

**Prepared for:**

Eric Weaver

E Tech Environmental & Safety Solutions, Inc.

P.O. Box 8469

Midland, TX 79708-8469

Project: BJ- Hobbs Washbay Line Leak #2

Project Number: 016-257

Location: None Given

Lab Order Number: 5D26008

Report Date: 04/27/05

E Tech Environmental & Safety Solutions, Inc.  
P.O. Box 8469  
Midland TX, 79708-8469

Project: BJ- Hobbs Washbay Line Leak #2  
Project Number: 016-257  
Project Manager: Eric Weaver

Fax: 563-2213  
**Reported:**  
04/27/05 14:03

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
South Wall Exc.- Post	5D26008-01	Soil	04/25/05 12:12	04/26/05 15:50
North Wall Exc.- Post	5D26008-02	Soil	04/25/05 12:37	04/26/05 15:50
Bottom Exc.- Post	5D26008-03	Soil	04/25/05 13:16	04/26/05 15:50
Sample #1- Post	5D26008-04	Soil	04/25/05 13:48	04/26/05 15:50
Sample #2- Post	5D26008-05	Soil	04/25/05 13:33	04/26/05 15:50
Sample #4- Post	5D26008-06	Soil	04/25/05 14:37	04/26/05 15:50
Sample #5- Post	5D26008-07	Soil	04/25/05 13:59	04/26/05 15:50

E Tech Environmental & Safety Solutions, Inc.  
P.O. Box 8469  
Midland TX, 79708-8469

Project: BJ- Hobbs Washbay Line Leak #2  
Project Number: 016-257  
Project Manager: Eric Weaver

Fax: 563-2213

Reported:  
04/27/05 14:03

**Organics by GC**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>South Wall Exc.- Post (5D26008-01) Soil</b>									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	ED52609	04/26/05	04/26/05	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		77.0 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		71.6 %	70-130		"	"	"	"	
<b>Bottom Exc.- Post (5D26008-03) Soil</b>									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	ED52609	04/26/05	04/26/05	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		75.0 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		74.2 %	70-130		"	"	"	"	
<b>Sample #1- Post (5D26008-04) Soil</b>									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	ED52609	04/26/05	04/26/05	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		75.2 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		73.4 %	70-130		"	"	"	"	
<b>Sample #2- Post (5D26008-05) Soil</b>									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	ED52609	04/26/05	04/26/05	EPA 8015M	
Diesel Range Organics >C12-C35	967	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	967	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		71.2 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		77.8 %	70-130		"	"	"	"	
<b>Sample #4- Post (5D26008-06) Soil</b>									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	ED52609	04/26/05	04/26/05	EPA 8015M	
Diesel Range Organics >C12-C35	279	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	279	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		82.2 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		73.0 %	70-130		"	"	"	"	

Environmental Lab of Texas

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E Tech Environmental & Safety Solutions, Inc.  
P.O. Box 8469  
Midland TX, 79708-8469

Project: BJ- Hobbs Washbay Line Leak #2  
Project Number: 016-257  
Project Manager: Eric Weaver

Fax: 563-2213  
**Reported:**  
04/27/05 14:03

**Organics by GC**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Sample #5- Post (5D26008-07) Soil</b>									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	ED52609	04/26/05	04/26/05	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		84.6 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		73.2 %	70-130		"	"	"	"	

Environmental Lab of Texas

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E Tech Environmental & Safety Solutions, Inc.  
P.O. Box 8469  
Midland TX, 79708-8469

Project: BJ- Hobbs Washbay Line Leak #2  
Project Number: 016-257  
Project Manager: Eric Weaver

Fax: 563-2213

Reported:  
04/27/05 14:03

**General Chemistry Parameters by EPA / Standard Methods**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>South Wall Exc.- Post (5D26008-01) Soil</b>									
Chloride	147	10.0	mg/kg	20	ED52709	04/26/05	04/26/05	EPA 300.0	
% Moisture	11.4	0.1	%	1	ED52604	04/26/05	04/27/05	% calculation	
<b>North Wall Exc.- Post (5D26008-02) Soil</b>									
Chloride	192	10.0	mg/kg	20	ED52709	04/26/05	04/26/05	EPA 300.0	
<b>Bottom Exc.- Post (5D26008-03) Soil</b>									
Chloride	267	10.0	mg/kg	20	ED52709	04/26/05	04/26/05	EPA 300.0	
% Moisture	14.8	0.1	%	1	ED52604	04/26/05	04/27/05	% calculation	
<b>Sample #1- Post (5D26008-04) Soil</b>									
Chloride	25.0	5.00	mg/kg	10	ED52709	04/26/05	04/26/05	EPA 300.0	
% Moisture	1.2	0.1	%	1	ED52604	04/26/05	04/27/05	% calculation	
<b>Sample #2- Post (5D26008-05) Soil</b>									
Chloride	1430	50.0	mg/kg	100	ED52709	04/26/05	04/26/05	EPA 300.0	
% Moisture	2.4	0.1	%	1	ED52604	04/26/05	04/27/05	% calculation	
<b>Sample #4- Post (5D26008-06) Soil</b>									
% Moisture	2.4	0.1	%	1	ED52604	04/26/05	04/27/05	% calculation	
<b>Sample #5- Post (5D26008-07) Soil</b>									
% Moisture	5.8	0.1	%	1	ED52604	04/26/05	04/27/05	% calculation	

Environmental Lab of Texas

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Midland TX, 79708-8469

Project: BJ- Hobbs Washbay Line Leak #2  
Project Number: 016-257  
Project Manager: Eric Weaver

Fax: 563-2213  
Reported:  
04/27/05 14:03

**Organics by GC - Quality Control**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch ED52609 - Solvent Extraction (GC)**

**Blank (ED52609-BLK1)**

Prepared: 04/26/05 Analyzed: 04/27/05

Gasoline Range Organics C6-C12	ND	10.0	mg/kg wet							
Diesel Range Organics >C12-C35	ND	10.0	"							
Total Hydrocarbon C6-C35	ND	10.0	"							
Surrogate: 1-Chlorooctane	44.0		mg/kg	50.0		88.0	70-130			
Surrogate: 1-Chlorooctadecane	41.8		"	50.0		83.6	70-130			

**LCS (ED52609-BS1)**

Prepared: 04/26/05 Analyzed: 04/27/05

Gasoline Range Organics C6-C12	411	10.0	mg/kg wet	500		82.2	75-125			
Diesel Range Organics >C12-C35	434	10.0	"	500		86.8	75-125			
Total Hydrocarbon C6-C35	845	10.0	"	1000		84.5	75-125			
Surrogate: 1-Chlorooctane	40.9		mg/kg	50.0		81.8	70-130			
Surrogate: 1-Chlorooctadecane	36.2		"	50.0		72.4	70-130			

**Calibration Check (ED52609-CCV1)**

Prepared & Analyzed: 04/26/05

Gasoline Range Organics C6-C12	473		mg/kg	500		94.6	80-120			
Diesel Range Organics >C12-C35	493		"	500		98.6	80-120			
Total Hydrocarbon C6-C35	966		"	1000		96.6	80-120			
Surrogate: 1-Chlorooctane	49.9		"	50.0		99.8	70-130			
Surrogate: 1-Chlorooctadecane	49.5		"	50.0		99.0	70-130			

**Matrix Spike (ED52609-MS1)**

Source: 5D26008-01

Prepared & Analyzed: 04/26/05

Gasoline Range Organics C6-C12	504	10.0	mg/kg dry	564	ND	89.4	75-125			
Diesel Range Organics >C12-C35	570	10.0	"	564	ND	101	75-125			
Total Hydrocarbon C6-C35	1070	10.0	"	1130	ND	94.7	75-125			
Surrogate: 1-Chlorooctane	41.8		mg/kg	50.0		83.6	70-130			
Surrogate: 1-Chlorooctadecane	36.4		"	50.0		72.8	70-130			

**Matrix Spike Dup (ED52609-MSD1)**

Source: 5D26008-01

Prepared & Analyzed: 04/26/05

Gasoline Range Organics C6-C12	545	10.0	mg/kg dry	564	ND	96.6	75-125	7.82	20	
Diesel Range Organics >C12-C35	559	10.0	"	564	ND	99.1	75-125	1.95	20	
Total Hydrocarbon C6-C35	1100	10.0	"	1130	ND	97.3	75-125	2.76	20	
Surrogate: 1-Chlorooctane	42.1		mg/kg	50.0		84.2	70-130			
Surrogate: 1-Chlorooctadecane	35.4		"	50.0		70.8	70-130			

Environmental Lab of Texas

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E Tech Environmental & Safety Solutions, Inc.  
P.O. Box 8469  
Midland TX, 79708-8469

Project: BJ- Hobbs Washbay Line Leak #2  
Project Number: 016-257  
Project Manager: Eric Weaver

Fax: 563-2213  
Reported:  
04/27/05 14:03

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch ED52604 - General Preparation (Prep)**

**Blank (ED52604-BLK1)**

Prepared: 04/26/05 Analyzed: 04/27/05

% Moisture ND 0.1 %

**Duplicate (ED52604-DUP1)**

Source: 5D25014-01

Prepared: 04/26/05 Analyzed: 04/27/05

% Moisture 5.8 0.1 % 5.9 1.71 20

**Batch ED52709 - Water Extraction**

**Blank (ED52709-BLK1)**

Prepared & Analyzed: 04/26/05

Chloride ND 0.500 mg/kg

**Blank (ED52709-BLK2)**

Prepared & Analyzed: 04/26/05

Chloride ND 0.500 mg/kg

**LCS (ED52709-BS1)**

Prepared & Analyzed: 04/26/05

Chloride 11.0 mg/L 10.0 110 80-120

**LCS (ED52709-BS2)**

Prepared & Analyzed: 04/26/05

Chloride 10.2 mg/L 10.0 102 80-120

**Calibration Check (ED52709-CCV1)**

Prepared & Analyzed: 04/26/05

Chloride 10.3 mg/L 10.0 103 80-120

**Calibration Check (ED52709-CCV2)**

Prepared & Analyzed: 04/26/05

Chloride 10.0 mg/L 10.0 100 80-120

**Duplicate (ED52709-DUP1)**

Source: 5D26008-01

Prepared & Analyzed: 04/26/05

Chloride 160 10.0 mg/kg 147 8.47 20

E Tech Environmental & Safety Solutions, Inc.  
P.O. Box 8469  
Midland TX, 79708-8469

Project: BJ- Hobbs Washbay Line Leak #2  
Project Number: 016-257  
Project Manager: Eric Weaver

Fax: 563-2213  
**Reported:**  
04/27/05 14:03

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch ED52709 - Water Extraction**

**Duplicate (ED52709-DUP2)**

**Source: 5D25001-15**

**Prepared & Analyzed: 04/26/05**

Chloride	46.9	10.0	mg/kg		48.5			3.35	20	
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Environmental Lab of Texas

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47 Page 7 of 8

E Tech Environmental & Safety Solutions, Inc.  
P.O. Box 8469  
Midland TX, 79708-8469

Project: BJ- Hobbs Washbay Line Leak #2  
Project Number: 016-257  
Project Manager: Eric Weaver

Fax: 563-2213  
Reported:  
04/27/05 14:03

### Notes and Definitions

DET Analyte DETECTED  
ND Analyte NOT DETECTED at or above the reporting limit  
NR Not Reported  
dry Sample results reported on a dry weight basis  
RPD Relative Percent Difference  
LCS Laboratory Control Spike  
MS Matrix Spike  
Dup Duplicate

Report Approved By:

*Raland K. Tuttle*

Date:

4/27/2005

Raland K. Tuttle, Lab Manager  
Celey D. Keene, Lab Director, Org. Tech Director  
Peggy Allen, QA Officer

Jeanne Mc Murrey, Inorg. Tech Director  
James L. Hawkins, Chemist/Geologist  
Sandra Sanchez, Lab Tech.

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If you have received this material in error, please notify us immediately at 432-563-1800.

Environmental Lab of Texas

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**112500 West I-20 East  
Odessa, Texas 79765**

**112500 West I-20 East  
Odessa, Texas 79765**

## CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

**Project Manager:** Eric Weaver / Shane Estep

**Company Name** Etech Environmental & Safety Solutions

**Company Address:** P.O. Box 8469

City/State/Zip: Midland, TX 79708

**Telephone No: 432/563-2200**

**Fax No: 432/563-2213**

**Sampler Signature:**[illegible]

**Environmental Lab of Texas**  
**Variance / Corrective Action Report – Sample Log-In**

Client: E-TECH ENV.  
 Date/Time: 4/26/05 4:00  
 Order #: 5D26008  
 Initials: CR

**Sample Receipt Checklist**

Temperature of container/cooler?	Yes	No	4.0 C
Shipping container/cooler in good condition?	<input checked="" type="checkbox"/>	No	
Custody Seals intact on shipping container/cooler?	Yes	No	Not present
Custody Seals intact on sample bottles?	Yes	No	Not present
Chain of custody present?	<input checked="" type="checkbox"/>	No	
Sample instructions complete on Chain of Custody?	<input checked="" type="checkbox"/>	No	
Chain of Custody signed when relinquished and received?	<input checked="" type="checkbox"/>	No	
Chain of custody agrees with sample label(s) <u>none</u>	Yes	No	wrote on lid
Container labels legible and intact?	Yes	No	n/a
Sample Matrix and properties same as on chain of custody?	<input checked="" type="checkbox"/>	No	
Samples in proper container/bottle?	<input checked="" type="checkbox"/>	No	
Samples properly preserved?	<input checked="" type="checkbox"/>	No	
Sample bottles intact?	<input checked="" type="checkbox"/>	No	
Preservations documented on Chain of Custody?	<input checked="" type="checkbox"/>	No	
Containers documented on Chain of Custody?	<input checked="" type="checkbox"/>	No	
Sufficient sample amount for indicated test?	<input checked="" type="checkbox"/>	No	
All samples received within sufficient hold time?	<input checked="" type="checkbox"/>	No	
VOC samples have zero headspace?	<input checked="" type="checkbox"/>	No	Not Applicable

Other observations:

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**Variance Documentation:**

Contact Person: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Contacted by: \_\_\_\_\_  
 Regarding: \_\_\_\_\_

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Corrective Action Taken:

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12600 West I-20 East - Odessa, Texas 79765

## Analytical Report

**Prepared for:**

Shane Estep

E Tech Environmental & Safety Solutions, Inc.

P.O. Box 8469

Midland, TX 79708-8469

Project: BJ Hobbs Washbay Line Leak

Project Number: 016-257

Location: None Given

Lab Order Number: 5D28007

Report Date: 05/03/05

E Tech Environmental & Safety Solutions, Inc.  
P.O. Box 8469  
Midland TX, 79708-8469

Project: BJ Hobbs Washbay Line Leak  
Project Number: 016-257  
Project Manager: Shane Estep

Fax: 563-2213  
**Reported:**  
05/03/05 14:06

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Exc. Bottom	5D28007-01	Soil	04/28/05 09:00	04/28/05 16:05
Site #1	5D28007-02	Soil	04/28/05 09:15	04/28/05 16:05
Site #4	5D28007-03	Soil	04/28/05 09:20	04/28/05 16:05
Site #7	5D28007-04	Soil	04/28/05 09:45	04/28/05 16:05

E Tech Environmental & Safety Solutions, Inc.  
P.O. Box 8469  
Midland TX, 79708-8469

Project: BJ Hobbs Washbay Line Leak  
Project Number: 016-257  
Project Manager: Shane Estep

Fax: 563-2213

Reported:  
05/03/05 14:06

**Organics by GC**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Site #1 (5D28007-02) Soil</b>									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	ED52817	04/28/05	04/29/05	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		79.4 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		72.8 %	70-130		"	"	"	"	
<b>Site #4 (5D28007-03) Soil</b>									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	ED52817	04/28/05	04/29/05	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		75.6 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		71.6 %	70-130		"	"	"	"	
<b>Site #7 (5D28007-04) Soil</b>									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	ED52817	04/28/05	04/29/05	EPA 8015M	
Diesel Range Organics >C12-C35	67.0	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	67.0	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		74.4 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		72.6 %	70-130		"	"	"	"	

E Tech Environmental & Safety Solutions, Inc.  
P.O. Box 8469  
Midland TX, 79708-8469

Project: BJ Hobbs Washbay Line Leak  
Project Number: 016-257  
Project Manager: Shane Estep

Fax: 563-2213  
**Reported:**  
05/03/05 14:06

**General Chemistry Parameters by EPA / Standard Methods**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Exc. Bottom (5D28007-01) Soil</b>									
<b>Chloride</b>	<b>28.8</b>	5.00	mg/kg	10	EE50303	05/02/05	05/02/05	EPA 300.0	
<b>Site #1 (5D28007-02) Soil</b>									
<b>Chloride</b>	<b>204</b>	10.0	mg/kg	20	EE50303	05/02/05	05/02/05	EPA 300.0	
<b>% Moisture</b>	<b>17.1</b>	0.1	%	1	ED52901	04/28/05	04/29/05	% calculation	
<b>Site #4 (5D28007-03) Soil</b>									
<b>% Moisture</b>	<b>10.8</b>	0.1	%	1	ED52901	04/28/05	04/29/05	% calculation	
<b>Site #7 (5D28007-04) Soil</b>									
<b>Chloride</b>	<b>72.3</b>	5.00	mg/kg	10	EE50303	05/02/05	05/02/05	EPA 300.0	
<b>% Moisture</b>	<b>4.5</b>	0.1	%	1	ED52901	04/28/05	04/29/05	% calculation	

Environmental Lab of Texas

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Project: BJ Hobbs Washbay Line Leak  
Project Number: 016-257  
Project Manager: Shane Estep

Fax: 563-2213

Reported:  
05/03/05 14:06

**Organics by GC - Quality Control**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch ED52817 - Solvent Extraction (GC)**

**Blank (ED52817-BLK1)**

Prepared: 04/28/05 Analyzed: 04/29/05

Gasoline Range Organics C6-C12	ND	10.0	mg/kg wet							
Diesel Range Organics >C12-C35	ND	10.0	"							
Total Hydrocarbon C6-C35	ND	10.0	"							
Surrogate: 1-Chlorooctane	35.6		mg/kg	50.0		71.2	70-130			
Surrogate: 1-Chlorooctadecane	37.4		"	50.0		74.8	70-130			

**LCS (ED52817-BS1)**

Prepared: 04/28/05 Analyzed: 04/29/05

Gasoline Range Organics C6-C12	425	10.0	mg/kg wet	500		85.0	75-125			
Diesel Range Organics >C12-C35	490	10.0	"	500		98.0	75-125			
Total Hydrocarbon C6-C35	915	10.0	"	1000		91.5	75-125			
Surrogate: 1-Chlorooctane	35.6		mg/kg	50.0		71.2	70-130			
Surrogate: 1-Chlorooctadecane	36.7		"	50.0		73.4	70-130			

**Calibration Check (ED52817-CCV1)**

Prepared: 04/28/05 Analyzed: 04/29/05

Gasoline Range Organics C6-C12	425		mg/kg	500		85.0	80-120			
Diesel Range Organics >C12-C35	513		"	500		103	80-120			
Total Hydrocarbon C6-C35	938		"	1000		93.8	80-120			
Surrogate: 1-Chlorooctane	44.0		"	50.0		88.0	70-130			
Surrogate: 1-Chlorooctadecane	37.9		"	50.0		75.8	70-130			

**Matrix Spike (ED52817-MS1)**

Source: 5D28005-02

Prepared: 04/28/05 Analyzed: 04/29/05

Gasoline Range Organics C6-C12	566	10.0	mg/kg dry	566	ND	100	75-125			
Diesel Range Organics >C12-C35	622	10.0	"	566	ND	110	75-125			
Total Hydrocarbon C6-C35	1190	10.0	"	1130	ND	105	75-125			
Surrogate: 1-Chlorooctane	47.4		mg/kg	50.0		94.8	70-130			
Surrogate: 1-Chlorooctadecane	38.6		"	50.0		77.2	70-130			

**Matrix Spike Dup (ED52817-MSD1)**

Source: 5D28005-02

Prepared: 04/28/05 Analyzed: 04/29/05

Gasoline Range Organics C6-C12	546	10.0	mg/kg dry	566	ND	96.5	75-125	3.60	20	
Diesel Range Organics >C12-C35	618	10.0	"	566	ND	109	75-125	0.645	20	
Total Hydrocarbon C6-C35	1160	10.0	"	1130	ND	103	75-125	2.55	20	
Surrogate: 1-Chlorooctane	47.1		mg/kg	50.0		94.2	70-130			
Surrogate: 1-Chlorooctadecane	37.4		"	50.0		74.8	70-130			

Environmental Lab of Texas

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Environmental Lab of Texas.

E Tech Environmental & Safety Solutions, Inc.  
P.O. Box 8469  
Midland TX, 79708-8469

Project: BJ Hobbs Washbay Line Leak  
Project Number: 016-257  
Project Manager: Shane Estep

Fax: 563-2213  
**Reported:**  
05/03/05 14:06

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch ED52901 - General Preparation (Prep)**

**Blank (ED52901-BLK1)**

Prepared: 04/28/05 Analyzed: 04/29/05

% Moisture ND 0.1 %

**Duplicate (ED52901-DUP1)**

**Source: 5D28002-01**

Prepared: 04/28/05 Analyzed: 04/29/05

% Moisture 1.9 0.1 % 1.9 0.00 20

**Batch EE50303 - Water Extraction**

**Blank (EE50303-BLK1)**

Prepared & Analyzed: 05/02/05

Chloride ND 0.500 mg/kg

**LCS (EE50303-BS1)**

Prepared & Analyzed: 05/02/05

Chloride 9.94 mg/L 10.0 99.4 80-120

**Calibration Check (EE50303-CCV1)**

Prepared & Analyzed: 05/02/05

Chloride 10.9 mg/L 10.0 109 80-120

**Duplicate (EE50303-DUP1)**

**Source: 5D28007-04**

Prepared & Analyzed: 05/02/05

Chloride 71.7 5.00 mg/kg 72.3 0.833 20

E Tech Environmental & Safety Solutions, Inc.  
P.O. Box 8469  
Midland TX, 79708-8469

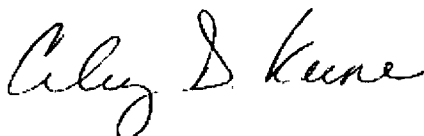
Project: BJ Hobbs Washbay Line Leak  
Project Number: 016-257  
Project Manager: Shane Estep

Fax: 563-2213  
**Reported:**  
05/03/05 14:06

### Notes and Definitions

DET Analyte DETECTED  
ND Analyte NOT DETECTED at or above the reporting limit  
NR Not Reported  
dry Sample results reported on a dry weight basis  
RPD Relative Percent Difference  
LCS Laboratory Control Spike  
MS Matrix Spike  
Dup Duplicate

Report Approved By: \_\_\_\_\_



Date: 5/3/2005

Raland K. Tuttle, Lab Manager  
Celey D. Keene, Lab Director, Org. Tech Director  
Peggy Allen, QA Officer

Jeanne Mc Murrey, Inorg. Tech Director  
James L. Hawkins, Chemist/Geologist  
Sandra Sanchez, Lab Tech.

This material is intended only for the use of the individual (s) or entity to whom it is addressed, and may contain information that is privileged and confidential.

If you have received this material in error, please notify us immediately at 432-563-1800.

Environmental Lab of Texas

*The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Environmental Lab of Texas.*

57 Page 6 of 6

**Phone: 432-563-1800**  
**Fax: 432-563-1713**

# CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

**Project Manager:** Eric Weaver / Shane Estep

**Company Name Etech Environmental & Safety Solutions**

**Company Address: P.O. Box 9469**

City/State/Zip: Midland, TX 79708

Telephone No: 432/563-2200

**Fax No: 4321563-2213**

**Sampler Signature:**

Project Name: B3 Hobbs Wash Bay Line Look

Project #: 016-257

**Project Loc:**

新口

[illegible]

**Special instructions:**

Sample Containers Intact?	Y	N
Temperature Upon Receipt	6.0°C	
Laboratory Comments:		

Relinquished by: 58	Date 4/18/05	Time 3:55pm	Received by: Helicio Lopez	Date 4/18/05	Time 3:55pm
Relinquished by: Helicio Lopez	Date 4/18/05	Time 4:05pm	Received by ELOI: Carrie Webb	Date 4/18/05	Time 4:05

**Environmental Lab of Texas**  
**Variance / Corrective Action Report – Sample Log-In**

Client: E Tech Env.  
 Date/Time: 4/28/05 4:30  
 Order #: 5D28007  
 Initials: CK

**Sample Receipt Checklist**

Temperature of container/cooler?	Yes	No	O.D.	C
Shipping container/cooler in good condition?	<input checked="" type="checkbox"/>	No		
Custody Seals intact on shipping container/cooler?	Yes	No	<u>Not present</u>	
Custody Seals intact on sample bottles?	Yes	No	<u>Not present</u>	
Chain of custody present?	<input checked="" type="checkbox"/>	No		
Sample Instructions complete on Chain of Custody?	<input checked="" type="checkbox"/>	No		
Chain of Custody signed when relinquished and received?	<input checked="" type="checkbox"/>	No		
Chain of custody agrees with sample labels:	<u>none</u>	Yes	No	<u>write on lid</u>
Container labels legible and intact?	Yes	No	<u>n/a</u>	
Sample Matrix and properties same as on chain of custody?	<input checked="" type="checkbox"/>	No		
Samples in proper container/bottle?	<input checked="" type="checkbox"/>	No		
Samples properly preserved?	<input checked="" type="checkbox"/>	No		
Sample bottles intact?	<input checked="" type="checkbox"/>	No		
Preservations documented on Chain of Custody?	<input checked="" type="checkbox"/>	No		
Containers documented on Chain of Custody?	<input checked="" type="checkbox"/>	No		
Sufficient sample amount for indicated test?	<input checked="" type="checkbox"/>	No		
All samples received within sufficient hold time?	<input checked="" type="checkbox"/>	No		
VOC samples have zero headspace?	<input checked="" type="checkbox"/>	No	<u>Not Applicable</u>	

Other observations:

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**Variance Documentation:**

Contact Person: \_\_\_\_\_ Data/Time: \_\_\_\_\_ Contacted by: \_\_\_\_\_  
 Regarding: \_\_\_\_\_

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**Corrective Action Taken:**

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**Appendix F**  
**Non-Hazardous Waste Manifests**

**CONTROLLED RECOVERY, INC.**

P.O. Box 388 • Hobbs, New Mexico 88241-0388

(505) 393-1079

www.crihobbs.com

Bill to E-T

Address \_\_\_\_\_

Company/Generator BJ'sLease Name Hobbs Yard - Sewer LeakTrucking Company M. Webb Vehicle Number M77 Driver (Print) WoodyDate 4/27/05 Time 12:55 a.m. / (p.m.)**Type of Material**☐ Exempt☐ Tank Bottoms☐ Fluids☐ Non-Exempt

C117 \_\_\_\_\_

☐ Other Material

C138 \_\_\_\_\_

☐ Soils

List Description Below

**DESCRIPTION**

Cont. Soil  
<22 yd Caliche>

Volume of Material ☐ Bbls. \_\_\_\_\_ ☒ Yard 22 ☐ Gallons \_\_\_\_\_☐ Wash Out☐ Call Out☐ After Hours☐ Debris Charge**This statement applicable to exempt waste only.**

I represent and warrant that the wastes are: generated from oil and gas exploration and production operations; exempt from Resource Conservation and Recover Act (RCRA) Subtitle C Regulations; and not mixed with non-exempt wastes.

Agent [Signature]  
(Signature)CRI Representative [Signature]  
(Signature)**TANK BOTTOMS**

	Feet	Inches		
1st Gauge			BBLS Received	BS&W %
2nd Gauge			Free Water	
Received			Total Received	

White - CRI

Canary - CRI Accounting

Pink - CRI Plant

Gold - Transfer

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(505) 393-1079

www.crihobbs.com

Bill to \_\_\_\_\_

Address \_\_\_\_\_

Company/Generator BJ'sLease Name Hobbs Yard - Sewer leakTrucking Company McNabb Vehicle Number M10 Driver (Print) M. L. L. L.Date 4/27/05 Time 12:45 a.m. / (p.m.)**Type of Material**☐ Exempt☐ Tank Bottoms☐ Fluids☐ Non-Exempt

C117 \_\_\_\_\_

☐ Other Material

C138 \_\_\_\_\_

☐ Soils

List Description Below

**DESCRIPTION**Gravel Caliche Cont. SoilVolume of Material ☐ Bbls. \_\_\_\_\_ ☒ Yard 22 ☐ Gallons \_\_\_\_\_☐ Wash Out☐ Call Out☐ After Hours☐ Debris Charge**This statement applicable to exempt waste only.**

I represent and warrant that the wastes are: generated from oil and gas exploration and production operations; exempt from Resource Conservation and Recover Act (RCRA) Subtitle C Regulations; and not mixed with non-exempt wastes.

Agent [Signature]  
(Signature)CRI Representative [Signature]  
(Signature)**TANK BOTTOMS**

	Feet	Inches		
1st Gauge			BBLS Received	BS&W %
2nd Gauge			Free Water	
Received			Total Received	

White - CRI

Canary - CRI Accounting

Pink - CRI Plant

Gold - Transp. 62

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Bill to \_\_\_\_\_

Address \_\_\_\_\_

Company/Generator BJ'sLease Name Hobbs Yard - Sewer LeakTrucking Company McNabb Vehicle Number M70 Driver (Print) WoodyDate 4/27/05 Time 10:55 a.m./p.m.**Type of Material**☐ Exempt☐ Tank Bottoms☐ Fluids☐ Non-Exempt

C117 \_\_\_\_\_

☐ Other Material

C138 \_\_\_\_\_

☐ Soils

List Description Below

**DESCRIPTION**Cont. Soil22 yd CalicheVolume of Material ☐ Bbls. \_\_\_\_\_ ☒ Yard 22 ☐ Gallons \_\_\_\_\_☐ Wash Out☐ Call Out☐ After Hours☐ Debris Charge**This statement applicable to exempt waste only.**

I represent and warrant that the wastes are: generated from oil and gas exploration and production operations; exempt from Resource Conservation and Recover Act (RCRA) Subtitle C Regulations; and not mixed with non-exempt wastes.

Agent [Signature]  
(Signature)CRI Representative [Signature]  
(Signature)**TANK BOTTOMS**

	Feet	Inches		
1st Gauge			BBLS Received	BS&W %
2nd Gauge			Free Water	
Received			Total Received	

White - CRI

Canary - CRI Accounting

Pink - CRI Plant

Gold - Transfer

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Bill to \_\_\_\_\_

Address \_\_\_\_\_

Company/Generator BJ'S

Lease Name Hobbs Yard - Sewer Leak

Trucking Company 4/27/05 Vehicle Number M10 Driver (Print) Melvin

Date 4/27/05 Time 10:45 a.m. / p.m.

## Type of Material

☐ Exempt

☐ Tank Bottoms

☐ Fluids

☐ Non-Exempt

C117 \_\_\_\_\_

☐ Other Material

C138 \_\_\_\_\_

☐ Soils

List Description Below

## DESCRIPTION

Cont. Soil

22 yd Caliche

Volume of Material ☐ Bbls. \_\_\_\_\_ ☒ Yard 82 ☐ Gallons \_\_\_\_\_

☐ Wash Out

☐ Call Out

☐ After Hours

☐ Debris Charge

**This statement applicable to exempt waste only.**

I represent and warrant that the wastes are: generated from oil and gas exploration and production operations; exempt from Resource Conservation and Recover Act (RCRA) Subtitle C Regulations; and not mixed with non-exempt wastes.

Agent \_\_\_\_\_  
(Signature)

CRI Representative \_\_\_\_\_  
(Signature)

## TANK BOTTOMS

	Feet	Inches		
1st Gauge			BBLS Received	BS&W %
2nd Gauge			Free Water	
Received			Total Received	

White - CRI

Canary - CRI Accounting

Pink - CRI Plant

Gold - Transp. 64

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Bill to \_\_\_\_\_

Address \_\_\_\_\_

Company/Generator BJ's

Lease Name Hobbs Yard - sewer leak

Trucking Company M. Nabb Vehicle Number 177 Driver (Print) W. Nabb

Date 4/27/05 Time 8:00 a.m. / p.m.

## Type of Material

☐ Exempt

☐ Tank Bottoms

☐ Fluids

☐ Non-Exempt

C117 \_\_\_\_\_

☐ Other Material

C138 \_\_\_\_\_

☐ Soils

List Description Below

## DESCRIPTION

<22 yd Caliche> Cont. Soil

Volume of Material ☐ Bbls. \_\_\_\_\_ ☒ Yard 22 ☐ Gallons \_\_\_\_\_

☐ Wash Out

☐ Call Out

☐ After Hours

☐ Debris Charge

**This statement applicable to exempt waste only.**

I represent and warrant that the wastes are: generated from oil and gas exploration and production operations; exempt from Resource Conservation and Recover Act (RCRA) Subtitle C Regulations; and not mixed with non-exempt wastes.

Agent \_\_\_\_\_  
(Signature)

CRI Representative [Signature]  
(Signature)

## TANK BOTTOMS

	Feet	Inches		
1st Gauge			BBLS Received	BS&W %
2nd Gauge			Free Water	
Received			Total Received	

White - CRI

Canary - CRI Accounting

Pink - CRI Plant

Gold - Transp. & Rec.

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Bill to \_\_\_\_\_

Address \_\_\_\_\_

Company/Generator BJ'sLease Name Hobbs Yard Sewer 149KTrucking Company M. Webb Vehicle Number M10 Driver (Print) MelvinDate 4/27/05 Time 7:50 a.m./p.m.**Type of Material**☐ Exempt☐ Tank Bottoms☐ Fluids☐ Non-Exempt

C117 \_\_\_\_\_

☐ Other Material

C138 \_\_\_\_\_

☐ Soils

List Description Below

**DESCRIPTION**Cont. Soil  
< 22 yd Caliche >Volume of Material ☐ Bbls. \_\_\_\_\_ ☒ Yard 22 ☐ Gallons \_\_\_\_\_☐ Wash Out☐ Call Out☐ After Hours☐ Debris Charge**This statement applicable to exempt waste only.**

I represent and warrant that the wastes are: generated from oil and gas exploration and production operations; exempt from Resource Conservation and Recover Act (RCRA) Subtitle C Regulations; and not mixed with non-exempt wastes.

Agent Melvin  
(Signature)CRI Representative [Signature]  
(Signature)**TANK BOTTOMS**

	Feet	Inches		
1st Gauge			BBLS Received	BS&W %
2nd Gauge			Free Water	
Received			Total Received	

White - CRI

Canary - CRI Accounting

Pink - CRI Plant

Gold - Transfer

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Bill to \_\_\_\_\_

Address \_\_\_\_\_

Company/Generator BJ'S

Lease Name Hobbs Yard - Sewer Leak

Trucking Company M Nabb Vehicle Number M10 Driver (Print) M Nabb

Date 4/27/05 Time 3:45 a.m. / p.m.

## Type of Material

☐ Exempt

☐ Tank Bottoms

☐ Fluids

☐ Non-Exempt

C117 \_\_\_\_\_

☐ Other Material

C138 \_\_\_\_\_

☐ Soils

List Description Below

## DESCRIPTION

Cont Soil  
<22yd Caliche>

Volume of Material ☐ Bbls. \_\_\_\_\_ ☒ Yard 22 ☐ Gallons \_\_\_\_\_

☐ Wash Out

☐ Call Out

☐ After Hours

☐ Debris Charge

**This statement applicable to exempt waste only.**

I represent and warrant that the wastes are: generated from oil and gas exploration and production operations; exempt from Resource Conservation and Recover Act (RCRA) Subtitle C Regulations; and not mixed with non-exempt wastes.

Agent \_\_\_\_\_  
(Signature)

CRI Representative [Signature]  
(Signature)

## TANK BOTTOMS

	Feet	Inches		
1st Gauge			BBLS Received	BS&W %
2nd Gauge			Free Water	
Received			Total Received	

White - CRI

Canary - CRI Accounting

Pink - CRI Plant

Gold - Transizer

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Bill to \_\_\_\_\_

Address \_\_\_\_\_

Company/Generator AJ'sLease Name Hobbs Yard - Sewer LeakTrucking Company McNabb Vehicle Number M77 Driver (Print) WoodyDate 4/27/05 Time 3:40 a.m. / p.m. (p.m.)**Type of Material**☐ Exempt☐ Tank Bottoms☐ Fluids☐ Non-Exempt

C117 \_\_\_\_\_

☐ Other Material

C138 \_\_\_\_\_

☐ Soils

List Description Below

**DESCRIPTION**

Cont. Soil  
< 22 yd Caliche >

Volume of Material ☐ Bbls. \_\_\_\_\_ ☒ Yard 22 ☐ Gallons \_\_\_\_\_☐ Wash Out☐ Call Out☐ After Hours☐ Debris Charge**This statement applicable to exempt waste only.**

I represent and warrant that the wastes are: generated from oil and gas exploration and production operations; exempt from Resource Conservation and Recover Act (RCRA) Subtitle C Regulations; and not mixed with non-exempt wastes.

Agent [Signature]  
(Signature)CRI Representative [Signature]  
(Signature)**TANK BOTTOMS**

	Feet	Inches		
1st Gauge			BBLS Received	BS&W %
2nd Gauge			Free Water	
Received			Total Received	

White - CRI

Canary - CRI Accounting

Pink - CRI Plant

Gold - Transfer

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Bill to \_\_\_\_\_

Address \_\_\_\_\_

Company/Generator BJ Services

Lease Name Sewer Line Leak

Trucking Company McNabb Vehicle Number MID Driver (Print) Melvin

Date 11-28-05 Time 2:20 a.m. (p.m.)

## Type of Material

☐ Exempt

☐ Tank Bottoms

☐ Fluids

☐ Non-Exempt

C117 \_\_\_\_\_

☐ Other Material

C138 \_\_\_\_\_

☒ Soils

List Description Below

## DESCRIPTION

22 yds backfill  
caliche

Cont soil

Volume of Material ☐ Bbls. \_\_\_\_\_ ☐ Yard 22 ☐ Gallons \_\_\_\_\_

☐ Wash Out

☐ Call Out

☐ After Hours

☐ Debris Charge

**This statement applicable to exempt waste only.**

I represent and warrant that the wastes are: generated from oil and gas exploration and production operations; exempt from Resource Conservation and Recovery Act (RCRA) Subtitle C Regulations; and not mixed with non-exempt wastes.

Agent Melvin  
(Signature)

CRI Representative [Signature]  
(Signature)

## TANK BOTTOMS

	Feet	Inches	BBLS Received	BS&W	%
1st Gauge					
2nd Gauge			Free Water		
Received			Total Received		

White - CRI

Canary - CRI Accounting

Pink - CRI Plant

Gold - Transporter

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312 64098

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Bill to \_\_\_\_\_

Address \_\_\_\_\_

Company/Generator BJ'SLease Name Sewer Line LeakTrucking Company m-noble Vehicle Number m10 Driver (Print) MarkDate 4/28/05 Time 12:15 a.m. / p.m.**Type of Material**☐ Exempt☐ Tank Bottoms☐ Fluids☐ Non-Exempt

C117 \_\_\_\_\_

☐ Other Material

C138 \_\_\_\_\_

☐ Soils

List Description Below

**DESCRIPTION**Cont. Soil< 22 yd Caliche >Volume of Material ☐ Bbls. \_\_\_\_\_ ☒ Yard 22 ☐ Gallons \_\_\_\_\_☐ Wash Out☐ Call Out☐ After Hours☐ Debris Charge**This statement applicable to exempt waste only.**

I represent and warrant that the wastes are: generated from oil and gas exploration and production operations: exempt from Resource Conservation and Recover Act (RCRA) Subtitle C Regulations; and not mixed with non-exempt wastes.

Agent \_\_\_\_\_  
(Signature)CRI Representative [Signature]  
(Signature)**TANK BOTTOMS**

	Feet	Inches		
1st Gauge			BBLS Received	BS&W %
2nd Gauge			Free Water	
Received			Total Received	

White - CRI

Canary - CRI Accounting

Pink - CRI Plant

Gold - Transporter

SUPERIOR PRINTING SERVICE, INC.

112 64092

**CONTROLLED RECOVERY, INC.**

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Bill to \_\_\_\_\_

Address \_\_\_\_\_

Company/Generator BJ'SLease Name Sewer Line LeakTrucking Company McNabb's Vehicle Number M21 Driver (Print) HowardDate 4/28/05 Time 12:30 a.m. / (p.m.)**Type of Material**☐ Exempt☐ Tank Bottoms☐ Fluids☐ Non-Exempt

C117 \_\_\_\_\_

☐ Other Material

C138 \_\_\_\_\_

☐ Soils

List Description Below

**DESCRIPTION**Cont. Soil<22 yd Caliche>Volume of Material ☐ Bbls. \_\_\_\_\_ ☒ Yard 22 ☐ Gallons \_\_\_\_\_☐ Wash Out☐ Call Out☐ After Hours☐ Debris Charge**This statement applicable to exempt waste only.**

I represent and warrant that the wastes are: generated from oil and gas exploration and production operations; exempt from Resource Conservation and Recover Act (RCRA) Subtitle C Regulations; and not mixed with non-exempt wastes.

Agent Howard McNabb Sr.  
(Signature)CRI Representative [Signature]  
(Signature)**TANK BOTTOMS**

	Feet	Inches			
1st Gauge			BBLS Received		BS&W %
2nd Gauge			Free Water		
Received			Total Received		

White - CRI

Canary - CRI Accounting

Pink - CRI Plant

Gold - Transporter

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**CONTROLLED RECOVERY, INC.**

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Bill to \_\_\_\_\_

Address \_\_\_\_\_

Company/Generator BJ'SLease Name Sewer Line LeakTrucking Company CRI Hobbs Vehicle Number M21 Driver (Print) HowardDate 4/28/05 Time 10:40 a.m. / p.m.**Type of Material**☐ Exempt☐ Tank Bottoms☐ Fluids☐ Non-Exempt

C117 \_\_\_\_\_

☐ Other Material

C138 \_\_\_\_\_

☐ Soils

List Description Below

**DESCRIPTION**Cont. Soil< 22 yd Caliche >Volume of Material ☐ Bbls. \_\_\_\_\_ ☒ Yard 22 ☐ Gallons \_\_\_\_\_☐ Wash Out☐ Call Out☐ After Hours☐ Debris Charge**This statement applicable to exempt waste only.**

I represent and warrant that the wastes are: generated from oil and gas exploration and production operations; exempt from Resource Conservation and Recover Act (RCRA) Subtitle C Regulations; and not mixed with non-exempt wastes.

Agent Howard  
(Signature)CRI Representative Z. H. Pano  
(Signature)**TANK BOTTOMS**

	Feet	Inches			
1st Gauge			BBLS Received		BS&W %
2nd Gauge			Free Water		
Received			Total Received		

White - CRI

Canary - CRI Accounting

Pink - CRI Plant

64090  
Gold - Transporter

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Bill to \_\_\_\_\_

Address \_\_\_\_\_

Company/Generator BSJ's

Lease Name Sewer Line Leak

Trucking Company M. Webb's Vehicle Number M10 Driver (Print) Malvia

Date 4-28-05 Time 10:15 a.m. / p.m.

## Type of Material

☐ Exempt

☐ Tank Bottoms

☐ Fluids

☐ Non-Exempt

C117 \_\_\_\_\_

☐ Other Material

C138 \_\_\_\_\_

☐ Soils

List Description Below

## DESCRIPTION

Cont. Soil  
<22yd Caliche>

Volume of Material ☐ Bbls. \_\_\_\_\_ ☒ Yard 22 ☐ Gallons \_\_\_\_\_

☐ Wash Out

☐ Call Out

☐ After Hours

☐ Debris Charge

**This statement applicable to exempt waste only.**

I represent and warrant that the wastes are: generated from oil and gas exploration and production operations; exempt from Resource Conservation and Recover Act (RCRA) Subtitle C Regulations; and not mixed with non-exempt wastes.

Agent Malvia  
(Signature)

CRI Representative [Signature]  
(Signature)

## TANK BOTTOMS

	Feet	Inches		
1st Gauge			BBLS Received	BS&W %
2nd Gauge			Free Water	
Received			Total Received	

White - CRI

Canary - CRI Accounting

Pink - CRI Plant

Gold - Transporter

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www.crihobbs.com

Bill to \_\_\_\_\_

Address \_\_\_\_\_

Company/Generator BJ'sLease Name Hobbs YardTrucking Company McNabb Vehicle Number M21 Driver (Print) HowardDate 4/28/05 Time 8:30 a.m. / p.m.**Type of Material**☐ Exempt☐ Tank Bottoms☐ Fluids☐ Non-Exempt

C117 \_\_\_\_\_

☐ Other Material

C138 \_\_\_\_\_

☐ Soils

List Description Below

**DESCRIPTION**

Cont. Soil  
22 yd Caliche

Volume of Material ☐ Bbls. \_\_\_\_\_ ☒ Yard 22 ☐ Gallons \_\_\_\_\_☐ Wash Out☐ Call Out☐ After Hours☐ Debris Charge**This statement applicable to exempt waste only.**

I represent and warrant that the wastes are: generated from oil and gas exploration and production operations; exempt from Resource Conservation and Recover Act (RCRA) Subtitle C Regulations; and not mixed with non-exempt wastes.

Agent [Signature]  
(Signature)CRI Representative [Signature]  
(Signature)**TANK BOTTOMS**

	Feet	Inches		
1st Gauge			BBLS Received	BS&W %
2nd Gauge			Free Water	
Received			Total Received	

White - CRI

Canary - CRI Accounting

Pink - CRI Plant

Gold - Transporter

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64086

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Bill to \_\_\_\_\_

Address \_\_\_\_\_

Company/Generator BJ'sLease Name Hobbs YardTrucking Company M. Nabb Vehicle Number M10 Driver (Print) MalvinDate 4/28/05 Time 8:30 a.m. / p.m.**Type of Material**☐ Exempt☐ Tank Bottoms☐ Fluids☐ Non-Exempt

C117 \_\_\_\_\_

☐ Other Material

C138 \_\_\_\_\_

☐ Soils

List Description Below

**DESCRIPTION**

Cont. Soil  
<22 yd Celiche>

Volume of Material ☐ Bbls. \_\_\_\_\_ ☐ Yard 22 ☐ Gallons \_\_\_\_\_☐ Wash Out☐ Call Out☐ After Hours☐ Debris Charge**This statement applicable to exempt waste only.**

I represent and warrant that the wastes are: generated from oil and gas exploration and production operations: exempt from Resource Conservation and Recover Act (RCRA) Subtitle C Regulations; and not mixed with non-exempt wastes.

Agent \_\_\_\_\_  
(Signature)CRI Representative [Signature]  
(Signature)**TANK BOTTOMS**

	Feet	Inches			
1st Gauge			BBLS Received		BS&W %
2nd Gauge			Free Water		
Received			Total Received		

White - CRI

Canary - CRI Accounting

Pink - CRI Plant

64087  
75  
Gold - Transporter

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Address \_\_\_\_\_

Company/Generator B.T. Hobbs Yard

Lease Name \_\_\_\_\_

Trucking Company MCA/HBBVehicle Number 21Driver (Print) HOWARDDate 4/28/05Time 2:45 a.m. (p.m.)**Type of Material**☐ Exempt☐ Tank Bottoms☐ Fluids☐ Non-Exempt

C117 \_\_\_\_\_

☐ Other Material

C138 \_\_\_\_\_

☐ Soils

List Description Below

**DESCRIPTION**22 yds BACK FILL  
CRUISE

Volume of Material

☐ Bbls. \_\_\_\_\_☒ Yard 22 yds☐ Gallons \_\_\_\_\_☐ Wash Out☐ Call Out☐ After Hours☐ Debris Charge**This statement applicable to exempt waste only.**

I represent and warrant that the wastes are: generated from oil and gas exploration and production operations; exempt from Resource Conservation and Recover Act (RCRA) Subtitle C Regulations; and not mixed with non-exempt wastes.

Agent [Signature]

(Signature)

CRI Representative [Signature]

(Signature)

**TANK BOTTOMS**

	Feet	Inches		
1st Gauge			BBLS Received	BS&W %
2nd Gauge			Free Water	
Received			Total Received	

White - CRI

Canary - CRI Accounting

Pink - CRI Plant

Gold - Transporter

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Bill to CR

Address \_\_\_\_\_

Company/Generator \_\_\_\_\_

Lease Name BJ Hobbs YardTrucking Company M. C. NABRVehicle Number 21Driver (Print) HOWARDDate 4/28/05

Time \_\_\_\_\_

a.m. / p.m. (p.m.)**Type of Material**☐ Exempt☐ Tank Bottoms☐ Fluids☐ Non-Exempt

C117 \_\_\_\_\_

☐ Other Material

C138 \_\_\_\_\_

☐ Soils

List Description Below

**DESCRIPTION**22 yds BACK FILL  
CRACKLE

Volume of Material

☐ Bbls. \_\_\_\_\_☒ Yard 22☐ Gallons \_\_\_\_\_☐ Wash Out☐ Call Out☐ After Hours☐ Debris Charge**This statement applicable to exempt waste only.**

I represent and warrant that the wastes are: generated from oil and gas exploration and production operations; exempt from Resource Conservation and Recover Act (RCRA) Subtitle C Regulations; and not mixed with non-exempt wastes.

Agent David M. Mow

(Signature)

CRI Representative David Joe

(Signature)

**TANK BOTTOMS**

	Feet	Inches		
1st Gauge			BBLS Received	BS&W %
2nd Gauge			Free Water	
Received			Total Received	

White - CRI

Canary - CRI Accounting

Pink - CRI Plant

64102

Gold - Transporter

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Bill to \_\_\_\_\_

Address \_\_\_\_\_

Company/Generator BJ'SLease Name Jewell Line LeakTrucking Company M. Nabb Vehicle Number M10 Driver (Print) MalvinDate 4/29/05 Time 4:50 a.m. / (p.m.)**Type of Material**☐ Exempt☐ Tank Bottoms☐ Fluids☐ Non-Exempt

C117 \_\_\_\_\_

☐ Other Material

C138 \_\_\_\_\_

☐ Soils

List Description Below

**DESCRIPTION**Cont SoilVolume of Material ☐ Bbls. \_\_\_\_\_ ☒ Yard 22 ☐ Gallons \_\_\_\_\_☐ Wash Out☐ Call Out☐ After Hours☐ Debris Charge**This statement applicable to exempt waste only.**

I represent and warrant that the wastes are: generated from oil and gas exploration and production operations: exempt from Resource Conservation and Recover Act (RCRA) Subtitle C Regulations; and not mixed with non-exempt wastes.

Agent Malvin  
(Signature)CRI Representative Malvin  
(Signature)**TANK BOTTOMS**

	Feet	Inches		
1st Gauge			BBLS Received	BS&W %
2nd Gauge			Free Water	
Received			Total Received	

White - CRI

Canary - CRI Accounting

Pink - CRI Plant

Gold - Transporter

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Bill to \_\_\_\_\_

Address \_\_\_\_\_

Company/Generator BJ'SLease Name Sewer Line LeakTrucking Company McNabb Vehicle Number M21 Driver (Print) HowardDate 4/28/05 Time \_\_\_\_\_ a.m. / p.m.**Type of Material**☐ Exempt☐ Tank Bottoms☐ Fluids☐ Non-Exempt

C117 \_\_\_\_\_

☐ Other Material

C138 \_\_\_\_\_

☐ Soils

List Description Below

**DESCRIPTION**Cont. Soil<22 yd Caliche>Volume of Material ☐ Bbls. \_\_\_\_\_ ☒ Yard 22 ☐ Gallons \_\_\_\_\_☐ Wash Out☐ Call Out☐ After Hours☐ Debris Charge**This statement applicable to exempt waste only.**

I represent and warrant that the wastes are: generated from oil and gas exploration and production operations; exempt from Resource Conservation and Recover Act (RCRA) Subtitle C Regulations; and not mixed with non-exempt wastes.

Agent Howard McNabb  
(Signature)CRI Representative [Signature]  
(Signature)**TANK BOTTOMS**

	Feet	Inches		
1st Gauge			BBLS Received	BS&W %
2nd Gauge			Free Water	
Received			Total Received	

White - CRI

Canary - CRI Accounting

Pink - CRI Plant

Gold - Transporter

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Bill to \_\_\_\_\_

Address \_\_\_\_\_

Company/Generator BJ'SLease Name Sewer Line LeakTrucking Company McNabb Vehicle Number M10 Driver (Print) MalvinDate 4/29/05 Time 3:05 a.m. / (p.m.)**Type of Material**☐ Exempt☐ Tank Bottoms☐ Fluids☐ Non-Exempt

C117 \_\_\_\_\_

☐ Other Material

C138 \_\_\_\_\_

☐ Soils

List Description Below

**DESCRIPTION**Cont. Soil< 22 yd Colichep >Volume of Material ☐ Bbls. \_\_\_\_\_ ☒ Yard 22 ☐ Gallons \_\_\_\_\_☐ Wash Out☐ Call Out☐ After Hours☐ Debris Charge**This statement applicable to exempt waste only.**

I represent and warrant that the wastes are: generated from oil and gas exploration and production operations: exempt from Resource Conservation and Recover Act (RCRA) Subtitle C Regulations; and not mixed with non-exempt wastes.

Agent \_\_\_\_\_  
(Signature)CRI Representative [Signature]  
(Signature)**TANK BOTTOMS**

	Feet	Inches		
1st Gauge			BBLS Received	BS&W %
2nd Gauge			Free Water	
Received			Total Received	

White - CRI

Canary - CRI Accounting

Pink - CRI Plant

Gold - Transpver

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Bill to \_\_\_\_\_

Address \_\_\_\_\_

Company/Generator BJ'SLease Name SPWAR Line ParkTrucking Company McNabb's Vehicle Number 110 Driver (Print) MalvinDate 4/2 Time 1:00 a.m. / p.m. (p.m.)**Type of Material**☐ Exempt☐ Tank Bottoms☐ Fluids☐ Non-Exempt

C117 \_\_\_\_\_

☐ Other Material

C138 \_\_\_\_\_

☐ Soils

List Description Below

**DESCRIPTION**Cont Soil22 yd CalicheVolume of Material ☐ Bbls. \_\_\_\_\_ ☒ Yard 22 ☐ Gallons \_\_\_\_\_☐ Wash Out☐ Call Out☐ After Hours☐ Debris Charge**This statement applicable to exempt waste only.**

I represent and warrant that the wastes are: generated from oil and gas exploration and production operations; exempt from Resource Conservation and Recover Act (RCRA) Subtitle C Regulations; and not mixed with non-exempt wastes.

Agent \_\_\_\_\_  
(Signature)CRI Representative [Signature]  
(Signature)**TANK BOTTOMS**

	Feet	Inches			
1st Gauge			BBLS Received		BS&W %
2nd Gauge			Free Water		
Received			Total Received		

White - CRI

Canary - CRI Accounting

Pink - CRI Plant

Gold - Transporter

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81

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Bill to \_\_\_\_\_

Address \_\_\_\_\_

Company/Generator BJ'SLease Name Sewer Line LeakTrucking Company M Hobbs Vehicle Number M 21 Driver (Print) HowardDate 4/29/05 Time 2:15 a.m. / (p.m.)**Type of Material**☐ Exempt☐ Tank Bottoms☐ Fluids☐ Non-Exempt

C117 \_\_\_\_\_

☐ Other Material

C138 \_\_\_\_\_

☐ Soils

List Description Below

**DESCRIPTION**Cont Soil22 yd CalicheVolume of Material ☐ Bbls. \_\_\_\_\_ ☒ Yard 22 ☐ Gallons \_\_\_\_\_☐ Wash Out☐ Call Out☐ After Hours☐ Debris Charge**This statement applicable to exempt waste only.**

I represent and warrant that the wastes are: generated from oil and gas exploration and production operations; exempt from Resource Conservation and Recover Act (RCRA) Subtitle C Regulations; and not mixed with non-exempt wastes.

Agent [Signature]  
(Signature)CRI Representative [Signature]  
(Signature)**TANK BOTTOMS**

	Feet	Inches		
1st Gauge			BBLS Received	BS&W %
2nd Gauge			Free Water	
Received			Total Received	

White - CRI

Canary - CRI Accounting

Pink - CRI Plant

Gold - Transporter

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82

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Bill to \_\_\_\_\_

Address \_\_\_\_\_

Company/Generator BJ'SLease Name Sewer line leakTrucking Company McNabb Vehicle Number M21 Driver (Print) HowardDate 4/29/05 Time 12:00 a.m./p.m. (p.m.)**Type of Material**☐ Exempt☐ Tank Bottoms☐ Fluids☐ Non-Exempt

C117 \_\_\_\_\_

☐ Other Material

C138 \_\_\_\_\_

☐ Soils

List Description Below

**DESCRIPTION**Cent. Soil122 yd CalicheVolume of Material ☐ Bbls. \_\_\_\_\_ ☒ Yard 22 ☐ Gallons \_\_\_\_\_☐ Wash Out☐ Call Out☐ After Hours☐ Debris Charge**This statement applicable to exempt waste only.**

I represent and warrant that the wastes are: generated from oil and gas exploration and production operations; exempt from Resource Conservation and Recover Act (RCRA) Subtitle C Regulations; and not mixed with non-exempt wastes.

Agent [Signature]  
(Signature)CRI Representative [Signature]  
(Signature)**TANK BOTTOMS**

	Feet	Inches		
1st Gauge			BBLS Received	BS&W %
2nd Gauge			Free Water	
Received			Total Received	

White - CRI

Canary - CRI Accounting

Pink - CRI Plant

Gold - Transponder

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Bill to \_\_\_\_\_

Address \_\_\_\_\_

Company/Generator BTLease Name Sewer Line LeakTrucking Company M. Nally Vehicle Number M10 Driver (Print) MalvinDate 4 29 05 Time 1110 a.m. / p.m.**Type of Material**☐ Exempt☐ Tank Bottoms☐ Fluids☐ Non-Exempt

C117 \_\_\_\_\_

☒ Other Material

C138 \_\_\_\_\_

☒ Soils OCD

List Description Below

**DESCRIPTION**

Caticle Baderill cont Soil

Volume of Material ☐ Bbls. \_\_\_\_\_ ☒ Yard 22 ☐ Gallons \_\_\_\_\_☐ Wash Out☐ Call Out☐ After Hours☐ Debris Charge**This statement applicable to exempt waste only.**

I represent and warrant that the wastes are: generated from oil and gas exploration and production operations; exempt from Resource Conservation and Recover Act (RCRA) Subtitle C Regulations; and not mixed with non-exempt wastes.

Agent [Signature]  
(Signature)CRI Representative [Signature]  
(Signature)**TANK BOTTOMS**

	Feet	Inches	BBLS Received	BS&W	%
1st Gauge					
2nd Gauge			Free Water		
Received			Total Received		

White - CRI

Canary - CRI Accounting

Pink - CRI Plant

641.38  
84

Gold - Transponder

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Bill to \_\_\_\_\_

Address \_\_\_\_\_

Company/Generator AJ'SLease Name SEWER LINE LEAKTrucking Company McNabb's Vehicle Number M10 Driver (Print) MalvinDate 4/29/05 Time 9:15 a.m./p.m.**Type of Material**☐ Exempt☐ Tank Bottoms☐ Fluids☐ Non-Exempt

C117 \_\_\_\_\_

☐ Other Material

C138 \_\_\_\_\_

☐ Soils

List Description Below

**DESCRIPTION**Cont. Spill(20 yd Coliche)Volume of Material ☐ Bbls. \_\_\_\_\_ ☒ Yard 22 ☐ Gallons \_\_\_\_\_☐ Wash Out☐ Call Out☐ After Hours☐ Debris Charge**This statement applicable to exempt waste only.**

I represent and warrant that the wastes are: generated from oil and gas exploration and production operations: exempt from Resource Conservation and Recover Act (RCRA) Subtitle C Regulations; and not mixed with non-exempt wastes.

Agent Malvin  
(Signature)CRI Representative J. Wallace  
(Signature)**TANK BOTTOMS**

	Feet	Inches			
1st Gauge			BBLS Received		BS&W %
2nd Gauge			Free Water		
Received			Total Received		

White - CRI

Canary - CRI Accounting

Pink - CRI Plant

Gold - Transporter

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Bill to \_\_\_\_\_

Address \_\_\_\_\_

Company/Generator BJ'SLease Name Sewer Line LeakTrucking Company M. Hobbs Vehicle Number M 21 Driver (Print) HowardDate 4/29/05 Time 10:30 a.m. / p.m.**Type of Material**☐ Exempt☐ Tank Bottoms☐ Fluids☐ Non-Exempt

C117 \_\_\_\_\_

☐ Other Material

C138 \_\_\_\_\_

☐ Soils

List Description Below

**DESCRIPTION**Cont. So. 1< 22 yd Caliche >Volume of Material ☐ Bbls. \_\_\_\_\_ ☒ Yard 22 ☐ Gallons \_\_\_\_\_☐ Wash Out☐ Call Out☐ After Hours☐ Debris Charge**This statement applicable to exempt waste only.**

I represent and warrant that the wastes are: generated from oil and gas exploration and production operations: exempt from Resource Conservation and Recover Act (RCRA) Subtitle C Regulations; and not mixed with non-exempt wastes.

Agent [Signature] [Signature]  
(Signature)CRI Representative [Signature]  
(Signature)**TANK BOTTOMS**

	Feet	Inches		
1st Gauge			BBLS Received	BS&W %
2nd Gauge			Free Water	
Received			Total Received	

White - CRI

Canary - CRI Accounting

Pink - CRI Plant

Gold - Transporter

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Bill to \_\_\_\_\_

Address \_\_\_\_\_

Company/Generator BJ'SLease Name Sewer Line LeakTrucking Company McNabb Vehicle Number MD1 Driver (Print) HowardDate 4/29/05 Time 8:00 (a.m.) / p.m.**Type of Material**☐ Exempt☐ Tank Bottoms☐ Fluids☐ Non-Exempt

C117 \_\_\_\_\_

☐ Other Material

C138 \_\_\_\_\_

☐ Soils

List Description Below

**DESCRIPTION**Cont Soil<22 yd Caliche>Volume of Material ☐ Bbls. \_\_\_\_\_ ☒ Yard 22 ☐ Gallons \_\_\_\_\_☐ Wash Out☐ Call Out☐ After Hours☐ Debris Charge**This statement applicable to exempt waste only.**

I represent and warrant that the wastes are: generated from oil and gas exploration and production operations; exempt from Resource Conservation and Recover Act (RCRA) Subtitle C Regulations; and not mixed with non-exempt wastes.

Agent Howard McNabb Sr.  
(Signature)CRI Representative [Signature]  
(Signature)**TANK BOTTOMS**

	Feet	Inches			
1st Gauge			BBLS Received		BS&W %
2nd Gauge			Free Water		
Received			Total Received		

White - CRI

Canary - CRI Accounting

Pink - CRI Plant

64127  
87

Gold - Transporter

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Bill to \_\_\_\_\_

Address \_\_\_\_\_

Company/Generator BT'S

Lease Name Sewer Line Leak

Trucking Company McNabb Vehicle Number 1110 Driver (Print) Malvin

Date 4/29/05 Time 7:20 a.m./p.m.

## Type of Material

☐ Exempt

☐ Tank Bottoms

☐ Fluids

☐ Non-Exempt

C117 \_\_\_\_\_

☐ Other Material

C138 \_\_\_\_\_

☐ Soils

List Description Below

## DESCRIPTION

Cont. Soil  
<22 yd Caliche>

Volume of Material ☐ Bbls. \_\_\_\_\_ ☒ Yard 22 ☐ Gallons \_\_\_\_\_

☐ Wash Out

☐ Call Out

☐ After Hours

☐ Debris Charge

**This statement applicable to exempt waste only.**

I represent and warrant that the wastes are: generated from oil and gas exploration and production operations; exempt from Resource Conservation and Recover Act (RCRA) Subtitle C Regulations; and not mixed with non-exempt wastes.

Agent [Signature]  
(Signature)

CRI Representative [Signature]  
(Signature)

## TANK BOTTOMS

	Feet	Inches			
1st Gauge			BBLS Received		BS&W %
2nd Gauge			Free Water		
Received			Total Received		

White - CRI

Canary - CRI Accounting

Pink - CRI Plant

Gold - Transporter

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**Site Remediation Report**  
**for**  
**Effluent Water Release from Damaged Wash Bay Sewer Line**  
**at**  
**BJ Service Truck Yard**  
**2708 West County Road**  
**Hobbs, New Mexico 88240**

**Prepared for:**

**BJ Services Company, USA**  
**2708 West County Road**  
**Hobbs, New Mexico 88240**

**Submitted to:**

**State of New Mexico**  
**Energy, Minerals and Natural Resources Department**  
**Oil Conservation Division**

**Prepared by:**

**TECH Environmental & Safety Solutions, Inc.**  
**P.O. Box 8469**  
**Midland, Texas 70708**  
**(432) 563-2200**

**TECH Project No. 016-257-M**  
**Issue Date: February 15, 2005**



February 16, 2005

Jason S. Goodwin  
HSE Specialist  
BJ Services Company, U.S.A.  
11211 FM 2920  
Tomball, TX 77375

Wayne Price  
Environmental Engineer  
Oil Conservation Division – District 4  
1220 S. St. Francis Dr.  
Santa Fe, NM 87505

Larry Johnson  
Environmental Engineer  
Oil Conservation Division – District 1  
1625 N. French Dr.  
Hobbs, NM 88240

**RE: Site Remediation Report  
Effluent Water Release from Damaged Wash Bay Sewer Line  
BJ Services Truck Yard  
2708 West County Road  
Hobbs, NM 88240**

Gentlemen:

For each addressee, enclosed please find one (1) copy of the referenced report.

Choice regards,

Dr. Hoy Bryson, PG, CEP  
Senior Environmental Scientist

ENCLOSURE



**Site Remediation Report**  
**for**  
**Effluent Water Release from Damaged Wash Bay Sewer Line**  
**at**  
**BJ Service Truck Yard**  
**2708 West County Road**  
**Hobbs, New Mexico 88240**

**Prepared for:**

**BJ Services Company, USA**  
**2708 West County Road**  
**Hobbs, New Mexico 88240**

**Submitted to:**

**State of New Mexico**  
**Energy, Minerals and Natural Resources Department**  
**Oil Conservation Division**

**Prepared by:**

**TECH Environmental & Safety Solutions, Inc.**  
**P.O. Box 8469**  
**Midland, Texas 70708**  
**(432) 563-2200**

**TECH Project No. 016-257-M**  
**Issue Date: February 15, 2005**

## Table of Contents

1.0	Executive Summary .....	3
2.0	Introduction.....	4
2.1.	Description of Release .....	4
2.2.	Initial Response Actions .....	4
3.0	Site Assessment Activities.....	5
3.1.	Initial Observations.....	5
3.2.	Impact Characterization Sampling.....	6
4.0	Delineation Investigations .....	8
4.1.	Area 1 .....	8
4.2.	Area 2.....	8
4.3.	Background Sampling.....	9
4.4.	Analytical Laboratory Results Summary.....	9
5.0	Remediation Activities.....	10
5.1.	Excavation and Removal of Contaminated Soils.....	10
5.2.	Confirmation Sampling.....	10
5.3.	Discussion of Confirmation Sampling Results.....	11
5.4.	Additional Remediation Activities at Area 1 .....	12
5.5.	Backfilling Area 1 and Area 2 Excavation trenches .....	124
6.0	Conclusions.....	15

### Appendices

A	Location Map
B	Site Photographs
C	Area 1 and Area 2 Locations
D	Soil Sampling Locations
E	Analytical Laboratory Reports
F	Non-Hazardous Waste Manifests

## 1.0 Executive Summary

BJ Services Company, USA ("BJ Services"), located at 2708 West County Road, Hobbs, New Mexico 88240, discovered a release of wash bay effluent waters on July 9, 2004. A 4-inch diameter buried PVC sewer line (the "sewer line") drains effluent waters from BJ Services' truck wash bay and sanitary sewer to the City of Hobbs Publicly Owned Treatment Works ("POTW"). Based on observations made by Etech and BJ Services, the wastewater release emanated from a damaged cleanout (N32° 43.985', W103° 9.666') associated with the sewer line. Initial observations indicated that truck traffic along the oilfield service road was the most probable cause of the break.

Effluent waters from the cleanout flowed approximately 155 feet in a northerly direction from the break, following the east side of the adjacent oilfield road. From there the effluent waters drained away from the road in a northeasterly direction where they accumulated in a large shallow depression, measuring approximately 52 by 85 feet.

Initial response actions included immediate repair of the sewer line to stop the flow from the source, and contacting the New Mexico Oil Conservation Division ("NMOCD"). BJ Services then proceeded to provide for assessment and remediation of impacts to environmental media.

Etech Environmental & Safety Solutions, Inc. ("Etech") was contracted by BJ Services to conduct site assessment and remediation activities. Etech determined the vertical and horizontal extent of contamination. Contaminated soils were excavated, removed and properly disposed. Confirmation sampling of soils in the excavations was conducted to ascertain that all soils impacted by the release of effluent water from the damaged sewer line had been removed.

Based on the results of investigations and remedial activities conducted the following conclusions may be drawn:

- All soils potentially contaminated by the release of effluent waters from the damaged sewer pipe were excavated, removed and properly disposed from Area 1 and Area 2.
- Area 2 and, in part, Area 1 were determined to have experienced historical soils contamination by petroleum hydrocarbons and produced water (brine), probably from nearby petroleum E&P operations.
- No further remedial action is warranted to address impacts associated with the wastewater release, therefore BJ Services requests closure without further action.

## **2.0 Introduction / Background**

This report summarizes investigation and remediation activities conducted July 09, 2004 through December 10, 2004 by Etech Environmental & Safety Solutions, Inc. ("Etech") on behalf of BJ Services Company, USA (BJ Services), at the facility located at 2708 West County Road, Hobbs, New Mexico. These field activities were performed to characterize and properly remediate impacted soils associated with a wastewater release.

In early 1997, BJ Services contracted the construction of a 4 inch PVC sewer line that runs west-to-east from the rear of BJ Services' facility, extending east approximately 5,000 feet across property currently owned by the College of the Southwest (formerly owned by Wallach Concrete). The sewer line discharges truck washbay water and sanitary sewer into the City of Hobbs municipal sewer line.

On July 09, 2004, BJ Services was notified by Mr. Robert Wallach of Wallach Concrete that a break in the sewer line had occurred and was visible at ground surface. BJ Services immediately met with the City of Hobbs, and subsequently verbally notified the New Mexico Oil Conservation Division ("NMOCD"), following-up with the requested "Release Notification and Corrective Action" report. BJ Services also notified Ms. Dean Mooney, College of the Southwest, on July 9, 2004, advising that the break had occurred and steps were being taken to clean up the release.

### **2.1 Description of Release**

A 4-inch diameter, buried PVC sewer line (the "sewer line") drains effluent waters from BJ Services' truck wash bay and sanitary sewer to the City of Hobbs municipal sewer line. Based on observations made by Etech and BJ Services, the wastewater release emanated from a damaged cleanout (N32° 43.985', W103° 9.666') associated with the sewer line. Initial observations indicated that truck traffic along the oilfield service road was the most probable cause of the break.

Effluent waters from the cleanout flowed approximately 155 feet in a northerly direction from the break, following the east side of the adjacent oilfield road. From there the effluent waters drained away from the road in a northeasterly direction where the waters accumulated in a large shallow depression, measuring approximately 52 by 85 feet. This depression was located in the vicinity of an active oil & gas production site, and the depression exhibited indications of having been the former site of a reserve pit.

### **2.2 Initial Response Actions**

Initial response actions included immediate repair of the sewer line to stop the flow from the source, and contacting NMOCD. BJ Services then proceeded to provide for assessment and remediation of impacts to environmental media.

### 3.0 Site Assessment Activities

Etech Environmental & Safety Solutions, Inc. ("Etech") was contracted by BJ Services to conduct site assessment and remediation activities.

#### 3.1. Initial Observations

Etech arrived at the site (See Appendix A, Location Map) on July 9, 2004, finding that the break in the sewer pipe had been repaired. No effluent waters were escaping from the repaired sewer pipe (See Appendix B, Site Photographs). Accumulated effluent waters were observed in two areas, described as follows (See Appendix C. Area 1 and Area 2 Locations.):

##### Area 1. Adjacent to oilfield service road.

Length of area:	Approximately 115 feet
Average width of area:	Approximately 9 feet
Average depth of water:	Approximately 6 inches

##### Area 2. Depression located northeast of Area 1.

Length of area:	Approximately 85 feet
Width of area:	Approximately 52 feet
Maximum depth of water:	Approximately 1 – 2 feet.

Surface impacts from the release of effluent waters from BJ Services' sewer line appeared to be confined to these two areas. No impacts beyond these two areas were observed. There were no indications of hydrocarbons associated with the effluent waters, and no surface sheen was observed at either area.

Other observations at the site suggested that previous environmental impacts, not associated with BJ Services, may have occurred prior to release of effluent waters from BJ Services' sewer line. These putative impacts are described, as follows:

- A salt-like crust was observed around the pool of effluent waters in the depression area (Area 2). This crusting was above the elevation of the highest water line achieved by the effluent waters. This suggests that the area may have received significant quantities of produced water from the nearby oil well and associated facilities – in the past, prior to the present spill of effluent waters.

- Significant spills and releases of petroleum hydrocarbons were observed on surface soils around oilfield installations at the site -- including tanks, pipes and valves.
- Positioned immediately south of the effluent waters release point is a large, inactive, apparently unlined, square-shaped impoundment feature. (See Appendix C. Area 1 and Area 2 Locations.) This impoundment feature appears to have been utilized historically to support petroleum exploration and production activities. It is possible this impoundment feature may have contained produced brines and/or petroleum hydrocarbons at various times.

### **3.2. Impact Characterization Sampling**

In consultation with Mr. Johnson of the NMOCD, it was determined that a single composite sample of impacted soils would be collected for analyses to initially characterize soil impact. The intent was to ascertain whether any chemicals of concern ("COC") were present at regulated concentrations in the soils. Four (4) soil sampling locations were selected in Area 1, in moist soils immediately above the accumulated water line (See Appendix D. Soil Sampling Locations.) Surface soil samples were collected at each of the four locations. These samples were carefully blended together to form a single composite sample. This soil sample was submitted to an analytical laboratory for determination of the following analytical parameters (See Appendix E. Analytical Laboratory Reports.):

#### **Hydrocarbons (EPA Method 8015)**

- Gasoline-range organics (GRO) (C6-C12)
- Diesel-range organics (DRO) (C12-C35)
- Total Hydrocarbon (TPH) (C6-C35)

#### **Total RCRA Metals (EPA Methods 6010B/7471)**

- Silver (Ag)
- Mercury (Hg)
- Arsenic (As)
- Barium (Ba)
- Cadmium (Cd)
- Chromium (Cr)
- Lead (Pb)
- Selenium (Se)

The following summarizes results for those analyses:

<b>TABLE 1. Analytical Summary from Initial Characterization Soil Sample</b>				
<b>Hydrocarbons</b>				
<b>(mg/Kg)</b>				
<b>Sample ID</b>	<b>Date</b>	<b>GRO</b>	<b>DRO</b>	<b>TPH</b>
Composite soil	07/15/04	408	7,060	7,470
NMOCD action levels <sup>1</sup>		100	100	100
<b>Total RCRA Metals</b>				
<b>(mg/Kg)</b>				
<b>Sample</b>	<b>Date</b>	<b>Metal</b>	<b>Concentration</b>	<b>RCRA Metals Maxima<sup>3</sup></b>
Composite soil	07/15/04	Silver	<0.250	<0.5
		Mercury	<0.500	0.06
		Arsenic	3.24	5.8
		Barium	139	727
		Cadmium	1.77	<11
		Chromium	10.8	55
		Lead	3.12	17
		Selenium	<0.200	0.28

Concentrations highlighted in yellow indicate values in excess of NMOCD guidelines.

(NOTE: No RCRA metals concentrations exceed published values for typical concentrations in New Mexico soils <sup>2</sup>.)

Based on the results reported above, BJ Services determined that remediation activities would be required at the site to address soil impacts associated with the wastewater release. The first encountered groundwater at the site is reported to range from 52 to 54 feet below ground surface (bgs). Based on this information and in conversations with NMOCD, BJ Services established that 100 mg/Kg would be the target concentration for hydrocarbons cleanup at the site.

<sup>2</sup> Guidelines for Remediation of Leaks, Spills and Releases. August 13, 1993. NMOCD.

<sup>3</sup> Specific soils concentration maxima for RCRA metals have not been published for NMOCD-regulated sites. The following publication is a recognized authority concerning concentrations of metals in native soils:

Dragun, James and A. Chiasson. 1991. Elements in North American Soils. Hazardous Materials Control Resources Institute. Greenbelt, Maryland. 230 pp.

## **4.0 Delineation Investigations**

Utilizing a hand-operated soil auger, Etech conducted investigations to ascertain the vertical and horizontal extent of contamination, and to collect confirmation soil samples for analyses.

### **4.1. Area 1**

Etech advanced a soil auger at numerous locations around Area 1 to determine, by visual and olfactory means, the apparent vertical and horizontal extent of contamination in this area. Auger refusal was met at approximately 18 inches bgs throughout Area 1. As observed earlier, it was confirmed that Area 1 measured approximately 9 feet wide by 115 feet long in lateral extent, with the long axis oriented in a general north-south direction along the east side of the oilfield service road. The vertical extent of contamination was observed to be approximately 6 inches bgs for most of the area. However, at the southern extreme of Area 1, near the release point (at the damaged riser pipes), contamination was observed to extend to the auger refusal depth of approximately 18 inches bgs.

Etech collected three (3) soil samples at appropriate depths within Area 1 to confirm contamination concentrations in the impacted soils (See Appendix D. Soil Sampling Locations.) In general these samples were intended to reflect contaminant concentrations at the deepest extent of impacts in the soil profile. Sample results would be used to develop initial remediation protocols for the area.

### **4.2. Area 2**

Etech advanced a soil auger at numerous locations around Area 2 to determine, by visual and olfactory means, the apparent vertical and horizontal extent of contamination in this area. Auger refusal was not met at any location within Area 2 suggesting that the area previously had been excavated. It was determined by these subsurface investigations that Area 2 was roughly an oval-shaped area measuring approximately 50 feet wide by 100 feet long in lateral extent, with the long axis oriented in a general north-south direction – connecting to and positioned generally northeast of Area 1. The vertical extent of contamination was observed to be approximately 6 inches bgs for most of the outer area of the oval, deepening to a maximum of approximately 3 feet bgs near the center of the depression.

Etech collected five (5) soil samples at appropriate depths within Area 2 to confirm contamination concentrations in the impacted soils (See Appendix D. Soil Sampling Locations.) In general these samples were intended to reflect contaminant concentrations at the deepest extent of

impacts in the soil profile. Sample results would be used to develop initial remediation protocols for the area.

#### 4.3. Background Sampling

Etech visited a site located south of and topographically up-gradient from the effluent water release point, that had the appearance of being "undisturbed". At this location a near-surface soil sample was collected, to be analyzed for the metals chromium, lead and arsenic -- in an effort to establish background concentrations for remedial purposes (See Appendix D. Soil Sampling Locations.)

#### 4.4. Analytical Laboratory Results Summary

The nine (9) samples of soils collected in the initial delineation phase of this project were submitted to an analytical laboratory for analyses. (See Appendix E. Analytical Laboratory Reports.): The following summarizes results of those analyses:

<b>TABLE 2. Analytical Summary for Contamination Delineation Soil Samples</b>					
<b>Hydrocarbons</b>					
<b>(mg/Kg)</b>					
<i>Sample ID</i>	<i>Date</i>	<i>GRO</i>	<i>DRO</i>	<i>TPH</i>	
Area 1: North 9" bgs	07/30/04	<10.0	47.5	47.5	
Area 1: Central 6" bgs		<10.0	65.3	65.3	
Area 1: South 1' bgs		J[8.74]	96.3	96.3	
Area 2: Central 3' bgs		24.3	70.1	94.4	
Area 2: North Central 1' bgs		<10.0	<10.0	<10.0	
Area 2: South Central 1' bgs		<10.0	<10.0	<10.0	
Area 2: East Central 1' bgs		<10.0	<10.0	<10.0	
Area 2: West Central 2' bgs		<10.0	<10.0	<10.0	
NMOCD action levels		100	100	100	

J - Detected but below the Reporting Limit; result is an estimated concentration.

(NOTE: Results for all hydrocarbon concentration data fall below NMOCD guidelines.)

<b>TABLE 3. Analytical Summary for Background Soil Sample</b>				
<b>Total RCRA Metals</b>				
<b>(mg/Kg)</b>				
<i>Sample ID</i>	<i>Date</i>	<i>Arsenic</i>	<i>Chromium</i>	<i>Lead</i>
Background	07/30/04	2.22	7.78	<0.555

Based on the results of the foregoing analyses, a remediation scope of work (SOW) was formulated and presented to NMOCD, and verbal approval for that SOW was obtained from NMOCD. As stated previously, the target concentration for hydrocarbons cleanup in soils was to be 100 mg/Kg; and NMOCD further required that chloride concentrations in soils not exceed 250 mg/Kg.

## **5.0 Remediation Activities**

NMOCD gave verbal approval for remediation activities at the site that entailed excavation of contaminated soils from Area 1 and Area 2; disposal of those contaminated soils in a licensed disposal facility; and refilling the excavation trenches back to grade with compacted, uncontaminated soils. Area 1 would be excavated to an approximate depth of 1 foot bgs, and Area 2 would be excavated to an approximate depth of 2 feet bgs. As stated in the Scope of Work, five (5) confirmation soil samples would be collected from each area to be analyzed for hydrocarbon and chloride concentrations.

### **5.1. Excavation and Removal of Contaminated Soils**

Etech arrived at the site on September 20, 2004, to conduct excavation and removal of contaminated soils. Utilizing a tractor-mounted combination backhoe and front-end loader, Area 1 was excavated to an average depth of approximately 1 foot bgs throughout the area. Area 2 was excavated to a depth of approximately 0.5 foot bgs near the terminus, increasing in depth to approximately 3.5 feet bgs at the center of the area.

Excavated contaminated soils were loaded into transports to be transported under manifest to the Lea Land landfill, located approximately 30 miles east of Carlsbad, New Mexico, on US Hwy 62/180, where they were disposed. A total of approximately 600 tons of contaminated soils ultimately were transported and disposed in this manner. (See Appendix F. Non-Hazardous Waste Manifests.)

### **5.2. Confirmation Sampling**

Five (5) confirmation soil samples were collected from each of the two areas (See Appendix D. Soil Sampling Locations.) Samples were collected from appropriate locations in each area. Each sample represented the contamination concentration at the vertical extent of the excavation, at that location.

The ten (10) soil samples collected in this confirmation phase of sampling were submitted to an analytical laboratory for analyses. (See Appendix E. Analytical Laboratory Reports.): The following summarizes results of those analyses:

<b>TABLE 4. Analytical Summary for Confirmation Soil Samples</b> (mg/Kg)					
<b>Sample ID</b>	<b>Date</b>	<b>Chlorides</b>	<b>GRO</b>	<b>DRO</b>	<b>TPH</b>
Area 1: North 8" depth	09/23/04	<u>744</u>	26.1	<u>936</u>	<u>962</u>
Area 1: Central 8" depth		<u>851</u>	<10.0	<u>516</u>	<u>516</u>
Area 1: South Central 2' depth		<u>1,060</u>	<10.0	<10.0	<10.0
Area 1: South SE 2' depth		<u>2,130</u>	<10.0	J[7.50}	<10.0
Area 1: South NW 2' depth		<u>709</u>	16.9	66.3	83.2
Area 2: Central 3.5' depth		<u>2,640</u>	28.5	<u>504</u>	<u>533</u>
Area 2: South Central 6" depth		<u>3,190</u>	35.0	<u>894</u>	<u>929</u>
Area 2: East Central 6" depth		<u>993</u>	<10.0	J[7.58}	<10.0
Area 2: West Central 6" depth		<u>5,320</u>	12.5	<u>394</u>	<u>407</u>
Area 2: North Central 6" depth		<u>6,700</u>	J[8.92}	<u>674</u>	<u>674</u>
NMOCD action levels		250	100	100	100

Concentrations highlighted in yellow indicate values in excess of NMOCD guidelines.

### 5.3. Discussion of Confirmation Sampling Results

#### Area 1

In the delineation phase of this project, samples of soils were collected from the surface soils in immediate contact with the effluent waters. Hydrocarbon concentration results for the delineation phase samples all fell below 100 mg/Kg (See Table 2.) After excavating up to 2 feet bgs in Area 1, samples of soils were collected. It is important to observe that hydrocarbon concentrations in these samples increased significantly as the sampling point approached the suspected former reserve pit (Area 2), rather than decreasing with depth of sampling. This fact strongly supports the notion that hydrocarbon contamination existed in soils in this area prior to the spill of effluent waters from the damaged sewer line.

Despite the clear indications of previous contamination in Area 1, particularly where it approaches Area 2, BJ Services committed to excavating Area 1 to an additional 0.5 foot in depth across the area to remove more contaminated soils.

#### Area 2

In the delineation phase of this project, five (5) soil samples were collected from the near surface in this area. Four (4) of these samples registered hydrocarbon concentration results that were "non-detect". Only the sample collected at the deepest central location in the depression contained hydrocarbons, and that was below 100 mg/Kg (See Table 2.) After excavating up to 3½ feet bgs and removing contaminated soils in

Area 2, another five (5) samples of soils were collected. It is important to observe that hydrocarbon concentrations in these samples increased significantly, with four (4) of these samples having TPH values ranging from 407 to 929 mg/Kg. Again, this fact strongly supports the contention that hydrocarbon contamination existed in soils in this area prior to the spill of effluent waters from the damaged sewer line.

Furthermore, the highly elevated concentrations of chlorides exhibited in soil samples collected in Area 2 during the confirmation phase of the project also argue strongly for the conclusion that the area was the site of a former reserve pit that had received produced water from petroleum E&P operations.

Etech has advised BJ Services that the evidence is strong that Area 2 is the site of an abandoned reserve pit that had received produced fluids including petroleum hydrocarbons and produced water (brine). Etech also believes these contaminants, that are increasingly present with depth, were not a result of the spill of effluent waters from the damaged sewer line.

#### 5.4. Additional Remediation Activities at Area 1

In response to soil sample results collected on September 23, 2004, Etech excavated an additional 6 inches of contaminated soils from Area 1. Following this additional excavation and removal, on October 11, 2004, three (3) confirmation samples of soils were collected from appropriate locations in the deepened excavation at Area 1 (See Appendix D. Soil Sampling Locations.) Each sample represented the contamination concentration at the vertical extent of the excavation, at that location.

The three samples of soils collected in this confirmation phase of sampling were submitted to an analytical laboratory for analyses. (See Appendix E. Analytical Laboratory Reports.): The following summarizes results of those analyses:

<b>TABLE 5. Analytical Summary for Confirmation Soil Samples</b>					
<b>Area 1</b>					
<b>(mg/Kg)</b>					
<b>Sample</b>	<b>Date</b>	<b>Chlorides</b>	<b>GRO</b>	<b>DRO</b>	<b>TPH</b>
Area 1: South	10/13/04	<u>1,020<sup>3</sup></u>	<10.0	<10.0	<10.0
Area 1: Central		160	<10.0	<10.0	<10.0
Area 1: North		<20.0	<10.0	<10.0	<10.0

Concentrations highlighted in yellow indicate values in excess of NMOCD guidelines.

<sup>3</sup>

The result listed for the sample collected in the "south" location in Area 1 – i.e., 1,020 mg/Kg – is thought to have resulted from additional migration of chlorides since the "confirmation" sampling event occurred, almost a month earlier on September 23, 2004. In the intervening period an unusually large quantity of precipitation fell as rainfall.

In response to the results listed above, Etech revisited Area 1 on December 6, 2004, to collect excavation wall samples, a floor sample in the central portion of the excavation, and a background surface soil sample. A total of six (6) samples were collected and submitted to an analytical laboratory for analyses. (See Appendix E. Analytical Laboratory Reports.): The following summarizes results of those analyses:

<b>TABLE 6. Analytical Summary for Delineation Soil Samples Area 1 (mg/Kg Wet)</b>		
<b>Sample</b>	<b>Date</b>	<b>Chlorides</b>
North Wall	12/08/04	189
South Wall		248
East Wall		681
West Wall		236
Floor - Central		<20.0
Background		<20.0

Concentrations highlighted in yellow indicate values in excess of OCD guidelines.

Based on the results of the two sets of analyses presented above, Etech excavated an additional 12 inches of contaminated soils from the south and east walls of the Area 1 trench. Excavated contaminated soils were loaded into transports to be transported under manifest to the Lea Land landfill. Following this additional excavation and removal, on December 10, 2004, a confirmation sample of soils was collected from the east wall of the expanded excavation at Area 1. The sample of soils collected in this confirmation phase of sampling was submitted to an analytical laboratory for analyses. (See Appendix E. Analytical Laboratory Reports.): The following summarizes results of that analysis:

<b>TABLE 7. Analytical Summary for Delineation Soil Sample Area 1 (mg/Kg Wet)</b>		
<b>Sample</b>	<b>Date</b>	<b>Chlorides</b>
East Side	12/16/04	53.2

Based on the results of the above analyses, it was determined that all impacted soils associated with Area 1 and Area 2, resulting from the wastewater release, had been excavated, removed and properly disposed.

### **5.5 Backfilling Area 1 and Area 2 Excavation Trenches**

The excavation trenches at Area 1 and Area 2 were backfilled to grade with clean soil material.

## 6.0 Conclusions

Based on the results of investigations and remedial activities conducted at Area 1 and Area 2, the following conclusions may be drawn:

- All soils potentially contaminated by the release of effluent waters from the damaged sewer pipe were excavated, removed and properly disposed from Area 1 and Area 2.
- Area 2 and, in part, Area 1 were determined to have experienced historical soils contamination by petroleum hydrocarbons and produced water (brine), probably from nearby petroleum E&P operations.
- No further remedial action is warranted to address impacts associated with the wastewater release, therefore BJ Services requests closure without further action.

## **Appendix A**

### **Location Map**



**Appendix B**  
**Site Photographs**

**Photograph Log**

Client: BJ Services Company, USA  
Project Name: Hobbs Yard Wash bay Line Leak

Date: February 14, 2004  
Project Number: 016-257-M



**Photograph 1.** Riser pipes (following repairs) adjacent to Area 1.



**Photograph 2.** Portion of Area 1, soon after release of effluent waters.

**Photograph Log**

Client: BJ Services Company, USA  
Project Name: Hobbs Yard Wash bay Line Leak

Date: February 14, 2004  
Project Number: 016-257-M



**Photograph 3.** Area 2, soon after release of effluent waters.



**Photograph 4.** Oil well pump jack and tank battery, adjacent Area 2.

**Photograph Log**

Client: BJ Services Company, USA  
Project Name: Hobbs Yard Wash bay Line Leak

Date: February 14, 2004  
Project Number: 016-257-M



**Photograph 5.** Trash and debris encountered throughout excavation of Area 2.



**Photograph 6.** Excavation at Area 2.

**Photograph Log**

Client: BJ Services Company, USA  
Project Name: Hobbs Yard Wash bay Line Leak

Date: February 14, 2004  
Project Number: 016-257-M



**Photograph 7.** Excavation of Area 1.



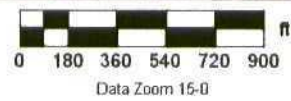
**Photograph 8.** Excavated portion of Area 1.

## Appendix C

### Area 1 and Area 2 Locations



Data use subject to license.  
 © 2004 DeLorme, XMap® 4.5.  
 www.delorme.com



BJ Services Hobbs Yard  
 Wash Bay Sewer Line Break

## **Appendix D**

### **Soil Sampling Locations**

SAMPLE COLLECTION POINTS

- Characterization Sampling (July 15, 2004)
- Delineation Sampling (July 30, 2004)
- Background Sampling (July 30 & December 8, 2004)
- Confirmation Sampling (September 23, 2004)
- Confirmation Sampling (October 13, 2004)
- Confirmation Sampling (December 8, 2004)
- Confirmation Sampling (December 16, 2004)

NOTE: See Tables 1 through 7 for description of soil sampling locations and depths.



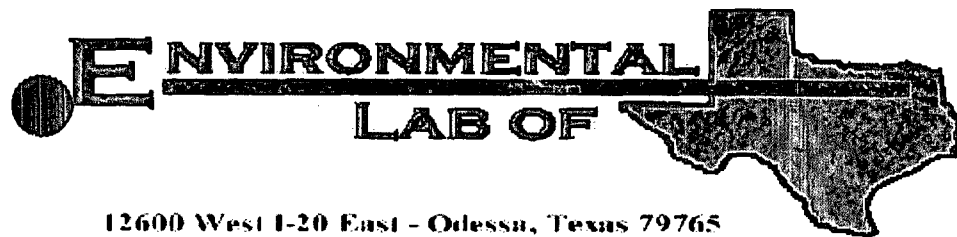
Soil Sampling Locations  
Damaged Wash Bay Sewer Line

BJ Services Company, USA - Truck Yard  
2708 West County Road  
Hobbs, New Mexico 88240



## **Appendix E**

### **Analytical Laboratory Reports**



12600 West I-20 East - Odessa, Texas 79765

## Analytical Report

**Prepared for:**

Share Step

Environmental & Safety Solutions, Inc.

P.O. Box 869

Midland, TX 79708-869

Project: B.J. Walsh Bay Leak

Project Number: 016-257-M

Location: Nore G ven

Lab Order Number: 4009 023

Report Date: 07/15/04

ETech Environmental & Safety Solutions, Inc.  
P.O. Box 8469  
Midland TX 79708-8469

Project: B J . Wis h Bay L eak  
Project Number: 016-257-M  
Project Manager: Share B tep

Fax: 563 -2213  
Reported:  
07/15/04 17:11

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Wis h Bay L i re L eak	4CD9 023 -01	Soi l	07/09 /04 15:3 0	07/09 /04 16:45

ETech Environmental & Safety Solutions, Inc.  
P.O. Box 8469  
Midland TX 79708-8469

Project: B.J. Wash Bay Leak  
Project Number: 016-257-M  
Project Manager: Sharel Stepien

Fax: 563-2213  
Reported:  
07/15/04 17:11

**Organics by GC**  
**Environmental Lab of Texas**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Wash Bay Line Leak (4G09023-01) Soil									
Gasoline Range Organics C6-C12	408	100	mg/kg dry	10	KK1301	07/12/04	07/12/04	EP8015M	
Diesel Range Organics >C12-C35	7060	100	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	7470	100	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		8.54 %		70-130	"	"	"	"	S-06
Surrogate: 1-Chlorooctadecane		10.4 %		70-130	"	"	"	"	S-06

Environmental & Safety Solutions, Inc.  
P.O. Box 8169  
Midland TX 79708-8169

Project: B J . Wash Bay Leak  
Project Number: 016-257-M  
Project Manager: Share Is tep

Fax: 563 -2213  
Reported:  
07/15/04 17:11

**General Chemistry Parameters by EPA / Standard Methods**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Date	Prepared	Analyzed	Method	Notes
Wash Bay Line Leak (4G09023-01) Soil									
% Solids	76.0		%	1	KA 1209	07/10/04	07/12/04	% calculation	

ETech Environmental & Safety Solutions, Inc.  
P.O. Box 8469  
Midland TX 79708-8469

Project: B J . Wash Bay Leak  
Project Number: 016-257-M  
Project Manager: Share B tep

Fax: 563 -2213  
Reported:  
07/15/04 17:11

**Total Metals by EPA / Standard Methods**  
**Environmental Lab of Texas**

Analyte	Res u	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Wash Bay Line Leak (4G09023-01) Soil										
Silver	ND	0.250	mg/kg dry	50	KA1511	07/14/04	07/15/04	EPA6010B		
Mercury	J [0.05263]	0.5000	"	1000	KA1508	07/14/04	07/15/04	7471		
Arsenic	3.24	0.400	"	50	KA1504	07/14/04	07/14/04	EPA6010B		
Barium	139	0.0500	"	"	"	"	"	"		
Cadmium	1.77	0.0500	"	"	"	"	"	"		
Chromium	10.8	0.250	"	"	"	"	"	"		
Lead	3.12	0.550	"	"	"	"	"	"		
Selenium	ND	0.200	"	"	KA1511	"	07/15/04	"		

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M d l a n d T X 79 7088469

Project B J . W s h Bay L eak  
Project Number: 016-257-M  
Project Manager: S hare B tep

Fax: 563 -2213  
Reported:  
07/15/04 17:11

**Organics by GC - Quality Control**  
**Environmental Lab of Texas**

Analyte	Res u	Reporti ng L i m i	U i t s	Spi ke L evel	Sou rce Res u l t	%R E L i m i t s	RHD	RHD L i m i t	Notes
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**Batch EG41301 - Solvent Extraction (GC)**

**Blank (EG41301-BLK1)**

Prepared & Analyzed: 07/12/04

Gas o l i n e Range Organi c s C6-C12	ND	10.0	ng/kg wet						
Di es el Range Organi c s >C12-C35	ND	10.0	"						
Total Hyd rocarbon C6-C35	ND	10.0	"						
Surrogate: 1-Chlorooctane	37.1		mg/kg	50.0		74.2		70-130	
Surrogate: 1-Chlorooctadecane	38.2		"	50.0		76.4		70-130	

**LCS (EG41301-BS1)**

Prepared & Analyzed: 07/12/04

Gas o l i n e Range Organi c s C6-C12	407	10.0	ng/kg wet	500		81.4		75-125	
Di es el Range Organi c s >C12-C35	405	10.0	"	500		81.0		75-125	
Total Hyd rocarbon C6-C35	82	10.0	"	1000		81.2		75-125	
Surrogate: 1-Chlorooctane	44.7		mg/kg	50.0		89.4		70-130	
Surrogate: 1-Chlorooctadecane	39.0		"	50.0		78.0		70-130	

**LCS Dup (EG41301-BSD1)**

Prepared & Analyzed: 07/12/04

Gas o l i n e Range Organi c s C6-C12	406	10.0	ng/kg wet	500		81.2		75-125	0.246 20
Di es el Range Organi c s >C12-C35	471	10.0	"	500		94.2		75-125	15.1 20
Total Hyd rocarbon C6-C35	86	10.0	"	1000		87.6		75-125	7.58 20
Surrogate: 1-Chlorooctane	47.0		mg/kg	50.0		94.0		70-130	
Surrogate: 1-Chlorooctadecane	36.5		"	50.0		73.0		70-130	

**Calibration Check (EG41301-CCV1)**

Prepared & Analyzed: 07/12/04

Gas o l i n e Range Organi c s C6-C12	409		ng/kg	500		81.8		80-120	
Di es el Range Organi c s >C12-C35	490		"	500		98.0		80-120	
Total Hyd rocarbon C6-C35	89		"	1000		89.9		80-120	
Surrogate: 1-Chlorooctane	49.3		"	50.0		98.6		70-130	
Surrogate: 1-Chlorooctadecane	35.0		"	50.0		70.0		70-130	

Environmental & Safety Solutions, Inc.  
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Midland TX 79708-8469

Project: B J . Wash Bay Leak  
Project Number: 016-257-M  
Project Manager: Share B tep

Fax: 563-2213  
Reported:  
07/15/04 17:11

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Environmental Lab of Texas**

Analyte	Res u	Reporting L i m i	U n i t s	S p i k e L e v e l	S o u r c e R e s u l t	% R E C L i m i t s	R H D L i m i t	Notes
<b>Batch EG41209 - General Preparation (Prep)</b>								
<b>Blank (EG41209-BLK1)</b>			Prepared : 07/10/04 Analyzed : 07/12/04					
% Solids	100		%					
<b>Blank (EG41209-BLK2)</b>			Prepared : 07/10/04 Analyzed : 07/12/04					
% Solids	100		%					
<b>Duplicate (EG41209-DUP1)</b>			Source: 4G09022-01	Prepared : 07/10/04 Analyzed : 07/12/04				
% Solids	90.0		%		90.0		0.00 20	
<b>Duplicate (EG41209-DUP2)</b>			Source: 4G09025-01	Prepared : 07/10/04 Analyzed : 07/12/04				
% Solids	92.0		%		92.0		0.00 20	

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Proje c t B J . W s h Bay L e a k  
Proje c t N u m b e r: 016-257-M  
Proje c t M a n a g e r: S h a r e B t e p

Fax: 563 -2213  
Reported:  
07/15/04 17:11

## Total Metals by EPA / Standard Methods - Quality Control

### Environmental Lab of Texas

Anal yte	Res u	Reporti ng L i m i	U n i t s	S p i k e L e v e l	S o u r c e R e s u l t	%R E L i m i t s	R E D L i m i t	Notes
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#### Batch EG41504 - EPA 3050B

##### Blank (EG41504-BLK1)

Prepared & Analyzed : 07/14/04

Ars e n i c	ND	0.00800	ng/kg wet					
B a r i u m	ND	0.00100	"					
C a d m i u m	ND	0.00100	"					
C h r o m i u m	ND	0.00500	"					
L e a d	ND	0.0110	"					

##### LCS (EG41504-BS1)

Prepared & Analyzed : 07/14/04

Ars e n i c	36.4	0.400	ng/kg wet	40.0		91.0	8-115	
B a r i u m	10.4	0.0500	"	10.0		104	8-115	
C a d m i u m	9.54	0.0500	"	10.0		95.4	8-115	
C h r o m i u m	9.8	0.250	"	10.0		98.1	8-115	
L e a d	51.1	0.550	"	50.0		102	8-115	

##### LCS Dup (EG41504-BS1)

Prepared & Analyzed : 07/14/04

Ars e n i c	37.0	0.400	ng/kg wet	40.0		92.5	8-115	1.63 20
B a r i u m	10.4	0.0500	"	10.0		104	8-115	0.00 20
C a d m i u m	9.54	0.0500	"	10.0		95.4	8-115	0.00 20
C h r o m i u m	10.0	0.250	"	10.0		100	8-115	1.92 20
L e a d	50.8	0.550	"	50.0		102	8-115	0.58 20

##### Calibration Check (EG41504-CCV1)

Prepared & Analyzed : 07/14/04

Ars e n i c	1.02		ng/kg	1.00		102	90-110	
B a r i u m	1.00		"	1.00		100	90-110	
C a d m i u m	0.996		"	1.00		99.6	90-110	
C h r o m i u m	1.02		"	1.00		102	90-110	
L e a d	1.03		"	1.00		103	90-110	

##### Matrix Spike (EG41504-MS1)

Source: 4G09023-01

Prepared & Analyzed : 07/14/04

Ars e n i c	47.4	0.400	ng/kg dry	52.6	3.24	81.0	75-125	
B a r i u m	159	0.0500	"	13.2	13.9	152	75-125	
C a d m i u m	12.7	0.0500	"	13.2	1.77	82.8	75-125	
C h r o m i u m	21.9	0.250	"	13.2	10.8	81.1	75-125	
L e a d	58.3	0.550	"	65.8	3.12	83.9	75-125	

QM05

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Page 7 of 12

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P.O. Box 869  
Midland TX 79708-869

Project: B J. Wash Bay Leak  
Project Number: 016-257-M  
Project Manager: Share B tep

Fax: 563-2213  
Reported:  
07/15/04 17:11

**Total Metals by EPA / Standard Methods - Quality Control**  
**Environmental Lab of Texas**

Analyte	Res u	Reporting Lim i	Units	Spi ke L evel	Sou rce Res ult	%R C	%R C Lim i ts	R D	R D Lim i t	Notes
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**Batch EG41504 - EPA 3050B**

Matrix Spike Dup (EG41504-MSD1)		Source: 4G09023-01		Prepared & Analyzed: 07/14/04						
Arsenic	49.4	0.400	ng/kg dry	52.6	3.24	8.8	75-125	4.13	20	
Barium	157	0.0500	"	13.2	13.9	13.6	75-125	1.27	20	QM05
Cadmium	12.6	0.0500	"	13.2	1.77	8.0	75-125	0.791	20	
Chromium	21.8	0.250	"	13.2	10.8	8.3	75-125	0.458	20	
Lead	58.6	0.550	"	65.8	3.12	8.3	75-125	0.513	20	

**Batch EG41505 - EPA 3050B**

Blank (EG41505-BLK1)		Prepared & Analyzed: 07/14/04								
Arsenic	ND	0.00800	ng/kg							
Barium	ND	0.00100	"							
Cadmium	ND	0.00100	"							
Chromium	ND	0.00500	"							
Lead	ND	0.0110	"							
Selenium	ND	0.00400	"							
Silver	ND	0.00500	"							

**LCS (EG41505-BS1)**

		Prepared & Analyzed: 07/14/04								
Arsenic	36.4	0.400	ng/kg	40.0		91.0	8-115			
Barium	10.4	0.0500	"	10.0		104	8-115			
Cadmium	9.54	0.0500	"	10.0		95.4	8-115			
Chromium	9.8	0.250	"	10.0		98.1	8-115			
Lead	51.1	0.550	"	50.0		102	8-115			
Selenium	21.0	0.200	"	20.0		105	8-115			
Silver	4.33	0.250	"	5.00		8.6	8-115			

**LCS Dup (EG41505-BSD1)**

		Prepared & Analyzed: 07/14/04								
Arsenic	37.0	0.00800	ng/kg	40.0		92.5	8-115	1.63	20	
Barium	10.4	0.00100	"	10.0		104	8-115	0.00	20	
Cadmium	9.54	0.00100	"	10.0		95.4	8-115	0.00	20	
Chromium	10.0	0.00500	"	10.0		100	8-115	1.92	20	
Lead	50.8	0.0110	"	50.0		102	8-115	0.58	20	
Selenium	21.9	0.00400	"	20.0		110	8-115	4.20	20	
Silver	4.34	0.00500	"	5.00		8.8	8-115	0.231	20	

Environmental & Safety Solutions, Inc.  
P.O. Box 869  
Midland TX 79708-869

Project: B J. Wish Bay Leak  
Project Number: 016-257-M  
Project Manager: Share B tep

Fax: 563-2213  
Reported:  
07/15/04 17:11

**Total Metals by EPA / Standard Methods - Quality Control**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RHD	RHD Limit	Notes
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**Batch EG41505 - EPA 3050B**

**Calibration Check (EG41505-CCV1)**

Prepared & Analyzed: 07/14/04

Arsenic	1.02		mg/kg	1.00		102	90-110			
Barium	1.00		"	1.00		100	90-110			
Cadmium	0.996		"	1.00		99.6	90-110			
Chromium	1.02		"	1.00		102	90-110			
Lead	1.03		"	1.00		103	90-110			
Selenium	1.00		"	1.00		100	90-110			
Silver	0.549		"	0.500		110	90-110			

**Matrix Spike (EG41505-MS1)**

Source: 4G09023-01RE2

Prepared & Analyzed: 07/14/04

Arsenic	36.0	0.400	mg/kg	40.0	2.46	88.8	75-125			
Barium	121	0.0500	"	10.0	106	150	75-125			QM05
Cadmium	9.63	0.0500	"	10.0	1.34	82.9	75-125			
Chromium	16.6	0.250	"	10.0	8.21	81.9	75-125			
Lead	44.3	0.550	"	50.0	2.37	83.9	75-125			
Selenium	20.8	0.200	"	20.0	ND	104	75-125			
Silver	4.08	0.250	"	5.00	ND	81.6	75-125			

**Matrix Spike Dup (EG41505-MSD1)**

Source: 4G09023-01RE2

Prepared & Analyzed: 07/14/04

Arsenic	37.5	0.400	mg/kg	40.0	2.46	87.6	75-125	4.08	20	
Barium	120	0.0500	"	10.0	106	140	75-125	0.80	20	QM05
Cadmium	9.54	0.0500	"	10.0	1.34	82.0	75-125	0.939	20	
Chromium	16.5	0.250	"	10.0	8.21	82.9	75-125	0.604	20	
Lead	44.5	0.550	"	50.0	2.37	81.3	75-125	0.450	20	
Selenium	21.0	0.200	"	20.0	ND	105	75-125	0.957	20	
Silver	4.14	0.250	"	5.00	ND	82.8	75-125	1.46	20	

**Batch EG41508 - EPA 7471A**

**Blank (EG41508-BLK1)**

Prepared: 07/14/04 Analyzed: 07/15/04

Mercury	ND	0.0005000	ng/kg wet							
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Page 9 of 12

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P.O. Box 8469  
Midland TX 79708-8469

Project: B J . Wash Bay Leak  
Project Number: 016-257-M  
Project Manager: Share B tep

Fax: 563-2213  
Reported:  
07/15/04 17:11

**Total Metals by EPA / Standard Methods - Quality Control**  
**Environmental Lab of Texas**

Analyte	Res u	Reporting L i m i	U n i t s	S p i k e L e v e l	S o u r c e R e s u l t	% R E C L i m i t s	R I D	R I D L i m i t	Notes
<b>Batch EG41508 - EPA 7471A</b>									
<b>LCS (EG41508-BS1)</b>					Prepared: 07/14/04 Analyzed: 07/15/04				
Mercury	0.0575	0.02500	ng/kg wet	0.0500	115	8-115			
<b>LCS Dup (EG41508-BSD1)</b>					Prepared: 07/14/04 Analyzed: 07/15/04				
Mercury	0.0570	0.02500	ng/kg wet	0.0500	114	8-115	0.873	20	
<b>Calibration Check (EG41508-CCV1)</b>					Prepared: 07/14/04 Analyzed: 07/15/04				
Mercury	0.00098		ng/kg	0.00100	980	90-110			
<b>Batch EG41511 - EPA 3050B</b>									
<b>Blank (EG41511-BLK1)</b>					Prepared: 07/14/04 Analyzed: 07/15/04				
Silver	ND	0.00500	ng/kg wet						
Selenium	ND	0.00400	"						
<b>LCS (EG41511-BS1)</b>					Prepared: 07/14/04 Analyzed: 07/15/04				
Selenium	21.0	0.200	ng/kg wet	20.0	105	8-115			
Silver	4.33	0.250	"	5.00	86.6	75-125			
<b>LCS Dup (EG41511-BSD1)</b>					Prepared: 07/14/04 Analyzed: 07/15/04				
Selenium	21.9	0.200	ng/kg wet	20.0	110	8-115	4.20	20	
Silver	4.34	0.250	"	5.00	86.8	75-125	0.231	20	
<b>Calibration Check (EG41511-CCV1)</b>					Prepared: 07/14/04 Analyzed: 07/15/04				
Silver	0.549		ng/kg	0.500	110	90-110			
Selenium	1.00		"	1.00	100	90-110			
<b>Matrix Spike (EG41511-MS1)</b>					Source: 4G09023-01 Prepared: 07/14/04 Analyzed: 07/15/04				
Selenium	27.4	0.200	ng/kg dry	26.3	ND	104	75-125		
Silver	5.37	0.250	"	6.58	ND	86.6	75-125		

ETech Environmental & Safety Solutions, Inc.  
P.O. Box 8469  
Midland TX 79708-8469

Project B J . Wash Bay Leak  
Project Number: 016-257-M  
Project Manager: Share B tep

Fax: 563 -2213  
Reported:  
07/15/04 17:11

**Total Metals by EPA / Standard Methods - Quality Control**  
**Environmental Lab of Texas**

Analyte	Res u	Reporting L i m i	Units	Spike L evel	Source Res u l t	%REC	%REC L i m i t s	RFD	RFD L i m i t	Notes
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**Batch EG41511 - EPA 3050B**

**Matrix Spike Dup (EG41511-MSD1)**

Source: 4G09023-01

Prepared : 07/14/04 Analyzed : 07/15/04

Selenium	27.6	0.200	ng/kg dry	26.3	ND	105	75-125	0.727	20	
Silver	5.45	0.250	"	6.58	ND	8.8	75-125	1.48	20	

ETech Environmental & Safety Solutions, Inc.  
P.O. Box 8469  
Midland TX 79708-8469

Project: B.J. Walsh Bay Leak  
Project Number: 016-257-M  
Project Manager: Share B tep

Fax: 563-2213  
Reported:  
07/15/04 17:11

### Notes and Definitions

S-06 The recovery of this surrogate is outside control limits due to sample dilution required from high analytical concentration and/or matrix interference's.

QM05 The spike recovery was outside acceptable limits for the MS and/or MSD due to matrix interference. The LCS and/or LCS D were within acceptable limits showing that the laboratory is in control and the data is acceptable.

J Detected but below the Reporting Limit; therefore, results are estimated concentration (CLPJ -Flag).

DE Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RID Relative Percent Difference

LCS Laboratory Control Spike

MS Matrix Spike

Dup Duplicate

Report Approved By:

*Raland K. Tuttle*

Date:

7/15/04

Raland K. Tuttle, QA Officer

Gleed D. Keene, Lab Director, Org Tech Director

Jeanne M. Murray, Org Tech Director

Janes L. Hawkins, Chemist/Geologist

Sara Molina, Chemist

Sandra Bexage, Lab Tech

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Environmental Lab of Texas

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Page 12 of 12

# Environmental Lab of Texas

## Variance / Corrective Action Report – Sample Log-In

Client: E Tech Env.

Date/Time: 07-09-04 @ 1700

Order #: 4 G09023

Initials: JMM

### Sample Receipt Checklist

Temperature of container/cooler?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="radio"/> C
Shipping container/cooler in good condition?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Custody Seals intact on shipping container/cooler?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> Not present
Custody Seals intact on sample bottles?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> Not present
Chain of custody present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Sample Instructions complete on Chain of Custody?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Chain of Custody signed when relinquished and received?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Chain of custody agrees with sample label(s)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	NO LABELS - WRITTEN ON LID
Container labels legible and intact?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	NO LABELS - WRITTEN ON LID
Sample Matrix and properties same as on chain of custody?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Samples in proper container/bottle?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Samples properly preserved?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Sample bottles intact?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Preservations documented on Chain of Custody?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Containers documented on Chain of Custody?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Sufficient sample amount for indicated test?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
All samples received within sufficient hold time?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
QC samples have zero headspace?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Not Applicable

Other observations:

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### Variance Documentation:

Contact Person: - \_\_\_\_\_ Date/Time: \_\_\_\_\_ Contacted by: \_\_\_\_\_

Regarding:

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Corrective Action Taken:

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# CHAIN OF CUSTODY RECORD AND ANALYSIS

Project Manager: W. L. S. C.

Company Name Etech Environmental

Company Address: P.O. Box 8469

City/State/Zip: Midland, Tx 79708

Telephone No: 563-2200 Fax No: 563-2213

**Sampler Signature** \_\_\_\_\_

Fax No: 563-2213

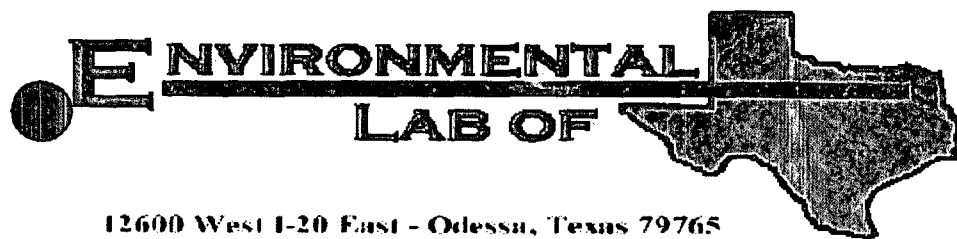
Project Name: B.I. WASH BAY LEAK

Project #: 016-257-M

**Project Loc:**

**PO #:**

[illegible]



12600 West I-20 East - Odessa, Texas 79765

## Analytical Report

**Prepared for:**

Fred Holmes

E Tech Environmental & Safety Solutions, Inc.

P.O. Box 8469

Midland, TX 79708-8469

Project: BJ Hobbs Washbay Line Leak

Project Number: 016-257-M

Location: Hobbs, NM

Lab Order Number: 4G22014

Report Date: 07/30/04

E Tech Environmental & Safety Solutions, Inc.  
P.O. Box 8469  
Midland TX, 79708-8469

Project: BJ Hobbs Washbay Line Leak  
Project Number: 016-257-M  
Project Manager: Fred Holmes

Fax: 563-2213  
Reported:  
07/30/04 12:03

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Area 2 Central 3'	4G22014-01	Soil	07/21/04 11:00	07/22/04 14:15
Area 2 North Central 1'	4G22014-02	Soil	07/21/04 11:15	07/22/04 14:15
Area 2 South Central 1'	4G22014-03	Soil	07/21/04 11:45	07/22/04 14:15
Area 2 East Central 1'	4G22014-04	Soil	07/21/04 11:55	07/22/04 14:15
Area 2 West Central 2'	4G22014-05	Soil	07/21/04 12:25	07/22/04 14:15
Area 1 North 9 in.	4G22014-06	Soil	07/21/04 12:15	07/22/04 14:15
Area 1 Central 6 in.	4G22014-07	Soil	07/21/04 12:30	07/22/04 14:15
Area 1 South #2 1'	4G22014-08	Soil	07/21/04 13:00	07/22/04 14:15
Field 6 in.	4G22014-09	Soil	07/21/04 13:15	07/22/04 14:15

E Tech Environmental & Safety Solutions, Inc.  
P.O. Box 8469  
Midland TX, 79708-8469

Project: BJ Hobbs Washbay Line Leak  
Project Number: 016-257-M  
Project Manager: Fred Holmes

Fax: 563-2213  
Reported:  
07/30/04 12:03

**Organics by GC**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Area 2 Central 3' (4G22014-01) Soil</b>									
Gasoline Range Organics C6-C12	24.3	10.0	mg/kg dry	1	EG42213	07/23/04	07/24/04	EPA 8015M	
Diesel Range Organics >C12-C35	70.1	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	94.4	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		81.2 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		70.0 %	70-130		"	"	"	"	
<b>Area 2 North Central 1' (4G22014-02) Soil</b>									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EG42213	07/23/04	07/24/04	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		82.2 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		71.2 %	70-130		"	"	"	"	
<b>Area 2 South Central 1' (4G22014-03) Soil</b>									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EG42213	07/23/04	07/24/04	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		95.8 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		71.8 %	70-130		"	"	"	"	
<b>Area 2 East Central 1' (4G22014-04) Soil</b>									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EG42213	07/23/04	07/24/04	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		89.4 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		76.2 %	70-130		"	"	"	"	
<b>Area 2 West Central 2' (4G22014-05) Soil</b>									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EG42213	07/23/04	07/24/04	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		87.0 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		72.4 %	70-130		"	"	"	"	

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Fax: 563-2213  
Reported:  
07/30/04 12:03

**Organics by GC**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Area 1 North 9 in. (4G22014-06) Soil</b>									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EG42213	07/23/04	07/24/04	EPA 8015M	
Diesel Range Organics >C12-C35	47.5	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	47.5	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		87.0 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		73.4 %	70-130		"	"	"	"	
<b>Area 1 Central 6 in. (4G22014-07) Soil</b>									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EG42213	07/23/04	07/24/04	EPA 8015M	
Diesel Range Organics >C12-C35	65.3	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	65.3	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		87.8 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		74.0 %	70-130		"	"	"	"	
<b>Area 1 South #2 1' (4G22014-08) Soil</b>									
Gasoline Range Organics C6-C12	J [8.74]	10.0	mg/kg dry	1	EG42213	07/23/04	07/24/04	EPA 8015M	J
Diesel Range Organics >C12-C35	96.3	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	96.3	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		89.6 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		79.2 %	70-130		"	"	"	"	

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Fax: 563-2213  
Reported:  
07/30/04 12:03

**General Chemistry Parameters by EPA / Standard Methods**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Area 2 Central 3' (4G22014-01) Soil</b>									
% Solids	77.0		%	1	EG42604	07/22/04	07/22/04	% calculation	
<b>Area 2 North Central 1' (4G22014-02) Soil</b>									
% Solids	91.0		%	1	EG42604	07/22/04	07/22/04	% calculation	
<b>Area 2 South Central 1' (4G22014-03) Soil</b>									
% Solids	84.0		%	1	EG42604	07/22/04	07/22/04	% calculation	
<b>Area 2 East Central 1' (4G22014-04) Soil</b>									
% Solids	86.0		%	1	EG42604	07/22/04	07/22/04	% calculation	
<b>Area 2 West Central 2' (4G22014-05) Soil</b>									
% Solids	82.0		%	1	EG42604	07/22/04	07/22/04	% calculation	
<b>Area 1 North 9 in. (4G22014-06) Soil</b>									
% Solids	90.0		%	1	EG42604	07/22/04	07/22/04	% calculation	
<b>Area 1 Central 6 in. (4G22014-07) Soil</b>									
% Solids	90.0		%	1	EG42604	07/22/04	07/22/04	% calculation	
<b>Area 1 South #2 1' (4G22014-08) Soil</b>									
% Solids	85.0		%	1	EG42604	07/22/04	07/22/04	% calculation	
<b>Field 6 in. (4G22014-09) Soil</b>									
% Solids	97.0		%	1	EG42604	07/22/04	07/22/04	% calculation	

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Project Number: 016-257-M  
Project Manager: Fred Holmes

Fax: 563-2213  
**Reported:**  
07/30/04 12:03

**Total Metals by EPA / Standard Methods**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Field 6 in. (4G22014-09) Soil</b>									
Arsenic	2.22	0.400	mg/kg dry	50	EG42912	07/23/04	07/28/04	EPA 6010B	
Chromium	7.78	0.250	"	"	"	"	"	"	
Lead	ND	0.550	"	"	"	"	"	"	

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Reported:  
07/30/04 12:03

**Organics by GC - Quality Control**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch EG42213 - Solvent Extraction (GC)**

**Blank (EG42213-BLK1)**

Prepared & Analyzed: 07/23/04

Gasoline Range Organics C6-C12	ND	10.0	mg/kg wet							
Diesel Range Organics >C12-C35	ND	10.0	"							
Total Hydrocarbon C6-C35	ND	10.0	"							
Surrogate: 1-Chlorooctane	41.2		mg/kg	50.0		82.4	70-130			
Surrogate: 1-Chlorooctadecane	37.0		"	50.0		74.0	70-130			

**Blank (EG42213-BLK2)**

Prepared: 07/23/04 Analyzed: 07/24/04

Gasoline Range Organics C6-C12	ND	10.0	mg/kg wet							
Diesel Range Organics >C12-C35	ND	10.0	"							
Total Hydrocarbon C6-C35	ND	10.0	"							
Surrogate: 1-Chlorooctane	38.3		mg/kg	50.0		76.6	70-130			
Surrogate: 1-Chlorooctadecane	38.2		"	50.0		76.4	70-130			

**LCS (EG42213-BS1)**

Prepared & Analyzed: 07/23/04

Gasoline Range Organics C6-C12	415	10.0	mg/kg wet	500		83.0	75-125			
Diesel Range Organics >C12-C35	465	10.0	"	500		93.0	75-125			
Total Hydrocarbon C6-C35	880	10.0	"	1000		88.0	75-125			
Surrogate: 1-Chlorooctane	52.7		mg/kg	50.0		105	70-130			
Surrogate: 1-Chlorooctadecane	37.5		"	50.0		75.0	70-130			

**LCS (EG42213-BS2)**

Prepared: 07/23/04 Analyzed: 07/24/04

Gasoline Range Organics C6-C12	414	10.0	mg/kg wet	500		82.8	75-125			
Diesel Range Organics >C12-C35	459	10.0	"	500		91.8	75-125			
Total Hydrocarbon C6-C35	873	10.0	"	1000		87.3	75-125			
Surrogate: 1-Chlorooctane	49.5		mg/kg	50.0		99.0	70-130			
Surrogate: 1-Chlorooctadecane	35.7		"	50.0		71.4	70-130			

**Calibration Check (EG42213-CCV1)**

Prepared & Analyzed: 07/23/04

Gasoline Range Organics C6-C12	418		mg/kg	500		83.6	80-120			
Diesel Range Organics >C12-C35	480		"	500		96.0	80-120			
Total Hydrocarbon C6-C35	898		"	1000		89.8	80-120			
Surrogate: 1-Chlorooctane	53.4		"	50.0		107	70-130			
Surrogate: 1-Chlorooctadecane	35.8		"	50.0		71.6	70-130			

E Tech Environmental & Safety Solutions, Inc.  
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Fax: 563-2213  
Reported:  
07/30/04 12:03

**Organics by GC - Quality Control**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch EG42213 - Solvent Extraction (GC)</b>										
<b>Calibration Check (EG42213-CCV2)</b>				Prepared: 07/23/04 Analyzed: 07/24/04						
Gasoline Range Organics C6-C12	428		mg/kg	500		85.6	80-120			
Diesel Range Organics >C12-C35	435		"	500		87.0	80-120			
Total Hydrocarbon C6-C35	863		"	1000		86.3	80-120			
Surrogate: 1-Chlorooctane	51.0		"	50.0		102	70-130			
Surrogate: 1-Chlorooctadecane	36.5		"	50.0		73.0	70-130			
<b>Matrix Spike (EG42213-MS1)</b>				Source: 4G22007-01 Prepared & Analyzed: 07/23/04						
Gasoline Range Organics C6-C12	542	10.0	mg/kg dry	568	ND	95.4	75-125			
Diesel Range Organics >C12-C35	613	10.0	"	568	ND	108	75-125			
Total Hydrocarbon C6-C35	1160	10.0	"	1140	ND	102	75-125			
Surrogate: 1-Chlorooctane	52.4		mg/kg	50.0		105	70-130			
Surrogate: 1-Chlorooctadecane	39.0		"	50.0		78.0	70-130			
<b>Matrix Spike (EG42213-MS2)</b>				Source: 4G22020-01 Prepared: 07/23/04 Analyzed: 07/24/04						
Gasoline Range Organics C6-C12	421	10.0	mg/kg dry	500	ND	84.2	75-125			
Diesel Range Organics >C12-C35	510	10.0	"	500	ND	102	75-125			
Total Hydrocarbon C6-C35	931	10.0	"	1000	ND	93.1	75-125			
Surrogate: 1-Chlorooctane	54.3		mg/kg	50.0		109	70-130			
Surrogate: 1-Chlorooctadecane	37.8		"	50.0		75.6	70-130			
<b>Matrix Spike Dup (EG42213-MSD1)</b>				Source: 4G22007-01 Prepared & Analyzed: 07/23/04						
Gasoline Range Organics C6-C12	526	10.0	mg/kg dry	568	ND	92.6	75-125	3.00	20	
Diesel Range Organics >C12-C35	597	10.0	"	568	ND	105	75-125	2.64	20	
Total Hydrocarbon C6-C35	1120	10.0	"	1140	ND	98.2	75-125	3.51	20	
Surrogate: 1-Chlorooctane	54.3		mg/kg	50.0		109	70-130			
Surrogate: 1-Chlorooctadecane	38.8		"	50.0		77.6	70-130			
<b>Matrix Spike Dup (EG42213-MSD2)</b>				Source: 4G22020-01 Prepared: 07/23/04 Analyzed: 07/24/04						
Gasoline Range Organics C6-C12	428	10.0	mg/kg dry	500	ND	85.6	75-125	1.65	20	
Diesel Range Organics >C12-C35	498	10.0	"	500	ND	99.6	75-125	2.38	20	
Total Hydrocarbon C6-C35	926	10.0	"	1000	ND	92.6	75-125	0.539	20	
Surrogate: 1-Chlorooctane	54.4		mg/kg	50.0		109	70-130			
Surrogate: 1-Chlorooctadecane	38.1		"	50.0		76.2	70-130			

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Fax: 563-2213  
**Reported:**  
07/30/04 12:03

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch EG42604 - General Preparation (Prep)</b>										
<b>Blank (EG42604-BLK1)</b>				Prepared & Analyzed: 07/22/04						
% Solids	100		%							
<b>Duplicate (EG42604-DUP1)</b>				Source: 4G22001-01 Prepared & Analyzed: 07/22/04						
% Solids	70.0		%		72.0			2.82	20	

E Tech Environmental & Safety Solutions, Inc.  
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Project Manager: Fred Holmes

Fax: 563-2213  
Reported:  
07/30/04 12:03

**Total Metals by EPA / Standard Methods - Quality Control**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch EG42912 - EPA 3050B</b>										
<b>Blank (EG42912-BLK1)</b>										
Prepared: 07/23/04 Analyzed: 07/28/04										
Lead	ND	0.0110	mg/kg wet							
Chromium	ND	0.00500	"							
Arsenic	ND	0.00800	"							
<b>LCS (EG42912-BS1)</b>										
Prepared: 07/23/04 Analyzed: 07/28/04										
Lead	51.8	0.0110	mg/kg wet	55.0		94.2	85-115			
Chromium	9.94	0.00500	"	10.0		99.4	85-115			
Arsenic	38.2	0.00800	"	40.0		95.5	85-115			
<b>Calibration Check (EG42912-CCV1)</b>										
Prepared: 07/23/04 Analyzed: 07/28/04										
Chromium	1.06		mg/kg	1.00		106	90-110			
Lead	1.05		"	1.00		105	90-110			
Arsenic	1.04		"	1.00		104	0-200			
<b>Matrix Spike (EG42912-MS1)</b>										
Source: 4G22006-01 Prepared: 07/23/04 Analyzed: 07/28/04										
Arsenic	41.4	0.400	mg/kg dry	42.6	1.52	93.6	75-125			
Chromium	16.4	0.250	"	10.6	8.05	78.8	75-125			
Lead	46.6	0.550	"	58.5	ND	79.7	75-125			
<b>Matrix Spike Dup (EG42912-MSD1)</b>										
Source: 4G22006-01 Prepared: 07/23/04 Analyzed: 07/28/04										
Arsenic	41.5	0.400	mg/kg dry	42.6	1.52	93.8	75-125	0.241	20	
Chromium	16.5	0.250	"	10.6	8.05	79.7	75-125	0.608	20	
Lead	45.6	0.550	"	58.5	ND	77.9	75-125	2.17	20	

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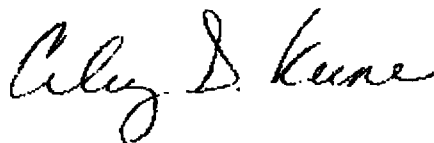
Fax: 563-2213  
**Reported:**  
07/30/04 12:03

### Notes and Definitions

J Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).  
DET Analyte DETECTED  
ND Analyte NOT DETECTED at or above the reporting limit  
NR Not Reported  
dry Sample results reported on a dry weight basis  
RPD Relative Percent Difference  
LCS Laboratory Control Spike  
MS Matrix Spike  
Dup Duplicate

Report Approved By: \_\_\_\_\_

Date: 07/30/04 12:03



Raland K. Tuttle, QA Officer  
Celey D. Keene, Lab Director, Org. Tech Director  
Jeanne Mc Murrey, Inorg. Tech Director

James L. Hawkins, Chemist/Geologist  
Sara Molina, Chemist  
Sandra Biezugbe, Lab Tech.

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If you have received this material in error, please notify us immediately at 432-563-1800.

Environmental Lab of Texas

*The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Environmental Lab of Texas.*

Page 10 of 11

E Tech Environmental & Safety Solutions, Inc.  
P.O. Box 8469  
Midland TX, 79708-8469

Project: BJ Hobbs Washbay Line Leak  
Project Number: 016-257-M  
Project Manager: Fred Holmes

Fax: 563-2213  
**Reported:**  
07/30/04 12:03



# Environmental Lab of Texas

## Variance / Corrective Action Report – Sample Log-In

Client: E Tech Env.

Date/Time: 07-22-04 @ 1530

Order #: 4622014

Initials: JMN

### Sample Receipt Checklist

Temperature of container/cooler?	<input checked="" type="checkbox"/> Yes	No	O.S	C
Shipping container/cooler in good condition?	<input checked="" type="checkbox"/> Yes	No		
Custody Seals intact on shipping container/cooler?	Yes	No	<del>Not present</del>	
Custody Seals intact on sample bottles?	Yes	No	<del>Not present</del>	
Chain of custody present?	<input checked="" type="checkbox"/> Yes	No		
Sample Instructions complete on Chain of Custody?	<input checked="" type="checkbox"/> Yes	No		
Chain of Custody signed when relinquished and received?	<input checked="" type="checkbox"/> Yes	No		
Chain of custody agrees with sample label(s)	Yes	No	NO LABELS - WRITTEN ON LIDS	
Container labels legible and intact?	Yes	No	NO LABELS - WRITTEN ON LIDS	
Sample Matrix and properties same as on chain of custody?	<input checked="" type="checkbox"/> Yes	No		
Samples in proper container/bottle?	<input checked="" type="checkbox"/> Yes	No		
Samples properly preserved?	<input checked="" type="checkbox"/> Yes	No		
Sample bottles intact?	<input checked="" type="checkbox"/> Yes	No		
Preservations documented on Chain of Custody?	<input checked="" type="checkbox"/> Yes	No		
Containers documented on Chain of Custody?	<input checked="" type="checkbox"/> Yes	No		
Sufficient sample amount for indicated test?	<input checked="" type="checkbox"/> Yes	No		
All samples received within sufficient hold time?	<input checked="" type="checkbox"/> Yes	No		
QC samples have zero headspace?	<input checked="" type="checkbox"/> Yes	No	Not Applicable	

Other observations:

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### Variance Documentation:

Contact Person: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Contacted by: \_\_\_\_\_  
Regarding: \_\_\_\_\_

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Corrective Action Taken:

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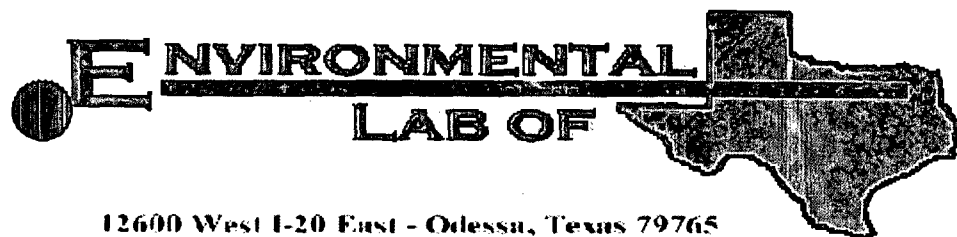
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12600 West I-20 East - Odessa, Texas 79765

## Analytical Report

**Prepared for:**

Shane Estep

ETech Environmental & Safety Solutions, Inc.

P. O. Box 8469

Midland TX 79708-8469

Project: Hbbs Wash Bay Line Leak

Project Number: 016-257-M

Location: Hbbs, NM

Lab Order Number: 4122001

Report Date: 09/23/04

ETech Environmental & Safety Solutions, Inc.  
P. O. Box 8469  
Midland, TX, 79708-8469

Project: Hobbs Wash Bay Line Leak  
Project Number: 016-257-M  
Project Manager: Shane Estep

Fax 563-2213  
Reported:  
09/23/04 16:48

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Aea 2 Central Bottom 3.5 ft.	4122001-01	Soil	09/21/04 11:00	09/21/04 17:10
Aea 2 South Central Bottom 6 inch	4122001-02	Soil	09/21/04 11:15	09/21/04 17:10
Aea 2 East Central Bottom 6 inch	4122001-03	Soil	09/21/04 11:20	09/21/04 17:10
Aea 2 West Central Bottom 6 inch	4122001-04	Soil	09/21/04 13:00	09/21/04 17:10
Aea 2 North Central Bottom 6 inch	4122001-05	Soil	09/21/04 13:15	09/21/04 17:10
Aea 1 North 8 inch	4122001-06	Soil	09/21/04 13:30	09/21/04 17:10
Aea 1 Central 8 inch	4122001-07	Soil	09/21/04 13:35	09/21/04 17:10
Aea 1 South Central 2'	4122001-08	Soil	09/21/04 13:40	09/21/04 17:10
Aea 1 South SE Bottom 2'	4122001-09	Soil	09/21/04 13:45	09/21/04 17:10
Aea 1 South NW Bottom 2'	4122001-10	Soil	09/21/04 13:50	09/21/04 17:10

ETech Environmental Safety Solutions, Inc.  
P. O. Box 8469  
Midland, TX, 79708-8469

Project: Hobbs Wash Bay Line Leak  
Project Number: 016-257-M  
Project Manager: Shane Estep

Fax 563-2213  
Reported:  
09/23/04 16:48

**Organics by GC**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Area 2 Central Bottom 3.5 ft. (4122001-01) Soil</b>									
Gasoline Range Organics C6-C12	28.5	10.0	mg/kg dry	1	EI 42113	09/22/04	09/23/04	EP 8015 M	
Diesel Range Organics >C12-C35	504	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	533	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		112 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		130 %	70-130		"	"	"	"	
<b>Area 2 South Central Bottom 6 inch (4122001-02) Soil</b>									
Gasoline Range Organics C6-C12	35.0	10.0	mg/kg dry	1	EI 42113	09/22/04	09/23/04	EP 8015 M	
Diesel Range Organics >C12-C35	894	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	929	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		101 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		126 %	70-130		"	"	"	"	
<b>Area 2 East Central Bottom 6 inch (4122001-03) Soil</b>									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EI 42113	09/22/04	09/23/04	EP 8015 M	
Diesel Range Organics >C12-C35	J [7.58]	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		114 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		121 %	70-130		"	"	"	"	
<b>Area 2 West Central Bottom 6 inch (4122001-04) Soil</b>									
Gasoline Range Organics C6-C12	12.5	10.0	mg/kg dry	1	EI 42113	09/22/04	09/23/04	EP 8015 M	
Diesel Range Organics >C12-C35	394	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	407	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		107 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		126 %	70-130		"	"	"	"	
<b>Area 2 North Central Bottom 6 inch (4122001-05) Soil</b>									
Gasoline Range Organics C6-C12	J [8.92]	10.0	mg/kg dry	1	EI 42113	09/22/04	09/23/04	EP 8015 M	J
Diesel Range Organics >C12-C35	674	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	674	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		104 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		117 %	70-130		"	"	"	"	

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Fax 563-2213  
Reported:  
09/23/04 16:48

**Organics by GC**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Area 1 North 8 inch (4I22001-06) Soil**

Gasoline Range Organics C6-C12	26.1	10.0	mg/kg dry	1	EI 421B	09/22/04	09/23/04	EPA8015M	
Diesel Range Organics >C12-C35	936	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	962	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		108 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		129 %	70-130		"	"	"	"	

**Area 1 Central 8 inch (4I22001-07) Soil**

Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EI 421B	09/22/04	09/23/04	EPA8015M	
Diesel Range Organics >C12-C35	516	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	516	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		91.4 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		112 %	70-130		"	"	"	"	

**Area 1 South Central 2' (4I22001-08) Soil**

Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EI 421B	09/22/04	09/23/04	EPA8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		84.4 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		72.8 %	70-130		"	"	"	"	

**Area 1 South SE Bottom 2' (4I22001-09) Soil**

Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EI 421B	09/22/04	09/23/04	EPA8015M	
Diesel Range Organics >C12-C35	J [7.50]	10.0	"	"	"	"	"	"	J
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		105 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		80.4 %	70-130		"	"	"	"	

**Area 1 South NW Bottom 2' (4I22001-10) Soil**

Gasoline Range Organics C6-C12	16.9	10.0	mg/kg dry	1	EI 421B	09/22/04	09/23/04	EPA8015M	
Diesel Range Organics >C12-C35	66.3	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	83.2	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		84.6 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		70.8 %	70-130		"	"	"	"	

Environmental Lab of Texas

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ETech Environmental Safety Solutions, Inc.  
P. O. Box 8469  
Midland, TX, 79708-8469

Project: Hobbs Wash Bay Line Leak  
Project Number: 016-257-M  
Project Manager: Shane Este

Fax 563-2213  
Reported:  
09/23/04 16:48

**General Chemistry Parameters by EPA / Standard Methods**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Area 2 Central Bottom 3.5 ft. (4I22001-01) Soil</b>									
Chloride	2640	20.0	mg/kg Wet	2	EI 42309	09/22/04	09/23/04	SW 846.9253	
% Solids	93.0		%	1	EI 42301	09/22/04	09/22/04	% calculation	
<b>Area 2 South Central Bottom 6 inch (4I22001-02) Soil</b>									
Chloride	3190	20.0	mg/kg Wet	2	EI 42309	09/22/04	09/23/04	SW 846.9253	
% Solids	95.0		%	1	EI 42301	09/22/04	09/22/04	% calculation	
<b>Area 2 East Central Bottom 6 inch (4I22001-03) Soil</b>									
Chloride	993	20.0	mg/kg Wet	2	EI 42309	09/22/04	09/23/04	SW 846.9253	
% Solids	97.0		%	1	EI 42301	09/22/04	09/22/04	% calculation	
<b>Area 2 West Central Bottom 6 inch (4I22001-04) Soil</b>									
Chloride	5320	20.0	mg/kg Wet	2	EI 42309	09/22/04	09/23/04	SW 846.9253	
% Solids	91.0		%	1	EI 42301	09/22/04	09/22/04	% calculation	
<b>Area 2 North Central Bottom 6 inch (4I22001-05) Soil</b>									
Chloride	6700	20.0	mg/kg Wet	2	EI 42309	09/22/04	09/23/04	SW 846.9253	
% Solids	97.0		%	1	EI 42301	09/22/04	09/22/04	% calculation	
<b>Area 1 North 8 inch (4I22001-06) Soil</b>									
Chloride	744	20.0	mg/kg Wet	2	EI 42309	09/22/04	09/23/04	SW 846.9253	
% Solids	96.0		%	1	EI 42301	09/22/04	09/22/04	% calculation	
<b>Area 1 Central 8 inch (4I22001-07) Soil</b>									
Chloride	851	20.0	mg/kg Wet	2	EI 42309	09/22/04	09/23/04	SW 846.9253	
% Solids	98.0		%	1	EI 42301	09/22/04	09/22/04	% calculation	
<b>Area 1 South Central 2' (4I22001-08) Soil</b>									
Chloride	1060	20.0	mg/kg Wet	2	EI 42309	09/22/04	09/23/04	SW 846.9253	
% Solids	88.0		%	1	EI 42301	09/22/04	09/22/04	% calculation	

Environmental Lab of Texas

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Page 4 of 9

ETech Environmental Safety Solutions, Inc.  
P. O. Box 8469  
Midland, TX, 79708-8469

Project: Hobbs Wash Bay Line Leak  
Project Number: 016-257-M  
Project Manager: Shane Estep

Fax 563-2213  
Reported:  
09/23/04 16:48

**General Chemistry Parameters by EPA / Standard Methods**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Area 1 South SE Bottom 2' (4122001-09) Soil</b>									
Chloride	2130	20.0	mg/kg Wet	2	EI 42309	09/22/04	09/23/04	SW 846 9253	
% Solids	92.0		%	1	EI 42301	09/22/04	09/22/04	% calculation	
<b>Area 1 South NW Bottom 2' (4122001-10) Soil</b>									
Chloride	709	20.0	mg/kg Wet	2	EI 42309	09/22/04	09/23/04	SW 846 9253	
% Solids	88.0		%	1	EI 42301	09/22/04	09/22/04	% calculation	

ETech Environmental Safety Solutions, Inc.  
P. O. Box 8469  
Midland, TX, 79708-8469

Project: Hobbs Wash Bay Line Leak  
Project Number: 016-257-M  
Project Manager: Shane Estep

Fax 563-2213  
**Reported:**  
09/23/04 16:48

**Organics by GC - Quality Control**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Spiked Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch EI42113 - Solvent Extraction (GC)</b>										
<b>Blank (EI42113-BLK1)</b> Prepared 09/21/04 Analyzed 09/22/04										
Gasoline Range Organics C6-C12	ND	10.0	mg/kg wet							
Diesel Range Organics >C12-C35	ND	10.0	"							
Total Hydrocarbon C6-C35	ND	10.0	"							
Surrogate: 1-Chlorooctane	49.9		mg/kg	50.0		99.8	70-130			
Surrogate: 1-Chlorooctadecane	44.3		"	50.0		88.6	70-130			
<b>Blank (EI42113-BLK2)</b> Prepared 09/22/04 Analyzed 09/23/04										
Gasoline Range Organics C6-C12	ND	10.0	mg/kg wet							
Diesel Range Organics >C12-C35	ND	10.0	"							
Total Hydrocarbon C6-C35	ND	10.0	"							
Surrogate: 1-Chlorooctane	46.4		mg/kg	50.0		92.8	70-130			
Surrogate: 1-Chlorooctadecane	36.9		"	50.0		73.8	70-130			
<b>LCS (EI42113-BS1)</b> Prepared 09/21/04 Analyzed 09/22/04										
Gasoline Range Organics C6-C12	432	10.0	mg/kg wet	500		86.4	75-125			
Diesel Range Organics >C12-C35	528	10.0	"	500		106	75-125			
Total Hydrocarbon C6-C35	960	10.0	"	1000		96.0	75-125			
Surrogate: 1-Chlorooctane	58.8		mg/kg	50.0		118	70-130			
Surrogate: 1-Chlorooctadecane	56.4		"	50.0		113	70-130			
<b>LCS (EI42113-BS2)</b> Prepared 09/22/04 Analyzed 09/23/04										
Gasoline Range Organics C6-C12	415	10.0	mg/kg wet	500		83.0	75-125			
Diesel Range Organics >C12-C35	504	10.0	"	500		101	75-125			
Total Hydrocarbon C6-C35	919	10.0	"	1000		91.9	75-125			
Surrogate: 1-Chlorooctane	52.7		mg/kg	50.0		105	70-130			
Surrogate: 1-Chlorooctadecane	43.6		"	50.0		87.2	70-130			
<b>Calibration Check (EI42113-CCV1)</b> Prepared 09/21/04 Analyzed 09/22/04										
Gasoline Range Organics C6-C12	460		mg/kg	500		92.0	80-120			
Diesel Range Organics >C12-C35	578		"	500		116	80-120			
Total Hydrocarbon C6-C35	1040		"	1000		104	80-120			
Surrogate: 1-Chlorooctane	53.8		"	50.0		108	70-130			
Surrogate: 1-Chlorooctadecane	60.7		"	50.0		121	70-130			

ETech Environmental Safety Solutions, Inc.  
P. O. Box 8469  
Midland, TX, 79708-8469

Project: Hobbs Wash Bay Line Leak  
Project Number: 016-257-M  
Project Manager: Shane Estep

Fax 563-2213  
Reported:  
09/23/04 16:48

**Organics by GC - Quality Control**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch EI42113 - Solvent Extraction (GC)**

**Calibration Check (EI42113-CCV2)**

Prepared 09/22/04 Analyzed 09/23/04

Gasoline Range Organics C6-C12	447		mg/kg	500		89.4	80-120			
Diesel Range Organics > C12-C35	514		"	500		103	80-120			
Total Hydrocarbon C6-C35	961		"	1000		96.1	80-120			
Surrogate: 1-Chlorooctane	57.0		"	50.0		114	70-130			
Surrogate: 1-Chlorooctadecane	57.5		"	50.0		115	70-130			

**Matrix Spike (EI42113-MS1)**

Source: 4I21002-24

Prepared 09/21/04 Analyzed 09/22/04

Gasoline Range Organics C6-C12	568	10.0	mg/kg dry	543	8.89	103	75-125			
Diesel Range Organics > C12-C35	864	10.0	"	543	307	103	75-125			
Total Hydrocarbon C6-C35	1430	10.0	"	1090	307	103	75-125			
Surrogate: 1-Chlorooctane	58.7		mg/kg	50.0		117	70-130			
Surrogate: 1-Chlorooctadecane	62.6		"	50.0		125	70-130			

**Matrix Spike (EI42113-MS2)**

Source: 4I22001-08

Prepared 09/22/04 Analyzed 09/23/04

Gasoline Range Organics C6-C12	506	10.0	mg/kg dry	568	ND	89.1	75-125			
Diesel Range Organics > C12-C35	612	10.0	"	568	ND	108	75-125			
Total Hydrocarbon C6-C35	1120	10.0	"	1140	ND	98.2	75-125			
Surrogate: 1-Chlorooctane	56.9		mg/kg	50.0		114	70-130			
Surrogate: 1-Chlorooctadecane	47.8		"	50.0		95.6	70-130			

**Matrix Spike Dup (EI42113-MSD1)**

Source: 4I21002-24

Prepared 09/21/04 Analyzed 09/22/04

Gasoline Range Organics C6-C12	550	10.0	mg/kg dry	543	8.89	99.7	75-125	3.22	20	
Diesel Range Organics > C12-C35	839	10.0	"	543	307	98.0	75-125	2.94	20	
Total Hydrocarbon C6-C35	1390	10.0	"	1090	307	99.4	75-125	2.84	20	
Surrogate: 1-Chlorooctane	61.9		mg/kg	50.0		124	70-130			
Surrogate: 1-Chlorooctadecane	62.9		"	50.0		126	70-130			

**Matrix Spike Dup (EI42113-MSD2)**

Source: 4I22001-08

Prepared 09/22/04 Analyzed 09/23/04

Gasoline Range Organics C6-C12	517	10.0	mg/kg dry	568	ND	91.0	75-125	2.15	20	
Diesel Range Organics > C12-C35	641	10.0	"	568	ND	113	75-125	4.63	20	
Total Hydrocarbon C6-C35	1160	10.0	"	1140	ND	102	75-125	3.51	20	
Surrogate: 1-Chlorooctane	59.4		mg/kg	50.0		119	70-130			
Surrogate: 1-Chlorooctadecane	49.7		"	50.0		99.4	70-130			

Environmental Lab of Texas

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Page 7 of 9

ETech Environmental Safety Solutions, Inc.  
P. O. Box 8469  
Midland, TX, 79708-8469

Project: Hobbs Wash Bay Line Leak  
Project Number: 016-257-M  
Project Manager: Shane Estep

Fax 563-2213  
Reported:  
09/23/04 16:48

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch EI42301 - % Solids</b>										
<b>Blank (EI42301-BLK1)</b>					Prepared & Analyzed 09/22/04					
% Solids	100		%							
<b>Duplicate (EI42301-DUP1)</b>					Source: 4I21003-01 Prepared & Analyzed 09/22/04					
% Solids	97.0		%		98.0			1.03	20	
<b>Batch EI42309 - Water Extraction</b>										
<b>Blank (EI42309-BLK1)</b>					Prepared 09/22/04 Analyzed 09/23/04					
Chloride	ND	20.0	mg/kg Wet							
<b>Matrix Spike (EI42309-MS1)</b>					Source: 4I21003-01 Prepared 09/22/04 Analyzed 09/23/04					
Chloride	510	20.0	mg/kg Wet	500	0.00	102	80-120			
<b>Matrix Spike Dup (EI42309-MSD1)</b>					Source: 4I21003-01 Prepared 09/22/04 Analyzed 09/23/04					
Chloride	500	20.0	mg/kg Wet	500	0.00	100	80-120	1.98	20	
<b>Reference (EI42309-SRM1)</b>					Prepared & Analyzed 09/23/04					
Chloride	4940		mg/kg	5000		98.8	80-120			

ETech Environmental Safety Solutions, Inc.  
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Project: Hobbs Wash Bay Line Leak  
Project Number: 016-257-M  
Project Manager: Shane Estep

Fax 563-2213  
Reported:  
09/23/04 16:48

### Notes and Definitions

J Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLPJ - Flag).  
DET Analyte DETECTED  
ND Analyte NOT DETECTED at or above the reporting limit  
NR Not Reported  
dy Sample results reported on a dry weight basis  
RPD Relative Percent Difference  
LCS Laboratory Control Spike  
MS Matrix Spike  
Dup Duplicate

Report Approved By:

*Roland K. Tuttle*

Date:

9/23/04

Roland K. Tuttle, Lab Manager  
Coley D. Keene, Lab Director, Org. Tech Director  
Peggy Allen, QA Officer

Jeanne M. Mirrey, Inorg. Tech Director  
James L. Hawkins, Chemist/Geologist  
Sandra Biezugbe, Lab Tech.

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If you have received this material in error, please notify us immediately at 432-563-1800.

Environmental Lab of Texas

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Page 9 of 9

# Enviro, Mental Lab of Texas I, Ltd.

12600 West 120 East  
Odessa, Texas 79763

Phone: 915-563-1800  
Fax: 915-563-1713

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager:

Shane E Step

Project Name:

Hobbs Water Bay Line Leak

Company Name

E Tech Environmental & Safety Solutions Inc.

Project #:

DLB-257-M

Company Address:

P O Box 8469

Project Loc:

Hobbs, NM

City/State/Zip: Midland, Texas 79708

PO #:

Telephone No: 432-563-2200

Fax No: 432-563-2213

Sampler Signature:

Shane E Step

LAB USE ONLY		FIELD CODE	Date Sampled	Time Sampled	No. of Containers	Preservative							Matrix				Analyze For										RUSH TAT (Pro-Schedule)		Standard TAT								
LAB USE ONLY	LAB USE ONLY					Ice	HNO <sub>3</sub>	HCl	NaOH	H <sub>2</sub> SO <sub>4</sub>	None	Other (Specify)	Water	Sludge	Soil	Other (specify):	TPH: 418.1	5015M	1005	1008	Carbon (Ca, Mg, Na, K)	Antions (Cl, SO <sub>4</sub> , CO <sub>3</sub> , HCO <sub>3</sub> )	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 80218/5030	RCI	N.O.R.M.	Total Gamma	Chlorides						
-01	Area 2 Central Bottom 3.5 ft	9-21-04	1100 AM	1	X											X	X																				
-02	Area 2 South Central Bottom 6"	9-21-04	1115 AM	1	X											X	X																				
-03	Area 2 East Central Bottom 6"	9-21-04	1120 AM	1	X											X	X																				
-04	Area 2 West Central Bottom 6"	9-21-04	100 PM	1	X											X	X																				
-05	Area 2 North Central Bottom 6"	9-21-04	115 PM	1	X											X	X																				
-06	Area 1 North Central Bottom 8"	9-21-04	130 PM	1	X											X	X																				
-07	Area 1 Central Bottom 8"	9-21-04	135 PM	1	X											X	X																				
-08	Area 1 South Central 2'	9-21-04	140 PM	1	X											X	X																				
-09	Area 1 South SE Bottom 2'	9-21-04	145 PM	1	X											X	X																				
-10	Area 1 South NW Bottom 2'	9-21-04	150 PM	1	X											X	X																				

Special Instructions:

Relinquished by:

Shane E Step

Date

9-21-04

Time

Received by:

Shane E Step

Date

9-21-04

Time

1710

Sample Containers: Inert?  
Temperature Upon Receipt:  
Laboratory Comments:

None 9/23  
Area 1, 500

# Environmental Lab of Texas

## Variance / Corrective Action Report – Sample Log-In

Client: E Tech Env.

Date/Time: 09-22-04 @ 0800

Order #: 4I22001

Initials: JMM

### Sample Receipt Checklist

Temperature of container/cooler?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	1.5	C
Shipping container/cooler in good condition?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		
Custody Seals intact on shipping container/cooler?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<u>Not present</u>	
Custody Seals intact on sample bottles?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<u>Not present</u>	
Chain of custody present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		
Sample Instructions complete on Chain of Custody?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		
Chain of Custody signed when relinquished and received?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		
Chain of custody agrees with sample label(s)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		
Container labels legible and intact?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		
Sample Matrix and properties same as on chain of custody?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		
Samples in proper container/bottle?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		
Samples properly preserved?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		
Sample bottles intact?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		
Preservations documented on Chain of Custody?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		
Containers documented on Chain of Custody?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		
Sufficient sample amount for indicated test?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		
Samples received within sufficient hold time?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		
VOC samples have zero headspace?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Not Applicable	

Other observations:

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### Variance Documentation:

Contact Person: - \_\_\_\_\_ Date/Time: \_\_\_\_\_ Contacted by: \_\_\_\_\_

Regarding:

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Corrective Action Taken:

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12600 West I-20 East - Odessa, Texas 79765

## Analytical Report

**Prepared for:**

Shane Estep

ETech Environmental & Safety Solutions, Inc

P. O. Box 8469

Midland, TX 79708-8469

Project: B. J. Wish Bay Leak

Project Number: 016-257-M

Location: Hobbs, NM

Lab Order Number: 4J13004

Report Date: 10/18/04

ETech Environmental & Safety Solutions, Inc  
P. O. Box 8469  
Midland TX, 79708-8469

Project: B. J. Wash Bay Leak  
Project Number: 016-257-M  
Project Manager: Shane Estep

Fax 563-2213  
Reported:  
10/18/04 17:31

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Area 1 South 12 inch	4J13004-01	Soil	10/11/04 11:30	10/13/04 11:07
Area 1 Central 12 inch	4J13004-02	Soil	10/11/04 11:40	10/13/04 11:07
Area 1 North 12 inch	4J13004-03	Soil	10/11/04 11:45	10/13/04 11:07

ETech Environmental & Safety Solutions, Inc  
P. O. Box 8469  
Midland TX, 79708-8469

Project: B. J. Wash Bay Leak  
Project Number: 016-257-M  
Project Manager: Shane Estep

Fax 563-2213  
Reported:  
10/18/04 17:31

**Organics by GC**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Area 1 South 12 inch (4J13004-01) Soil</b>									
Gasoline Range Organics C6-C12	ND	10.0	ng/kg dry	1	E41306	10/13/04	10/13/04	EPA8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		98.2 %	70-130	"	"	"	"	"	
Surrogate: 1-Chlorooctadecane		111 %	70-130	"	"	"	"	"	
<b>Area 1 Central 12 inch (4J13004-02) Soil</b>									
Gasoline Range Organics C6-C12	ND	10.0	ng/kg dry	1	E41306	10/13/04	10/13/04	EPA8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		97.4 %	70-130	"	"	"	"	"	
Surrogate: 1-Chlorooctadecane		112 %	70-130	"	"	"	"	"	
<b>Area 1 North 12 inch (4J13004-03) Soil</b>									
Gasoline Range Organics C6-C12	ND	10.0	ng/kg dry	1	E41306	10/13/04	10/13/04	EPA8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		97.0 %	70-130	"	"	"	"	"	
Surrogate: 1-Chlorooctadecane		109 %	70-130	"	"	"	"	"	

ETech Environmental & Safety Solutions, Inc  
P. O. Box 8469  
Midland TX, 79708-8469

Project: B. J. Wash Bay Leak  
Project Number: 016-257-M  
Project Manager: Shane Estep

Fax 563-2213  
Reported:  
10/18/04 17:31

**General Chemistry Parameters by EPA / Standard Methods**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Area 1 South 12 inch (4J13004-01) Soil</b>									
Chloride	1020	20.0	ng/kg Wet	2	EA1814	10/13/04	10/18/04	SW846 9253	
% Moisture	18.0		%	1	EA1403	10/13/04	10/14/04	% calculation	
<b>Area 1 Central 12 inch (4J13004-02) Soil</b>									
Chloride	160	20.0	ng/kg Wet	2	EA1814	10/13/04	10/18/04	SW846 9253	
% Moisture	16.0		%	1	EA1403	10/13/04	10/14/04	% calculation	
<b>Area 1 North 12 inch (4J13004-03) Soil</b>									
Chloride	ND	20.0	ng/kg Wet	2	EA1814	10/13/04	10/18/04	SW846 9253	
% Moisture	20.0		%	1	EA1403	10/13/04	10/14/04	% calculation	

ETech Environmental & Safety Solutions, Inc  
P. O. Box 8469  
Midland TX, 79708-8469

Project: B. J. Wish Bay Leak  
Project Number: 016-257-M  
Project Manager: Shane Estep

Fax 563-2213  
Reported:  
10/18/04 17:31

**Organics by GC - Quality Control**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch EJ41306 - Solvent Extraction (GC)**

**Blank (EJ41306-BLK1)**

Prepared & Analyzed: 10/13/04

Gasoline Range Organics (C12)	ND	10.0	ng/kg vet							
Diesel Range Organics (C12-C35)	ND	10.0	"							
Total Hydrocarbon (C6-C35)	ND	10.0	"							
Surrogate: 1-Chlorooctane	55.6		mg/kg	50.0		111	70-130			
Surrogate: 1-Chlorooctadecane	62.2		"	50.0		124	70-130			

**LCS (EJ41306-BS1)**

Prepared & Analyzed: 10/13/04

Gasoline Range Organics (C12)	444	10.0	ng/kg vet	500		88.8	75-125			
Diesel Range Organics (C12-C35)	460	10.0	"	500		92.0	75-125			
Total Hydrocarbon (C6-C35)	904	10.0	"	1000		90.4	75-125			
Surrogate: 1-Chlorooctane	59.0		mg/kg	50.0		118	70-130			
Surrogate: 1-Chlorooctadecane	62.6		"	50.0		125	70-130			

**Calibration Check (EJ41306-CCV1)**

Prepared & Analyzed: 10/13/04

Gasoline Range Organics (C12)	512		ng/kg	500		102	80-120			
Diesel Range Organics (C12-C35)	588		"	500		118	80-120			
Total Hydrocarbon (C6-C35)	1100		"	1000		110	80-120			
Surrogate: 1-Chlorooctane	49.0		"	50.0		98.0	70-130			
Surrogate: 1-Chlorooctadecane	54.9		"	50.0		110	70-130			

**Matrix Spike (EJ41306-MS1)**

Source: 4J13004-01

Prepared & Analyzed: 10/13/04

Gasoline Range Organics (C12)	493		ng/kg	500	ND	98.6	75-125			
Diesel Range Organics (C12-C35)	553		"	500	ND	111	75-125			
Total Hydrocarbon (C6-C35)	1050		"	1000	ND	105	75-125			
Surrogate: 1-Chlorooctane	51.5		"	50.0		103	70-130			
Surrogate: 1-Chlorooctadecane	53.7		"	50.0		107	70-130			

**Matrix Spike Dup (EJ41306-MSD1)**

Source: 4J13004-01

Prepared & Analyzed: 10/13/04

Gasoline Range Organics (C12)	517		ng/kg	500	ND	103	75-125	4.75	20	
Diesel Range Organics (C12-C35)	543		"	500	ND	109	75-125	1.82	20	
Total Hydrocarbon (C6-C35)	1060		"	1000	ND	106	75-125	0.948	20	
Surrogate: 1-Chlorooctane	53.1		"	50.0		106	70-130			
Surrogate: 1-Chlorooctadecane	54.7		"	50.0		109	70-130			

Environmental Lab of Texas

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Environmental Lab of Texas.

Page 4 of 6

ETech Environmental & Safety Solutions, Inc  
P. O. Box 8469  
Midland TX, 79708-8469

Project: B. J. Wash Bay Leak  
Project Number: 016-257-M  
Project Manager: Shane Estep

Fax 563-2213  
Reported:  
10/18/04 17:31

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch EJ41403 - % Solids</b>										
<b>Blank (EJ41403-BLK1)</b>					Prepared: 10/13/04 Analyzed: 10/14/04					
%Moisture	0.0		%							
<b>Duplicate (EJ41403-DUP1)</b>					Source: 4J08007-01 Prepared: 10/13/04 Analyzed: 10/14/04					
%Moisture	12.0		%		12.0			0.00	20	
<b>Batch EJ41814 - Water Extraction</b>										
<b>Blank (EJ41814-BLK1)</b>					Prepared: 10/11/04 Analyzed: 10/18/04					
Chloride	ND	20.0	ng/kg Wet							
<b>Matrix Spike (EJ41814-MS1)</b>					Source: 4J08006-02 Prepared: 10/11/04 Analyzed: 10/18/04					
Chloride	468	20.0	ng/kg Wet	500	0.00	93.6	80-120			
<b>Matrix Spike Dup (EJ41814-MSD1)</b>					Source: 4J08006-02 Prepared: 10/11/04 Analyzed: 10/18/04					
Chloride	478	20.0	ng/kg Wet	500	0.00	95.6	80-120	2.11	20	
<b>Reference (EJ41814-SRM1)</b>					Prepared & Analyzed: 10/18/04					
Chloride	5000		ng/kg	5000		100	80-120			

ETech Environmental & Safety Solutions, Inc  
P. O. Box 8469  
Midland TX, 79708-8469

Project: B. J. Wash Bay Leak  
Project Number: 016-257-M  
Project Manager: Shane Estep

Fax 563-2213  
Reported:  
10/18/04 17:31

### Notes and Definitions

DET Analyte DETECTED  
ND Analyte NOT DETECTED at or above the reporting limit  
NR Not Reported  
dry Sample results reported on a dry weight basis  
RPD Relative Percent Difference  
LCS Laboratory Control Spike  
MS Matrix Spike  
Dup Duplicate

Report Approved By:

*Raland K Tuttle*

Date:

10/18/04

Raland K Tuttle, Lab Manager  
Coley D. Keene, Lab Director, Org. Tech Director  
Peggy Allen, QO Officer

Jeanne McMurphy, Inorg. Tech Director  
James L. Hawkins, Chemist/Geologist  
Sandra Biezugbe, Lab Tech.

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If you have received this material in error, please notify us immediately at 432-563-1800.

**12600 West I-20 East  
Odessa, Texas 79763**

**Phone: 915-563-1800**  
**Fax: 915-563-1713**

**Fax: 915-563-1713**

**Project Manager:**

Shyne Ester

**Company Name** E Tech Environmental & Safety Solutions Inc.

**Company Address:** P O Box 8469

City/State/Zip: Midland. Texas 79708

Telephone No: 432-563-2200

Fax No: 432-563-2213

**Sampler Signature:**

James Buckley

**Project Name:**

BS Hooks Wash Dry Line

**Project #:**

016 257-M

**Project Loc:**

Wp 8990H

PO#

LAB # (lab use only)		FIELD CODE	Date Sampled	Time Sampled	No. of Containers	Preservative	Matrix	TCLP:	TOTAL:	Analyze For:
		-01 Area 1 South 12"	10-11-04	1130am	1	X Ice				
		-02 Area 1 Central 12"	10-11-04	1140am	1	X HNO <sub>3</sub>				
		-03 Area 1 North 12"	10-11-04	1145am	1	X HCl				
						X NaOH				
						X H <sub>2</sub> SO <sub>4</sub>				
						X None				
						X Other (Specify)				
						X Water				
						X Sludge				
						X Soil				
						X Other (specify):				
						X TPH: 418.1 (8015M) X1005 1006				
						Cations (Ca, Mg, Na, K)				
						Anions (Cl, SO <sub>4</sub> , CO <sub>3</sub> , HCO <sub>3</sub> )				
						SAR / ESP / CEC				
						Metals: As Ag Ba Cd Cr Pb Hg Se				
						Volatiles				
						Semivolatiles				
						BTEX 8021B/5030				
						RCI				
						N.O.R.M.				
						Total Gamma				
						X Chlorides				
						RUSH TAT (Pre-Schedule				
						Standard TAT				

### Special instructions:

Relinquished by:

Relinquished by:

Date \_\_\_\_\_

Time

Received by:

Date \_\_\_\_\_

Time

Date \_\_\_\_\_

Time

Received by ELOTT:

Date \_\_\_\_\_

**LINE**

Sample Containers Intact?  
Temperature Upon Receipt  
Laboratory Comments:

Rec-1.0.0

<b>RUSH TAT (Pre-Schedule</b>
<b>Standard TAT</b>

# **Environmental Lab of Texas** **Variance / Corrective Action Report – Sample Log-In**

Client: E Tech Env.

Date/Time: 10-13-04 @ 1200

Order #: 4 J13004

Initials: JMM

## **Sample Receipt Checklist**

Temperature of container/cooler?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	-1.0 C
Shipping container/cooler in good condition?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Custody Seals intact on shipping container/cooler?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<u>Not present</u>
Custody Seals intact on sample bottles?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<u>Not present</u>
Chain of custody present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Sample Instructions complete on Chain of Custody?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Chain of Custody signed when relinquished and received?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Chain of custody agrees with sample label(s)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<u>No Label - written on lid</u>
Container labels legible and intact?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<u>No Label - written on lid</u>
Sample Matrix and properties same as on chain of custody?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Samples in proper container/bottle?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Samples properly preserved?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Sample bottles intact?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Preservations documented on Chain of Custody?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Containers documented on Chain of Custody?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Sufficient sample amount for indicated test?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Samples received within sufficient hold time?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
VOC samples have zero headspace?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Not Applicable

Other observations:

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## **Variance Documentation:**

Contact Person: - \_\_\_\_\_ Date/Time: \_\_\_\_\_ Contacted by: \_\_\_\_\_

Regarding:

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Corrective Action Taken:

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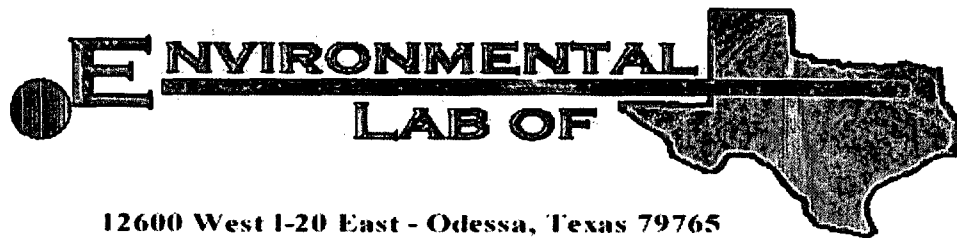
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12600 West I-20 East - Odessa, Texas 79765

## Analytical Report

**Prepared for:**

Shane B tep

ETech Env i ronmental & Saf ety Soluti ons , Inc.

P. O. Box 846

Midland, TX 79 708-846

Project: BJ Serv i ces - Hbbbs

Project Number: 016-257-M

Locati on: Hbbbs , NM

Lab Order Number: 4L07002

Report Date: 12/08/04

ETech Environmental & Safety Solutions, Inc.  
P. O. Box 8469  
Midland TX, 79 708-8469

Project: BJ Services - Hbbs  
Project Number: 016-257-M  
Project Manager: Shane B tep

Fax: 563-2213  
Reported:  
12/08/04 14:59

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
1-North (14 in. bgs)	4L07002-01	Soil	12/06/04 00:00	12/07/04 08:11
2-South (14 in. bgs)	4L07002-02	Soil	12/06/04 00:00	12/07/04 08:11
3-East (14 in. bgs)	4L07002-03	Soil	12/06/04 00:00	12/07/04 08:11
4-West (14 in. bgs)	4L07002-04	Soil	12/06/04 00:00	12/07/04 08:11
5-Central (14 in. bgs)	4L07002-05	Soil	12/06/04 00:00	12/07/04 08:11
6-Background (6 in. bgs)	4L07002-06	Soil	12/06/04 00:00	12/07/04 08:11

ETech Environmental & Safety Solutions, Inc.  
P. O. Box 8469  
Midland TX, 79 708-8469

Project: BJ Services - Hobbs  
Project Number: 016-257-M  
Project Manager: Shane Is tep

Fax: 563-2213  
Reported:  
12/08/04 14:59

**General Chemistry Parameters by EPA / Standard Methods**  
**Environmental Lab of Texas**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
1-North (14 in. bgs) (4L07002-01) Soil									
Chloride	189	20.0	mg/kg Wt	2	HLA0807	12/07/04	12/08/04	SW8469 253	
2-South (14 in. bgs) (4L07002-02) Soil									
Chloride	248	20.0	mg/kg Wt	2	HLA0807	12/07/04	12/08/04	SW8469 253	
3-East (14 in. bgs) (4L07002-03) Soil									
Chloride	681	20.0	mg/kg Wt	2	HLA0807	12/07/04	12/08/04	SW8469 253	
4-West (14 in. bgs) (4L07002-04) Soil									
Chloride	236	20.0	mg/kg Wt	2	HLA0807	12/07/04	12/08/04	SW8469 253	
5-Central (14 in. bgs) (4L07002-05) Soil									
Chloride	ND	20.0	mg/kg Wt	2	HLA0807	12/07/04	12/08/04	SW8469 253	
6-Background (6 in. bgs) (4L07002-06) Soil									
Chloride	ND	20.0	mg/kg Wt	2	HLA0807	12/07/04	12/08/04	SW8469 253	

ETech Environmental & Safety Solutions, Inc.  
P. O. Box 846  
Midland TX, 79 708-846

Project: BJ Services - Hbbbs  
Project Number: 016-257-M  
Project Manager: Shane B tep

Fax: 563-2213  
Reported:  
12/08/04 14:59

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
<b>Batch EL40807 - Water Extraction</b>										
<b>Blank (EL40807-BLK1)</b>					Prepared: 12/06/04 Analyzed: 12/08/04					
Chloride	ND	20.0	mg/kg Wt							
<b>Matrix Spike (EL40807-MS1)</b>					Source: 4L06007-01 Prepared: 12/06/04 Analyzed: 12/08/04					
Chloride	500	20.0	mg/kg Wt	500	0.00	100	80-120			
<b>Matrix Spike Dup (EL40807-MSD1)</b>					Source: 4L06007-01 Prepared: 12/06/04 Analyzed: 12/08/04					
Chloride	510	20.0	mg/kg Wt	500	0.00	102	80-120	1.9	8	20
<b>Reference (EL40807-SRM1)</b>					Prepared & Analyzed: 12/08/04					
Chloride	5000		mg/kg	5000		100	80-120			

ETech Environmental & Safety Solutions, Inc.

P. O. Box 846

Midland TX, 79 708-846

Project: BJ Services - Hbbs

Project Number: 016-257-M

Project Manager: Shane B tep

Fax: 563-2213

Reported:

12/08/04 14:59

### Notes and Definitions

DE Analyte DETECTED  
ND Analyte NOT DETECTED at or above the reporting limit  
NR Not Reported  
dry Sample results reported on a dry weight basis  
RPD Relative Percent Difference  
LCS Laboratory Control Spike  
MS Matrix Spike  
Dup Duplicate

Report Approved By:

*Raland K. Tuttle*

Date:

12/8/2004

Raland K. Tuttle, Lab Manager

Gley D. Keene, Lab Director, Org Tech Director

Peggy Allen, QA Officer

Jeanne Mc Murrey, Inorg Tech Director

James L. Hawkins, Chemist/Geologist

Sandra Sanchez, Lab Tech

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ETech Environmental Lab of Texas

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Page 4 of 4

**12600 West 1-20 East  
Odessa, Texas 79765**

**Phone: 432-563-1800**  
**Fax: 432-563-1713**

## Environmental Lab of Texas

**Phone: 432-563-1800**  
**Fax: 432-563-1713**

**CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST**

**Project Manager:** Shane Estep/Eric Weaver

**Company Name** Etech Environmental & Safety Solutions

**Company Address: 12800 W Hwy 80 E**

City/State/Zip: Odessa, Texas 79765

**Telephone No: 432/563-2200**

**Fax No: 432/563-2213**

**Sampler Signature:**

Project Name: BU SERVICES - HOBBS

Project #: 016-257-M

Project Loc: HOBBS, NM

●●●

**Special Instructions:**

THOROUGHLY MIX ENTIRE SAMPLE BEFORE PULLING AN ALIQUOT FOR ANALYSIS.

Relinquished by:

Date	Time
------	------

Received by:

Time

Relinquished by:

Received by ELCT

Time:

Orange Meadows

[illegible]

# Environmental Lab of Texas

## Variance / Corrective Action Report – Sample Log-In

Client: E Tech Env.

Date/Time: 12-07-04 @ 0811

Order #: 4L 07002

Initials: JMM

### Sample Receipt Checklist

Temperature of container/cooler?	Yes	No	16.5 C
Shipping container/cooler in good condition?	Yes	No	N/A
Custody Seals intact on shipping container/cooler?	Yes	No	Not present N/A
Custody Seals intact on sample bottles?	Yes	No	Not present
Chain of custody present?	<input checked="" type="checkbox"/> Yes	No	
Sample Instructions complete on Chain of Custody?	<input checked="" type="checkbox"/> Yes	No	
Chain of Custody signed when relinquished and received?	<input checked="" type="checkbox"/> Yes	No	
Chain of custody agrees with sample label(s)	Yes	No	No label - written on lid
Container labels legible and intact?	Yes	No	No label - written on lid
Sample Matrix and properties same as on chain of custody?	<input checked="" type="checkbox"/> Yes	No	
Samples in proper container/bottle?	<input checked="" type="checkbox"/> Yes	No	
Samples properly preserved?	<input checked="" type="checkbox"/> Yes	No	
Sample bottles intact?	<input checked="" type="checkbox"/> Yes	No	
Preservations documented on Chain of Custody?	<input checked="" type="checkbox"/> Yes	No	
Containers documented on Chain of Custody?	<input checked="" type="checkbox"/> Yes	No	
Sufficient sample amount for indicated test?	<input checked="" type="checkbox"/> Yes	No	
All samples received within sufficient hold time?	<input checked="" type="checkbox"/> Yes	No	
VOC samples have zero headspace?	Yes	No	<input checked="" type="checkbox"/> Not Applicable

Other observations:

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### Variance Documentation:

Contact Person: - \_\_\_\_\_ Date/Time: \_\_\_\_\_ Contacted by: \_\_\_\_\_

Regarding:

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Corrective Action Taken:

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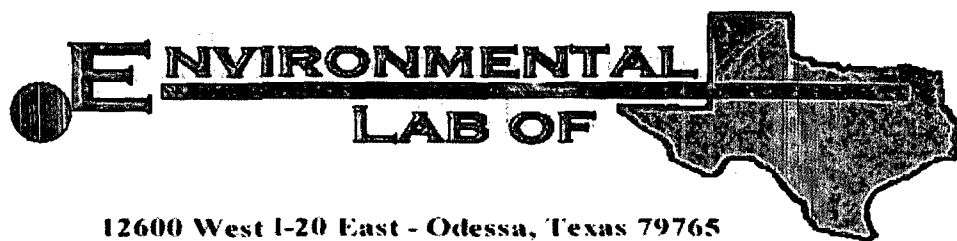
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12600 West I-20 East - Odessa, Texas 79765

## Analytical Report

**Prepared for:**

Shane Estep

E Tech Environmental & Safety Solutions, Inc.

P.O. Box 8469

Midland, TX 79708-8469

Project: Hobbs Wash Bay Line Leak

Project Number: 016-257

Location: None Given

Lab Order Number: 4L10007

Report Date: 12/16/04

E Tech Environmental & Safety Solutions, Inc.  
P.O. Box 8469  
Midland TX, 79708-8469

Project: Hobbs Wash Bay Line Leak  
Project Number: 016-257  
Project Manager: Shane Estep

Fax: 563-2213  
**Reported:**  
12/16/04 09:28

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
East Side-12 inch	4L10007-01	Soil	12/10/04 09:45	12/10/04 11:25

E Tech Environmental & Safety Solutions, Inc.  
P.O. Box 8469  
Midland TX, 79708-8469

Project: Hobbs Wash Bay Line Leak  
Project Number: 016-257  
Project Manager: Shane Estep

Fax: 563-2213  
**Reported:**  
12/16/04 09:28

**General Chemistry Parameters by EPA / Standard Methods**

**Environmental Lab of Texas**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
East Side-12 inch (4L10007-01) Soil										
Chloride	53.2	20.0	mg/kg Wet	2	EL41403	12/10/04	12/14/04	SW 846 9253		

Environmental Lab of Texas

*The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Environmental Lab of Texas.*

Page 2 of 5

E Tech Environmental & Safety Solutions, Inc.  
P.O. Box 8469  
Midland TX, 79708-8469

Project: Hobbs Wash Bay Line Leak  
Project Number: 016-257  
Project Manager: Shane Estep

Fax: 563-2213  
**Reported:**  
12/16/04 09:28

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch EL41403 - Water Extraction</b>										
<b>Blank (EL41403-BLK1)</b>				Prepared: 12/10/04 Analyzed: 12/14/04						
Chloride	ND	20.0	mg/kg Wet							
<b>Matrix Spike (EL41403-MS1)</b>				Source: 4L10001-01 Prepared: 12/10/04 Analyzed: 12/14/04						
Chloride	681	20.0	mg/kg Wet	500	213	93.6	80-120			
<b>Matrix Spike Dup (EL41403-MSD1)</b>				Source: 4L10001-01 Prepared: 12/10/04 Analyzed: 12/14/04						
Chloride	691	20.0	mg/kg Wet	500	213	95.6	80-120	1.46	20	
<b>Reference (EL41403-SRM1)</b>				Prepared & Analyzed: 12/14/04						
Chloride	4940		mg/kg	5000		98.8	80-120			

E Tech Environmental & Safety Solutions, Inc.  
P.O. Box 8469  
Midland TX, 79708-8469

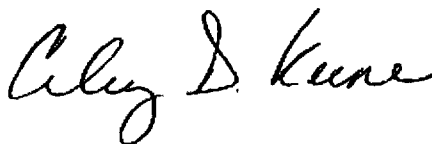
Project: Hobbs Wash Bay Line Leak  
Project Number: 016-257  
Project Manager: Shane Estep

Fax: 563-2213  
**Reported:**  
12/16/04 09:28

### Notes and Definitions

DET Analyte DETECTED  
ND Analyte NOT DETECTED at or above the reporting limit  
NR Not Reported  
dry Sample results reported on a dry weight basis  
RPD Relative Percent Difference  
LCS Laboratory Control Spike  
MS Matrix Spike  
Dup Duplicate

Report Approved By: \_\_\_\_\_



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

12/16/2004

Raland K. Tuttle, Lab Manager  
Celey D. Keene, Lab Director, Org. Tech Director  
Peggy Allen, QA Officer

Jeanne Mc Murrey, Inorg. Tech Director  
James L. Hawkins, Chemist/Geologist  
Sandra Sanchez, Lab Tech.

This material is intended only for the use of the individual (s) or entity to whom it is addressed, and may contain information that is privileged and confidential.

If you have received this material in error, please notify us immediately at 432-563-1800.

Environmental Lab of Texas

*The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Environmental Lab of Texas.*

Page 4 of 5

# Environmental Lab of Texas I, Ltd.

12600 West I-20 East  
Odessa, Texas 79763

Phone: 915-563-1800  
Fax: 915-563-1713

Project Manager:

Shane Sstep

Company Name

Stech

Company Address:

12800 W. Hwy 80 East

City/State/Zip:

Dallas, TX, 79765

Telephone No:

5703-2200

Fax No:

5703-2213

Sampler Signature:

Jaimie Craig

## CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Name:

Hobbs Wash Bay Line Leak

Project #:

Dile-257

Project Loc:

PO #:

Special Instructions:		Date		Time		Received by:		Date		Time		Received by:		Date		Time	
Relinquished by:		Jaimie Craig		12-10-04 11:25 AM		Received by:		Jaimie Craig		12-10-04 11:25		Received by:		Jaimie Craig		12-10-04 11:25	
Relinquished by:						Received by:						Received by:					
FIELD CODE		EAST SIDE - 12"		12-10-04 9:45 AM		Date Sampled		12-10-04 9:45 AM		Time Sampled		No. of Containers		4oz Glass		Matrix	
LAB # (Lab-Use Only)		10000															
TPH: 418.1 8015M 1005 1006																	
Cations (Ca, Mg, Na, K)																	
Anions (Cl, SO4, CO3, HCO3)																	
SAR / ESP / CEC																	
Metals: As Ag Ba Cd Cr Pb Hg Se																	
Volatiles																	
Semivolatiles																	
BTEX 8021B/5030																	
RCI																	
N.O.R.M.																	
Total Gamma																	
RUSH TAT (Pre-Schedule)																	

Sample Containers Used?

(Y) N

Temperature Upon Receipt

22.5 C

Laboratory Comments

# Environmental Lab of Texas

## Variance / Corrective Action Report – Sample Log-In

Client: E Tech Env.

Date/Time: 12-10-04 @ 1125

Order #: 4L10007

Initials: JMM

### Sample Receipt Checklist

Temperature of container/cooler?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	22.5	C
Shipping container/cooler in good condition?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	N/A	
Custody Seals intact on shipping container/cooler?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	Not present	N/A
Custody Seals intact on sample bottles?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<del>Not present</del>	
Chain of custody present?	<input checked="" type="radio"/> Yes	<input type="radio"/> No		
Sample Instructions complete on Chain of Custody?	<input checked="" type="radio"/> Yes	<input type="radio"/> No		
Chain of Custody signed when relinquished and received?	<input checked="" type="radio"/> Yes	<input type="radio"/> No		
Chain of custody agrees with sample label(s)	<input checked="" type="radio"/> Yes	<input type="radio"/> No		
Container labels legible and intact?	<input checked="" type="radio"/> Yes	<input type="radio"/> No		
Sample Matrix and properties same as on chain of custody?	<input checked="" type="radio"/> Yes	<input type="radio"/> No		
Samples in proper container/bottle?	<input checked="" type="radio"/> Yes	<input type="radio"/> No		
Samples properly preserved?	<input checked="" type="radio"/> Yes	<input type="radio"/> No		
Sample bottles intact?	<input checked="" type="radio"/> Yes	<input type="radio"/> No		
Preservations documented on Chain of Custody?	<input checked="" type="radio"/> Yes	<input type="radio"/> No		
Containers documented on Chain of Custody?	<input checked="" type="radio"/> Yes	<input type="radio"/> No		
Sufficient sample amount for indicated test?	<input checked="" type="radio"/> Yes	<input type="radio"/> No		
All samples received within sufficient hold time?	<input checked="" type="radio"/> Yes	<input type="radio"/> No		
VOC samples have zero headspace?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	Not Applicable	

Other observations:

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### Variance Documentation:

Contact Person: - \_\_\_\_\_ Date/Time: \_\_\_\_\_ Contacted by: \_\_\_\_\_

Regarding:

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Corrective Action Taken:

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## **Appendix F**

### **Non-Hazardous Waste Manifests**

# LEA LAND LANDFILL NEW MEXICO

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (505) 887-4048

## LEA LAND INC.

1300 WEST MAIN STREET • OKLAHOMA CITY, OK 73106 • PHONE (405) 236-4257

### NON-HAZARDOUS WASTE MANIFEST

NO. 26205

1. PAGE 1 OF 1

2. TRAILER NO.

#### 3. COMPANY NAME

B-J Services Company USA

PHONE NO.

#### 4. ADDRESS

2708 West County Road

CITY

STATE

ZIP

Hobbs

N.M.

88240

#### 5. PICK-UP DATE

09/20/04

#### 6. TNRCC I.D. NO.

#### 7. NAME OR DESCRIPTION OF WASTE SHIPPED:

Non-Hazardous, Non-Regulated Waste

#### 8. CONTAINERS

No.

Type

#### 9. TOTAL QUANTITY

#### 10. UNIT Wt/Vol

#### 11. TEXAS WASTE ID #

1

CM

12

Y

#### 12. COMMENTS OR SPECIAL INSTRUCTIONS:

WP0904466

#### 13.

#### IN CASE OF EMERGENCY OR SPILL, CONTACT

NAME

PHONE NO.

24-HOUR EMERGENCY NO.

Kenneth Slaughter

505-887-4048

14. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations, and are the same materials previously approved by LEA LAND, INC.

#### PRINTED/TYPED NAME

James Kennedy

#### SIGNATURE

James Kennedy

#### DATE

9-20-04

#### 15. TRANSPORTER (1)

NAME: TriPod Inc

TEXAS I.D. NO. 85589

#### IN CASE OF EMERGENCY CONTACT:

#### EMERGENCY PHONE:

#### 16. TRANSPORTER (2)

NAME:

TEXAS I.D. NO.

#### IN CASE OF EMERGENCY CONTACT:

#### EMERGENCY PHONE:

#### 17. TRANSPORTER (1): Acknowledgment of receipt of material

PRINTED/TYPED NAME DANIEL HARRISON

SIGNATURE Daniel Harrison

DATE 9-20-04

#### 18. TRANSPORTER (2): Acknowledgment of receipt of material

PRINTED/TYPED NAME

SIGNATURE

DATE

Lea Land, Inc.

#### ADDRESS:

Mile Marker 64, U.S. Hwy 62/180,  
30 Miles East of Carlsbad, NM

#### PHONE:

505-887-4048

#### PERMIT NO.

SWM #131401 - New Mexico

#### 19. COMMENTS

20. DISPOSAL FACILITY'S CERTIFICATION: I hereby certify that the above described wastes were delivered to this facility, that the facility is authorized and permitted to receive such wastes.

#### AUTHORIZED SIGNATURE

John Antez

#### CELL NO.

2

#### DATE

9/20/04

#### TIME

12:05

GENERATOR: COPIES 1 & 6

DISPOSAL SITE: COPIES 2 & 3

TRANSPORTERS: COPIES 4 & 5

COPY 1

# LEA LAND LANDFILL NEW MEXICO

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (505) 887-4048

## LEA LAND INC.

1300 WEST MAIN STREET • OKLAHOMA CITY, OK 73106 • PHONE (405) 236-4257

### NON-HAZARDOUS WASTE MANIFEST

NO. 26206

1. PAGE 1 OF 1

2. TRAILER NO.

#### 3. COMPANY NAME

B Services Company USA  
PHONE NO.

#### 4. ADDRESS

2708 West County Road

CITY

STATE

ZIP

Hobbs

N.M.

88240

#### 5. PICK-UP DATE

9/20/04

#### 6. TNRCC I.D. NO.

#### 7. NAME OR DESCRIPTION OF WASTE SHIPPED:

a. Non-Hazardous, Non Regulated Waste

b.

c.

d.

WT 23,760

#### 8. CONTAINERS

No.

Type

#### 9. TOTAL QUANTITY

#### 10. UNIT Wt/Vol

#### 11. TEXAS WASTE ID #

1

cm

12

Y

#### 12. COMMENTS OR SPECIAL INSTRUCTIONS:

WP 0904466

#### 13.

#### IN CASE OF EMERGENCY OR SPILL, CONTACT

NAME

PHONE NO.

24-HOUR EMERGENCY NO.

Kenneth Slaughter

505-887-4048

~~WP 0904466~~

14. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations, and are the same materials previously approved by LEA LAND, INC.

#### PRINTED/TYPED NAME

James Kennedy

#### SIGNATURE

James Kennedy

#### DATE

9-20-04

#### 15. TRANSPORTER (1)

NAME: Tripod INC

TEXAS I.D. NO. 85589

#### IN CASE OF EMERGENCY CONTACT:

#### EMERGENCY PHONE:

#### 17. TRANSPORTER (1): Acknowledgment of receipt of material

PRINTED/TYPED NAME D & L WINKLES

SIGNATURE D & L WINKLES DATE 9-20-04

#### 16. TRANSPORTER (2)

NAME:

TEXAS I.D. NO.

#### IN CASE OF EMERGENCY CONTACT:

#### EMERGENCY PHONE:

#### 18. TRANSPORTER (2): Acknowledgment of receipt of material

PRINTED/TYPED NAME

SIGNATURE

DATE

Lea Land, Inc.

#### ADDRESS:

Mile Marker 64, U.S. Hwy 62/180,  
30 Miles East of Carlsbad, NM

#### PHONE:

505-887-4048

#### PERMIT NO.

SWM #131401 - New Mexico

#### 19. COMMENTS

20. DISPOSAL FACILITY'S CERTIFICATION: I hereby certify that the above described wastes were delivered to this facility, that the facility is authorized and permitted to receive such wastes.

#### AUTHORIZED SIGNATURE

John Butler

#### CELL NO.

2

#### DATE

9/20/04

#### TIME

1210

# LEA LAND LANDFILL NEW MEXICO

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (505) 887-4048

## LEA LAND INC.

1300 WEST MAIN STREET • OKLAHOMA CITY, OK 73106 • PHONE (405) 236-4257

### NON-HAZARDOUS WASTE MANIFEST

NO. 26207

1. PAGE 1 OF 1

2. TRAILER NO.

G E N E R A T O R	3. COMPANY NAME <b>BJ Services Company USA</b>	4. ADDRESS <b>2708 West County Road</b>	5. PICK-UP DATE <b>9/20/04</b>			
	PHONE NO.	CITY <b>Hobbs</b>	STATE <b>N.M.</b>	ZIP <b>88240</b>		
	6. INRCC I.D. NO.					
	7. NAME OR DESCRIPTION OF WASTE SHIPPED:		8. CONTAINERS No. Type	9. TOTAL QUANTITY	10. UNIT Wt/Vol	11. TEXAS WASTE ID #
T R A N S P O R T E R S	a. <b>Non-Hazardous, Non Regulated Waste</b>		<b>1</b>	<b>CM</b>	<b>12</b>	<b>Y</b>
	b.					
	c.					
	d. <b>WT 28,340</b>					
D I S C O L I T Y	12. COMMENTS OR SPECIAL INSTRUCTIONS:					
	<b>WP 0904466</b>					
	13. IN CASE OF EMERGENCY OR SPILL, CONTACT					
	NAME <b>Kenneth Slaughter</b>		PHONE NO.		24-HOUR EMERGENCY NO. <b>505-887-4048</b>	
D I S C O L I T Y	14. GENERATOR'S CERTIFICATION: I Hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations, and are the same materials previously approved by LEA LAND, INC.					
	PRINTED/TYPED NAME <b>James Kennedy</b>		SIGNATURE <i>James Kennedy</i>		DATE <b>9-20-04</b>	
	15. TRANSPORTER (1)		16. TRANSPORTER (2)			
	NAME: <b>Tripool inc</b>		NAME:			
D I S C O L I T Y	TEXAS I.D. NO. <b>85589</b>		TEXAS I.D. NO.			
	IN CASE OF EMERGENCY CONTACT:		IN CASE OF EMERGENCY CONTACT:			
	EMERGENCY PHONE:		EMERGENCY PHONE:			
	17. TRANSPORTER (1): Acknowledgment of receipt of material		18. TRANSPORTER (2): Acknowledgment of receipt of material			
D I S C O L I T Y	PRINTED/TYPED NAME <b>Odell Winkles</b>		PRINTED/TYPED NAME			
	SIGNATURE <i>Odell Winkles</i>		DATE <b>9-20-04</b>		SIGNATURE	
	DATE		DATE			
	19. COMMENTS					
D I S C O L I T Y	Lea Land, Inc.		ADDRESS: <b>Mile Marker 64, U.S. Hwy 62/180, 30 Miles East of Carlsbad, NM</b>		PHONE: <b>505-887-4048</b>	
	PERMIT NO. <b>SWM #131401 - New Mexico</b>					
	20. DISPOSAL FACILITY'S CERTIFICATION: I Hereby certify that the above-described wastes were delivered to this facility, that the facility is authorized and permitted to receive such wastes.					
	AUTHORIZED SIGNATURE <i>John Smith</i>		CELL NO. <b>2</b>		DATE <b>9/20/04</b>	

GENERATOR: COPIES 1 & 6

DISPOSAL SITE: COPIES 2 & 3

COPY 1

TRANSPORTERS: COPIES 4 & 5

# LEA LAND LANDFILL NEW MEXICO

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (505) 887-4048

## LEA LAND INC.

1300 WEST MAIN STREET • OKLAHOMA CITY, OK 73106 • PHONE (405) 236-4257

### NON-HAZARDOUS WASTE MANIFEST

NO. 26208

1. PAGE 1 OF 1

2. TRAILER NO.

#### 3. COMPANY NAME

BS Services Company USA

PHONE NO.

#### 4. ADDRESS

2708 West County Road

CITY

STATE

ZIP

Hobbs

NM

88240

#### 5. PICK-UP DATE

SEPT 21, 2004

#### 6. TNRCC I.D. NO.

#### 7. NAME OR DESCRIPTION OF WASTE SHIPPED:

a. NONHAZARDOUS, NON REGULATED WASTE

b.

c.

d.

WT 48,400

#### 8. CONTAINERS

No.

Type

1

CM

#### 9. TOTAL QUANTITY

#### 10. UNIT Wt/Vol

#### 11. TEXAS WASTE ID #

#### 12. COMMENTS OR SPECIAL INSTRUCTIONS:

WT 0904466

#### 13.

#### IN CASE OF EMERGENCY OR SPILL, CONTACT

NAME

PHONE NO.

24-HOUR EMERGENCY NO.

Kinneth Slaughter

505-887-4048

14. GENERATOR'S CERTIFICATION: I Hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations, and are the same materials previously approved by LEA LAND, INC.

#### PRINTED/TYPED NAME

James Kennedy

#### SIGNATURE

James Kennedy

#### DATE

9-20-04

#### 15. TRANSPORTER (1)

NAME:

TRIPOD INC

TEXAS I.D. NO.

85589

IN CASE OF EMERGENCY CONTACT:

EMERGENCY PHONE:

#### 16. TRANSPORTER (2)

NAME:

TEXAS I.D. NO.

IN CASE OF EMERGENCY CONTACT:

EMERGENCY PHONE:

#### 17. TRANSPORTER (1): Acknowledgment of receipt of material

PRINTED/TYPED NAME ODELL WINKLES

SIGNATURE ODELL WINKLES DATE 9-21-04

#### 18. TRANSPORTER (2): Acknowledgment of receipt of material

PRINTED/TYPED NAME

SIGNATURE

DATE

Lea Land, Inc.

#### ADDRESS:

Mile Marker 64, U.S. Hwy 62/180,  
30 Miles East of Carlsbad, NM

#### PHONE:

505-887-4048

#### PERMIT NO.

SWM #131401 - New Mexico

#### 19. COMMENTS

20. DISPOSAL FACILITY'S CERTIFICATION: I Hereby certify that the above described wastes were delivered to this facility, that the facility is authorized and permitted to receive such wastes.

#### AUTHORIZED SIGNATURE

Deception

#### CELL NO.

2

#### DATE

9-21-04

#### TIME

1010

# LEA LAND LANDFILL NEW MEXICO

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (505) 887-4048

## LEA LAND INC.

1300 WEST MAIN STREET • OKLAHOMA CITY, OK 73106 • PHONE (405) 236-4257

### NON-HAZARDOUS WASTE MANIFEST

NO. 26209

1. PAGE 1 OF \_\_\_\_

2. TRAILER NO.

#### 3. COMPANY NAME

BJ Services Company USA

PHONE NO.

#### 4. ADDRESS

2708 West County Road

CITY

STATE

ZIP

Hobbs

NM.

88240

#### 5. PICK-UP DATE

Sept 21, 2004

#### 6. TNRC I.D. NO.

#### 7. NAME OR DESCRIPTION OF WASTE SHIPPED:

a. Non-Hazardous, Non Regulated Waste

b.

c.

#### 12. COMMENTS OR SPECIAL INSTRUCTIONS:

WP 0904466

#### 13.

#### IN CASE OF EMERGENCY OR SPILL, CONTACT

NAME

PHONE NO.

24-HOUR EMERGENCY NO.

14. GENERATOR'S CERTIFICATION: I Hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations, and are the same materials previously approved by LEA LAND, INC.

#### PRINTED/TYPED NAME

James Kennedy

#### SIGNATURE

*James Kennedy*

#### DATE

9-21-04

#### 15. TRANSPORTER (1)

NAME: Tripod Inc

TEXAS I.D. NO. 85589

IN CASE OF EMERGENCY CONTACT:

EMERGENCY PHONE:

#### 17. TRANSPORTER (1): Acknowledgment of receipt of material

PRINTED/TYPED NAME DANIEL HARRISON

SIGNATURE *Daniel Harrison* DATE 9-21-04

#### 16. TRANSPORTER (2)

NAME:

TEXAS I.D. NO.

IN CASE OF EMERGENCY CONTACT:

EMERGENCY PHONE:

#### 18. TRANSPORTER (2): Acknowledgment of receipt of material

PRINTED/TYPED NAME

SIGNATURE DATE

Lea Land, Inc.

#### ADDRESS:

Mile Marker 64, U.S. Hwy 62/180,  
30 Miles East of Carlsbad, NM

#### PHONE:

505-887-4048

#### PERMIT NO.

SWM #131401 - New Mexico

#### 19. COMMENTS

20. DISPOSAL FACILITY'S CERTIFICATION: I Hereby certify that the above described wastes were delivered to this facility, that the facility is authorized and permitted to receive such wastes.

#### AUTHORIZED SIGNATURE

*[Signature]*

#### CELL NO.

2

#### DATE

09-21-04

#### TIME

0715

GENERATOR: COPIES 1 & 6

DISPOSAL SITE: COPIES 2 & 3

TRANSPORTERS: COPIES 4 & 5

COPY 1

# LEA LAND LANDFILL NEW MEXICO

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (505) 887-4048

## LEA LAND INC.

1300 WEST MAIN STREET • OKLAHOMA CITY, OK 73106 • PHONE (405) 236-4257

### NON-HAZARDOUS WASTE MANIFEST

NO. 26210

1. PAGE 1 OF

2. TRAILER NO.

#### 3. COMPANY NAME

Bj Services Company USA

PHONE NO.

#### 4. ADDRESS

2708 West County Road

CITY

STATE

ZIP

Hobbs

NM

88240

#### 5. PICK-UP DATE

Sept 21, 2004

#### 6. TNRCC I.D. NO.

#### 7. NAME OR DESCRIPTION OF WASTE SHIPPED:

a. Non-Hazardous, Non Regulated Waste

c.

d. WT- 27080

#### 8. CONTAINERS

No.

Type

#### 9. TOTAL QUANTITY

#### 10. UNIT Wt/Vol

#### 11. TEXAS WASTE ID #

1

CM

12

Y

#### 12. COMMENTS OR SPECIAL INSTRUCTIONS:

WP 0904466

#### 13.

#### IN CASE OF EMERGENCY OR SPILL, CONTACT

NAME

PHONE NO.

24-HOUR EMERGENCY NO.

Kinzie Slaughter

505-887-4048

14. GENERATOR'S CERTIFICATION: I Hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations, and are the same materials previously approved by LEA LAND, INC.

#### PRINTED/TYPED NAME

James Kennedy

#### SIGNATURE

James Kennedy

#### DATE

9-21-04

#### 15. TRANSPORTER (1)

NAME: Tripod Inc

TEXAS I.D. NO. 85589

#### IN CASE OF EMERGENCY CONTACT:

#### EMERGENCY PHONE:

#### 17. TRANSPORTER (1): Acknowledgment of receipt of material

PRINTED/TYPED NAME Ddell Winkler

SIGNATURE Ddell Winkler DATE 9-21-04

#### 16. TRANSPORTER (2)

NAME:

TEXAS I.D. NO.

#### IN CASE OF EMERGENCY CONTACT:

#### EMERGENCY PHONE:

#### 18. TRANSPORTER (2): Acknowledgment of receipt of material

PRINTED/TYPED NAME

SIGNATURE

DATE

Lea Land, Inc.

#### ADDRESS:

Mile Marker 64, U.S. Hwy 62/180,  
30 Miles East of Carlsbad, NM

#### PHONE:

505-887-4048

#### PERMIT NO.

SWM #131401 - New Mexico

#### 19. COMMENTS

20. DISPOSAL FACILITY'S CERTIFICATION: I Hereby certify that the above described wastes were delivered to this facility, that the facility is authorized and permitted to receive such wastes.

#### AUTHORIZED SIGNATURE

Blanchard

#### CELL NO.

2

#### DATE

09-21-04

#### TIME

0910

GENERATOR: COPIES 1 & 6

DISPOSAL SITE: COPIES 2 & 3

TRANSPORTERS: COPIES 4 & 5

COPY 1

# LEA LAND LANDFILL NEW MEXICO

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (505) 887-4048

## LEA LAND INC.

1300 WEST MAIN STREET • OKLAHOMA CITY, OK 73106 • PHONE (405) 236-4257

### NON-HAZARDOUS WASTE MANIFEST

NO. 26211

1. PAGE 1 OF

2. TRAILER NO.

#### 3. COMPANY NAME

BJ SERVICES  
PHONE NO.

#### 4. ADDRESS

2208 WEST COUNTY ROAD  
CITY STATE ZIP  
14013135 08240

#### 5. PICK-UP DATE

SEPT 20, 2004

#### 6. TNRCC I.D. NO.

#### 7. NAME OR DESCRIPTION OF WASTE SHIPPED:

a. NONHAZARDOUS, NON REGULATED WASTE

#### 8. CONTAINERS

No. Type

#### 9. TOTAL QUANTITY

#### 10. UNIT Wt/Vol

#### 11. TEXAS WASTE ID #

1 CM

24

Y

#### 12. COMMENTS OR SPECIAL INSTRUCTIONS:

W7 47,380

#### 13.

#### IN CASE OF EMERGENCY OR SPILL, CONTACT

#### NAME

#### PHONE NO.

#### 24-HOUR EMERGENCY NO.

KINNEY Slaughter

505-887-4048

14. GENERATOR'S CERTIFICATION: I Hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations, and are the same materials previously approved by LEA LAND, INC.

#### PRINTED/TYPED NAME

James Kennedy

#### SIGNATURE

James Kennedy

#### DATE

9-21-04

#### 15. TRANSPORTER (1)

NAME: TRIPOD, INC.

TEXAS I.D. NO.

IN CASE OF EMERGENCY CONTACT:

EMERGENCY PHONE:

#### 17. TRANSPORTER (1): Acknowledgment of receipt of material

PRINTED/TYPED NAME DANIEL HARTSEN

SIGNATURE [Signature] DATE 9-21-04

#### 16. TRANSPORTER (2)

NAME:

TEXAS I.D. NO.

IN CASE OF EMERGENCY CONTACT:

EMERGENCY PHONE:

#### 18. TRANSPORTER (2): Acknowledgment of receipt of material

PRINTED/TYPED NAME

SIGNATURE

#### DATE

Lea Land, Inc.

#### ADDRESS:

Mile Marker 64, U.S. Hwy 62/180,  
30 Miles East of Carlsbad, NM

#### PHONE:

505-887-4048

#### PERMIT NO.

SWM #131401 - New Mexico

#### 19. COMMENTS

20. DISPOSAL FACILITY'S CERTIFICATION: I Hereby certify that the above described wastes were delivered to this facility, that the facility is authorized and permitted to receive such wastes.

#### AUTHORIZED SIGNATURE

[Signature]

#### CELL NO.

2

#### DATE

09-21-04

#### TIME

0940

GENERATOR: COPIES 1 & 6

DISPOSAL SITE: COPIES 2 & 3

TRANSPORTERS: COPIES 4 & 5

COPY 1

# LEA LAND LANDFILL NEW MEXICO

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (505) 887-4048

## LEA LAND INC.

1300 WEST MAIN STREET • OKLAHOMA CITY, OK 73106 • PHONE (405) 236-4257

### NON-HAZARDOUS WASTE MANIFEST

NO. 25523

1. PAGE 1 OF \_\_\_\_

2. TRAILER NO. \_\_\_\_

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3. COMPANY NAME <b>BJ Services</b>		4. ADDRESS <b>2708 West County Road</b>		5. PICK-UP DATE <b>SEPT 23 2004</b>	
PHONE NO.		CITY <b>Hobbs</b>	STATE <b>NM</b>	ZIP <b>88240</b>	
7. NAME OR DESCRIPTION OF WASTE SHIPPED:				8. CONTAINERS No.	9. TOTAL QUANTITY
a. <b>Non Hazardous, Non Regulated waste</b>				1	cm
b.					
c.					
d. <b>WT 45780</b>					
12. COMMENTS OR SPECIAL INSTRUCTIONS:					
13. IN CASE OF EMERGENCY OR SPILL, CONTACT					
NAME <b>Kenneth Slaughter</b>		PHONE NO.		24-HOUR EMERGENCY NO. <b>505-887-4048</b>	
14. GENERATOR'S CERTIFICATION: I Hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations, and are the same materials previously approved by LEA LAND, INC.					
PRINTED/TYPED NAME <b>Glennys Marriott</b>			SIGNATURE <b>Glennys Marriott</b>		DATE <b>9-23-2004</b>
15. TRANSPORTER (1)			16. TRANSPORTER (2)		
NAME: <b>Tripod Inc</b>			NAME:		
TEXAS I.D. NO.			TEXAS I.D. NO.		
IN CASE OF EMERGENCY CONTACT:			IN CASE OF EMERGENCY CONTACT:		
EMERGENCY PHONE:			EMERGENCY PHONE:		
17. TRANSPORTER (1): Acknowledgment of receipt of material			18. TRANSPORTER (2): Acknowledgment of receipt of material		
PRINTED/TYPED NAME <b>DANIEL HARRISON</b>			PRINTED/TYPED NAME		
SIGNATURE <b>[Signature]</b>			SIGNATURE		
DATE <b>9-23-04</b>			DATE		
Lea Land, Inc.		ADDRESS: Mile Marker 64, U.S. Hwy 62/180, 30 Miles East of Carlsbad, NM		PHONE: 505-887-4048	
PERMIT NO. SWM #131401 - New Mexico		19. COMMENTS			
20. DISPOSAL FACILITY'S CERTIFICATION: I Hereby certify that the above described wastes were delivered to this facility, that the facility is authorized and permitted to receive such wastes.					
AUTHORIZED SIGNATURE <b>[Signature]</b>		CELL NO. <b>2</b>		DATE <b>9/23/04</b>	TIME <b>1300</b>

GENERATOR: COPIES 1 & 6

DISPOSAL SITE: COPIES 2 & 3

TRANSPORTERS: COPIES 4 & 5

COPY 1

# LEA LAND LANDFILL NEW MEXICO

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (505) 887-4048

## LEA LAND INC.

1300 WEST MAIN STREET • OKLAHOMA CITY, OK 73106 • PHONE (405) 236-4257

### NON-HAZARDOUS WASTE MANIFEST

NO. 26212

1. PAGE 1 OF

2. TRAILER NO.

#### 3. COMPANY NAME

**BJ SERVICES**

PHONE NO.

#### 4. ADDRESS

**2708 WEST COUNTY RD**

CITY

STATE

ZIP

**40305**

**88240**

#### 5. PICK-UP DATE

**SEP 21, 2004**

#### 6. TNRC I.D. NO.

#### 7. NAME OR DESCRIPTION OF WASTE SHIPPED:

**NON-HAZARDOUS, NON REGULATED WASTE**

#### 8. CONTAINERS

No.

Type

#### 9. TOTAL QUANTITY

#### 10. UNIT Wt/Vol.

#### 11. TEXAS WASTE ID #

**WT 24,900**

**1 CM**

#### 12. COMMENTS OR SPECIAL INSTRUCTIONS:

#### 13.

#### IN CASE OF EMERGENCY OR SPILL, CONTACT

NAME

PHONE NO.

24-HOUR EMERGENCY NO.

**RINNEETH SLAUGHTER**

**505-887-4048**

**14. GENERATOR'S CERTIFICATION:** I Herby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations, and are the same materials previously approved by LEA LAND, INC.

#### PRINTED/TYPED NAME

**Glenys Marriott**

#### SIGNATURE

**Glenys Marriott**

#### DATE

**9-24-2004**

#### 15. TRANSPORTER (1)

NAME: **TRIPOD, INC.**

TEXAS I.D. NO.

IN CASE OF EMERGENCY CONTACT:

EMERGENCY PHONE:

#### 16.

#### TRANSPORTER (2)

NAME:

TEXAS I.D. NO.

IN CASE OF EMERGENCY CONTACT:

EMERGENCY PHONE:

#### 17. TRANSPORTER (1): Acknowledgment of receipt of material

PRINTED/TYPED NAME

**Floyd Sutton**

SIGNATURE

**Floyd Sutton**

DATE

**9-24**

#### 18. TRANSPORTER (2): Acknowledgment of receipt of material

PRINTED/TYPED NAME

SIGNATURE

DATE

**Lea Land, Inc.**

#### ADDRESS:

**Mile Marker 64, U.S. Hwy 62/180,  
30 Miles East of Carlsbad, NM**

#### PHONE:

**505-887-4048**

#### PERMIT NO.

**SWM #131401 - New Mexico**

#### 19. COMMENTS

**20. DISPOSAL FACILITY'S CERTIFICATION:** I Herby certify that the above described wastes were delivered to this facility, that the facility is authorized and permitted to receive such wastes.

AUTHORIZED SIGNATURE

**[Signature]**

CELL NO.

**2**

DATE

**09/23/04**

TIME

**0810**

# LEA LAND LANDFILL NEW MEXICO

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (505) 887-4048

## LEA LAND INC.

1300 WEST MAIN STREET • OKLAHOMA CITY, OK 73106 • PHONE (405) 236-4257

### NON-HAZARDOUS WASTE MANIFEST

NO. 26213

1. PAGE 1 OF

2. TRAILER NO.

#### 3. COMPANY NAME

B.J. SERVICES  
PHONE NO.

#### 4. ADDRESS

2708 WEST COUNTRY ROAD  
CITY STATE ZIP  
HOBBS 88240

#### 5. PICK-UP DATE

SEPT 21 2004  
6. TNRC I.D. NO.

#### 7. NAME OR DESCRIPTION OF WASTE SHIPPED:

a. NON REGULATED, NON HAZARDOUS, WASTE

b.

c.

d. WT 46080

#### 8. CONTAINERS

No. Type

#### 9. TOTAL QUANTITY

#### 10. UNIT Wt/Vol.

#### 11. TEXAS WASTE ID #

#### 12. COMMENTS OR SPECIAL INSTRUCTIONS:

#### 13.

#### IN CASE OF EMERGENCY OR SPILL, CONTACT

NAME

PHONE NO.

24-HOUR EMERGENCY NO.

KINNEETH SLAUGHTER

505-887-4049

14. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations, and are the same materials previously approved by LEA LAND, INC.

#### PRINTED/TYPED NAME

Glenys Marriott

#### SIGNATURE

Glenys Marriott

#### DATE

9-23-2004

#### 15. TRANSPORTER (1)

NAME: TRIPOT, INC.

TEXAS I.D. NO.

IN CASE OF EMERGENCY CONTACT:

EMERGENCY PHONE:

#### 17. TRANSPORTER (1): Acknowledgment of receipt of material

PRINTED/TYPED NAME

DANIEL HARRISON

SIGNATURE

Daniel Harrison

DATE

9-23-04

#### 16. TRANSPORTER (2)

NAME:

TEXAS I.D. NO.

IN CASE OF EMERGENCY CONTACT:

EMERGENCY PHONE:

#### 18. TRANSPORTER (2): Acknowledgment of receipt of material

PRINTED/TYPED NAME

SIGNATURE

DATE

Lea Land, Inc.

#### ADDRESS:

Mile Marker 64, U.S. Hwy 62/180,  
30 Miles East of Carlsbad, NM

#### PHONE:

505-887-4048

#### PERMIT NO.

SWM #131401 - New Mexico

#### 19. COMMENTS

20. DISPOSAL FACILITY'S CERTIFICATION: I hereby certify that the above-described wastes were delivered to this facility, that the facility is authorized and permitted to receive such wastes.

#### AUTHORIZED SIGNATURE

[Signature]

#### CELL NO.

2

#### DATE

9/23/04

#### TIME

0800

GENERATOR: COPIES 1 & 6

DISPOSAL SITE: COPIES 2 & 3

TRANSPORTERS: COPIES 4 & 5

COPY 1

# LEA LAND LANDFILL NEW MEXICO

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (505) 887-4048

## LEA LAND INC.

1300 WEST MAIN STREET • OKLAHOMA CITY, OK 73106 • PHONE (405) 236-4257

### NON-HAZARDOUS WASTE MANIFEST

NO. 26216

1. PAGE 1 OF

2. TRAILER NO.

#### 3. COMPANY NAME

**BJ SERVICES**  
PHONE NO.

#### 4. ADDRESS

**2700 WEST COUNTY ROAD**  
CITY **HOBBS** STATE **NM** ZIP **88240**

#### 5. PICK-UP DATE

**SEPT 21, 2004**  
6. TNRCC I.D. NO.

#### 7. NAME OR DESCRIPTION OF WASTE SHIPPED:

a. **NON-HAZARDOUS, NON REGULATED WASTE**  
b.   
c.   
d. **LOT 44,220**

#### 8. CONTAINERS

No. **1** Type **CM**

#### 9. TOTAL QUANTITY

#### 10. UNIT Wt/Vol.

#### 11. TEXAS WASTE ID #

#### 12. COMMENTS OR SPECIAL INSTRUCTIONS:

#### 13.

#### IN CASE OF EMERGENCY OR SPILL, CONTACT

##### NAME

##### PHONE NO.

##### 24-HOUR EMERGENCY NO.

**KINNETH SLAUGHTER**

**505-887-4048**

14. GENERATOR'S CERTIFICATION: I Hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations, and are the same materials previously approved by LEA LAND, INC.

#### PRINTED/TYPED NAME

**Glennys Marriott**

#### SIGNATURE

**Glennys Marriott**

#### DATE

**9-23-2004**

#### 15. TRANSPORTER (1)

NAME: **TRIPOD, INC.**

TEXAS I.D. NO.

IN CASE OF EMERGENCY CONTACT:

EMERGENCY PHONE:

#### 17. TRANSPORTER (1): Acknowledgment of receipt of material

##### PRINTED/TYPED NAME

**DANIEL HARRISON**

##### SIGNATURE

**[Signature]**

##### DATE

**9-23-04**

#### 16.

#### TRANSPORTER (2)

NAME:

TEXAS I.D. NO.

IN CASE OF EMERGENCY CONTACT:

EMERGENCY PHONE:

#### 18. TRANSPORTER (2): Acknowledgment of receipt of material

##### PRINTED/TYPED NAME

##### SIGNATURE

##### DATE

**Lea Land, Inc.**

#### ADDRESS:

**Mile Marker 64, U.S. Hwy 62/180,  
30 Miles East of Carlsbad, NM**

#### PHONE:

**505-887-4048**

#### PERMIT NO.

**SWM #131401 - New Mexico**

#### 19. COMMENTS

20. DISPOSAL FACILITY'S CERTIFICATION: I Hereby certify that the above described wastes were delivered to this facility, that the facility is authorized and permitted to receive such wastes.

#### AUTHORIZED SIGNATURE

**[Signature]**

#### CELL NO.

**2**

#### DATE

**9/23/04**

#### TIME

**1031**

GENERATOR: COPIES 1 & 6

DISPOSAL SITE: COPIES 2 & 3

TRANSPORTERS: COPIES 4 & 5

COPY 1

# LEA LAND LANDFILL NEW MEXICO

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (505) 887-4048

## LEA LAND INC.

1300 WEST MAIN STREET • OKLAHOMA CITY, OK 73106 • PHONE (405) 236-4257

### NON-HAZARDOUS WASTE MANIFEST

NO. 25781

1. PAGE 1 OF

2. TRAILER NO.

#### 3. COMPANY NAME

B SERVICES

PHONE NO.

#### 4. ADDRESS

2708 West County Road

CITY

STATE

ZIP

Hobbs

N.M.

88240

#### 5. PICK-UP DATE

SEP 24, 2004

#### 6. TNRCC I.D. NO.

#### 7. NAME OR DESCRIPTION OF WASTE SHIPPED:

a. Non Hazardous, Non Regulated Waste

c.

d. WT 42,600

#### 8. CONTAINERS

No.

Type

#### 9. TOTAL QUANTITY

#### 10. UNIT Wt/Vol.

#### 11. TEXAS WASTE ID #

1

CM

#### 12. COMMENTS OR SPECIAL INSTRUCTIONS:

#### 13.

#### IN CASE OF EMERGENCY OR SPILL, CONTACT

NAME

PHONE NO.

24-HOUR EMERGENCY NO.

Kenneth Slaughter

505-887-4048

14. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations, and are the same materials previously approved by LEA LAND, INC.

#### PRINTED/TYPED NAME

Glennys Marriott

#### SIGNATURE

Glennys Marriott

#### DATE

09-23-2004

#### 15. TRANSPORTER (1)

NAME: Tripod Inc

TEXAS I.D. NO.

IN CASE OF EMERGENCY CONTACT:

EMERGENCY PHONE:

#### 17. TRANSPORTER (1): Acknowledgment of receipt of material

PRINTED/TYPED NAME

Daniel Harrison

SIGNATURE

DATE 9/23/04

#### 16. TRANSPORTER (2)

NAME:

TEXAS I.D. NO.

IN CASE OF EMERGENCY CONTACT:

EMERGENCY PHONE:

#### 18. TRANSPORTER (2): Acknowledgment of receipt of material

PRINTED/TYPED NAME

SIGNATURE

DATE

Lea Land, Inc.

#### ADDRESS:

Mile Marker 64, U.S. Hwy 62/180,  
30 Miles East of Carlsbad, NM

#### PHONE:

505-887-4048

#### PERMIT NO.

SWM #131401 - New Mexico

#### 19. COMMENTS

20. DISPOSAL FACILITY'S CERTIFICATION: I hereby certify that the above described wastes were delivered to this facility, that the facility is authorized and permitted to receive such wastes.

#### AUTHORIZED SIGNATURE

[Signature]

#### CELL NO.

2

#### DATE

9/24/04

#### TIME

0730

GENERATOR: COPIES 1 & 6

DISPOSAL SITE: COPIES 2 & 3

TRANSPORTERS: COPIES 4 & 5

COPY 1

# LEA LAND LANDFILL NEW MEXICO

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (505) 887-4048

## LEA LAND INC.

1300 WEST MAIN STREET • OKLAHOMA CITY, OK 73106 • PHONE (405) 236-4257

### NON-HAZARDOUS WASTE MANIFEST

NO. 26214

1. PAGE 1 OF

2. TRAILER NO.

#### 3. COMPANY NAME

**BJ SERVICES**  
PHONE NO.

#### 4. ADDRESS

**2708 WEST COUNTY ROAD**  
CITY STATE ZIP  
**140135 88240**

#### 5. PICK-UP DATE

**SEPT 21 2004**  
6. TNRCC I.D. NO.

#### 7. NAME OR DESCRIPTION OF WASTE SHIPPED:

a. **NON HAZARDOUS, NON REGULATED WASTE**

#### 8. CONTAINERS

No. Type  
**1 CM**

#### 9. TOTAL QUANTITY

#### 10. UNIT Wt/Vol

#### 11. TEXAS WASTE ID #

#### 12. COMMENTS OR SPECIAL INSTRUCTIONS:

**WT 23,980**

#### 13. NAME

#### IN CASE OF EMERGENCY OR SPILL, CONTACT

#### PHONE NO.

#### 24-HOUR EMERGENCY NO.

**KINNETH SLAUGHTER**

**505-887-4048**

14. **GENERATOR'S CERTIFICATION:** I Hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations, and are the same materials previously approved by LEA LAND, INC.

#### PRINTED/TYPED NAME

**Dora Sylvia Smith**

#### SIGNATURE

**[Signature]**

#### DATE

**9/23/04**

#### 15. TRANSPORTER (1)

NAME: **TRIPOD, INC.**

TEXAS I.D. NO.

IN CASE OF EMERGENCY CONTACT:

EMERGENCY PHONE:

#### 16. TRANSPORTER (2)

NAME:

TEXAS I.D. NO.

IN CASE OF EMERGENCY CONTACT:

EMERGENCY PHONE:

#### 17. TRANSPORTER (1): Acknowledgment of receipt of material

PRINTED/TYPED NAME **ODELL WINKLES**

SIGNATURE **[Signature]** DATE **9-24-04**

#### 18. TRANSPORTER (2): Acknowledgment of receipt of material

PRINTED/TYPED NAME

SIGNATURE

DATE

**Lea Land, Inc.**

#### ADDRESS:

**Mile Marker 64, U.S. Hwy 62/180,  
30 Miles East of Carlsbad, NM**

#### PHONE:

**505-887-4048**

#### PERMIT NO.

**SWM #131401 - New Mexico**

#### 19. COMMENTS

20. **DISPOSAL FACILITY'S CERTIFICATION:** I Hereby certify that the above described wastes were delivered to this facility, that the facility is authorized and permitted to receive such wastes.

#### AUTHORIZED SIGNATURE

**[Signature]**

#### CELL NO.

**02**

#### DATE

**9/24/04**

#### TIME

**1425**

GENERATOR: COPIES 1 & 6

DISPOSAL SITE: COPIES 2 & 3

TRANSPORTERS: COPIES 4 & 5

COPY 1

# LEA LAND LANDFILL NEW MEXICO

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (505) 887-4048

## LEA LAND INC.

1300 WEST MAIN STREET • OKLAHOMA CITY, OK 73106 • PHONE (405) 236-4257

### NON-HAZARDOUS WASTE MANIFEST

NO. 26215

1. PAGE 1 OF

2. TRAILER NO.

#### 3. COMPANY NAME

BJ SERVICES

PHONE NO.

#### 4. ADDRESS

2708 WEST COUNTY ROAD

CITY

STATE

ZIP

NOBBS

88240

#### 5. PICK-UP DATE

SEPT 21 2004

#### 6. TNRCC I.D. NO.

#### 7. NAME OR DESCRIPTION OF WASTE SHIPPED:

a. NONHAZARDOUS, NON REGULATED WASTE

#### 8. CONTAINERS

No.

Type

#### 9. TOTAL QUANTITY

#### 10. UNIT Wt/Vol.

#### 11. TEXAS WASTE ID #

1

CM

#### 12. COMMENTS OR SPECIAL INSTRUCTIONS:

WT 56,120

#### 13.

#### IN CASE OF EMERGENCY OR SPILL, CONTACT

NAME

PHONE NO.

24-HOUR EMERGENCY NO.

KINNEETH SLAUGHTER

505-887-4048

14. GENERATOR'S CERTIFICATION: I Hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations, and are the same materials previously approved by LEA LAND, INC.

#### PRINTED/TYPED NAME

Glennys Marriott

#### SIGNATURE

Glennys Marriott

#### DATE

9-24-2004

#### 15. TRANSPORTER (1)

NAME: TRIPOD INC

TEXAS I.D. NO.

IN CASE OF EMERGENCY CONTACT:

EMERGENCY PHONE:

#### 17. TRANSPORTER (1): Acknowledgment of receipt of material

PRINTED/TYPED NAME

DANIEL HARRISON

SIGNATURE

Daniel Harrison

DATE

9-24-04

#### 16. TRANSPORTER (2)

NAME:

TEXAS I.D. NO.

IN CASE OF EMERGENCY CONTACT:

EMERGENCY PHONE:

#### 18. TRANSPORTER (2): Acknowledgment of receipt of material

PRINTED/TYPED NAME

SIGNATURE

DATE

Lea Land, Inc.

#### ADDRESS:

Mile Marker 64, U.S. Hwy 62/180,  
30 Miles East of Carlsbad, NM

#### PHONE:

505-887-4048

#### PERMIT NO.

SWM #131401 - New Mexico

#### 19. COMMENTS

20. DISPOSAL FACILITY'S CERTIFICATION: I Hereby certify that the above described wastes were delivered to this facility, that the facility is authorized and permitted to receive such wastes.

AUTHORIZED SIGNATURE

[Signature]

CELL NO.

2

DATE

09/24/04

TIME

0700

GENERATOR: COPIES 1 & 6

DISPOSAL SITE: COPIES 2 & 3

TRANSPORTERS: COPIES 4 & 5

COPY 1

# LEA LAND LANDFILL NEW MEXICO

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (505) 887-4048

## LEA LAND INC.

1300 WEST MAIN STREET • OKLAHOMA CITY, OK 73106 • PHONE (405) 236-4257

### NON-HAZARDOUS WASTE MANIFEST

NO. 26258

1. PAGE 1 OF

2. TRAILER NO.

#### 3. COMPANY NAME

BJ Services  
PHONE NO.

#### 4. ADDRESS

2708 West County Road  
CITY: Hobbs STATE: NM ZIP: 88240

#### 5. PICK-UP DATE

Sept 25, 2004

#### 6. TNRCC I.D. NO.

#### 7. NAME OR DESCRIPTION OF WASTE SHIPPED:

a. Non Hazardous, Non Regulated Waste

#### 8. CONTAINERS

No. 1 Type CM

#### 9. TOTAL QUANTITY

#### 10. UNIT Wt/Vol.

#### 11. TEXAS WASTE ID #

#### 12. COMMENTS OR SPECIAL INSTRUCTIONS:

WP 0904466

#### 13.

#### IN CASE OF EMERGENCY OR SPILL, CONTACT

#### NAME

#### PHONE NO.

#### 24-HOUR EMERGENCY NO.

Kinneth Slaughter

505-887-4048

14. GENERATOR'S CERTIFICATION: I Hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations, and are the same materials previously approved by LEA LAND, INC.

#### PRINTED/TYPED NAME

#### SIGNATURE

#### DATE

#### 15. TRANSPORTER (1)

NAME: Triped Inc

TEXAS I.D. NO.

IN CASE OF EMERGENCY CONTACT:

EMERGENCY PHONE:

#### 16. TRANSPORTER (2)

NAME:

TEXAS I.D. NO.

IN CASE OF EMERGENCY CONTACT:

EMERGENCY PHONE:

#### 17. TRANSPORTER (1): Acknowledgment of receipt of material

PRINTED/TYPED NAME DANIEL HARRISON

SIGNATURE [Signature] DATE 9-24-04

#### 18. TRANSPORTER (2): Acknowledgment of receipt of material

PRINTED/TYPED NAME

SIGNATURE DATE

Lea Land, Inc.

#### ADDRESS:

Mile Marker 64, U.S. Hwy 62/180,  
30 Miles East of Carlsbad, NM

#### PHONE:

505-887-4048

#### PERMIT NO.

SWM #131401 - New Mexico

#### 19. COMMENTS

20. DISPOSAL FACILITY'S CERTIFICATION: I Hereby certify that the above described wastes were delivered to this facility, that the facility is authorized and permitted to receive such wastes.

#### AUTHORIZED SIGNATURE

[Signature]

#### CELL NO.

2

#### DATE

09-24-04

#### TIME

1000

GENERATOR: COPIES 1 & 6

DISPOSAL SITE: COPIES 2 & 3

TRANSPORTERS: COPIES 4 & 5

COPY 1

# LEA LAND LANDFILL NEW MEXICO

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (505) 887-4048

## LEA LAND INC.

1300 WEST MAIN STREET • OKLAHOMA CITY, OK 73106 • PHONE (405) 236-4257

### NON-HAZARDOUS WASTE MANIFEST

NO. 26259

1. PAGE 1 OF

2. TRAILER NO.

G

3. COMPANY NAME

BJ SERVICES

PHONE NO.

4. ADDRESS

2708 West County Road

CITY

STATE

ZIP

Hobbs

N.M.

88240

5. PICK-UP DATE

SEP 24 2004

6. TNRCC I.D. NO.

E

7. NAME OR DESCRIPTION OF WASTE SHIPPED:

a. Non Hazardous, Non Regulated waste

b.

c.

d. WT 53080

8. CONTAINERS  
No. Type

1 CM

9. TOTAL  
QUANTITY

10. UNIT  
Wt/Vol

11. TEXAS  
WASTE ID #

N

E

R

12. COMMENTS OR SPECIAL INSTRUCTIONS:

A

13.

IN CASE OF EMERGENCY OR SPILL, CONTACT

NAME

PHONE NO.

24-HOUR EMERGENCY NO.

Kinneth Slaughter

505-887-4048

T

14. GENERATOR'S CERTIFICATION: I Hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations, and are the same materials previously approved by LEA LAND, INC.

PRINTED/TYPED NAME

SIGNATURE

DATE

15. TRANSPORTER (1)

NAME:

TEXAS I.D. NO.

IN CASE OF EMERGENCY CONTACT:

EMERGENCY PHONE:

17. TRANSPORTER (1): Acknowledgment of receipt of material

PRINTED/TYPED NAME

SIGNATURE

DATE

16.

TRANSPORTER (2)

NAME:

TEXAS I.D. NO.

IN CASE OF EMERGENCY CONTACT:

EMERGENCY PHONE:

18. TRANSPORTER (2): Acknowledgment of receipt of material

PRINTED/TYPED NAME

SIGNATURE

DATE

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Lea Land, Inc.

ADDRESS:

Mile Marker 64, U.S. Hwy 62/180,  
30 Miles East of Carlsbad, NM

PHONE:

505-887-4048

PERMIT NO.

SWM #131401 - New Mexico

19. COMMENTS

20. DISPOSAL FACILITY'S CERTIFICATION: I Hereby certify that the above described wastes were delivered to this facility, that the facility is authorized and permitted to receive such wastes.

AUTHORIZED SIGNATURE

CELL NO.

DATE

TIME

[Signature]

2

9/24/04

10:30

# LEA LAND LANDFILL NEW MEXICO

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (505) 887-4048

## LEA LAND INC.

1300 WEST MAIN STREET • OKLAHOMA CITY, OK 73106 • PHONE (405) 236-4257

### NON-HAZARDOUS WASTE MANIFEST

NO. 26260

1. PAGE 1 OF

2. TRAILER NO.

#### 3. COMPANY NAME

BJ Services

PHONE NO.

#### 4. ADDRESS

2708 West County Road

CITY

STATE

ZIP

Hobbs

NM

88240

#### 5. PICK-UP DATE

SEP 24 2004

#### 6. TNRC I.D. NO.

#### 7. NAME OR DESCRIPTION OF WASTE SHIPPED:

a. Non Hazardous, Non Regulated Waste

c.

d. WT 45160

#### 8. CONTAINERS

No.

Type

1

CM

#### 9. TOTAL QUANTITY

#### 10. UNIT Wt/Vol.

#### 11. TEXAS WASTE ID #

#### 12. COMMENTS OR SPECIAL INSTRUCTIONS:

#### 13.

#### IN CASE OF EMERGENCY OR SPILL, CONTACT

NAME

PHONE NO.

24-HOUR EMERGENCY NO.

Kenneth Slaughter

505-887-4048

14. GENERATOR'S CERTIFICATION: I Herby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations, and are the same materials previously approved by LEA LAND, INC.

PRINTED/TYPED NAME

SIGNATURE

DATE

Ken Slaughter 9/24/04

#### 15. TRANSPORTER (1)

NAME: Triped Inc

TEXAS I.D. NO.

IN CASE OF EMERGENCY CONTACT:

EMERGENCY PHONE:

#### 17. TRANSPORTER (1): Acknowledgment of receipt of material

PRINTED/TYPED NAME

SIGNATURE

DATE

#### 16. TRANSPORTER (2)

NAME:

TEXAS I.D. NO.

IN CASE OF EMERGENCY CONTACT:

EMERGENCY PHONE:

#### 18. TRANSPORTER (2): Acknowledgment of receipt of material

PRINTED/TYPED NAME

SIGNATURE

DATE

Lea Land, Inc.

#### ADDRESS:

Mile Marker 64, U.S. Hwy 62/180,  
30 Miles East of Carlsbad, NM

#### PHONE:

505-887-4048

#### PERMIT NO.

SWM #131401 - New Mexico

#### 19. COMMENTS

20. DISPOSAL FACILITY'S CERTIFICATION: I Herby certify that the above described wastes were delivered to this facility, that the facility is authorized and permitted to receive such wastes.

AUTHORIZED SIGNATURE

CELL NO.

DATE

TIME

[Signature]

2

9/24/04

1410

GENERATOR: COPIES 1 & 6

DISPOSAL SITE: COPIES 2 & 3

TRANSPORTERS: COPIES 4 & 5

COPY 1

# LEA LAND LANDFILL NEW MEXICO

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (505) 887-4048

## LEA LAND INC.

1300 WEST MAIN STREET • OKLAHOMA CITY, OK 73106 • PHONE (405) 236-4257

### NON-HAZARDOUS WASTE MANIFEST

NO. 26261

1. PAGE 1 OF

2. TRAILER NO.

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Y

#### 3. COMPANY NAME

BJ SERVICES

PHONE NO.

#### 4. ADDRESS

2708 West County Road

CITY

STATE

ZIP

Hobbs NM 88240

#### 5. PICK-UP DATE

SEPT 24, 2004

6. TNRCC I.D. NO.

#### 7. NAME OR DESCRIPTION OF WASTE SHIPPED:

a. Non Hazardous, Non Regulated Waste

b.

c.

d.

WT 45600

8. CONTAINERS  
No. Type

9. TOTAL  
QUANTITY

10. UNIT  
Wt/Vol

11. TEXAS  
WASTE ID #

1 CM

#### 12. COMMENTS OR SPECIAL INSTRUCTIONS:

#### 13.

#### IN CASE OF EMERGENCY OR SPILL, CONTACT

NAME

PHONE NO.

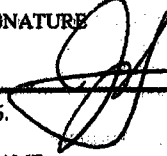
24-HOUR EMERGENCY NO.

14. GENERATOR'S CERTIFICATION: I Hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations, and are the same materials previously approved by LEA LAND, INC.

PRINTED/TYPED NAME

James Tuttle

SIGNATURE



DATE

#### 15. TRANSPORTER (1)

NAME: Tripod Inc

TEXAS I.D. NO.

IN CASE OF EMERGENCY CONTACT:

EMERGENCY PHONE:

#### 17. TRANSPORTER (1): Acknowledgment of receipt of material

PRINTED/TYPED NAME DANIEL HANVISON

SIGNATURE  DATE 9-24-04

#### 16. TRANSPORTER (2)

NAME:

TEXAS I.D. NO.

IN CASE OF EMERGENCY CONTACT:

EMERGENCY PHONE:

#### 18. TRANSPORTER (2): Acknowledgment of receipt of material

PRINTED/TYPED NAME

SIGNATURE

DATE

Lea Land, Inc.

ADDRESS:

Mile Marker 64, U.S. Hwy 62/180,  
30 Miles East of Carlsbad, NM

PHONE:

505-887-4048

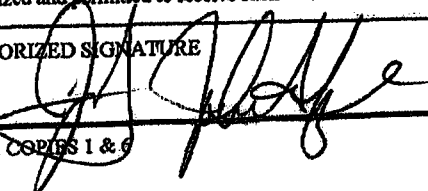
PERMIT NO.

SWM #131401 - New Mexico

19. COMMENTS

20. DISPOSAL FACILITY'S CERTIFICATION: I Heroby certify that the above described wastes were delivered to this facility, that the facility is authorized and permitted to receive such wastes.

AUTHORIZED SIGNATURE



CELL NO.

2

DATE

9/24/04

TIME

1000

GENERATOR: COPIES 1 & 2

DISPOSAL SITE: COPIES 2 & 3

COPY 1

TRANSPORTERS: COPIES 1 & 2

# LEA LAND LANDFILL NEW MEXICO

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (505) 887-4048

## LEA LAND INC.

1300 WEST MAIN STREET • OKLAHOMA CITY, OK 73106 • PHONE (405) 236-4257

### NON-HAZARDOUS WASTE MANIFEST

NO. 26257

1. PAGE 1 OF

2. TRAILER NO.

#### 3. COMPANY NAME

~~BS~~ Services

PHONE NO.

#### 4. ADDRESS

2708 West County Rd

CITY

STATE

ZIP

Hobbs NM 88240

#### 5. PICK-UP DATE

SEP 25 2004

#### 6. TNRCC I.D. NO.

#### 7. NAME OR DESCRIPTION OF WASTE SHIPPED:

a. Non-Hazardous, Non-Regulated Waste

c.

d. 20,400

#### 8. CONTAINERS

No.

Type

#### 9. TOTAL QUANTITY

#### 10. UNIT Wt/Vol.

#### 11. TEXAS WASTE ID #

1 CM

#### 12. COMMENTS OR SPECIAL INSTRUCTIONS:

#### 13.

#### IN CASE OF EMERGENCY OR SPILL, CONTACT

NAME

PHONE NO.

24-HOUR EMERGENCY NO.

Kinneth Slaughter

505-887-4048

14. GENERATOR'S CERTIFICATION: I Hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations, and are the same materials previously approved by LEA LAND, INC.

PRINTED/TYPED NAME

SIGNATURE

DATE

#### 15. TRANSPORTER (1)

NAME: Tripod Inc

TEXAS I.D. NO.

IN CASE OF EMERGENCY CONTACT:

EMERGENCY PHONE:

#### 16. TRANSPORTER (2)

NAME:

TEXAS I.D. NO.

IN CASE OF EMERGENCY CONTACT:

EMERGENCY PHONE:

#### 17. TRANSPORTER (1): Acknowledgment of receipt of material

PRINTED/TYPED NAME

Floyd Sutton

SIGNATURE

DATE 9-25-

#### 18. TRANSPORTER (2): Acknowledgment of receipt of material

PRINTED/TYPED NAME

SIGNATURE

DATE

Lea Land, Inc.

#### ADDRESS:

Mile Marker 64, U.S. Hwy 62/180,  
30 Miles East of Carlsbad, NM

#### PHONE:

505-887-4048

#### PERMIT NO.

SWM #131401 - New Mexico

#### 19. COMMENTS

20. DISPOSAL FACILITY'S CERTIFICATION: I Hereby certify that the above described wastes were delivered to this facility, that the facility is authorized and permitted to receive such wastes.

AUTHORIZED SIGNATURE

CELL NO.

DATE

TIME

*[Signature]*

2

09-25-04

0800

# LEA LAND LANDFILL NEW MEXICO

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (505) 887-4048

## LEA LAND INC.

1300 WEST MAIN STREET • OKLAHOMA CITY, OK 73106 • PHONE (405) 236-4257

### NON-HAZARDOUS WASTE MANIFEST

NO. 26264

1. PAGE 1 OF

2. TRAILER NO.

#### 3. COMPANY NAME

BJSerVICES  
PHONE NO.

#### 4. ADDRESS

2708 West County Road  
CITY STATE ZIP  
Hobbs NM 88240

#### 5. PICK-UP DATE

Sept 25, 2004  
6. TNRC I.D. NO.

#### 7. NAME OR DESCRIPTION OF WASTE SHIPPED:

a. Non-Hazardous, Non Regulated Waste

#### 8. CONTAINERS

No. Type  
1 CM

#### 9. TOTAL QUANTITY

#### 10. UNIT Wt/Vol

#### 11. TEXAS WASTE ID #

#### 12. COMMENTS OR SPECIAL INSTRUCTIONS:

WP 0904466

#### 13.

#### IN CASE OF EMERGENCY OR SPILL, CONTACT

#### NAME

#### PHONE NO.

#### 24-HOUR EMERGENCY NO.

Kenneth Slaughter

505-8874048

14. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations, and are the same materials previously approved by LEA LAND, INC.

#### PRINTED/TYPED NAME

#### SIGNATURE

#### DATE

#### 15. TRANSPORTER (1)

NAME: Tripod Inc

TEXAS I.D. NO.

IN CASE OF EMERGENCY CONTACT:

EMERGENCY PHONE:

#### 17. TRANSPORTER (1): Acknowledgment of receipt of material

PRINTED/TYPED NAME Floyd Sutton

SIGNATURE Floyd Sutton DATE 9-25

#### 16. TRANSPORTER (2)

NAME:

TEXAS I.D. NO.

IN CASE OF EMERGENCY CONTACT:

EMERGENCY PHONE:

#### 18. TRANSPORTER (2): Acknowledgment of receipt of material

PRINTED/TYPED NAME

SIGNATURE

DATE

Lea Land, Inc.

#### ADDRESS:

Mile Marker 64, U.S. Hwy 62/180,  
30 Miles East of Carlsbad, NM

#### PHONE:

505-887-4048

#### PERMIT NO.

SWM #131401 - New Mexico

#### 19. COMMENTS

20. DISPOSAL FACILITY'S CERTIFICATION: I hereby certify that the above described wastes were delivered to this facility, that the facility is authorized and permitted to receive such wastes.

#### AUTHORIZED SIGNATURE

#### CELL NO.

#### DATE

#### TIME

[Signature]

2

09-25-04

0810

GENERATOR: COPIES 1 & 6

DISPOSAL SITE: COPIES 2 & 3

TRANSPORTERS: COPIES 4 & 5

COPY 1

# LEA LAND LANDFILL NEW MEXICO

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (505) 887-4048

## LEA LAND INC.

1300 WEST MAIN STREET • OKLAHOMA CITY, OK 73106 • PHONE (405) 236-4257

### NON-HAZARDOUS WASTE MANIFEST

NO. 26265

1. PAGE 1 OF

2. TRAILER NO.

#### 3. COMPANY NAME

B Services  
PHONE NO.

#### 4. ADDRESS

2708 West County Road  
CITY STATE ZIP  
Hobbs NM 88240

#### 5. PICK-UP DATE

Sept 25, 2004  
6. TNRCC I.D. NO.

#### 7. NAME OR DESCRIPTION OF WASTE SHIPPED:

a. Non-Hazardous, Non Regulated Waste  
b.  
c.  
d. WT 30,100

#### 8. CONTAINERS

No. Type  
1 CM

#### 9. TOTAL QUANTITY

#### 10. UNIT Wt/Vol

#### 11. TEXAS WASTE ID #

#### 12. COMMENTS OR SPECIAL INSTRUCTIONS:

WP 0904466

#### 13.

#### IN CASE OF EMERGENCY OR SPILL, CONTACT

#### NAME

#### PHONE NO.

#### 24-HOUR EMERGENCY NO.

Kenneth Slaughter

505-887-4048

14. GENERATOR'S CERTIFICATION: I Hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations, and are the same materials previously approved by LEA LAND, INC.

#### PRINTED/TYPED NAME

#### SIGNATURE

#### DATE

#### 15. TRANSPORTER (1)

#### NAME:

#### TEXAS I.D. NO.

#### IN CASE OF EMERGENCY CONTACT:

#### EMERGENCY PHONE:

#### 17. TRANSPORTER (1): Acknowledgment of receipt of material

#### PRINTED/TYPED NAME

#### SIGNATURE

#### DATE

#### 16.

#### TRANSPORTER (2)

#### NAME:

#### TEXAS I.D. NO.

#### IN CASE OF EMERGENCY CONTACT:

#### EMERGENCY PHONE:

#### 18. TRANSPORTER (2): Acknowledgment of receipt of material

#### PRINTED/TYPED NAME

#### SIGNATURE

#### DATE

Lea Land, Inc.

#### ADDRESS:

Mile Marker 64, U.S. Hwy 62/180,  
30 Miles East of Carlsbad, NM

#### PHONE:

505-887-4048

#### PERMIT NO.

SWM #131401 - New Mexico

#### 19. COMMENTS

20. DISPOSAL FACILITY'S CERTIFICATION: I Hereby certify that the above described wastes were delivered to this facility, that the facility is authorized and permitted to receive such wastes.

#### AUTHORIZED SIGNATURE

#### CELL NO.

#### DATE

#### TIME

[Signature]

2

9-25-04

0900

# LEA LAND LANDFILL NEW MEXICO

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (505) 887-4048

## LEA LAND INC.

1300 WEST MAIN STREET • OKLAHOMA CITY, OK 73106 • PHONE (405) 236-4257

### NON-HAZARDOUS WASTE MANIFEST

NO. 26194

1. PAGE 1 OF

2. TRAILER NO.

#### 3. COMPANY NAME

B.P. PIPELINE NA, INC.  
PHONE NO.

806 632-3235

#### 4. ADDRESS

502 N. WEST AVE  
CITY STATE ZIP

LEVELAND, TX 79336

#### 5. PICK-UP DATE

DEC 08, 2004

#### 6. TNRCC I.D. NO.

#### 7. NAME OR DESCRIPTION OF WASTE SHIPPED:

a. NON HAZARDOUS, NON REGULATED WASTE  
b.  
c.  
d. WT 39620

#### 8. CONTAINERS

No.

Type

1

CM

#### 9. TOTAL QUANTITY

#### 10. UNIT Wt/Vol

#### 11. TEXAS WASTE ID #

#### 12. COMMENTS OR SPECIAL INSTRUCTIONS:

#### 13.

#### IN CASE OF EMERGENCY OR SPILL, CONTACT

NAME

PHONE NO.

24-HOUR EMERGENCY NO.

KINNEEN SLAUGHTER

505-887-4048

14. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations, and are the same materials previously approved by LEA LAND, INC.

#### PRINTED/TYPED NAME

Sylvia Smith

#### SIGNATURE

[Signature]

#### DATE

12/8/04

#### 15. TRANSPORTER (1)

NAME: TRIPOD, INC

TEXAS I.D. NO. 85589

IN CASE OF EMERGENCY CONTACT: K. SLAUGHTER

EMERGENCY PHONE: 505-887-4048

#### 16. TRANSPORTER (2)

NAME:

TEXAS I.D. NO.

IN CASE OF EMERGENCY CONTACT:

EMERGENCY PHONE:

#### 17. TRANSPORTER (1): Acknowledgment of receipt of material

PRINTED/TYPED NAME Floyd Sutton

SIGNATURE [Signature] DATE 12-08

#### 18. TRANSPORTER (2): Acknowledgment of receipt of material

PRINTED/TYPED NAME

SIGNATURE DATE

Lea Land, Inc.

#### ADDRESS:

Mile Marker 64, U.S. Hwy 62/180,  
30 Miles East of Carlsbad, NM

#### PHONE:

505-887-4048

#### PERMIT NO.

SWM #131401 - New Mexico

#### 19. COMMENTS

20. DISPOSAL FACILITY'S CERTIFICATION: I hereby certify that the above described wastes were delivered to this facility, that the facility is authorized and permitted to receive such wastes.

#### AUTHORIZED SIGNATURE

[Signature]

#### CELL NO.

2

#### DATE

12/8/04

#### TIME

0805

GENERATOR: COPIES 1 & 6

DISPOSAL SITE: COPIES 2 & 3

TRANSPORTERS: COPIES 4 & 5

COPY 1

# LEA LAND LANDFILL NEW MEXICO

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (505) 887-4048

## LEA LAND INC.

1300 WEST MAIN STREET • OKLAHOMA CITY, OK 73106 • PHONE (405) 236-4257

### NON-HAZARDOUS WASTE MANIFEST

NO. 26263

1. PAGE 1 OF

2. TRAILER NO.

#### 3. COMPANY NAME

BS Services

PHONE NO.

#### 4. ADDRESS

2708 W. County Road

CITY

STATE

ZIP

Hobbs

NM

88240

#### 5. PICK-UP DATE

DEC 08, 2004

#### 6. TNRCC I.D. NO.

#### 7. NAME OR DESCRIPTION OF WASTE SHIPPED:

a. Non Hazardous, Non-Regulated Waste

b.

c.

d. WT - 30,620

#### 8. CONTAINERS

No.

Type

1

CM

#### 9. TOTAL QUANTITY

#### 10. UNIT Wt/Vol

#### 11. TEXAS WASTE ID #

#### 12. COMMENTS OR SPECIAL INSTRUCTIONS:

#### 13.

#### IN CASE OF EMERGENCY OR SPILL, CONTACT

NAME

PHONE NO.

24-HOUR EMERGENCY NO.

Kenneth Slaughter

505-887-4048

14. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations, and are the same materials previously approved by LEA LAND, INC.

PRINTED/TYPED NAME

SIGNATURE

DATE

#### 15. TRANSPORTER (1)

NAME:

TEXAS I.D. NO.

IN CASE OF EMERGENCY CONTACT:

EMERGENCY PHONE:

#### 17. TRANSPORTER (1): Acknowledgment of receipt of material

PRINTED/TYPED NAME

SIGNATURE

Floyd Sutton

DATE

12-08-04

#### 16. TRANSPORTER (2)

NAME:

TEXAS I.D. NO.

IN CASE OF EMERGENCY CONTACT:

EMERGENCY PHONE:

#### 18. TRANSPORTER (2): Acknowledgment of receipt of material

PRINTED/TYPED NAME

SIGNATURE

DATE

Lea Land, Inc.

ADDRESS:

Mile Marker 64, U.S. Hwy 62/180,  
30 Miles East of Carlsbad, NM

PHONE:

505-887-4048

PERMIT NO.

SWM #131401 - New Mexico

19. COMMENTS

20. DISPOSAL FACILITY'S CERTIFICATION: I hereby certify that the above described wastes were delivered to this facility, that the facility is authorized and permitted to receive such wastes.

AUTHORIZED SIGNATURE

CELL NO.

DATE

TIME

[Signature]

2

12-08-04

0810

GENERATOR: COPIES 1 & 6

DISPOSAL SITE: COPIES 2 & 3

TRANSPORTERS: COPIES 4 & 5

COPY 1

# LEA LAND LANDFILL NEW MEXICO

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (505) 887-4048

## LEA LAND INC.

1300 WEST MAIN STREET • OKLAHOMA CITY, OK 73106 • PHONE (405) 236-4257

### NON-HAZARDOUS WASTE MANIFEST

NO. 26269

1. PAGE 1 OF

2. TRAILER NO.

#### 3. COMPANY NAME

**BJ SERVICES**  
PHONE NO.

#### 4. ADDRESS

**2708 County Road**  
CITY STATE ZIP  
**NOBBS, NM 88240**

#### 5. PICK-UP DATE

**DEC 8, 2004**

#### 6. TNRCC I.D. NO.

#### 7. NAME OR DESCRIPTION OF WASTE SHIPPED:

a. **NON HAZARDOUS, NON REGULATED WASTE**

#### 8. CONTAINERS

No. Type  
**1 CM**

#### 9. TOTAL QUANTITY

#### 10. UNIT Wt/Vol.

#### 11. TEXAS WASTE ID #

#### 12. COMMENTS OR SPECIAL INSTRUCTIONS:

**WP 0904466**

#### 13. IN CASE OF EMERGENCY OR SPILL, CONTACT

##### NAME

##### PHONE NO.

##### 24-HOUR EMERGENCY NO.

**KIN SLAUGHTER**

**505-887-4048**

14. GENERATOR'S CERTIFICATION: I Herby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations, and are the same materials previously approved by LEA LAND, INC.

#### PRINTED/TYPED NAME

**Sylvia Smith**

#### SIGNATURE

*[Signature]*

#### DATE

**12/8/04**

#### 15. TRANSPORTER (1)

##### NAME:

##### TEXAS I.D. NO.

##### IN CASE OF EMERGENCY CONTACT:

##### EMERGENCY PHONE:

#### 17. TRANSPORTER (1): Acknowledgment of receipt of material

##### PRINTED/TYPED NAME

**Odell Winkles**

##### SIGNATURE

*[Signature]* DATE **11-8-04**

#### 16. TRANSPORTER (2)

##### NAME:

##### TEXAS I.D. NO.

##### IN CASE OF EMERGENCY CONTACT:

##### EMERGENCY PHONE:

#### 18. TRANSPORTER (2): Acknowledgment of receipt of material

##### PRINTED/TYPED NAME

##### SIGNATURE

##### DATE

**Lea Land, Inc.**

#### ADDRESS:

**Mile Marker 64, U.S. Hwy 62/180,  
30 Miles East of Carlsbad, NM**

#### PHONE:

**505-887-4048**

#### PERMIT NO.

**SWM #131401 - New Mexico**

#### 19. COMMENTS

20. DISPOSAL FACILITY'S CERTIFICATION: I Herby certify that the above described wastes were delivered to this facility, that the facility is authorized and permitted to receive such wastes.

#### AUTHORIZED SIGNATURE

*[Signature]*

#### CELL NO.

**2**

#### DATE

**12-08-04**

#### TIME

**1305**

# LEA LAND LANDFILL NEW MEXICO

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (505) 887-4048

## LEA LAND INC.

1300 WEST MAIN STREET • OKLAHOMA CITY, OK 73106 • PHONE (405) 236-4257

### NON-HAZARDOUS WASTE MANIFEST

NO. 26290

1. PAGE 1 OF \_\_\_\_

2. TRAILER NO. \_\_\_\_

#### 3. COMPANY NAME

B.J. SERVICES  
PHONE NO. 2

#### 4. ADDRESS

2708 County Road

CITY

STATE

ZIP

HOBBS, NM 88240

#### 5. PICK-UP DATE

DEC 8, 2004

#### 6. TNRCC I.D. NO.

#### 7. NAME OR DESCRIPTION OF WASTE SHIPPED:

a. NON HAZARDOUS, NON REGULATED WASTE

#### 8. CONTAINERS

No.

Type

1 CM

#### 9. TOTAL QUANTITY

#### 10. UNIT Wt/Vol

#### 11. TEXAS WASTE ID #

#### 12. COMMENTS OR SPECIAL INSTRUCTIONS:

WT27140

WP 0904466

#### 13.

#### IN CASE OF EMERGENCY OR SPILL, CONTACT

NAME

PHONE NO.

24-HOUR EMERGENCY NO.

KIM SLAUGHTER

505-887-4048

14. GENERATOR'S CERTIFICATION: I Hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations, and are the same materials previously approved by LEA LAND, INC.

#### PRINTED/TYPED NAME

Sylvia Smith

#### SIGNATURE

[Signature]

#### DATE

12/8/04

#### 15. TRANSPORTER (1)

NAME:

TEXAS I.D. NO.

IN CASE OF EMERGENCY CONTACT:

EMERGENCY PHONE:

#### 17. TRANSPORTER (1): Acknowledgment of receipt of material

PRINTED/TYPED NAME Odelia Winkles

SIGNATURE [Signature] DATE 11-8-04

#### 16. TRANSPORTER (2)

NAME:

TEXAS I.D. NO.

IN CASE OF EMERGENCY CONTACT:

EMERGENCY PHONE:

#### 18. TRANSPORTER (2): Acknowledgment of receipt of material

PRINTED/TYPED NAME

SIGNATURE DATE

Lea Land, Inc.

#### ADDRESS:

Mile Marker 64, U.S. Hwy 62/180,  
30 Miles East of Carlsbad, NM

#### PHONE:

505-887-4048

#### PERMIT NO.

SWM #131401 - New Mexico

#### 19. COMMENTS

20. DISPOSAL FACILITY'S CERTIFICATION: I Hereby certify that the above described wastes were delivered to this facility, that the facility is authorized and permitted to receive such wastes.

#### AUTHORIZED SIGNATURE

[Signature]

#### CELL NO.

2

#### DATE

12/8/04

#### TIME

0805

# LEA LAND LANDFILL NEW MEXICO

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (505) 887-4048

## LEA LAND INC.

1300 WEST MAIN STREET • OKLAHOMA CITY, OK 73106 • PHONE (405) 236-4257

### NON-HAZARDOUS WASTE MANIFEST

NO. 26291

1. PAGE 1 OF

2. TRAILER NO.

#### 3. COMPANY NAME

B J SERVICES  
PHONE NO.

#### 4. ADDRESS

2708 WEST COUNTY ROAD  
CITY STATE ZIP  
NORRIS NM 88240

#### 5. PICK-UP DATE

DEC 08, 2004

#### 6. TNRCC I.D. NO.

#### 7. NAME OR DESCRIPTION OF WASTE SHIPPED:

a. NON HAZARDOUS, NON REGULATED WASTE

#### 8. CONTAINERS

No.

Type

1

CM

#### 9. TOTAL QUANTITY

#### 10. UNIT Wt/Vol

#### 11. TEXAS WASTE ID #

#### 12. COMMENTS OR SPECIAL INSTRUCTIONS:

WT 28540

W.P. 0904460

#### 13.

#### IN CASE OF EMERGENCY OR SPILL, CONTACT

NAME

PHONE NO.

24-HOUR EMERGENCY NO.

KIN SLAUGHTER

505-887-4048

14. GENERATOR'S CERTIFICATION: I Hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations, and are the same materials previously approved by LEA LAND, INC.

#### PRINTED/TYPED NAME

Sylvia Smith

#### SIGNATURE

[Signature]

#### DATE

12/8/04

#### 15. TRANSPORTER (1)

NAME:

TEXAS I.D. NO.

IN CASE OF EMERGENCY CONTACT:

EMERGENCY PHONE:

#### 17. TRANSPORTER (1): Acknowledgment of receipt of material

PRINTED/TYPED NAME

L. B. Pool

SIGNATURE

[Signature]

DATE 12-8-04

#### 16.

#### TRANSPORTER (2)

NAME:

TEXAS I.D. NO.

IN CASE OF EMERGENCY CONTACT:

EMERGENCY PHONE:

#### 18. TRANSPORTER (2): Acknowledgment of receipt of material

PRINTED/TYPED NAME

SIGNATURE

DATE

Lea Land, Inc.

#### ADDRESS:

Mile Marker 64, U.S. Hwy 62/180,  
30 Miles East of Carlsbad, NM

#### PHONE:

505-887-4048

#### PERMIT NO.

SWM #131401 - New Mexico

#### 19. COMMENTS

20. DISPOSAL FACILITY'S CERTIFICATION: I Hereby certify that the above described wastes were delivered to this facility, that the facility is authorized and permitted to receive such wastes.

#### AUTHORIZED SIGNATURE

[Signature]

#### CELL NO.

2

#### DATE

12/8/04

#### TIME

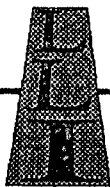
0805

GENERATOR: COPIES 1 & 6

DISPOSAL SITE: COPIES 2 & 3

TRANSPORTERS: COPIES 4 & 5

COPY 1



# LEA LAND LANDFILL NEW MEXICO

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (505) 887-4048

## LEA LAND INC.

1300 WEST MAIN STREET • OKLAHOMA CITY, OK 73106 • PHONE (405) 236-4257

### NON-HAZARDOUS WASTE MANIFEST

NO. 26292

1. PAGE 1 OF \_\_\_\_

2. TRAILER NO. \_\_\_\_

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#### 3. COMPANY NAME

B J SERVICES  
PHONE NO. \_\_\_\_

#### 4. ADDRESS

2708 WEST COUNTY ROAD  
CITY STATE ZIP  
HOBBS NM

#### 5. PICK-UP DATE

DEC 08, 2004

#### 6. TNRCC I.D. NO.

#### 7. NAME OR DESCRIPTION OF WASTE SHIPPED:

a. NONHAZARDOUS, NON REGULATED WASTE  
b. \_\_\_\_  
c. \_\_\_\_  
d. WT- 27,140

#### 8. CONTAINERS

No. Type  
1 CM

#### 9. TOTAL QUANTITY

#### 10. UNIT Wt/Vol.

#### 11. TEXAS WASTE ID #

#### 12. COMMENTS OR SPECIAL INSTRUCTIONS:

WP 0904466

#### 13. IN CASE OF EMERGENCY OR SPILL, CONTACT

##### NAME

##### PHONE NO.

##### 24-HOUR EMERGENCY NO.

KIN Slaughter

505-887-4048

14. GENERATOR'S CERTIFICATION: I Hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations, and are the same materials previously approved by LEA LAND, INC.

#### PRINTED/TYPED NAME

#### SIGNATURE

#### DATE

#### 15. TRANSPORTER (1)

##### NAME:

##### TEXAS I.D. NO.

##### IN CASE OF EMERGENCY CONTACT:

##### EMERGENCY PHONE:

#### 17. TRANSPORTER (1): Acknowledgment of receipt of material

##### PRINTED/TYPED NAME

Odell Winkles

##### SIGNATURE

Odell Winkles

##### DATE

12-8-04

#### 16. TRANSPORTER (2)

##### NAME:

##### TEXAS I.D. NO.

##### IN CASE OF EMERGENCY CONTACT:

##### EMERGENCY PHONE:

#### 18. TRANSPORTER (2): Acknowledgment of receipt of material

##### PRINTED/TYPED NAME

##### SIGNATURE

##### DATE

Lea Land, Inc.

#### ADDRESS:

Mile Marker 64, U.S. Hwy 62/180,  
30 Miles East of Carlsbad, NM

#### PHONE:

505-887-4048

#### PERMIT NO.

SWM #131401 - New Mexico

#### 19. COMMENTS

20. DISPOSAL FACILITY'S CERTIFICATION: I Hereby certify that the above described wastes were delivered to this facility, that the facility is authorized and permitted to receive such wastes.

#### AUTHORIZED SIGNATURE

[Signature]

#### CELL NO.

2

#### DATE

12-08-04

#### TIME

0800

# LEA LAND LANDFILL NEW MEXICO

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (505) 887-4048

## LEA LAND INC.

1300 WEST MAIN STREET • OKLAHOMA CITY, OK 73106 • PHONE (405) 236-4237

### NON-HAZARDOUS WASTE MANIFEST

NO. 26293

1. PAGE 1 OF

2. TRAILER NO.

#### 3. COMPANY NAME

BJ SERVICES  
PHONE NO.

#### 4. ADDRESS

2708 WEST COUNTRY ROAD

CITY STATE ZIP  
HOBBS NM 88240

#### 5. PICK-UP DATE

DEC 08, 2004

#### 6. TNRC I.D. NO.

#### 7. NAME OR DESCRIPTION OF WASTE SHIPPED:

a. NON HAZARDOUS, NON REGULATED WASTE

b.

c.

d. WT - 28,380

#### 8. CONTAINERS

No.

Type

#### 9. TOTAL QUANTITY

#### 10. UNIT Wt/Vol

#### 11. TEXAS WASTE ID #

#### 12. COMMENTS OR SPECIAL INSTRUCTIONS:

WP 0904466

#### 13.

#### IN CASE OF EMERGENCY OR SPILL, CONTACT

NAME

PHONE NO.

24-HOUR EMERGENCY NO.

KIM SLAUGHTER

505-887-4048

14. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations, and are the same materials previously approved by LEA LAND, INC.

#### PRINTED/TYPED NAME

Sylvia Smith

#### SIGNATURE

[Signature]

#### DATE

12/8/04

#### 15. TRANSPORTER (1)

NAME:

TEXAS I.D. NO.

IN CASE OF EMERGENCY CONTACT:

EMERGENCY PHONE:

#### 17. TRANSPORTER (1): Acknowledgment of receipt of material

PRINTED/TYPED NAME

L. B. Pool

SIGNATURE

[Signature]

DATE

12-8-04

#### 16. TRANSPORTER (2)

NAME:

TEXAS I.D. NO.

IN CASE OF EMERGENCY CONTACT:

EMERGENCY PHONE:

#### 18. TRANSPORTER (2): Acknowledgment of receipt of material

PRINTED/TYPED NAME

SIGNATURE

DATE

Lea Land, Inc.

#### ADDRESS:

Mile Marker 64, U.S. Hwy 62/180,  
30 Miles East of Carlsbad, NM

#### PHONE:

505-887-4048

#### PERMIT NO.

SWM #131401 - New Mexico

#### 19. COMMENTS

20. DISPOSAL FACILITY'S CERTIFICATION: I hereby certify that the above described wastes were delivered to this facility, that the facility is authorized and permitted to receive such wastes.

#### AUTHORIZED SIGNATURE

[Signature]

#### CELL NO.

2

#### DATE

12-08-04

#### TIME

1310

GENERATOR: COPIES 1 & 6

DISPOSAL SITE: COPIES 2 & 3

TRANSPORTERS: COPIES 4 & 5

COPY 1

# LEA LAND LANDFILL NEW MEXICO

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (505) 887-4048

## LEA LAND INC.

1300 WEST MAIN STREET • OKLAHOMA CITY, OK 73106 • PHONE (405) 236-4257

### NON-HAZARDOUS WASTE MANIFEST

NO. 26294

1. PAGE 1 OF \_\_\_\_

2. TRAILER NO. \_\_\_\_

#### 3. COMPANY NAME

**BJ SERVICES**  
PHONE NO. \_\_\_\_

#### 4. ADDRESS

**2708 WEST COUNTY ROAD**  
CITY STATE ZIP  
**HOBBS NM 88240**

#### 5. PICK-UP DATE

**DEC 8, 2004**

#### 6. TNRCC I.D. NO.

#### 7. NAME OR DESCRIPTION OF WASTE SHIPPED:

**NON HAZARDOUS, NON REGULATED WASTE**

#### 8. CONTAINERS

No.

Type

#### 9. TOTAL QUANTITY

#### 10. UNIT Wt/Vol

#### 11. TEXAS WASTE ID #

1

CM

#### 12. COMMENTS OR SPECIAL INSTRUCTIONS:

**WT 41,040**

**WP 0904466**

#### 13.

#### IN CASE OF EMERGENCY OR SPILL, CONTACT

NAME

PHONE NO.

24-HOUR EMERGENCY NO.

**KIM SLAUGHTER 1**

**505-887-4048**

**14. GENERATOR'S CERTIFICATION:** I Hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations, and are the same materials previously approved by LEA LAND, INC.

#### PRINTED/TYPED NAME

**Glennys Marriott**

#### SIGNATURE

**Glennys Marriott**

#### DATE

**12-8-04**

#### 15. TRANSPORTER (1)

NAME:

TEXAS I.D. NO.

IN CASE OF EMERGENCY CONTACT:

EMERGENCY PHONE:

#### 16. TRANSPORTER (2)

NAME:

TEXAS I.D. NO.

IN CASE OF EMERGENCY CONTACT:

EMERGENCY PHONE:

#### 17. TRANSPORTER (1): Acknowledgment of receipt of material

PRINTED/TYPED NAME

SIGNATURE

DATE

#### 18. TRANSPORTER (2): Acknowledgment of receipt of material

PRINTED/TYPED NAME

SIGNATURE

DATE

**Lea Land, Inc.**

#### ADDRESS:

**Mile Marker 64, U.S. Hwy 62/180,  
30 Miles East of Carlsbad, NM**

#### PHONE:

**505-887-4048**

#### PERMIT NO.

**SWM #131401 - New Mexico**

#### 19. COMMENTS

**20. DISPOSAL FACILITY'S CERTIFICATION:** I Hereby certify that the above described wastes were delivered to this facility, that the facility is authorized and permitted to receive such wastes.

#### AUTHORIZED SIGNATURE

**[Signature]**

#### CELL NO.

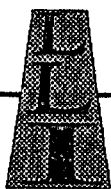
**2**

#### DATE

**12/8/04**

#### TIME

**0830**



# LEA LAND LANDFILL NEW MEXICO

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (505) 887-4048

## LEA LAND INC.

1300 WEST MAIN STREET • OKLAHOMA CITY, OK 73106 • PHONE (405) 236-4257

### NON-HAZARDOUS WASTE MANIFEST

NO. 26295

1. PAGE 1 OF

2. TRAILER NO.

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3. COMPANY NAME

B J SERVICES

PHONE NO.

4. ADDRESS

2708 WEST COUNTY ROAD

CITY

STATE

ZIP

HOBBS, NM 88240

5. PICK-UP DATE

DEC 8, 2004

6. TNRCC I.D. NO.

7. NAME OR DESCRIPTION OF WASTE SHIPPED:

a. NON HAZARDOUS, NON REGULATED WASTE

8. CONTAINERS  
No. Type

1 CM

9. TOTAL  
QUANTITY

10. UNIT  
Wt/Vol

11. TEXAS  
WASTE ID #

12. COMMENTS OR SPECIAL INSTRUCTIONS:

WP 0904466

13.  
NAME

IN CASE OF EMERGENCY OR SPILL, CONTACT

PHONE NO.

24-HOUR EMERGENCY NO.

KIN SLAUGHTER

505-887-4048

14. GENERATOR'S CERTIFICATION: I Hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations, and are the same materials previously approved by LEA LAND, INC.

PRINTED/TYPED NAME

Glennys Marriott

SIGNATURE

Glennys Marriott 12-08-04

DATE

15. TRANSPORTER (1)

NAME:

TEXAS I.D. NO.

IN CASE OF EMERGENCY CONTACT:

EMERGENCY PHONE:

17. TRANSPORTER (1): Acknowledgment of receipt of material

PRINTED/TYPED NAME

L.B. Pool

SIGNATURE

L.B. Pool

DATE

12-8-04

16. TRANSPORTER (2)

NAME:

TEXAS I.D. NO.

IN CASE OF EMERGENCY CONTACT:

EMERGENCY PHONE:

18. TRANSPORTER (2): Acknowledgment of receipt of material

PRINTED/TYPED NAME

SIGNATURE

DATE

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Lea Land, Inc.

ADDRESS:

Mile Marker 64, U.S. Hwy 62/180,  
30 Miles East of Carlsbad, NM

PHONE:

505-887-4048

PERMIT NO.

SWM #131401 - New Mexico

19. COMMENTS

20. DISPOSAL FACILITY'S CERTIFICATION: I Hereby certify that the above described wastes were delivered to this facility, that the facility is authorized and permitted to receive such wastes.

AUTHORIZED SIGNATURE

Blaylock

CELL NO.

2

DATE

12-08-04

TIME

GENERATOR: COPIES 1 & 6

DISPOSAL SITE: COPIES 2 & 3

TRANSPORTERS: COPIES 4 & 5

COPY 1

# LEA LAND LANDFILL NEW MEXICO

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (505) 887-4048

## LEA LAND INC.

1300 WEST MAIN STREET • OKLAHOMA CITY, OK 73106 • PHONE (405) 236-4257

### NON-HAZARDOUS WASTE MANIFEST

NO. 26296

1. PAGE 1 OF

2. TRAILER NO.

#### 3. COMPANY NAME

**BJ SERVICES**  
PHONE NO.

#### 4. ADDRESS

**2708 WEST COUNTY ROAD**  
CITY STATE ZIP  
**HOBBS, NM 88240**

#### 5. PICK-UP DATE

**DEC 08 2004**

#### 6. TNRC I.D. NO.

#### 7. NAME OR DESCRIPTION OF WASTE SHIPPED:

**a. NON HAZARDOUS, NON REGULATED**

#### 8. CONTAINERS

No.

Type

#### 9. TOTAL QUANTITY

#### 10. UNIT Wt/Vol.

#### 11. TEXAS WASTE ID #

**1**

**CM**

**d. WT 28,660**

#### 12. COMMENTS OR SPECIAL INSTRUCTIONS:

**WP 0904466**

#### 13.

#### IN CASE OF EMERGENCY OR SPILL, CONTACT

##### NAME

##### PHONE NO.

##### 24-HOUR EMERGENCY NO.

**KIN SAUGHTER**

**505-887-4048**

**14. GENERATOR'S CERTIFICATION:** I Herby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations, and are the same materials previously approved by LEA LAND, INC.

#### PRINTED/TYPED NAME

**Glennys Marriott**

#### SIGNATURE

**Glennys Marriott**

#### DATE

**12-08-04**

#### 15. TRANSPORTER (1)

##### NAME:

##### TEXAS I.D. NO.

##### IN CASE OF EMERGENCY CONTACT:

##### EMERGENCY PHONE:

#### 16. TRANSPORTER (2)

##### NAME:

##### TEXAS I.D. NO.

##### IN CASE OF EMERGENCY CONTACT:

##### EMERGENCY PHONE:

#### 17. TRANSPORTER (1): Acknowledgment of receipt of material

##### PRINTED/TYPED NAME

**L.B. Pool**

##### SIGNATURE

**L.B. Pool**

##### DATE

**12-8-04**

#### 18. TRANSPORTER (2): Acknowledgment of receipt of material

##### PRINTED/TYPED NAME

##### SIGNATURE

##### DATE

**Lea Land, Inc.**

#### ADDRESS:

**Mile Marker 64, U.S. Hwy 62/180,  
30 Miles East of Carlsbad, NM**

#### PHONE:

**505-887-4048**

#### PERMIT NO.

**SWM #131401 - New Mexico**

#### 19. COMMENTS

**20. DISPOSAL FACILITY'S CERTIFICATION:** I Herby certify that the above described wastes were delivered to this facility, that the facility is authorized and permitted to receive such wastes.

#### AUTHORIZED SIGNATURE

**Glennys Marriott**

#### CELL NO.

**2**

#### DATE

**08-08-04**

#### TIME

**1045**



# LEA LAND LANDFILL NEW MEXICO

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (505) 887-4048

## LEA LAND INC.

1300 WEST MAIN STREET • OKLAHOMA CITY, OK 73106 • PHONE (405) 236-4257

### NON-HAZARDOUS WASTE MANIFEST

NO. 26299

1. PAGE 1 OF

2. TRAILER NO.

G E N E R A T O R	3. COMPANY NAME <b>B J SERVICES</b> PHONE NO.		4. ADDRESS <b>2708 County Road</b> CITY STATE ZIP <b>Norman NM 88240</b>		5. PICK-UP DATE <b>SEP 8, 2004</b> 6. TNRC I.D. NO.			
	7. NAME OR DESCRIPTION OF WASTE SHIPPED:				8. CONTAINERS No. Type	9. TOTAL QUANTITY	10. UNIT Wt/Vol	11. TEXAS WASTE ID #
	a. <b>NON HAZARDOUS, NON REGULATED WASTE</b>				1	CM		
	b.							
R E C E I V E R	c.							
	d. <b>WT - 45,740</b>							
	12. COMMENTS OR SPECIAL INSTRUCTIONS: <b>WP 0904466</b>							
	13. IN CASE OF EMERGENCY OR SPILL, CONTACT NAME PHONE NO. 24-HOUR EMERGENCY NO. <b>KIN SLAUGHTER 505-887-4040</b>							
T R A N S P O R T E R S	14. GENERATOR'S CERTIFICATION: I Hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations, and are the same materials previously approved by LEA LAND, INC.							
	PRINTED/TYPED NAME				SIGNATURE		DATE	
	15. TRANSPORTER (1) NAME: TEXAS I.D. NO. IN CASE OF EMERGENCY CONTACT: EMERGENCY PHONE:				16. TRANSPORTER (2) NAME: TEXAS I.D. NO. IN CASE OF EMERGENCY CONTACT: EMERGENCY PHONE:			
	17. TRANSPORTER (1): Acknowledgment of receipt of material PRINTED/TYPED NAME <b>DANIEL HARRISON</b> SIGNATURE <b>[Signature]</b> <b>8-8-04</b>				18. TRANSPORTER (2): Acknowledgment of receipt of material PRINTED/TYPED NAME SIGNATURE DATE			
D I S P O S I T O R Y	Lea Land, Inc.		ADDRESS: Mile Marker 64, U.S. Hwy 62/180, 30 Miles East of Carlsbad, NM			PHONE: 505-887-4048		
	PERMIT NO. SWM #131401 - New Mexico			19. COMMENTS				
	20. DISPOSAL FACILITY'S CERTIFICATION: I Hereby certify that the above described wastes were delivered to this facility, that the facility is authorized and permitted to receive such wastes.							
AUTHORIZED SIGNATURE <b>Glenn Frarrell</b>				CELL NO. <b>2</b>		DATE <b>08-08-04</b>		TIME <b>1300</b>

GENERATOR: COPIES 1 & 6

DISPOSAL SITE: COPIES 2 & 3

TRANSPORTERS: COPIES 4 & 5

COPY 1

# LEA LAND LANDFILL NEW MEXICO

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (505) 887-4048

## LEA LAND INC.

1300 WEST MAIN STREET • OKLAHOMA CITY, OK 73106 • PHONE (405) 236-4257

### NON-HAZARDOUS WASTE MANIFEST

NO. 26300

1. PAGE 1 OF

2. TRAILER NO.

#### 3. COMPANY NAME

B J SERVICES

PHONE NO.

#### 4. ADDRESS

2700 COUNTY ROAD

CITY

STATE

ZIP

NOBBS NM 88240

#### 5. PICK-UP DATE

DEC 7 12 2004

#### 6. TNRCC I.D. NO.

#### 7. NAME OR DESCRIPTION OF WASTE SHIPPED:

a. NON HAZARDOUS, NON REGULATED WASTE

b.

c.

d.

43,320

#### 8. CONTAINERS

No.

Type

1

CM

#### 9. TOTAL QUANTITY

#### 10. UNIT Wt/Vol

#### 11. TEXAS WASTE ID #

#### 12. COMMENTS OR SPECIAL INSTRUCTIONS:

WP 0904466

#### 13.

#### IN CASE OF EMERGENCY OR SPILL, CONTACT

NAME

PHONE NO.

24-HOUR EMERGENCY NO.

KIN Slaughter

505-887-4048

14. GENERATOR'S CERTIFICATION: I Hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations, and are the same materials previously approved by LEA LAND, INC.

#### PRINTED/TYPED NAME

Sylvia Smith

#### SIGNATURE

[Signature]

#### DATE

12/9/04

#### 15. TRANSPORTER (1)

NAME:

TEXAS I.D. NO.

IN CASE OF EMERGENCY CONTACT:

EMERGENCY PHONE:

#### 17. TRANSPORTER (1): Acknowledgment of receipt of material

PRINTED/TYPED NAME

SIGNATURE

DATE

#### 16. TRANSPORTER (2)

NAME:

TEXAS I.D. NO.

IN CASE OF EMERGENCY CONTACT:

EMERGENCY PHONE:

#### 18. TRANSPORTER (2): Acknowledgment of receipt of material

PRINTED/TYPED NAME

SIGNATURE

DATE

Lea Land, Inc.

#### ADDRESS:

Mile Marker 64, U.S. Hwy 62/180,  
30 Miles East of Carlsbad, NM

#### PHONE:

505-887-4048

#### PERMIT NO.

SWM #131401 - New Mexico

#### 19. COMMENTS

20. DISPOSAL FACILITY'S CERTIFICATION: I Hereby certify that the above described wastes were delivered to this facility, that the facility is authorized and permitted to receive such wastes.

#### AUTHORIZED SIGNATURE

[Signature]

#### CELL NO.

2

#### DATE

12-08-04

#### TIME

1600

GENERATOR: COPIES 1 & 6

DISPOSAL SITE: COPIES 2 & 3

TRANSPORTERS: COPIES 4 & 5

COPY 1

# LEA LAND LANDFILL NEW MEXICO

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (505) 887-4048

## LEA LAND INC.

1300 WEST MAIN STREET • OKLAHOMA CITY, OK 73106 • PHONE (405) 236-4257

### NON-HAZARDOUS WASTE MANIFEST

NO. 26359

1. PAGE 1 OF

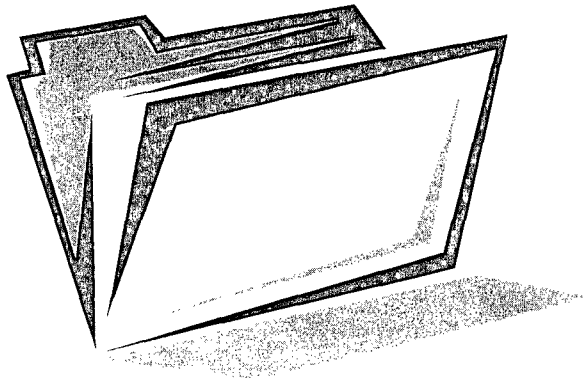
2. TRAILER NO.

G E N E R A T O R	3. COMPANY NAME <b>B J SERVICES</b>	4. ADDRESS <b>2708 West County Rd</b>	5. PICK-UP DATE <b>DEC 8, 2004</b>	
	PHONE NO.	CITY <b>Hobbs</b>	STATE <b>NM</b>	ZIP <b>88240</b>
	7. NAME OR DESCRIPTION OF WASTE SHIPPED:		8. CONTAINERS No. Type	9. TOTAL QUANTITY
	a. <b>Non-Hazardous, Non Regulated Waste</b>		1	CM
T R A N S P O R T E R S	b. <b>WT - 28,540</b>			
	c.			
	d.			
	12. COMMENTS OR SPECIAL INSTRUCTIONS:			
D I S P O S I T O R Y	13. IN CASE OF EMERGENCY OR SPILL, CONTACT			
	NAME <b>Kenneth Slaughter</b>		24-HOUR EMERGENCY NO. <b>505-887-4048</b>	
	PHONE NO.			
	14. GENERATOR'S CERTIFICATION: I Hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations, and are the same materials previously approved by LEA LAND, INC.			
PRINTED/TYPED NAME		SIGNATURE		DATE
T R A N S P O R T E R S	15. TRANSPORTER (1)		16. TRANSPORTER (2)	
	NAME: <b>Tripod Inc</b>		NAME:	
	TEXAS I.D. NO.		TEXAS I.D. NO.	
	IN CASE OF EMERGENCY CONTACT:		IN CASE OF EMERGENCY CONTACT:	
EMERGENCY PHONE:		EMERGENCY PHONE:		
17. TRANSPORTER (1): Acknowledgment of receipt of material		18. TRANSPORTER (2): Acknowledgment of receipt of material		
PRINTED/TYPED NAME <b>Floyd So Hou</b>		PRINTED/TYPED NAME		
SIGNATURE <b>Floyd So Hou</b> DATE <b>12-08</b>		SIGNATURE DATE		
D I S P O S I T O R Y	Lea Land, Inc.		PHONE: <b>505-887-4048</b>	
	ADDRESS: <b>Mile Marker 64, U.S. Hwy 62/180, 30 Miles East of Carlsbad, NM</b>			
	PERMIT NO. <b>SWM #131401 - New Mexico</b>		19. COMMENTS	
	20. DISPOSAL FACILITY'S CERTIFICATION: I Hereby certify that the above described wastes were delivered to this facility, that the facility is authorized and permitted to receive such wastes.			
AUTHORIZED SIGNATURE <b>[Signature]</b>		CELL NO. <b>2</b>	DATE <b>12-08-04</b>	TIME <b>0805</b>

GENERATOR: COPIES 1 & 6

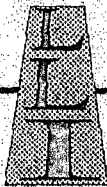
DISPOSAL SITE: COPIES 2 & 3  
COPY 1

TRANSPORTERS: COPIES 4 & 5



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IMPROVED DUE TO CONDITION  
OF ORIGINALS**





# LEA LAND LANDFILL NEW MEXICO

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (505) 887-4048

## LEA LAND INC.

1300 WEST MAIN STREET • OKLAHOMA CITY, OK 73106 • PHONE (405) 236-4257

### NON-HAZARDOUS WASTE MANIFEST

NO. **26205**

1. PAGE 1 OF 1

2. TRAILER NO.

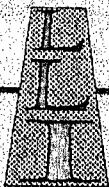
G E N E R A T O R  T R A N S P O R T E R  S  D I S C P O L I T Y	3. COMPANY NAME <b>Lea Land, Inc.</b>		4. ADDRESS <b>Mile Marker 64, U.S. Hwy 62/180, 30 Miles East of Carlsbad, NM</b>		5. PICK-UP DATE <b>8/20/04</b>			
	PHONE NO.		CITY	STATE	ZIP	6. TNRC ID. NO.		
	7. NAME OR DESCRIPTION OF WASTE SHIPPED:				8. CONTAINERS No. Type	9. TOTAL QUANTITY	10. UNIT Wt/Vol.	11. TEXAS WASTE ID #
	a.				1	12	Y	
	b.							
	c.							
	d.							
	12. COMMENTS OR SPECIAL INSTRUCTIONS:							
	13. <b>IN CASE OF EMERGENCY OR SPILL, CONTACT</b>							
	NAME		PHONE NO.		24-HOUR EMERGENCY NO.			
14. <b>GENERATOR'S CERTIFICATION:</b> I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations, and are the same materials previously approved by LEA LAND, INC.								
PRINTED/TYPED NAME <b>John P. Kennedy</b>				SIGNATURE <i>John P. Kennedy</i>		DATE <b>8-20-04</b>		
15. <b>TRANSPORTER (1)</b>				16. <b>TRANSPORTER (2)</b>				
NAME:				NAME:				
TEXAS I.D. NO. <b>83381</b>				TEXAS I.D. NO.				
IN CASE OF EMERGENCY CONTACT:				IN CASE OF EMERGENCY CONTACT:				
EMERGENCY PHONE:				EMERGENCY PHONE:				
17. <b>TRANSPORTER (1):</b> Acknowledgment of receipt of material				18. <b>TRANSPORTER (2):</b> Acknowledgment of receipt of material				
PRINTED/TYPED NAME				PRINTED/TYPED NAME				
SIGNATURE				SIGNATURE				
DATE				DATE				
Lea Land, Inc.		ADDRESS:		PHONE:				
		Mile Marker 64, U.S. Hwy 62/180, 30 Miles East of Carlsbad, NM		505-887-4048				
PERMIT NO. <b>SWM #131401 - New Mexico</b>		19. COMMENTS						
20. <b>DISPOSAL FACILITY'S CERTIFICATION:</b> I hereby certify that the above described wastes were delivered to this facility, that the facility is authorized and permitted to receive such wastes.								
AUTHORIZED SIGNATURE <i>[Signature]</i>				CELL NO.	DATE <b>8/20/04</b>	TIME <b>12:05</b>		

GENERATOR: COPIES 1 & 6

DISPOSAL SITE: COPIES 2 & 3

TRANSPORTERS: COPIES 4 & 5

COPY 6



# LEA LAND LANDFILL NEW MEXICO

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (505) 887-4048

## LEA LAND INC.

1300 WEST MAIN STREET • OKLAHOMA CITY, OK 73106 • PHONE (405) 236-4257

### NON-HAZARDOUS WASTE MANIFEST

NO **26206**

1. PAGE 1 OF 1

2. TRAILER NO.

G  
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3. COMPANY NAME

PHONE NO.

4. ADDRESS

CITY

STATE

ZIP

5. PICK-UP DATE

6. TNRC ID NO.

7. NAME OR DESCRIPTION OF WASTE SHIPPED:

8. CONTAINERS  
No. Type

9. TOTAL  
QUANTITY

10. UNIT  
Wt/Vol

11. TEXAS  
WASTE ID #

a.

b.

c.

d.

12. COMMENTS OR SPECIAL INSTRUCTIONS:

13.  
NAME

### IN CASE OF EMERGENCY OR SPILL, CONTACT

PHONE NO.

24-HOUR EMERGENCY NO.

14. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations, and are the same materials previously approved by LEA LAND, INC.

PRINTED/TYPED NAME

SIGNATURE

DATE

15.

**TRANSPORTER (1)**

NAME:

TEXAS I.D. NO.

IN CASE OF EMERGENCY CONTACT:

EMERGENCY PHONE:

16.

**TRANSPORTER (2)**

NAME:

TEXAS I.D. NO.

IN CASE OF EMERGENCY CONTACT:

EMERGENCY PHONE:

17. **TRANSPORTER (1):** Acknowledgment of receipt of material

18. **TRANSPORTER (2):** Acknowledgment of receipt of material

PRINTED/TYPED NAME

PRINTED/TYPED NAME

SIGNATURE

DATE

SIGNATURE

DATE

Lea Land, Inc.

ADDRESS:

Mile Marker 64, U.S. Hwy 62/180,  
30 Miles East of Carlsbad, NM

PHONE:

505-887-4048

PERMIT NO.

SWM #131401 - New Mexico

19. COMMENTS

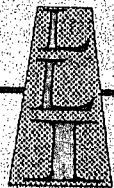
20. **DISPOSAL FACILITY'S CERTIFICATION:** I hereby certify that the above described wastes were delivered to this facility, that the facility is authorized and permitted to receive such wastes.

AUTHORIZED SIGNATURE

CELL NO.

DATE

TIME



# LEA LAND LANDFILL NEW MEXICO

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (505) 887-4048

## LEA LAND INC.

1300 WEST MAIN STREET • OKLAHOMA CITY, OK 73106 • PHONE (405) 236-4257

### NON-HAZARDOUS WASTE MANIFEST

NO.

26207

1. PAGE 1 OF 1

2. TRAILER NO.

3. COMPANY NAME

4. ADDRESS

5. PICK-UP DATE

PHONE NO.

CITY

STATE

ZIP

6. TNRCC ID NO.

7. NAME OR DESCRIPTION OF WASTE SHIPPED:

8. CONTAINERS

No.

Type

9. TOTAL QUANTITY

10. UNIT Wt/Vol

11. TEXAS WASTE ID #

a.

b.

c.

d.

12. COMMENTS OR SPECIAL INSTRUCTIONS:

13.

### IN CASE OF EMERGENCY OR SPILL, CONTACT

NAME

PHONE NO.

24-HOUR EMERGENCY NO.

14. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations, and are the same materials previously approved by LEA LAND, INC.

PRINTED/TYPED NAME

SIGNATURE

DATE

15. TRANSPORTER (1)

16.

TRANSPORTER (2)

NAME:

NAME:

TEXAS I.D. NO.

TEXAS I.D. NO.

IN CASE OF EMERGENCY CONTACT:

IN CASE OF EMERGENCY CONTACT:

EMERGENCY PHONE:

EMERGENCY PHONE:

17. TRANSPORTER (1): Acknowledgment of receipt of material

18. TRANSPORTER (2): Acknowledgment of receipt of material

PRINTED/TYPED NAME

PRINTED/TYPED NAME

SIGNATURE

DATE

SIGNATURE

DATE

Lea Land, Inc.

ADDRESS:

Mile Marker 64, U.S. Hwy 62/180,  
30 Miles East of Carlsbad, NM

PHONE:

505-887-4048

PERMIT NO.

SWM #131401 - New Mexico

19. COMMENTS

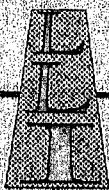
20. **DISPOSAL FACILITY'S CERTIFICATION:** I hereby certify that the above described wastes were delivered to this facility, that this facility is authorized and permitted to receive such wastes.

AUTHORIZED SIGNATURE

CELL NO.

DATE

TIME



# LEA LAND LANDFILL NEW MEXICO

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (505) 887-4048

## LEA LAND INC.

1300 WEST MAIN STREET • OKLAHOMA CITY, OK 73106 • PHONE (405) 236-4257

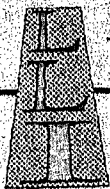
### NON-HAZARDOUS WASTE MANIFEST

NO. **26208**

1. PAGE 1 OF 1

2. TRAILER NO.

G E N E R A T O R  R E C E I V E R  D I S C R I P T I O N A L L Y	3. COMPANY NAME <i>Public Works Company, Inc.</i>		4. ADDRESS <i>708 W. 1st St. Oklahoma City, OK 73106</i>		5. PICK-UP DATE <i>8-20-88</i>	
	PHONE NO.		CITY		STATE	
			ZIP		6. TNRCC I.D. NO.	
	7. NAME OR DESCRIPTION OF WASTE SHIPPED:				8. CONTAINERS No.	9. TOTAL QUANTITY
					Type	10. UNIT Wt/Vol
						11. TEXAS WASTE ID #
12. COMMENTS OR SPECIAL INSTRUCTIONS:						
13. IN CASE OF EMERGENCY OR SPILL, CONTACT						
NAME		PHONE NO.		24-HOUR EMERGENCY NO.		
14. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations, and are the same materials previously approved by LEA LAND, INC.						
PRINTED/TYPED NAME <i>James Kennedy</i>			SIGNATURE <i>James Kennedy</i>		DATE <i>8-20-88</i>	
15. TRANSPORTER (1)			16. TRANSPORTER (2)			
NAME: <i>W. J. T. Co.</i>			NAME:			
TEXAS I.D. NO. <i>85581</i>			TEXAS I.D. NO.			
IN CASE OF EMERGENCY CONTACT:			IN CASE OF EMERGENCY CONTACT:			
EMERGENCY PHONE:			EMERGENCY PHONE:			
17. TRANSPORTER (1): Acknowledgment of receipt of material			18. TRANSPORTER (2): Acknowledgment of receipt of material			
PRINTED/TYPED NAME			PRINTED/TYPED NAME			
SIGNATURE			SIGNATURE			
DATE			DATE			
19. COMMENTS		20. DISPOSAL FACILITY'S CERTIFICATION: I hereby certify that the above described wastes were delivered to this facility, that the facility is authorized and permitted to receive such wastes.				
AUTHORIZED SIGNATURE		CELL NO.	DATE	TIME		



# LEA LAND LANDFILL NEW MEXICO

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (505) 887-4048

## LEA LAND INC.

1300 WEST MAIN STREET • OKLAHOMA CITY, OK 73106 • PHONE (405) 236-4257

### NON-HAZARDOUS WASTE MANIFEST

NO. **26209**

1. PAGE 1 OF

2. TRAILER NO.

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3. COMPANY NAME

PHONE NO.

4. ADDRESS

CITY

STATE

ZIP

5. PICK-UP DATE

6. INRCID NO.

7. NAME OR DESCRIPTION OF WASTE SHIPPED:

8. CONTAINERS  
No. Type

9. TOTAL  
QUANTITY

10. UNIT  
Wt/Vol

11. TEXAS  
WASTE ID #

12. COMMENTS OR SPECIAL INSTRUCTIONS:

### IN CASE OF EMERGENCY OR SPILL, CONTACT

13. NAME

PHONE NO.

24-HOUR EMERGENCY NO.

14. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations, and are the same materials previously approved by LEA LAND, INC.

PRINTED/TYPED NAME

SIGNATURE

DATE

15.

**TRANSPORTER (1)**

16.

**TRANSPORTER (2)**

NAME:

NAME:

TEXAS I.D. NO.

TEXAS I.D. NO.

IN CASE OF EMERGENCY CONTACT:

IN CASE OF EMERGENCY CONTACT:

EMERGENCY PHONE:

EMERGENCY PHONE:

17. **TRANSPORTER (1):** Acknowledgment of receipt of material

18. **TRANSPORTER (2):** Acknowledgment of receipt of material

PRINTED/TYPED NAME

PRINTED/TYPED NAME

SIGNATURE

DATE

SIGNATURE

DATE

Lea Land, Inc.

ADDRESS:

Mile Marker 64, U.S. Hwy 62/180,  
30 Miles East of Carlsbad, NM

PHONE:

505-887-4048

PERMIT NO.

SWM #131401 - New Mexico

19. COMMENTS

20. **DISPOSAL FACILITY'S CERTIFICATION:** I hereby certify that the above described wastes were delivered to this facility, that the facility is authorized and permitted to receive such wastes.

AUTHORIZED SIGNATURE

CELL NO.

DATE

TIME

GENERATOR: COPIES 1 & 6

DISPOSAL SITE: COPIES 2 & 3

**COPY 6**

TRANSPORTERS: COPIES 4 & 5



# LEA LAND LANDFILL NEW MEXICO

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (505) 887-4048

## LEA LAND INC.

1300 WEST MAIN STREET • OKLAHOMA CITY, OK 73106 • PHONE (405) 236-4257

### NON-HAZARDOUS WASTE MANIFEST

NO **26210**

1. PAGE 1 OF

2. TRAILER NO.

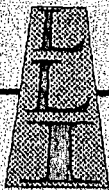
G E N E R A T O R	3. COMPANY NAME <i>Lea Land, Inc.</i>		4. ADDRESS <i>1300 West Main Street, Oklahoma City, OK 73106</i>		5. PICK-UP DATE <i>8-24-91</i>	
	PHONE NO. <i>(405) 236-4257</i>		CITY <i>OKLAHOMA CITY</i>	STATE <i>OK</i>	ZIP <i>73106</i>	6. TNRCC I.D. NO.
	7. NAME OR DESCRIPTION OF WASTE SHIPPED: <i>Non-hazardous waste</i>			8. CONTAINERS No. <i>1</i> Type <i>DRUM</i>	9. TOTAL QUANTITY <i>12</i>	10. UNIT <i>Y</i>
						11. TEXAS WASTE ID #
T R A N S P O R T E R S	12. COMMENTS OR SPECIAL INSTRUCTIONS: <i>See manifest for details</i>					
	13. IN CASE OF EMERGENCY OR SPILL, CONTACT					
	NAME <i>James Kennedy</i>		PHONE NO. <i>(405) 236-4257</i>		24-HOUR EMERGENCY NO.	
	14. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations, and are the same materials previously approved by LEA LAND, INC.					
D I S C I P L I N A R Y	PRINTED/TYPED NAME <i>James Kennedy</i>		SIGNATURE <i>[Signature]</i>		DATE <i>8-24-91</i>	
	15. TRANSPORTER (1)		16. TRANSPORTER (2)			
	NAME: <i>James Kennedy</i>		NAME: <i>[Signature]</i>			
	TEXAS I.D. NO. <i>85553</i>		TEXAS I.D. NO.			
IN CASE OF EMERGENCY CONTACT:		IN CASE OF EMERGENCY CONTACT:				
EMERGENCY PHONE:		EMERGENCY PHONE:				
17. TRANSPORTER (1): Acknowledgment of receipt of material		18. TRANSPORTER (2): Acknowledgment of receipt of material				
PRINTED/TYPED NAME		PRINTED/TYPED NAME				
SIGNATURE		SIGNATURE				
DATE		DATE				
19. COMMENTS		20. DISPOSAL FACILITY'S CERTIFICATION: I hereby certify that the above described wastes were delivered to this facility, that the facility is authorized and permitted to receive such wastes.				
AUTHORIZED SIGNATURE		CELL NO.		DATE	TIME	

GENERATOR: COPIES 1 & 6

DISPOSAL SITE: COPIES 2 & 3

TRANSPORTERS: COPIES 4 & 5

COPY 6



# LEA LAND LANDFILL NEW MEXICO

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (505) 887-4048

## LEA LAND INC.

1300 WEST MAIN STREET • OKLAHOMA CITY, OK 73106 • PHONE (405) 236-4257

### NON-HAZARDOUS WASTE MANIFEST

NO. **26211**

1. PAGE 1 OF

2. TRAILER NO.

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3. COMPANY NAME <b>Lea Land, Inc.</b>	4. ADDRESS <b>1300 West Main Street Oklahoma City, OK 73106</b>	5. PICK-UP DATE <b>6-2-89</b>
PHONE NO. <b>(505) 236-4257</b>	CITY <b>OKLAHOMA CITY</b> STATE <b>OK</b> ZIP <b>73106</b>	6. TNRC ID NO. <b>11111111</b>

7. NAME OR DESCRIPTION OF WASTE SHIPPED:	8. CONTAINERS No. Type	9. TOTAL QUANTITY	10. UNIT Wt/Vol	11. TEXAS WASTE ID #
a. <b>Household Appliances</b>	<b>1</b> <b>CU</b>	<b>24</b>	<b>Y</b>	
b.				
c.				
d.				

12. COMMENTS OR SPECIAL INSTRUCTIONS: <b>Waste from residential area, no hazardous materials.</b>
--

13. IN CASE OF EMERGENCY OR SPILL, CONTACT		
NAME <b>Lea Land, Inc.</b>	PHONE NO. <b>(505) 236-4257</b>	24-HOUR EMERGENCY NO. <b>(505) 236-4257</b>

14. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations, and are the same materials previously approved by LEA LAND, INC.

PRINTED/TYPED NAME <b>Lea Land, Inc.</b>	SIGNATURE <b>[Signature]</b>	DATE <b>6-2-89</b>
---	---------------------------------	-----------------------

15. TRANSPORTER (1)	16. TRANSPORTER (2)
NAME: <b>Lea Land, Inc.</b>	NAME: <b>Lea Land, Inc.</b>
TEXAS I.D. NO. <b>11111111</b>	TEXAS I.D. NO. <b>11111111</b>
IN CASE OF EMERGENCY CONTACT: <b>Lea Land, Inc.</b>	IN CASE OF EMERGENCY CONTACT: <b>Lea Land, Inc.</b>
EMERGENCY PHONE: <b>(505) 236-4257</b>	EMERGENCY PHONE: <b>(505) 236-4257</b>

17. TRANSPORTER (1): Acknowledgment of receipt of material	18. TRANSPORTER (2): Acknowledgment of receipt of material
PRINTED/TYPED NAME <b>Lea Land, Inc.</b>	PRINTED/TYPED NAME <b>Lea Land, Inc.</b>
SIGNATURE <b>[Signature]</b> DATE <b>6-2-89</b>	SIGNATURE <b>[Signature]</b> DATE <b>6-2-89</b>

Lea Land, Inc.	ADDRESS: <b>Mile Marker 64, U.S. Hwy 62/180, 30 Miles East of Carlsbad, NM</b>	PHONE: <b>505-887-4048</b>
----------------	---	-------------------------------

PERMIT NO. <b>SWM #131401 - New Mexico</b>	19. COMMENTS <b>Waste from residential area, no hazardous materials.</b>
---	---

20. **DISPOSAL FACILITY'S CERTIFICATION:** I hereby certify that the above described wastes were delivered to this facility, that the facility is authorized and permitted to receive such wastes.

AUTHORIZED SIGNATURE <b>[Signature]</b>	CELL NO. <b>11111111</b>	DATE <b>6-2-89</b>	TIME <b>10:00</b>
--	-----------------------------	-----------------------	----------------------

## Price, Wayne

---

**From:** Price, Wayne  
**Sent:** Friday, January 10, 2003 1:03 PM  
**To:** 'Jason\_Goodwin@bjservices.com'  
**Subject:** RE: Hobbs Sump Investigation.

No, but I will file the Approved E-mail as OCD's verification of approval!

-----Original Message-----

From: Jason\_Goodwin@bjservices.com [mailto:Jason\_Goodwin@bjservices.com]  
Sent: Friday, January 10, 2003 12:00 PM  
To: Price, Wayne  
Subject: RE: Hobbs Sump Investigation.

Will you be sending me a letter to the same effect?

Jason Goodwin  
HSE Specialist  
Phone: 281-357-2573  
Fax: 281-357-2585

"Price, Wayne"  
<WPrice@state.nm.us>

01/10/2003 09:35  
AM

To: "'Jason\_Goodwin@bjservices.com'"  
<Jason\_Goodwin@bjservices.com>  
CC:  
Subject: RE: Hobbs Sump Investigation.

APPROVED!!

Please be advised that NMOCD approval of this plan does not relieve BJ Services of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD approval does not relieve BJ Services of responsibility for compliance with any other federal, state, or local laws and/or regulations.

-----Original Message-----

From: Jason\_Goodwin@bjservices.com [mailto:Jason\_Goodwin@bjservices.com]  
Sent: Wednesday, January 08, 2003 3:51 PM  
To: wprice@state.nm.us  
Subject: Hobbs Sump Investigation.

Wayne,

As per our conversation the new sump and concrete will be replaced by placing a prefabricated concrete sump in place and pouring new concrete up to the sump. Plastic will be placed into the area prior to reconstructing the sump. Expansion joints will be sealed using a polysulfide joint

sealant to prevent migration of liquids between the old and new concrete and between the concrete and sump. The entire impacted area is covered by concrete (acid dock) to prevent further filtration of contaminants left in place to groundwater. Thankyou for taking the time to review this matter.

Jason Goodwin  
HSE Specialist  
Phone: 281-357-2573  
Fax: 281-357-2585

## Price, Wayne

---

**From:** Price, Wayne  
**Sent:** Tuesday, January 07, 2003 1:35 PM  
**To:** 'Jason\_Goodwin@bjservices.com'  
**Subject:** RE: Hobbs ???

Dear Jason:

I have the following questions:

1. Did BJ remove any contaminated soil, if so how much and where was it disposed of?
2. Are you planning on placing a barrier over the top the the excavated area?

-----Original Message-----

From: Jason\_Goodwin@bjservices.com [mailto:Jason\_Goodwin@bjservices.com]  
Sent: Friday, January 03, 2003 8:16 AM  
To: wprice@state.nm.us  
Subject: Hobbs ???

Wayne,

In regards to our sump investigation at Hobbs. We currently have an open hole from our investigation and would like to possibly re-insert a new sump. Can you tell me whether you expect the state to recommend any further investigation?

Thanks,

Jason Goodwin  
HSE Specialist  
Phone: 281-357-2573  
Fax: 281-357-2585

## Price, Wayne

---

**From:** Price, Wayne  
**Sent:** Tuesday, January 07, 2003 1:59 PM  
**To:** 'Jason\_Goodwin@bjservices.com'  
**Subject:** RE: Hobbs ???

Will the new sump have secondary containment with leak detection?

-----Original Message-----

From: Jason\_Goodwin@bjservices.com [mailto:Jason\_Goodwin@bjservices.com]  
Sent: Tuesday, January 07, 2003 2:00 PM  
To: Price, Wayne  
Subject: RE: Hobbs ???

Wayne,

BJ was very limited on the amount of soil it could remove. BJ only removed approximately 3 yards if that. We have some very serious overhead constraints from the proximity of the acid dock. In order for BJ to remove any more soil we would have to remove part of the existing acid dock. The soils removed are being profiled using samples collected and should be disposed of as non-hazardous within the week. The sample collected by Ecological represent the worst of the contamination still present in the bottom of the excavation. No detectable concentrations were reported in soils after 14 feet and groundwater is currently being monitored using the existing monitoring well network downgradient from the former sump.

BJ Services plans to re-install another sump in the same hole that will be constructed to protect underlying soils.

Let me know,

Jason Goodwin  
HSE Specialist  
Phone: 281-357-2573  
Fax: 281-357-2585

"Price, Wayne"  
<WPrice@state.nm.us>

01/07/2003 02:34  
PM

To: "'Jason\_Goodwin@bjservices.com'"  
<Jason\_Goodwin@bjservices.com>  
cc:  
Subject: RE: Hobbs ???

Dear Jason:

I have the following questions:

1. Did BJ remove any contaminated soil, if so how much and where was it disposed of?
2. Are you planning on placing a barrier over the top the the excavated area?

-----Original Message-----

From: Jason\_Goodwin@bjsservices.com [mailto:Jason\_Goodwin@bjsservices.com]  
Sent: Friday, January 03, 2003 8:16 AM  
To: wprice@state.nm.us  
Subject: Hobbs ???

Wayne,

In regards to our sump investigation at Hobbs. We currently have an open hole from our investigation and would like to possibly re-insert a new sump. Can you tell me whether you expect the state to recommend any further investigation?

Thanks,

Jason Goodwin  
HSE Specialist  
Phone: 281-357-2573  
Fax: 281-357-2585



October 16, 2002

FEDEX AIRBILL 0938467110

Mr. Wayne Price  
Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

RECEIVED  
OCT 18 2002  
Environmental Bureau  
Oil Conservation Division

RE: BJ Services Company, USA, Hobbs District, Acid Dock Sump Investigation

Dear Mr. Price,

BJ Services Company, U.S.A. (BJ Services) has enclosed a copy of the final report regarding the Acid Dock Sump Investigation conducted by Weston Solutions at its Hobbs, New Mexico District.

Upon your request BJ Services also analyzed two additional samples for total chlorides. Samples were both analyzed to determine the potential impact to soil. Samples BH-1 (5-7) and BH-1 (44-46) reported concentrations of 28 mg/kg and 108 mg/kg, respectively.

After evaluating the results of the investigation, BJ Services believes no further action is warranted since the release does not appear to present a risk to human health or the environment.

If you have any questions or concerns during your review of this report, please contact me at (281) 357-2573.

Sincerely,

A handwritten signature in black ink, appearing to read 'J. Goodwin'.

Jason Goodwin  
HSE Specialist

Cc: Jo Ann Cobb - Tomball  
John Adcock - Hobbs



Weston Solutions, Inc.  
Barton Oaks Plaza Two  
901 South Mopac Expwy., Suite 475  
Austin, Texas 78746  
512-651-7100 • Fax 512-651-7101

29 September 2002

Mr. Jason Goodwin  
BJ Services Company, U.S.A.  
11211 FM 2920  
Tomball, Texas 77375

RECEIVED  
OCT 18 2002  
Environmental Bureau  
Oil Conservation Division

Re: Acid Sump Soil Sampling Results  
Hobbs Facility, New Mexico

Dear Mr. Goodwin:

This report presents the results of an environmental investigation conducted on 9 and 10 July 2002 by Weston Solutions, Inc. (WESTON®) personnel at the BJ Services Company U.S.A. (BJ Services) Facility in Hobbs, New Mexico. The purpose of the investigation was to collect subsurface soil samples to characterize the vertical and lateral extent of contamination at a former acid sump at the site, then prepare a report of the findings and recommend activities leading to closure of the former acid sump area.

## **BACKGROUND**

The former acid sump is part of the acid dock area at the BJ Services facility, located at 2708 West County Road in Hobbs, New Mexico. The acid dock consists of an overhead tank containing hydrochloric acid with a concrete containment wall, a concrete truck loading dock, a reclaim tank, a new sump (west of the former sump), and the former sump (Figure 1). BJ Services personnel recently observed fluids coming up around the outside of the former sump. Subsequent to observations made by BJ Services, Mr. Wayne Price of the New Mexico Oil Conservation Division (NMOCD) was notified that BJ Services had plans to remove the sump and notify the OCD of its findings. The fiberglass sump was subsequently removed with a backhoe and placed behind the acid dock. The resulting excavation is approximately 5-ft wide by 5-ft deep. Soil on the northern side of the excavation was visibly stained and hydrocarbon odors were noted. One soil sample was collected from the northern side of the excavation by Eco-logical Environmental Services, Inc., in Midland, Texas. The sample was analyzed for benzene, toluene, ethylbenzene, xylene (BTEX), total BTEX, total petroleum hydrocarbons (TPH) as gasoline range organics (GRO) and as diesel range organics (DRO), and Method 8260B volatile organic compounds, and 8270C semi-volatile organic compounds using the Toxicity Characteristic Leaching Procedure (TCLP). Results of the sampling indicated that the concentrations of total BTEX (1,598 mg/kg), TPH as gasoline (29,900 mg/kg), and TPH as diesel (14,700 mg/kg) exceeded the NMOCD action levels (50, 1000, and 1000 mg/kg, respectively). The initial findings were subsequently conveyed to Mr. Wayne Price of the NMOCD.

Based on previous groundwater monitoring reports for the facility, groundwater is approximately 55 to 60 ft below ground surface (bgs) level.

### **BOREHOLE DRILLING AND SOIL SAMPLING ACTIVITIES**

An air rotary drill rig was used to advance four soil borings, one at the former sump location to determine the vertical extent of the release at the source, and the other three to assess the lateral and vertical extent of the release. The borehole locations are shown on Figure 1. Borehole No. 1 (BH1) is located in the former sump excavation and was advanced to a depth of 51 ft, near the top of the water table. The other three borings were located as close to the former sump as possible given the logistical constraints associated with the operations of the facility. BH2 is located east of the new sump and was advanced to a depth of 41 ft. BH3 is located south of the truck loading dock and was advanced to a depth of 30 ft. BH4 is located north of the two sump locations, outside of the containment wall, and was advanced to a depth of 30 ft.

Soil samples were collected continuously from BH1 to establish the vertical extent of the release at the source area. Soil samples were collected from the other three boreholes at 5-ft intervals for the first 20 ft, and every 10 ft thereafter. Samples also were collected at points where significant changes in lithology were observed; and/or where field screening instruments, or visual or olfactory indications, noted the potential presence of contamination during drilling. After soil sampling was completed, each borehole was grouted from bottom to top. Groundwater was not encountered in any of the boreholes.

Following collection, each soil sample was placed into a laboratory-supplied container and then into an individual Ziploc bag to minimize the potential for cross-contamination during transport. Samples were stored in a cooler on ice and shipped to AnalySys, Inc. (AnalySys), in Austin, Texas. Chain-of-custody (COC) forms were completed for each cooler. Information on the COC forms includes the sample ID, date and time of sample collection, type of analyses to be performed, preservation method, and the signature of the person relinquishing the samples. AnalySys provided the sample containers, COC forms, and coolers.

The soil samples were analyzed for BTEX by the U.S. Environmental Protection Agency (EPA) SW-846 Method 8260B and for TPH (GRO and DRO) by EPA Method 8015 (modified). WESTON personnel coordinated with AnalySys to ensure that the required laboratory methods, practical quantitation limits, and quality assurance objectives were met.

One blind field duplicate was collected to evaluate the reproducibility of the analytical results. The duplicate sample was collected from BH1. The duplicate sample was analyzed for the same parameters as the original sample. Because disposable sampling equipment was used, no equipment rinsate blank was collected. Because the samples were analyzed for organics, a trip blank was supplied by the laboratory and analyzed for BTEX. AnalySys performed internal quality control (QC) analyses on representative samples in each lab batch. QC analyses included

relative percent differences and matrix spike recovery results. A Borehole Lithologic Logging Form describing the lithologic composition, photoionization detector readings, and sample location/depth was maintained for each borehole, and these forms are provided as Attachment 1.

### *Decontamination and Waste Disposal*

The air rotary drill rig was steamed cleaned between boreholes using the on-site high-pressure steam cleaner.

Drill cuttings were placed in 55-gallon drums and moved by local BJ Services personnel to a designated storage area pending characterization for disposal by BJ Services. Previous analytical results indicated these soils are not Resource Conservation and Recovery Act (RCRA) characteristically hazardous, and no additional hazard waste classification analyses are anticipated. Following characterization, BJ Services personnel will arrange for the disposal of the soil in accordance with state and federal regulations.

Personal protective equipment (PPE) was disposed of in appropriate waste containers at the Hobbs facility.

### **ANALYTICAL RESULTS**

Table 1 summarizes the reported analytical results for the soil sampling. Copies of the COC forms are provided as Attachment 2.

Benzene was detected in the first two shallow samples collected from BH1 (5-7 ft and 8-10 ft) at concentrations of 56.8 and 36.5 ug/kg, respectively (0.0568 and 0.0365 mg/kg). These concentrations are four orders of magnitude less than the NMOCD recommended benzene remediation action level of 10 mg/kg. Benzene was not detected above the reported quantitation limit (RQL) in any of the deeper samples from BH1, or in any of the samples collected from the other three boreholes. A duplicate sample, indicated as BJHOBBS-BH1-Dup on the COC, was collected from BH1. The results from the duplicate sample were consistent with the results from the initial sample (Sample BJHOBBS-BH1-15-17 in Table 1).

Total BTEX was detected in the first three samples collected from BH1 (5-7 ft, 8-10 ft, and 12-14 ft) at concentrations of 95.0, 12.7, and 2.5 mg/kg, respectively. One of the sample concentrations (95.0 mg/kg at 5-7 ft) exceeds the NMOCD recommended total BTEX remediation action level of 50 mg/kg. Total BTEX was not detected above the RQL in any of the deeper samples from BH1, or in any of the samples collected from the other three boreholes.

TPH as gasoline (GRO) and diesel (DRO) was detected in the first three samples collected from BH1 (5-7 ft, 8-10 ft, and 12-14 ft) at GRO concentrations of 5610, 3510, and 357 mg/kg, respectively, and DRO concentrations of 13500, 5980, and 804 mg/kg, respectively. GRO and DRO concentrations from the upper two shallow samples (5-7 ft and 8-10 ft) exceed the NMOCD recommended TPH remediation action level of 1000 mg/kg. TPH as diesel was also

detected in one shallow sample from BH2 (5-7 ft) at a concentration of 257 mg/kg. TPH was not detected above the RQL in any of the deeper samples from BH1 or BH2, or in any of the samples collected from the other two boreholes.

None of the soil samples from the outside two boreholes (BH3 and BH4) contained any of the constituents at concentrations above the laboratory reporting limits. Therefore, an unaffected perimeter for BTEX and TPH has been established for the acid sump area.

The trip blank sample was analyzed for BTEX to assess cross-contamination. No BTEX compounds were detected above the laboratory reporting limits (Table 1).

### **CONCLUSIONS**

The following conclusions were made based on the sampling data:

- Benzene concentrations, detected in borehole BH1, were below NMOCD recommended action levels within surface soil above 12 ft.
- Total BTEX concentrations, detected in borehole BH1, exceeded NMOCD action levels only within surface soil above 7 ft.
- TPH concentrations, detected in borehole BH1, were reported at concentrations above action levels only within surface soil above 10 ft. The sample from borehole BH2 also displayed concentrations of TPH, but well below recommended action levels. No other samples collected displayed detectable concentrations of TPH.
- The vertical and horizontal extent of the release from the former acid dock sump has been delineated. None of the contaminants were found deeper than 14 ft. Soil samples collected from boreholes BH2, BH3, and BH4 reported no detectable concentrations above action levels.

### **RECOMMENDATIONS**

WESTON recommends that further remediation actions are not warranted for the former acid sump. Although some of the reported concentrations exceed NMOCD action levels at depths up to 10 feet, further excavation is constrained by the presence of operating equipment, piping, and tanks. This recommendation for no further action is based on the following: relatively low concentrations of the constituents were detected and only at shallow depths; the affected area appears to be confined to the vicinity of the former sump; the source has been removed; and none of the constituents appear capable of migrating to the water table. Qualitatively, the release does not appear to represent a risk to human health and the environment.



Mr. Jason Goodwin  
29 September 2002  
Page 5

**CLOSING**

WESTON is pleased to provide this report to BJ Services. If you have any questions or comments, please contact Bob Chapin at (512) 651-7113.

Very truly yours,

**WESTON SOLUTIONS, INC.**

A handwritten signature in cursive script that reads "Bruce L. Wedgeworth".

Bruce Wedgeworth  
Technical Manager

Robert I. Chapin  
Client Services Manager

Attachments

**TABLE I**  
**REPORTED ANALYTICAL RESULTS**

**BJ Services Company, U.S.A.**  
**Hobbs Facility, New Mexico**

Sample Name	Lab ID	Date Sampled	Benzene	Toluene	Ethylbenzene	Xylenes		Units	RQL	Blank	Date Analyzed	Method
						m,p-	o-					
BUHOBBS-BH1-5-7	131421	7/9/2002	56.8	20100	19700	28900	26200	µg/kg	20 / 1000 <sup>a</sup>	<20 / <1000 <sup>a</sup>	7/16-17/2002	8260b
BUHOBBS-BH1-8-10	131422	7/9/2002	36.5	4750	588	2690	4640	µg/kg	100 / 20 <sup>b</sup>	<100 / <20 <sup>b</sup>	7/16-17/2002	8260b
BUHOBBS-BH1-12-14	131424	7/9/2002	<20	93.7	177	448	1810	µg/kg	20	<20	7/30/2002	8260b
BUHOBBS-BH1-15-17	131425	7/9/2002	<20	<20	<20	<20	<20	µg/kg	20	<20	7/16/2002	8260b
BUHOBBS-BH1-Dup	131426	7/9/2002	<20	<20	<20	<20	<20	µg/kg	20	<20	7/16/2002	8260b
BUHOBBS-BH1-44-46	131433	7/9/2002	<20	<20	<20	<20	<20	µg/kg	20	<20	7/16/2002	8260b
BUHOBBS-BH2-5-7	131434	7/10/2002	<20	<20	<20	<20	<20	µg/kg	20	<20	7/16/2002	8260b
BUHOBBS-BH2-39-41	131439	7/10/2002	<20	<20	<20	<20	<20	µg/kg	20	<20	7/16/2002	8260b
BUHOBBS-TB	131440	7/10/2002	<1	<1	<1	<1	<1	µg/L	1	<1	7/19/2002	8260b
BUHOBBS-BH3-5-7	131441	7/9/2002	<20	<20	<20	<20	<20	µg/kg	20	<20	7/16/2002	8260b
BUHOBBS-BH3-28-30	131445	7/9/2002	<20	<20	<20	<20	<20	µg/kg	20	<20	7/16/2002	8260b
BUHOBBS-BH4-5-7	131446	7/10/2002	<20	<20	<20	<20	<20	µg/kg	20	<20	7/16/2002	8260b
BUHOBBS-BH4-28-30	131450	7/10/2002	<20	<20	<20	<20	<20	µg/kg	20	<20	7/16/2002	8260b

a - In BUHOBBS-BH1-5-7 benzene RQL = 20 µg/kg. For all other BTEX constituents in this sample RQL = 1000 µg/kg.  
b - In BUHOBBS-BH1-8-10 o-xylene RQL = 100 µg/kg. For all other BTEX constituents in this sample RQL = 20 µg/kg.

**TABLE I**  
**REPORTED ANALYTICAL RESULTS**

**BJ Services Company, U.S.A.**  
**Hobbs Facility, New Mexico**

Sample Name	Lab ID	Date Sampled	TPH by GC (mg/kg)		RQL (mg/kg)	Blank (mg/kg)	Date Analyzed	Method
			As gasoline	As diesel				
BJHOBBS-BH1-5-7	131421	7/9/2002	5610	13500	50 / 500 <sup>c</sup>	<50 / <500 <sup>c</sup>	7/23,26/2002	8015 mod.
BJHOBBS-BH1-8-10	131422	7/9/2002	3510	5980	50 / 500 <sup>d</sup>	<50 / <500 <sup>d</sup>	7/23,26/2002	8015 mod.
BJHOBBS-BH1-12-14	131424	7/9/2002	357	804	5	<5	7/30/2002	8015 mod.
BJHOBBS-BH1-15-17	131425	7/9/2002	<5	<5	5	<5	7/23,26/2002	8015 mod.
BJHOBBS-BH1-Dup	131426	7/9/2002	<5	<5	5	<5	7/23,26/2002	8015 mod.
BJHOBBS-BH1-44-46	131433	7/9/2002	<5	<5	5	<5	7/23,26/2002	8015 mod.
BJHOBBS-BH2-5-7	131434	7/10/2002	<5	257	5	<5	7/23,26/2002	8015 mod.
BJHOBBS-BH2-39-41	131439	7/10/2002	<5	<5	5	<5	7/23,26/2002	8015 mod.
BJHOBBS-BH3-5-7	131441	7/9/2002	<5	<5	5	<5	7/23,26/2002	8015 mod.
BJHOBBS-BH3-28-30	131445	7/9/2002	<5	<5	5	<5	7/23,26/2002	8015 mod.
BJHOBBS-BH4-5-7	131446	7/10/2002	<5	<5	5	<5	7/23,26/2002	8015 mod.
BJHOBBS-BH4-28-30	131450	7/10/2002	<5	<5	5	<5	7/23,26/2002	8015 mod.

c - In BJHOBBS-BH1-5-7 TPH gasoline RQL = 50 mg/kg, and TPH diesel RQL = 500 mg/kg.

d - In BJHOBBS-BH1-8-10 TPH gasoline RQL = 50 mg/kg, and TPH diesel RQL = 500 mg/kg.

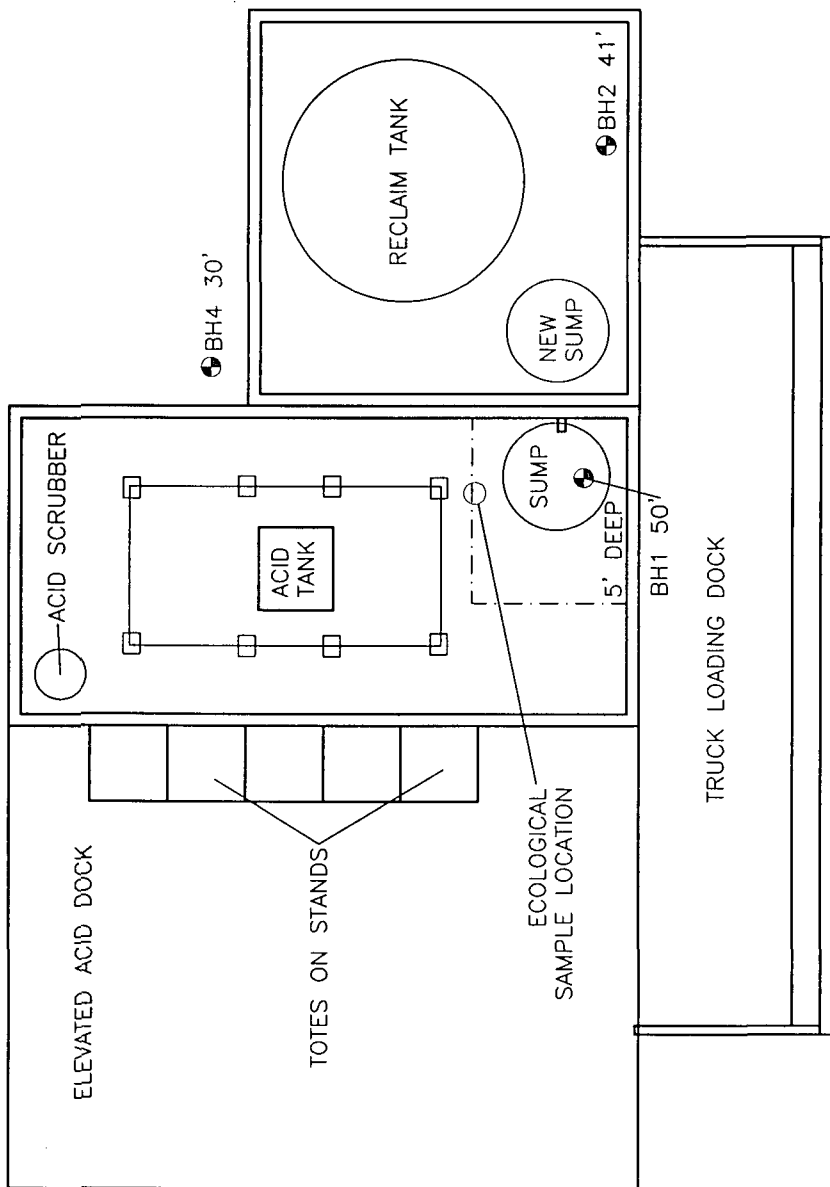


# FIGURE 1 SITE MAP

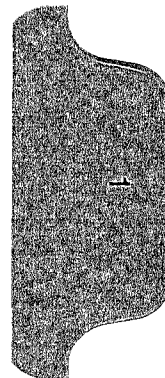
BJ SERVICES COMPANY, U.S.A.  
HOBBS FACILITY, NEW MEXICO

DATE	PROJECT NO.	SCALE
SEPT 02	12504008001	NOT TO SCALE

H:\BJ SERVICE\NEW SITE.DWG



● SOIL BORING LOCATIONS  
--- LIMIT OF EXCAVATION



**ATTACHMENT 1  
LITHOLOGIC LOGS**



Barton Oaks Plaza Two  
901 S. MoPac Expwy, Ste. 475  
Austin, Texas 78746  
512-651-7100 / Fax: 512-651-7101

# Boring/Well Log

Page 1 of 1

BORING ID: **BH-1**

## PROJECT INFORMATION

## DRILLING INFORMATION

PROJECT: **BJ Services Company**  
SITE LOCATION: **Hobbs, NM**  
JOB NUMBER: **12054.008.001**  
PROJECT MANAGER: **Robert Chapin**  
LOGGED BY: **B. Wedgeworth**  
DATE(S) DRILLED: **07/09/02**

DRILLING COMPANY: **Eades Drilling & Pump Service**  
DRILLING METHOD: **Air Rotary**  
BORING DIAMETER:  
TOTAL DEPTH: **51'**

GROUND ELEVATION:  
TOP OF CASING ELEV:

NORTHING

EASTING

REMARKS:

DEPTH	LITHOLOGY	SCS	DESCRIPTION	W	WELL COMPLETION	INSTALLATION NOTES
0			Sump Excavation			
5		SM	Medium brown Silty sand moist, HC odor Hard at 7', Some caliche gravels	132		
10		ML	Med. brown and gray, Silt (decomposed caliche) moist caliche gravels, HC odor.	134 77 6.6		
15		Calic	Hard caliche in shoe at 11.0' Hard again @ 12.5'			
20		ML	White, Sandy silt	10		
25			Silty sand, moist, HC or HCL odor	16 15		
30		SM	Hard @ 23'	3.1		
35			Reddish brown, note: pH =8	3.2		
40			Slight HC odor - no staining	2.5		
45			Slight HC odor.	0		
50			Some gravel btw 38.5' & 39' (pieces of sandstone)	0.2		
			Slight HC odor	0		
			Black, no sample collected			



Barton Oaks Plaza Two  
901 S. MoPac Expwy, Ste. 475  
Austin, Texas 78746  
512-651-7100 / Fax: 512-651-7101

# Boring/Well Log

Page 1 of 1

BORING ID: **BH-2**

## PROJECT INFORMATION

## DRILLING INFORMATION

PROJECT: **BJ Services Company**  
SITE LOCATION: **Hobbs, NM**  
JOB NUMBER: **12054.008.001**  
PROJECT MANAGER: **Robert Chapin**  
LOGGED BY: **B. Wedgeworth**  
DATE(S) DRILLED: **07/10/02**

DRILLING COMPANY: **Eades Drilling & Pump Service**  
DRILLING METHOD: **Air Rotary**  
BORING DIAMETER:  
TOTAL DEPTH: **41'**

GROUND ELEVATION:	NORTHING	EASTING
TOP OF CASING ELEV:		

REMARKS:

DEPTH	LITHOLOGY	USCS	DESCRIPTION	W O V E	WELL COMPLETION	INSTALLATION NOTES
0		AC	8" steel reinforced concrete sump floor			
		MH	dark brown, sandy silt, some gravels, moist, slight HC odor			
5						
		ML	Lt brown to white, Increasing gravel content	0		
10				0		
		SM	Medium brown, silty sand, moist, no HC odor or staining			
15			Tan to pink, poorly graded sand, somewhat indurated, dry, no odor	0		
20			loose, slight HC odor	0		
		SP		0		
25						
30				0		
35						
40				0		



Barton Oaks Plaza Two  
901 S. MoPac Expwy, Ste. 475  
Austin, Texas 78746  
512-651-7100 / Fax: 512-651-7101

# Boring/Well Log

Page 1 of 1

BORING ID: **BH-3**

## PROJECT INFORMATION

## DRILLING INFORMATION

PROJECT: **BJ Services Company**  
SITE LOCATION: **Hobbs, NM**  
JOB NUMBER: **12054.008.001**  
PROJECT MANAGER: **Robert Chapin**  
LOGGED BY: **B. Wedgeworth**  
DATE(S) DRILLED: **07/09/02**

DRILLING COMPANY: **Eades Drilling & Pump Service**  
DRILLING METHOD: **Air Rotary**  
BORING DIAMETER:  
TOTAL DEPTH: **30'**

GROUND ELEVATION:	NORTHING	EASTING
TOP OF CASING ELEV:		

REMARKS:

DEPTH	LITHOLOGY	USCS	DESCRIPTION	MOV	WELL COMPLETION	INSTALLATION NOTES
0			White to light brown, Silty Sand moist, some gravel.			
5		SM		0		
		calic	fractured caliche starting about 6 feet			
10		SM	At 10', less caliche, Caliche not solid - appears as lenses.	0		
		Calic	Becoming hard (caliche) at 12' Caliche ends at 14.5'			
15		SM		0		
20		GM	White to tan to red, Silty Gravel Dry to moist. Gravel 1/4" to 1" dia. Gravels are caliche	0		
25		SP	Poorly graded fine sand, some silt. No gravel. No HC odor			
30				0		



Barton Oaks Plaza Two  
901 S. MoPac Expwy, Ste. 475  
Austin, Texas 78746  
512-651-7100 / Fax: 512-651-7101

# Boring/Well Log

Page 1 of 1

BORING ID: **BH-4**

## PROJECT INFORMATION

## DRILLING INFORMATION

PROJECT: **BJ Services Company**  
SITE LOCATION: **Hobbs, NM**  
JOB NUMBER: **12054.008.001**  
PROJECT MANAGER: **Robert Chapin**  
LOGGED BY: **B. Wedgeworth**  
DATE(S) DRILLED: **07/10/02**

DRILLING COMPANY: **Eades Drilling & Pump Service**  
DRILLING METHOD: **Air Rotary**  
BORING DIAMETER:  
TOTAL DEPTH: **30'**

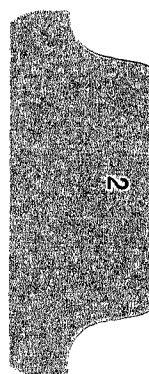
GROUND ELEVATION:  
TOP OF CASING ELEV:

NORTHING

EASTING

REMARKS:

DEPTH	LITHOLOGY	SS	DESCRIPTION	W	WELL COMPLETION	INSTALLATION NOTES
0			Dark brown Sandy silt, moist, no HC odor, no gravels			
5				0		
10		ML	Color change to white @ 9.5'	0		
15				0		
20		SS	White to gray Sandstone, highly fractured, hard, some silty sand	0		
25			Light brown Poorly graded sand, moist, some sandstone gravels			
30		SP		0		



**ATTACHMENT 2**  
**CHAIN-OF-CUSTODY FORMS**

# CHAIN-OF-CUSTODY

## Send Reports To:

Company Name Weston Solutions, Inc.  
 Address 6501 America's Parkway NE, Suite 800  
 City Albuquerque State NM Zip 87110  
 ATTN: Bruce Wedgeworth  
 Phone 505-284-6237 Fax 505-284-2616

Rush Status (must be confirmed with lab mgr.):

Project Name/PO#: Acid Dump Sampler: B. Wedgeworth

WWW.ANALYSYSINC.COM

## Bill to (if different):

Company Name B. Services Company USA  
 Address 11211 FM 2920  
 City Tomball State TX Zip 77375  
 ATTN: Jason Goodwin  
 Phone 281-257-2573 Fax 281-257-2585

**ANALYSYS INC.**

3512 Montopolis Drive, Austin, TX 78744  
 Phone: (512) 385-5886 Fax: (512) 385-7411  
 2209 N.P.I.D., Ste K, Corpus Christi, TX 78408  
 Phone: (361) 289-6384 Fax: (361) 289-0875

## Analyses Requested (1)

Please attach explanatory information as required

Client Sample No. Description/Identification	Date Sampled	Time Sampled	No. of Containers	Soil	Water	Waste	Lab I.D. # (Lab only)	BTEX			TPH - GPO 8015			TPH - DPO 8015			Comments
								X	X	X	X	X	X	X	X	X	
BJH0005 - BH1 - 5-7	7/9/02	1135	1	X				X	X	X							
BJH0005 - BH1 - 8-10	7/9/02	1150	1	X				X	X	X							
BJH0005 - BH1 - 10-12	7/9/02	1210	1	X				X	X	X							Hold
BJH0005 - BH1 - 12-14	7/9/02	1225	1	X				X	X	X							Hold
BJH0005 - BH1 - 15-17	7/9/02	1240	1	X				X	X	X							
BJH0005 - BH1 - DUP	7/9/02	1240	1	X				X	X	X							
BJH0005 - BH1 - 17-19	7/9/02	1245	1	X				X	X	X							Hold
BJH0005 - BH1 - 21-23	7/9/02	1305	1	X				X	X	X							Hold
BJH0005 - BH1 - 27-31	7/9/02	1345	1	X				X	X	X							Hold

(1) Unless specifically requested otherwise on this Chain-of-custody and/or attached documentation, all analyses will be conducted using ASI's method of choice and all data will be reported to ASI's normal reporting limits (MDL/PQL). For GC/MS volatiles and extractables, unless specific analytical parameter lists are specified on this chain-of-custody or attached to this chain-of-custody, ASI will default to Priority Pollutants or ASI's HSL list at ASI's option. Specific compound lists must be supplied for all GC procedures.

Sample Relinquished By				Sample Received By			
Name	Affiliation	Date	Time	Name	Affiliation	Date	Time
B. Wedgeworth	Weston Solutions, Inc.	7/11/02	1430				
Bruce Wedgeworth							

[Tendering of above described samples to AnalySys, Inc. for analytical testing constitutes agreement by buyer/sampler to AnalySys, Inc.'s standard terms.]



# CHAIN-OF-CUSTODY

WWW.ANALYSYSINC.COM

**ANALYSYS INC.**

## Send Reports To:

Company Name Weston Solutions, Inc.  
 Address 6501 America's Parkway NE, Suite 200  
 City Albuquerque State NM Zip 87110  
 ATTN: Bruce Wedgeworth  
 Phone 505-284-6227 Fax 505-294-2616

## Bill to (if different):

Company Name BA Services Company USA  
 Address 11211 EM 2920  
 City Tomball State TX Zip 77375  
 ATTN: Jason Goodwin  
 Phone 281-357-2572 Fax 281-257-2585

Rush Status (must be confirmed with lab mgr.):

Project Name/PO#: Acid Strip Sampler: B. Wedgeworth

## Analyses Requested (1)

Please attach explanatory information as required

Client Sample No. Description/Identification	Date Sampled	Time Sampled	No. of Containers	Soil	Water	Waste	Lab I.D. # (Lab only)	Comments			
BJ HOBBS - BH2-5-7	7/10/02	0840	1	X				X	X	X	
BJ HOBBS - BH2-11-11	7/10/02	0845	1	X				X	X	X	Hold
BJ HOBBS - BH2-16-17	7/10/02	0830	1	X				X	X	X	Hold
BJ HOBBS - BH2-20-22	7/10/02	0840	1	X				X	X	X	Hold
BJ HOBBS - BH2-24-31	7/10/02	0855	1	X				X	X	X	Hold
BJ HOBBS - BH2-39-41	7/10/02	0915	1	X				X	X	X	
BJ HOBBS - BH2	7/10/02										
BJ HOBBS - DUP	7/10/02										
BJ HOBBS - TB	7/10/02	0930	2			X		X			

(1) Unless specifically requested otherwise on this Chain-of-custody and/or attached documentation, all analyses will be conducted using ASI's method of choice and all data will be reported to ASI's normal reporting limits (MDL/POL). For GC/MS volatiles and extractables, unless specific analytical parameter lists are specified on this chain-of-custody or attached to this chain-of-custody, ASI will default to Priority Pollutants or ASI's HSL list at ASI's option. Specific compound lists must be supplied for all GC procedures.

Sample Relinquished By				Sample Received By			
Name	Affiliation	Date	Time	Name	Affiliation	Date	Time
B. Wedgeworth	Weston Solutions, Inc.	7/11/02	1430				
Bruce Wedgeworth							

[Tendering of above described samples to AnalySys, Inc. for analytical testing constitutes agreement by buyer/sampler to AnalySys, Inc.'s standard terms.]

**WWW.ANALYSYSINC.COM**



Company Name Weston Solutions, Inc.  
Address 6501 America's Parkway NE, Suite 800  
City Albuquerque State NM Zip 87110  
ATTN: Bruce Wedge worth  
Phone 505-284-6237 Fax 505-284-2616

**Bill to (if different):**

Company Name BJ Services Company USA  
Address 11211 FM 2920  
City Tomball State TX Zip 77375  
ATTN: JASON GOODWIN  
Phone 281-357-2573 Fax 281-357-2585

3512 Montopolis Drive, Austin, TX 78744  
Phone: (512) 385-5886 Fax: (512) 385-7411

2209 N.P.I.D., Ste K, Corpus Christi, TX 78401  
Phone: (361) 289-6384 Fax: (361) 289-0875

2209 N.P.I.D., Ste K, Corpus Christi, TX 7840  
Phone: (361) 289-6384 Fax: (361) 289-0875

## Analyses Requested (1)

Please attach explanatory information as required

**Rush Status (must be confirmed with lab mgr.):**

Project Name/PO#: Acid Sump Sampler: B. Wedgworth

Client Sample No. Description/Identification	Date Sampled	Time Sampled	No. of Containers	Soil	Water	Waste	Lab I.D. # (Lab only)
B) HOBBS - BH3 - 5-7	7/9/02	0855	1	X			
B) HOBBS - BH3 - 10-12	7/9/02	0910	1	X			
B) HOBBS - BH3 - 15-17	7/9/02	0920	1	X			
B) HOBBS - BH3 - 20-22	7/9/02	0920	1	X			
B) HOBBS - BH3 - 28-30	7/9/02	0950	1	X			
B) HOBBS - BH3	7/9/02						
B) HOBBS - BH3	7/9/02						

(1) Unless specifically requested otherwise on this Chain-of-custody and/or attached documentation, all analyses will be conducted using ASI's method of choice and all data will be reported to ASI's normal reporting limits (MDL/PQL). For GC/MS volatiles and extractables, unless specific analytical parameter lists are specified on this chain-of-custody or attached to this chain-of-custody, ASI will default to Priority Pollutants or ASI's HSL list at ASI's option. Specific compound lists must be supplied for all GC procedures.

Sample Relinquished By				Sample Received By			
Name	Affiliation	Date	Time	Name	Affiliation	Date	Time
Edward G. Work	Weston Solutions, Inc.	7/11/02	1430				
Edward G. Work							

Tendering of above described samples to AnalySys, Inc. for analytical testing constitutes agreement by buyer/sampler to AnalySys, Inc.'s standard terms.

**WWW.ANALYSYSINC.COM**



**Send Reports To:**

Company Name Weston Solutions, Inc.  
Address 6501 Amerind's Parkway NE, Suite 800  
City Albuquerque State NM Zip 87110  
ATTN: Bruce Wedge worth  
Phone 505-284-6237 Fax 505-284-2616

**Bill to (if different):**

Company Name BJ Services Company USA  
Address 11211 FM 2920  
City Tomball State TX Zip 77375  
ATTN: JASON GOODMAN  
Phone 281-257-2573 Fax 281-357-2585

3512 Montopolis Drive, Austin, TX 78744  
Phone: (512) 385-5886 Fax: (512) 385-7411

2209 N.P.I.D., Ste K, Corpus Christi, TX 78408  
Phone: (361) 289-6384 Fax: (361) 289-0875

2209 N.P.I.D., Ste K, Corpus Christi, TX 78408  
Phone: (361) 289-6384 Fax: (361) 289-0875

### Analyses Requested (1)

Please attach explanatory information as required

**Rush Status (must be confirmed with lab mgr.):**

Project Name/PO#: Acid Sump Sampler: B. Wedgworth

Client Sample No. Description/Identification	Date Sampled	Time Sampled	No. of Containers	Soil	Water	Waste	Lab I.D. # (Lab only)
B) HOBBS - BH3 - 5-7	7/9/02	0855	1	X			
B) HOBBS - BH3 - 10-12	7/9/02	0910	1	X			
B) HOBBS - BH2 - 15-17	7/9/02	0920	1	X			
B) HOBBS - BH2 - 20-22	7/9/02	0920	1	X			
B) HOBBS - BH2 - 28-30	7/9/02	0950	1	X			
B) HOBBS - BH2 -	7/9/02						
B) HOBBS - BH2 -	7/9/02						

(1) Unless specifically requested otherwise on this Chain-of-custody and/or attached documentation, all analyses will be conducted using ASI's method of choice and all data will be reported to ASI's normal reporting limits (MDL/PQL). For GC/MS volatiles and extractables, unless specific analytical parameter lists are specified on this chain-of-custody or attached to this chain-of-custody, ASI will default to Priority Pollutants or ASI's HSL list at ASI's option. Specific compound lists must be supplied for all GC procedures.

Sample Relinquished By			Sample Received By		
Name	Affiliation	Date	Name	Affiliation	Date
Edward G. Work	Weston Solutions, Inc.	7/11/02			
Edward G. Work					

Tendering of above described samples to AnalySys, Inc. for analytical testing constitutes agreement by buyer/sampler to AnalySys, Inc.'s standard terms.





June 9, 1997

CERTIFIED MAIL NO. P 414 631 830  
RETURN RECEIPT REQUESTED

Mr. Mark Ashley  
State of New Mexico  
Energy, Minerals, and Natural Resources Department  
Oil Conservation Division  
2040 South Pacheco Street  
State Land Office Building  
Santa Fe, NM 87505

RE: Wastewater Tank System Closure Report  
BJ Services Company, U.S.A.  
Hobbs, New Mexico Facility

Dear Mr. Ashley:

Please find enclosed the final report, *Wastewater Tank System Closure Report: Four Wastewater Tanks, BJ Services Company, U.S.A. , Hobbs, New Mexico Facility*. This report documents the closure activities and presents all relevant information related to the closure. If you have any questions or concerns regarding the information presented, please call me at (281) 363-7521.

Sincerely,

A handwritten signature in black ink, appearing to read 'Rick N. Johnson'. The signature is fluid and cursive, with a long, sweeping horizontal line extending to the right.

Rick N. Johnson  
Environmental Specialist

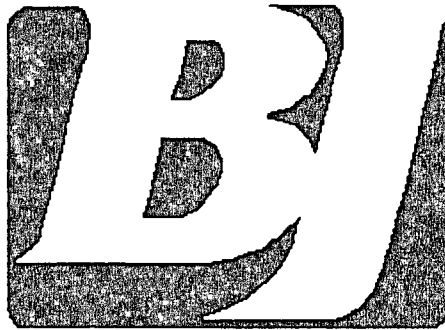
c: Wayne Price, OCD Hobbs Office (1 copy)  
Dan Miller, BJ Services Company (1 copy)  
JoAnn Cobb, BJ Services Company, U.S.A. (w/o enclosure)  
Charles Smith, BJ Services Company, U.S.A. (w/o enclosure)

# WASTEWATER TANK SYSTEM REMOVAL REPORT

**Four Wastewater Tanks  
BJ Services Company, U.S.A.  
Hobbs, New Mexico Facility**

June 9, 1997

*Prepared by*



BJ Services Company, U.S.A.  
8701 New Trails Drive  
The Woodlands, Texas

## TABLE OF CONTENTS

1.0	INTRODUCTION.....	1
2.0	FIELD ACTIVITIES.....	2
2.1	Preparation for Removal.....	2
2.2	Tank Removal and Field Observations.....	3
2.3	Excavation Observations and Sampling .....	3
2.4	Waste Soil Management.....	4
3.0	CONCLUSIONS AND RECOMMENDATIONS.....	6
3.1	Conclusions.....	6
3.2	Site Specific Considerations .....	6
3.3	Recommendations .....	7

### FIGURES

### TABLES

### APPENDICES

## **FIGURES**

Figure 1	Site Location Map
Figure 2	Site Layout Map
Figure 3	Former Wastewater Tank System Diagram
Figure 4	Excavation Dimension and Sample Location Diagram

## **TABLES**

Table 1	Laboratory Analytical Results of Detected Organic Constituents
Table 2	Laboratory Analytical Results of Detected Inorganic Constituents

## **APPENDICES**

Appendix A	Bill-of-Lading for Liquid Disposal
Appendix B	R & B Environmental Waste Characterization Report
Appendix C	Solids Disposal Application and OCD Approval Forms
Appendix D	Bills-of-Lading for Solids Disposal
Appendix E	Photographs of Removal
Appendix F	Removal Contractor Report and Certificate of Tank Destruction
Appendix G	Soil Analytical Laboratory Report
Appendix H	Soil Disposal Documentation

## 1.0 INTRODUCTION

On March 3, 4, and 5, 1997, four partially underground wastewater storage tanks were permanently removed from service from the BJ Services Company, U.S.A. (BJ Services) facility in Hobbs, New Mexico (see Figures 1 and 2). These tanks were removed based on procedures outlined in the workplan dated November 18, 1996 and approved by the State of New Mexico's Oil Conservation Division (OCD) in a letter dated December 17, 1996.

The removals were performed in accordance with OCD's February 1993 "Unlined Surface Impoundment Closure Guidelines" (Closure Guidelines), the OCD approved workplan, and the conditions in the OCD workplan approval letter. These tanks have been removed from the ground and properly disposed.

## **2.0 FIELD ACTIVITIES**

All field activities related to the removal of the tanks were carried out from January 24 to April 13, 1997. The following sections outline each step of the removal process.

### **2.1 Preparation for Removal**

#### **2.1.1 Liquid Disposal**

The tank system liquids were removed by Sonny's Oilfield Services (Sonny's) and transported for treatment at the local publicly-owned treatment works (POTW). Appendix A contains the bill-of-lading for these liquids.

#### **2.1.2 Tank Solids Disposal**

Prior to their removal, the wastewater tanks were cleaned and the accumulated solids were properly disposed. R & B Environmental (R & B) drew a four-point composite sample of the material from each tank and volumetrically combined these samples into one, representative, composite sample. This sample was placed in a cooler on ice and was overnighted to Southern Petroleum Laboratories (SPL) using QA/QC procedures.

The analytical results indicated that the material was characteristically non-hazardous (see Appendix B for the R & B report). Therefore, Controlled Recovery, Inc. (CRI) determined that the non-exempt material could be disposed of at their OCD approved disposal site in Hobbs, New Mexico. CRI filed an application with OCD to dispose of the material and verbal approval was granted by Mr. Mark Ashley on February 26, 1997 (see Appendix C for application and approval form).

#### **2.1.3 Tank Cleaning**

Sonny's was contracted to remove the material from the tanks, clean the tanks, and transport the material to CRI's disposal facility as approved by OCD. The tanks were cleaned by Sonny's using high pressure brine water and a vacuum truck from February 27 through March 2 (see Appendix D for bills-of-lading).

Tank B (see Figure 3) contained approximately two feet of a material too solid to remove by the procedure outlined above. This material was believed to be concrete and was left in the tank to be removed with the tank.

## **2.2 Tank Removal and Field Observations**

The wastewater tanks were removed by Constructive Solutions, Inc. [CSI] from March 3 to March 6, 1997. BJ Services corporate environmental personnel witnessed the entire removal and documented the field activities. Once the fence surrounding the perimeter of the tanks was removed, excavation of the soils surrounding the tanks commenced.

The wastewater tank system consisted of one 800 gallon and three 12,000 gallon fiberglass tanks. There was an eight-inch polyvinyl chloride (PVC) line entering the small tank and a four-inch PVC line entering each of the larger tanks from the southwest. There was also four-inch PVC line running between each of the tanks. It is unclear from field observations what the liquid flow direction was between the tanks, if any. A layout diagram of the former tank system and associated piping is presented as Figure 3.

Once sufficient soil from around the tanks was removed, CSI maneuvered the tanks out of the excavation and loaded the tanks onto a truck for disposal off-site. Visual inspection upon removal revealed no holes in the body of the tanks; however, the tanks were stained on the outside around the piping juncture cut-outs. Appendix E contains photodocumentation of the removals, while Appendix F contains the contractor report and the tank destruction certificate from CSI.

## **2.3 Excavation Observations and Soil Sampling**

Throughout the removal procedure, CSI and BJ Services environmental personnel observed the soil surrounding the tanks to detect any indication of release. The soil was also field screened using an organic vapor monitor (OVM) [MiniRae] by employing a heated headspace procedure. Soil in the immediate area of the piping-tank junctures and

directly beneath the tanks appeared to be impacted by operation of the former tank system.

Visual impact of surrounding soils was observed directly beneath the three large tanks and in the south and east sidewall. The tank pit was over-excavated to the maximum dimensions of approximately 60 feet by 20 feet by 22 feet (L x W x D) with a 10 feet by 20 feet by 10 feet shelf on the west wall and a 5 feet by 6 feet by 50 feet shelf along the north wall (see Figure 4 for approximate excavation dimensions). Although visual impact was still observed in the bottom and two sidewalls of the excavation, over-excavation beyond these dimensions was impossible due to the space constraints of the facility.

Representative composite confirmation samples were taken from the bottom and sidewalls of the excavation by CSI with the assistance of the excavator and witnessed by BJ Services and OCD environmental personnel (see Figure 4 for sample locations). No sample was collected from the north sidewall due to the size of the excavation (the excavator could not reach this side wall) and safety concerns associated with a person entering the unshored excavation. BJ Services and OCD personnel agreed that this sidewall was not visually impacted and that no sample was necessary. These samples were immediately placed on ice and overnighted to EPIC Laboratories, Inc. (EPIC) in Carrollton, Texas. Laboratory analysis of these samples indicate that chemical constituents remain in the soil above the OCD remediation levels derived for this site (see Table 1 and 2 for data summary and the laboratory reports are presented in Appendix G). Clean soil was imported and used to backfill the majority of the excavation, while some soil excavated from a clean location at the site was used to backfill the remainder of the excavation.

## **2.4 Waste Soil Management**

Excavated and over-excavated soils, which were segregated into 'visually impacted' and 'possibly non-impacted' stockpiles, were placed on plastic and covered. Representative

composite samples of these stockpiles were analyzed to determine the final disposition of the soil. Analytical results of the stockpile composite samples indicated that both were above OCD action levels, but were not characteristically hazardous. Therefore, the tank pit soils were disposed of, after OCD approval, at the CSI OCD disposal facility (operated as Rhino Environmental Goo Yea Landfarm) in Hobbs, New Mexico. Impacted soil disposal documentation is presented in Appendix H.

### **3.0 CONCLUSIONS AND RECOMMENDATIONS**

#### **3.1 Conclusions**

The wastewater tank system was removed and space-limited remedial overexcavation was performed in accordance with the OCD approved workplan, the OCD approval letter, and the applicable closure guidelines. The tank system fluids, accumulated solids, tanks, and waste soil were all disposed of properly. Chemical constituents above OCD soil remediation levels derived for this site remain in the soil directly below, and in the south and east sidewalls surrounding the former tank system.

#### **3.2 Site-Specific Considerations**

The source has been removed and chemical residuals reside in sub-surface soils (i.e., > two feet). Planned construction activities in this area include the placement of a footing slab to support a process tank. Placement of this footing slab will aid in reducing sub-surface impacted soil from leaching chemical residues to the shallow groundwater. This is achieved by "capping" an area, thereby preventing rainfall from absorbing into the soil. This eliminates the transport mechanism by which chemical residues are released from soil to shallow groundwater directly underneath the footing slab.

There are two groundwater monitoring wells (MW-10 and MW-11) cross- and down-gradient (south and east) of the former tank system excavation (see Figure 2). These wells are associated with the remediation of an upgradient area. This remediation effort includes a biosparge system which functions to increase the dissolved oxygen content in the groundwater, thereby encouraging aerobic degradation of organic compounds by indigenous organisms. BJ Services currently collects data from MW-10 and MW-11 (and from the other wells at the facility) to monitor the effectiveness of this system and to detect organic compound concentration fluctuations in the groundwater. To monitor the effectiveness of the biosparge system, data such as dissolved oxygen and iron content are being collected. Quarterly groundwater monitoring reports are being sent to the OCD

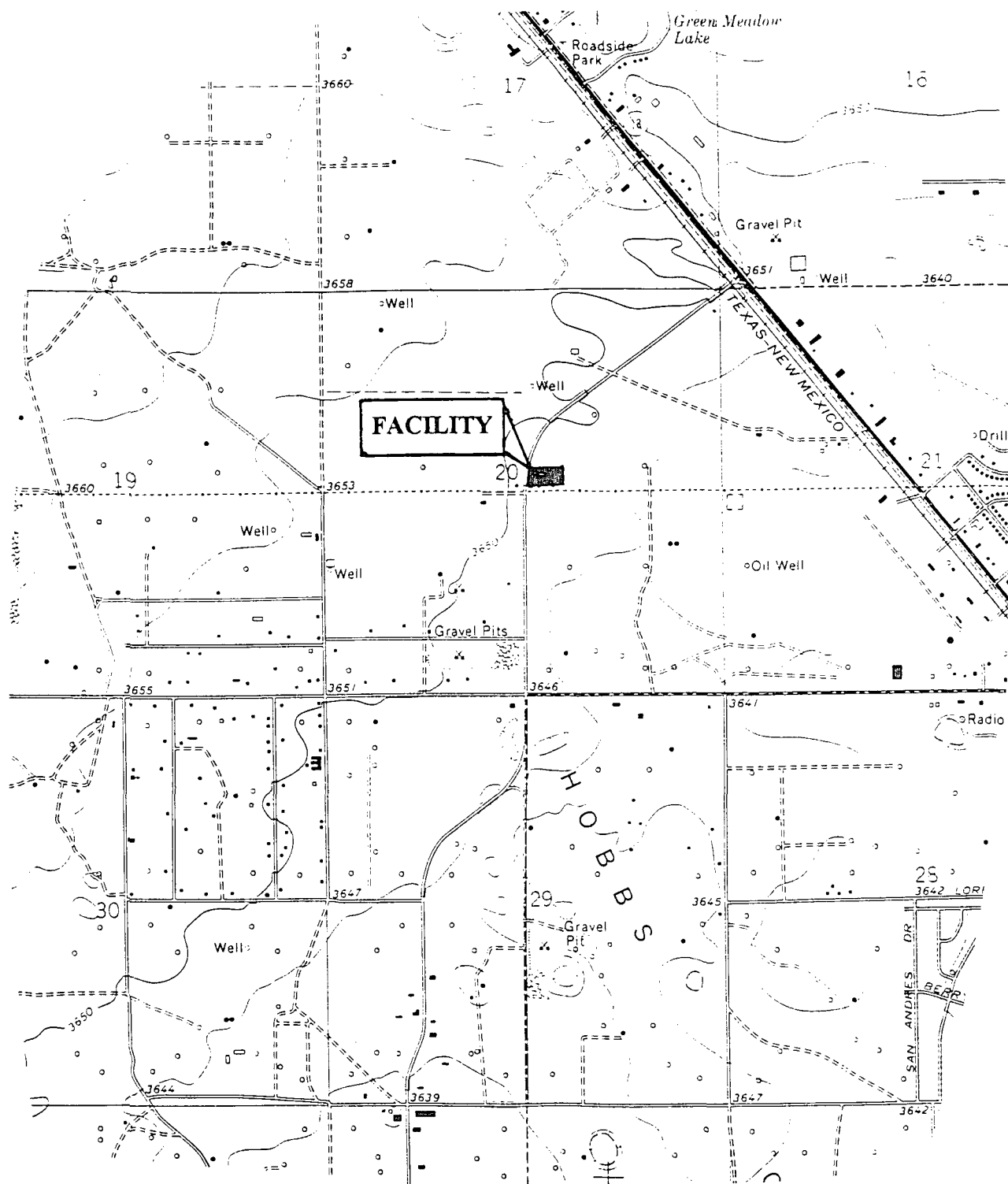
which include groundwater elevation data, analytical data from the on-site monitoring wells, and an assessment of the effectiveness of the biosparge system.

### **3.3 Recommendations**

The following recommendations are designed to address the remediation of media effected, or with the potential to be effected, by operation of the former wastewater tank system:

- ⇒ Leave the chemical residues which reside in subsurface soil in place and allow natural attenuation of these compounds by indigenous organisms;
- ⇒ Install the planned footing slab which will eliminate the transport mechanism from soil to shallow groundwater for chemical residuals in the areas covered by the slab, thereby reducing potential groundwater impact; and,
- ⇒ Continue the monitoring of this area in the quarterly monitoring already in progress at the facility. This includes monitoring of chemical concentrations and bioremediation indicator parameters in the two wells near the former tank system.

## FIGURES

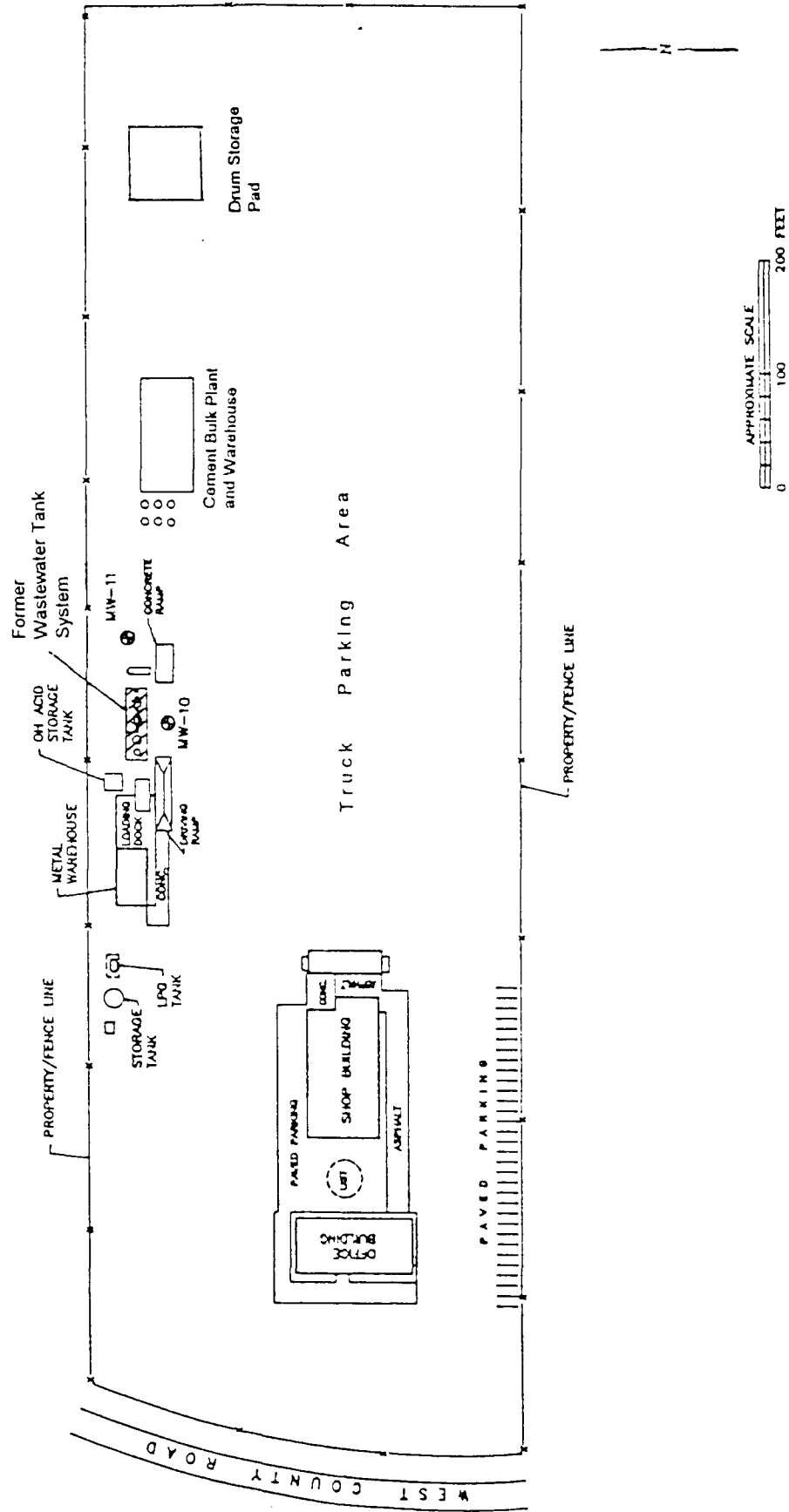


### Figure 1: Site Location Map

Last Revised: 3/27/97

BJ Services Company, U.S.A.  
8701 New Trails Drive  
The Woodlands, TX 77381

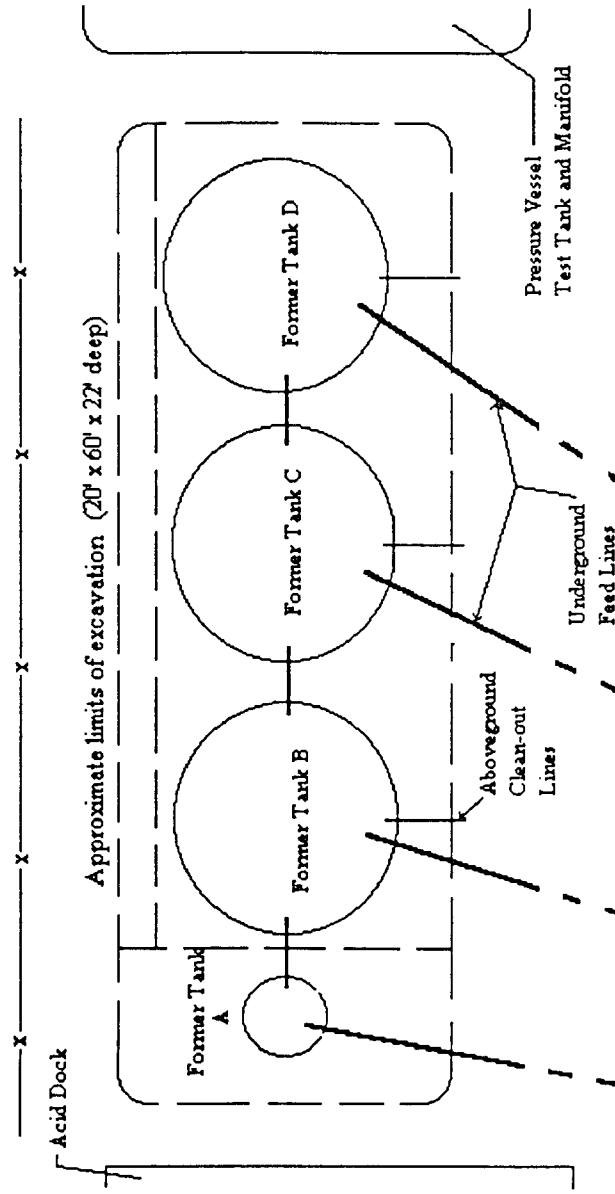
Facility Name: BJ Services Company, U.S.A.  
Facility Address: 2708 West County Road  
Hobbs, New Mexico



BJ Services Company, U.S.A.  
 8701 New Trails Drive  
 The Woodlands, Texas 77381

**Figure 2: Site Layout Map**  
 Last Revision: 3/27/97

Facility Name: BJ Services Company, U.S.A.  
 Facility Address: 2708 West County Road  
 Hobbs, New Mexico



BJ Services Company, U.S.A.  
 8701 New Trails Drive  
 The Woodlands, Texas 77381

**Figure 3: Former Wastewater Tank System Diagram**

Last Revision: 3/27/97 Not to Scale

Facility Name: BJ Services Company, U.S.A.  
 Facility Address: 2708 West County Road  
 Hobbs, New Mexico



## TABLES

**Table 1**  
**Wastewater Tank Removal and Site Assessment Report**  
**Laboratory Analytical Results of Detected Organic Constituents**

Sample I.D.	Sample Location	Sample Type	Sample Purpose	Sample Date	Total Petroleum Hydrocarbons (mg/kg) (EPA Method 418.1)	Total Petroleum Hydrocarbons as Diesel (mg/kg) (EPA Method 801.2)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	Fluorene (mg/kg)	Naphthalene (mg/kg)	Phenanthrene (mg/kg)
South Stockpile	South Stockpile	5 pt. Composite	Waste Management	5-Mar-97	1420	NA	BDL	BDL	BDL	BDL	NA	NA	NA
East Stockpile	East Stockpile	5 pt. Composite	Waste Management	5-Mar-97	444	NA	BDL	0.063	0.120	0.6	NA	NA	NA
SW-S	South Sidewall	5 pt. Composite	Confirmation	5-Mar-97	NA	290	BDL	0.065	0.110	≤0.88 <sup>a</sup>	NA	NA	NA
SW-E	East Sidewall	3 pt. Composite	Confirmation	5-Mar-97	NA	2500	≤0.023 <sup>b</sup>	0.15	1.3	≤3.8 <sup>b</sup>	NA	NA	NA
SW-W	West Sidewall	3 pt. Composite	Confirmation	5-Mar-97	NA	4.4	BDL	BDL	0.011	0.019	NA	NA	NA
T-A	Below Tank A	5 pt. Composite	Confirmation	5-Mar-97	NA	110	BDL	BDL	BDL	BDL	NA	NA	NA
T-B	Below Tank B	5 pt. Composite	Confirmation	5-Mar-97	≤19100 <sup>c</sup>	NA	BDL	0.7	1.9	≤211	1.5	≤18 <sup>d</sup>	1.8
T-C	Below Tank C	5 pt. Composite	Confirmation	5-Mar-97	≤21700 <sup>c</sup>	NA	BDL	BDL	0.015	0.1	NA	NA	NA
T-D	Below Tank D	5 pt. Composite	Confirmation	5-Mar-97	NA	160	BDL	BDL	0.069	0.43	NA	NA	NA

BDL = Below Detection Limit

NA = Not Analyzed

**Table 2**  
**Wastewater Tank Removal and Site Assessment Report**  
**Laboratory Analytical Results of Detected Inorganic Constituents**

Sample I.D.	Sample Location	Sample Type	Sample Purpose	Sample Date	TCLP Arsenic (mg/L)	TCLP Barium (mg/L)	Total Barium (mg/kg)	Total Cadmium (mg/kg)	Total Chromium (mg/kg)	Total Lead (mg/kg)
South Stockpile	South Stockpile	5 pt. Composite	Waste Management	5-Mar-97	BDL	1.2	NA	NA	NA	NA
East Stockpile	East Stockpile	5 pt. Composite	Waste Management	5-Mar-97	0.04	1.3	NA	NA	NA	NA
SW-S	South Sidewall	5 pt. Composite	Confirmation	5-Mar-97	NA	NA	NA	NA	NA	NA
SW-E	East Sidewall	3 pt. Composite	Confirmation	5-Mar-97	NA	NA	76	BDL	5.6	9.7
SW-W	West Sidewall	3 pt. Composite	Confirmation	5-Mar-97	NA	NA	NA	NA	NA	NA
T-A	Below Tank A	5 pt. Composite	Confirmation	5-Mar-97	NA	NA	NA	NA	NA	NA
T-B	Below Tank B	5 pt. Composite	Confirmation	5-Mar-97	NA	NA	360	1.8	3.7	18
T-C	Below Tank C	5 pt. Composite	Confirmation	5-Mar-97	NA	NA	NA	NA	NA	NA
T-D	Below Tank D	5 pt. Composite	Confirmation	5-Mar-97	NA	NA	NA	NA	NA	NA

BDL = Below Detection Limit

NA = Not Analyzed

## APPENDICES

**APPENDIX A**  
**BILL-OF-LADING FOR LIQUID DISPOSAL**

ORIGINAL - NOT NEGOTIABLE

RECEIVED. Subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading.

CARRIER <i>Sonny's Oilfield Services</i>	SHIPPER <b>BJ SERVICES CO., U.S.A.</b>
DATE <i>1/15/97</i>	POINT OF ORIGIN <i>2708 W. County Rd</i>
AT <i>Hobbs, NM</i>	From BJ SERVICES CO.

the property described below in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated below, which said carrier (the word carrier being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed, as to each carrier of all or any of said property over all or any portion of said route to destination, and as to each party at any time interested in all or any of said property, that every service to be performed hereunder shall be subject to all the terms and conditions of the Uniform Domestic Straight Bill of Lading set forth (1) Uniform Freight Classifications in effect on the date hereof, if this is a rail or a rail-water shipment, or (2) in the applicable motor carrier classification or tariff if this is a motor carrier shipment.

CONSIGNEE TO <i>City of Hobbs Waste Water Treatment Plant</i>			
(MAIL OR STREET ADDRESS OF CONSIGNEES FOR PURPOSES OF NOTIFICATION ONLY)			
DESTINATION <i>Hobbs</i>	STATE <i>NM</i>	COUNTY <i>Lea</i>	ZIP <i>88240</i>
ROUTE <i>Best</i>	CAR INITIALS		CAR NUMBERS
LOCATION NO. S	DECLARED VALUE		

NUMBER PACKAGES	H-M EMERGENCY RESPONSE GUIDE	BJ PRODUCT NAME	KIND OF PACKAGES, DESCRIPTION OF ARTICLES, SPECIAL MARKS, AND EXCEPTIONS	SHIPPER'S WEIGHT (SUBJECT TO CORRECTION)	Subject to Section 7 of conditions of applicable bill of lading, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement.  The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.  (Signature of consignor)  If charges are to be prepaid, write or stamp here "To be Prepaid."  <b>PAYMENT INSTRUCTIONS TO CARRIERS</b> 1. Indicate B/L number on Freight Bill. 2. Submit Freight Bills in duplicate. 3. Attach number 3 copy of this B/L. 4. Mail to:  <b>BJ SERVICES</b> SHIPPING LOCATION  * Shipper's imprint in lieu of stamp, not a part of Bill of Lading approved by the Interstate Commerce Commission.  <b>APPROPRIATE HAZARDOUS MATERIAL PLACARD OFFERED:</b>  CLASSIFICATION _____ HAZARD _____ SUBSTANCE _____ QUANTITY _____ REMARKS _____ DATE _____
<i>2 Drums</i>			<i>Waste water (240 bbls) (ph 7.0)</i>	<i>88,000</i>	
<i>1/15/97</i> <i>Picked up + 1/16/97</i> <i>Hobbs</i>					

\*If the shipment moves between two ports by a carrier by water, the law requires that the bill of lading shall state whether it is "carrier's or shipper's weight."

NOTE—Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property. The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding \_\_\_\_\_ per \_\_\_\_\_

THIS IS TO CERTIFY THE ABOVE NAMED MATERIALS ARE PROPERLY CLASSIFIED, DESCRIBED, PACKAGED, MARKED AND LABELED AND ARE IN PROPER CONDITION FOR TRANSPORTATION ACCORDING TO THE APPLICABLE REGULATIONS OF THE DEPARTMENT OF TRANSPORTATION. Per *Stuart Todd*

BJ SERVICES CO., Shipper

Per *Stuart Todd*

BJS-1356

IN CASE OF EMERGENCY CONTACT  
CHEMTREK 1-800-424-9300  
IN ALASKA CALL COLLECT 1-202-432-7616

**APPENDIX B**

**R & B ENVIRONMENTAL WASTE CHARACTERIZATION REPORT**

**R & B Environmental**  
P. O. Box 1022  
Hobbs, New Mexico 88240  
(505) 392-8844

*Contracted by  
CRI - billed  
directly to BJ*

February 17, 1997

Mr. Dan Miller  
B J Services  
2708 North West County Road  
Hobbs, New Mexico 88240

**RE: Waste Characterization  
Wash Bay Waste Storage Facility  
2708 North West County Road  
Hobbs, New Mexico**

**R & B Project No. B01501**

Mr. Miller:

R & B Environmental has completed waste characterization operations at the above listed site as requested by B J Services. The purpose of the sampling event was to characterize the subject waste for waste classification in accordance with RCRA Subtitle C regulations. The scope of work included collecting a composite sample of the subject waste, submitting the sample for laboratory analysis, and documenting the sampling event.

The subject waste consisted of semi-solid sediments contained in underground storage tanks at the waste storage facility located near the northern boundary of B J Services equipment yard. It is our understanding the purpose of the facility is to store waste generated during equipment cleaning operations, typically wash/rinse water, soap, dirt, and any residues that accumulated on the equipment during service in the oilfield.

R & B personnel inspected the facility and sampled the subject waste on January 24, 1997. The facility contained three fiberglass tanks and one sump. Four-point composite samples were obtained from each storage vessel and volumetrically combined to form one composite sample (SC-1).

Prior to collecting samples, the sampling equipment was decontaminated using Liquinox detergent and a distilled water rinse. A soapy water solution and water rinse were used to clean sampling equipment between samples.

SC-1 was placed into glass jars with teflon-lined lids and zero head space, labeled, sealed with QA/QC seals, and preserved on ice in accordance with EPA protocol for laboratory shipment.

The sample was shipped to SPL Laboratory in Houston for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), RCRA metals, and solid waste characteristics (ignitability, corrositivity, reactivity, and toxicity) analysis.

The laboratory analytical results recorded concentrations well below EPA Regulatory Limits and classify the waste as characteristically non-hazardous. A summary of the analytical results are presented in the enclosed tables. Facsimile copies of the laboratory results are attached. We expect to receive the actual laboratory report this week and will forward copies, including chains-of-custody, to you upon receipt.

R & B Environmental appreciates this opportunity to provide you with our professional services. If you have any questions concerning this project, or if we may be of further service, please do not hesitate to contact us.

Respectfully,

**R & B Environmental**  
BC1501.SAM



F. Wesley Root  
Geologist / Hydrologist

Enclosures

<b>TABLE 1</b> <b>SUMMARY OF SAMPLE ANALYTICAL RESULTS</b> <b>TCLP VOLATILE ORGANIC COMPOUNDS (VOCs)</b> <b>B J Services Wash Bay Storage Facility</b> <b>R &amp; B Project No. B01501</b>			
<b>Volatile Organic Compound Name</b>	<b>Sample ID SC-1 01/24/97</b>	<b>Practical Quantitation Limit (ug/L)</b>	<b>Regulatory Limit (ug/L)</b>
Benzene	190	50	500
2-Butanone	ND	200	200,000
Carbon Tetrachloride	ND	50	500
Chlorobenzene	ND	50	100,000
Chloroform	ND	50	6,000
1,2-Dichloroethane	ND	50	500
1,1-Dichloroethene	ND	50	700
Tetrachloroethene	ND	50	700
Trichloroethene	ND	50	500
Vinyl Chloride	ND	100	200
Analyses were performed using EPA Method 1311 / 8240 by SPL Laboratories. All results are reported in micrograms per liter; ug/L (parts per billion; ppb) Results listed in bold type exceed EPA Limits. ND = Non Detect (concentration less than PQL)			

<b>TABLE 2</b> <b>SUMMARY OF SAMPLE ANALYTICAL RESULTS</b> <b>TCLP SEMIVOLATILE ORGANIC COMPOUNDS (SVOCs)</b> <b>B J Services Wash Bay Storage Facility</b> <b>R &amp; B Project No. B01501</b>			
<b>Volatile Organic Compound Name</b>	<b>Sample ID SC-1 01/24/97</b>	<b>Practical Quantitation Limit (ug/L)</b>	<b>Regulatory Limit (ug/L)</b>
ortho-Cresol	ND	50	200,000
meta, para-Cresols	ND	100	200,000
1,4-Dichlorobenzene	ND	50	7,500
2,4-Dinitrotoluene	ND	50	130
Hexachlorobenzene	ND	50	130
Hexachlorobutadiene	ND	50	500
Hexachloroethane	ND	50	3,000
Nitrobenzene	ND	50	2,000
Pentachlorophenol	ND	250	100,000
Pyridine	ND	50	5,000
2, 4, 5-Trichlorophenol	ND	100	400,000
2, 4, 6-Trichlorophenol	ND	50	2,000
Analyses were performed using EPA Method 1311 / 8270 by SPL Laboratories. All results are reported in micrograms per liter; ug/L (parts per billion; ppb) Results listed in bold type exceed EPA Limits. ND = Non Detect (concentration less than PQL)			

<b>TABLE 3</b> <b>SUMMARY OF SAMPLE ANALYTICAL RESULTS</b> <b>RCI &amp; TCLP METALS</b> <b>B J Services Wash Bay Storage Facility</b> <b>R &amp; B Project No. B01501</b>				
<b>Tested Parameter</b> <b>Name                      Units</b>		<b>Sample ID</b> <b>SC-1</b> <b>01/24/97</b>	<b>Detection</b> <b>Limit</b>	<b>Regulatory</b> <b>Limit</b>
Reactivity (Cyanide)	mg/Kg	ND	10	250
Reactivity (Sulfide)	mg/Kg	ND	100	500
Soil pH	pH units	5.64	N/A	2 to 12.5
Flash & Fire Point	degrees F	>210	N/A	>140
Arsenic (As)	mg/L	ND	0.20	5.00
Selenium (Se)	mg/L	ND	0.20	1.00
Cadmium (Cd)	mg/L	ND	0.01	1.00
Chromium (Cr)	mg/L	ND	0.02	5.00
Lead (Pb)	mg/L	ND	0.10	5.00
Silver (Ag)	mg/L	ND	0.01	5.00
Barium (Ba)	mg/L	ND	1.00	100.00
Mercury (Hg)	mg/L	ND	0.0004	0.20
Analyses were performed by SPL Laboratories. using EPA Methods: 1311 / 8010A, 7470, SW846/7 3.4.2, 7.3 3.2, 9045C, ASTM D92-85. Results listed in bold type exceed EPA Limits. ND = Non Detect (concentration less than detection limit)				

Certificate of Analysis No. H9-9701B55-01

R & B Environmental  
P.O. Box 1022  
Hobbs, NM 88240  
ATTN: Wesley Root

02/14/97

PROJECT: BJ Services  
SITE: Hobbs New Mexico  
SAMPLED BY: R & B Services  
SAMPLE ID: SC-1

PROJECT NO: B01501  
MATRIX: LEACHATE  
DATE SAMPLED: 01/24/97 14:25:00  
DATE RECEIVED: 01/29/97

ANALYTICAL DATA

PARAMETER	RESULTS	PQL*	UNITS	RL ▲
Benzene	190	50	ug/L	500
2-Butanone	ND	200	ug/L	200000
Carbon Tetrachloride	ND	50	ug/L	500
Chlorobenzene	ND	50	ug/L	100000
Chloroform	ND	50	ug/L	6000
1,2-Dichloroethane	ND	50	ug/L	500
1,1-Dichloroethene	ND	50	ug/L	700
Tetrachloroethene	ND	50	ug/L	700
Trichloroethene	ND	50	ug/L	500
Vinyl Chloride	ND	100	ug/L	200

SURROGATES	AMOUNT SPIKED	% RECOVERY	LOWER LIMIT	UPPER LIMIT
4-Bromofluorobenzene	50 ug/L	100	86	115
1,2-Dichloroethane-d4	50 ug/L	96	76	114
Toluene-d8	50 ug/L	105	88	110

ANALYZED BY: GT DATE/TIME: 01/31/97 14:46:00  
LEACHATE PREP(ZHE) BY: WLR DATE/TIME: 01/30/97

METHOD: 1311/8240, TCLP Volatiles

NOTES: \* - Practical Quantitation Limit ND - Not Detected  
NA - Not Analyzed  
▲ - Regulatory Limit. Reference Federal Register 55, 11862  
(3/29/90), RFA Toxicity Characteristic Final Rule.

COMMENTS:

QUALITY ASSURANCE: These Analyses are performed in accordance with EPA guidelines for quality assurance.

**Certificate of Analysis No. H9-9701B55-01**

R & B Environmental  
 P.O. Box 1022  
 Hobbs, NM 88240  
 ATTN: Wesley Root

02/14/97

PROJECT: BJ Services  
 SITE: Hobbs New Mexico  
 SAMPLED BY: R & B Services  
 SAMPLE ID: SC-1

PROJECT NO: B01501  
 MATRIX: LEACHATE  
 DATE SAMPLED: 01/24/97 14:25:00  
 DATE RECEIVED: 01/29/97

**ANALYTICAL DATA**

PARAMETER	RESULTS	PQL*	UNITS	RL *
ortho-Cresol	ND	50	ug/L	200000
meta, para-Cresols	ND	100	ug/L	200000
1,4-Dichlorobenzene	ND	50	ug/L	7500
2,4-Dinitrotoluene	ND	50	ug/L	130
Hexachlorobenzene	ND	50	ug/L	130
Hexachlorobutadiene	ND	50	ug/L	500
Hexachloroethane	ND	50	ug/L	3000
Nitrobenzene	ND	50	ug/L	2000
Pentachlorophenol	ND	250	ug/L	100000
Pyridine	ND	50	ug/L	5000
2,4,5-Trichlorophenol	ND	100	ug/L	400000
2,4,6-Trichlorophenol	ND	50	ug/L	2000

**SURROGATES**

	AMOUNT SPIKED	% RECOVERY	LOWER LIMIT	UPPER LIMIT
Nitrobenzene-d5	50 ug/L	106	35	114
2-Fluorobiphenyl	50 ug/L	94	43	116
Terphenyl-d14	50 ug/L	83	33	141
Phenol-d5	75 ug/L	102	10	110
2-Fluorophenol	75 ug/L	88	21	110
2,4,6-Tribromophenol	75 ug/L	85	10	123

ANALYZED BY: SC

DATE/TIME: 02/04/97 17:45:00

LEACHATE EXTRACTION BY: SC

DATE/TIME: 01/31/97 13:00:00

METHOD: 1311/8270, TCLP Semivolatiles

NOTES: \* - Practical Quantitation Limit

ND - Not Detected

NA - Not Analyzed

\* - Regulatory Limit. Reference Federal Register 55, 11862  
 (3/29/90), RCRA Toxicity Characteristic Final Rule.

COMMENTS:

QUALITY ASSURANCE: These analyses are performed in accordance  
 with EPA guidelines for quality assurance

## Certificate of Analysis No. H9-9701B55-01

R & B Environmental  
P.O. Box 1022  
Hobbs, NM 88240  
ATTN: Wesley Root

DATE: 02/14/97

PROJECT: BJ Services  
SITE: Hobbs New Mexico  
SAMPLED BY: R & B Services  
SAMPLE ID: SC-1

PROJECT NO: B01501  
MATRIX: SLUDGE  
DATE SAMPLED: 01/24/97 14:25:00  
DATE RECEIVED: 01/29/97

## ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
Flash and Fire Point- C.O.C. Method ASTM D92-85 Analyzed by: TB Date: 02/04/97	>210		°F
Mercury, TCLP Leachate Method 7470 A*** Analyzed by: PC Date: 02/10/97	ND	0.0004	mg/L
Acid Digestion of TCLP Leachate, ICP Method 3010A *** Analyzed by: MM Date: 01/31/97	01/31/97		
Lead, TCLP Leachate Method 6010A *** Analyzed by: JM Date: 02/04/97	ND	0.1	mg/L
Soil pH Measured in Water Method 9045C *** Analyzed by: LAR Date: 01/30/97	5.64		pH units
TCLP Leachate Extraction Method 1311 *** Analyzed by: WLR Date: 01/30/97	01/30/97		

ND - Not detected.

Notes: \*Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA  
\*\*Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.  
\*\*\*Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.

Certificate of Analysis No. H9-9701B55-01

R & B Environmental  
P.O. Box 1022  
Hobbs, NM 88240  
ATTN: Wesley Root

DATE: 02/14/97

PROJECT: BJ Services  
SITE: Hobbs New Mexico  
SAMPLED BY: R & B Services  
SAMPLE ID: SC-1

PROJECT NO: B01501  
MATRIX: SLUDGE  
DATE SAMPLED: 01/24/97 14:25:00  
DATE RECEIVED: 01/29/97

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
Silver, TCLP Leachate Method 6010A *** Analyzed by: JM Date: 02/04/97	ND	0.01	mg/L
Arsenic, TCLP Leachate Method 6010A *** Analyzed by: JM Date: 02/04/97	ND	0.2	mg/L
Barium, TCLP Leachate Method 6010A *** Analyzed by: JM Date: 02/04/97	ND	1	mg/L
Cadmium, TCLP Leachate Method 6010A *** Analyzed by: JM Date: 02/04/97	ND	0.01	mg/L
Chromium, TCLP Leachate Method 6010A *** Analyzed by: JM Date: 02/04/97	ND	0.02	mg/L
Cyanide-Reactive Method 7.313.2 *** Analyzed by: IP Date: 02/05/97	ND	10	mg/Kg

ND - Not detected.

Notes: \*Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA  
\*\*Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.  
\*\*\*Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance

## Certificate of Analysis No. H9-9701B55-01

R & B Environmental  
P.O. Box 1022  
Hobbs, NM 88240  
ATTN: Wesley Root

DATE: 02/14/97

PROJECT: BJ Services  
SITE: Hobbs New Mexico  
SAMPLED BY: R & B Services  
SAMPLE ID: SC-1

PROJECT NO: B01501  
MATRIX: SLUDGE  
DATE SAMPLED: 01/24/97 14:25:00  
DATE RECEIVED: 01/29/97

PARAMETER	ANALYTICAL DATA		DETECTION LIMIT	UNITS
	RESULTS			
TCLP Leachate Extraction Method 1311 *** Analyzed by: WLR Date: 01/30/97	01/30/97			
Zero Headspace extraction Method 1311 Analyzed by: WLR Date: 01/30/97	01/30/97			
Selenium, TCLP Leachate Method 6010A *** Analyzed by: JM Date: 02/04/97	ND	0.2		mg/L
Sulfide-Reactive Method 7.3.4.2 *** Analyzed by: IP Date: 02/05/97	ND	100		mg/Kg

ND - Not detected.

Notes: \*Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA  
\*\*Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.  
\*\*\*Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: The analyses are performed in accordance  
with EPA guidelines for quality assurance.

\*\* TOTAL PAGE.010 \*\*

## **APPENDIX C**

### **SOLIDS DISPOSAL APPLICATION AND OCD APPROVAL FORMS**

02-18-1997 10:21AM  
Box 1700  
Hobbs, NM 88241-1980  
District II - (505) 748-1283  
P. S. First  
Artesia, NM 88210  
District III - (505) 334-6178  
1000 Rio Brazos Road  
Aztec, NM 87410  
District IV - (505) 827-7131

Energy Minerals and Natural Resources Department  
Oil Conservation Division  
2040 South Pacheco Street  
Santa Fe, New Mexico 87505  
(505) 827-7131

Originated 8/8/93

Submit Original  
Plus 1 Copy  
to appropriate  
District Office

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: <input type="checkbox"/> Non-Exempt: <input checked="" type="checkbox"/>	4. Generator B J Services
Verbal Approval Received: Yes <input type="checkbox"/> No <input type="checkbox"/>	5. Originating Site Hobbs yard
2. Management Facility Destination Controlled Recovery, Inc.	6. Transporter Sonny's
3. Address of Facility Operator P.O. Box 369 Hobbs,	8. State New Mexico
7. Location of Material (Street Address or ULSTR) 2708 West County Road Hobbs, NM	
9. Circle One: A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job. B. All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analysis to PROVE the material is not-hazardous and the Generator's certification of origin. No waste classified hazardous by listing or testing will be approved.  All transporters must certify the wastes delivered are only those consigned for transport.	

BRIEF DESCRIPTION OF MATERIAL:

The following analytical is from the B J Services Hobbs yard. The waste was generated by washing trucks. I have included a certificate of waste and a chain of custody.

Estimated Volume 400 bbls cy Known Volume (to be entered by the operator at the end of the haul) \_\_\_\_\_ cy

SIGNATURE: Billie Charo TITLE: office manager DATE: 02/18/97  
Waste Management Facility Authorized Agent  
TYPE OR PRINT NAME: Billie Charo TELEPHONE NO. (505) 393-1079

(This space for State Use)

APPROVED BY: \_\_\_\_\_ TITLE: \_\_\_\_\_ DATE: \_\_\_\_\_  
APPROVED BY: \_\_\_\_\_ TITLE: \_\_\_\_\_ DATE: \_\_\_\_\_

**CERTIFICATE OF WASTE STATUS  
NON-EXEMPT WASTE MATERIAL  
"AS REQUIRED BY NEW MEXICO OIL CONSERVATION DIVISION"**

COMPANY/GENERATOR B J Services

ADDRESS 2708 West County Road Hobbs, New Mexico

GENERATING SITE B J Services Hobbs Yard

COUNTY Lea STATE NM

TYPE OF WASTE Sump sludge

ESTIMATED VOLUME 400 bbls

GENERATING PROCESS washing trucks

REMARKS \_\_\_\_\_

NMOCD FACILITY CONTROLLED RECOVERY INC.

TRUCKING COMPANY Sonny's

As a condition of acceptance for disposal, I hereby certify that this waste is a non-exempt waste as defined by the Environmental Protection Agency's (EPA) July 1988 Regulatory Determination. To my knowledge, this waste will be analyzed pursuant to the provisions of 40 CFR Part 261 to verify the nature as non-hazardous. I further certify that to my knowledge "hazardous or listed waste" pursuant to the provisions of 40 CFR, Part 261, Subparts C and D, has not been added or mixed with the waste so as to make the resultant mixture a "hazardous waste" pursuant to the provisions of 40 CFR, Section 261.3.

AGENT \_\_\_\_\_  
SIGNATURE

NAME Dan Miller  
PRINTED

ADDRESS 2708 West County Road Hobbs, NM 88240

DATE 02/18/97

District I - (505) 333-0100  
P.O. Box 1980  
Hobbs, NM 88241-1980  
District II - (505) 748-1283  
811 S. Fir.  
Artesia, NM 88210  
District III - (505) 334-6178  
1000 Rio Bravo Road  
Aztec, NM 87410  
District IV - (505) 827-7131

NEW MEXICO  
Energy Minerals and Natural Resources Department  
Oil Conservation Division  
2040 South Pacheco Street  
Santa Fe, New Mexico 87505  
(505) 827-7131

Form C-150  
Originated 2/8/95

Submit Original  
Plus 1 Copy  
to appropriate  
District Office

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: <input type="checkbox"/> Non-Exempt: <input checked="" type="checkbox"/> 2/28/97 PM 4:11 PM / 15/11/97 Verbal Approval Received: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	4. Generator B J Services
2. Management Facility Destination Controlled Recovery, Inc.	5. Originating Site Hobbs yard
3. Address of Facility Operator P.O. Box 369 Hobbs,	6. Transporter Sonny's
7. Location of Material (Street Address or ULSTR) 2708 West County Road Hobbs, NM	8. State New Mexico
9. Circle One: A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job. B. All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analysis to PROVE the material is not-hazardous and the Generator's certification of origin. No waste classified hazardous by listing or testing will be approved. All transporters must certify the wastes delivered are only those consigned for transport.	

BRIEF DESCRIPTION OF MATERIAL:

The following analytical is from the B J Services Hobbs yard. The waste was generated by washing trucks. I have included a certificate of waste and a chain of custody.

Att: MR. KEN MARSH - VERBAL APPROVAL  
2/28/97  
J

OLD HOBBS  
NEED  
FEB 11 1997  
RECEIVED

Estimated Volume 400 bbls cy Known Volume (to be entered by the operator at the end of the haul) \_\_\_\_\_ cy

SIGNATURE: Billie Charo TITLE: office manager DATE: 02/18/97  
Waste Management Facility Authorized Agent  
TYPE OR PRINT NAME: Billie Charo TELEPHONE NO. (505) 393-1079

(This space for State Use)

APPROVED BY: \_\_\_\_\_ TITLE: State Rep DATE: 2/18/97  
APPROVED BY: \_\_\_\_\_ TITLE: \_\_\_\_\_ DATE: \_\_\_\_\_

**APPENDIX D**

**BILLS-OF-LADING FOR SOLIDS DISPOSAL**

P.O. Box 1438  
Hobbs, N.M. 88240  
(505) 393-4521

# Sonny's

OILFIELD SERVICES, INC.

HB NO. 42720

Name B S Service

Address \_\_\_\_\_

Date 2-1

Lease Hobbsyd

Well No. \_\_\_\_\_

DESTINATION FROM: Hobbsyd TO: CB1

Order # John

CODE	DESCRIPTION OF WORK	RATE	HOURS BBLs.	AMOUNT
	<u>T/P 260 BBLs. B5+W TO</u> <u>CB1</u>	<u>66.00</u>	<u>11</u>	<u>660.00</u>

Time Start \_\_\_\_\_ Type Fld. Used B5+W Loaded Miles 40

Time Stop \_\_\_\_\_ Equipment 22 Unloaded Miles 40

Total Hours 4 Mileage \_\_\_\_\_ Total Miles 80

Operator: John Off Road Miles \_\_\_\_\_

Company Representative: \_\_\_\_\_

Accepted \_\_\_\_\_

Fuel Adj. Cost	
Sub Total	<u>660.00</u>
Tax	<u>34.65</u>
Chemical	
Brine Water	
Fuel	
Fresh Water	
TOTAL	<u>694.65</u>

White - File Copy

Canary - Invoice Copy

Pink - Yard Copy

Gold - Customer Copy

P.O. Box 1438  
Hobbs, N.M. 88240  
(505) 393-4521

# Sonny's

OILFIELD SERVICES, INC.

HB NO. 42703

Name BJ Services

Address \_\_\_\_\_

Date 2-28-97

Lease Yard

Well No. \_\_\_\_\_

Order # \_\_\_\_\_

DESTINATION FROM:

TO:

CODE	DESCRIPTION OF WORK	RATE	HOURS BBLs.	AMOUNT
	Transport Unit with operator to	57.00	2	114.00
	haul 30 bbls of BW to yard	1.20	5	6.00
	Use water to jet-out tanks.			

Time Start 2:00 Type Flid. Used B/W Loaded Miles 3

Time Stop 4:00 Equipment 31 Unloaded Miles 3

Total Hours 2 Mileage 6 Total Miles 6

Operator: Virgil Woods Off Road Miles \_\_\_\_\_

Company Representative: \_\_\_\_\_

Date \_\_\_\_\_ Accepted \_\_\_\_\_

Fuel Adj. Cost	
Sub Total	<u>120.00</u>
Tax	<u>6.30</u>
Chemical	
Brine Water	
Fuel	
Fresh Water	
TOTAL	<u>126.30</u>

White - File Copy

Canary - Invoice Copy

Pink - Yard Copy

Gold - Customer Copy

P.O. Box 1438  
Hobbs, N.M. 88240  
(505) 393-4521

# Sonny's

OILFIELD SERVICES, INC.

HB NO. 42706

Name ST Services

Address \_\_\_\_\_

Date 2-28-97

Lease Yard

Well No. \_\_\_\_\_

Order # \_\_\_\_\_

DESTINATION FROM: Loc. TO: CRI

CODE	DESCRIPTION OF WORK	RATE	HOURS BBLs.	AMOUNT
	<u>Vacuum unit with operator to</u>	<u>60.00</u>	<u>6</u>	<u>360.00</u>
	<u>pull fluid from tanks and dispose of</u>			
	<u>130 bbls as directed.</u>			

Time Start 12:00 Type Fld. Used off rd Loaded Miles 39

Time Stop 6:00 Equipment 32 Unloaded Miles 39

Total Hours 6 Mileage 78 Total Miles 78

Operator: John Off Road Miles \_\_\_\_\_

Company Representative: \_\_\_\_\_

Date \_\_\_\_\_ Accepted \_\_\_\_\_

Fuel Adj. Cost	
Sub Total	<u>360.00</u>
Tax	<u>18.90</u>
Chemical	
Brine Water	
Fuel	
Fresh Water	
TOTAL	<u>378.90</u>

White - File Copy

Canary - Invoice Copy

Pink - Yard Copy

Gold - Customer Copy

P.O. Box 1438  
Hobbs, N.M. 88240  
(505) 393-4521

# Sonny's

OILFIELD SERVICES, INC.

HS NO. 42822

Name BI

Address \_\_\_\_\_

Date 2-28-97

Lease Hobbs Yd

Well No. \_\_\_\_\_

Order # \_\_\_\_\_

DESTINATION FROM: BI

TO: CRI

CODE	DESCRIPTION OF WORK	RATE	HOURS BBLs.	AMOUNT
	<u>LOAD &amp; T/P 260 bbl B/S+U</u>	<u>60.00</u>	<u>9.5</u>	<u>570.00</u>
	<u>to CRI From Tanks</u>			

Time Start 8:00 Type Fld. Used BS+U Loaded Miles \_\_\_\_\_

Time Stop 5:30 Equipment 36 Unloaded Miles \_\_\_\_\_

Total Hours 9 1/2 Mileage \_\_\_\_\_ Total Miles \_\_\_\_\_

Operator: Jim Sayers Off Road Miles \_\_\_\_\_

Company Representative: \_\_\_\_\_

Date \_\_\_\_\_ Accepted \_\_\_\_\_

Fuel Adj. Cost

Sub Total 570.00

Tax 29.93

Chemical

Brine Water

Fuel

Fresh Water

TOTAL 599.93

White - File Copy

Canary - Invoice Copy

Pink - Yard Copy

Gold - Customer Copy

P.O. Box 1438  
Hobbs, N.M. 88240  
(505) 393-4521

# Sonny's

OIL FIELD SERVICES, INC.

HB NO. 42781

Name BJ Services

Address \_\_\_\_\_

DESTINATION FROM: Yard TO: Loc.

Date 2-28-97  
Lease 3TA  
Well No. Bypis 5WD  
Order # Danell

CODE	DESCRIPTION OF WORK	RATE	HOURS BBLs.	AMOUNT
	<u>Transport 120 bbls of Acid to location.</u>	<u>57."</u>	<u>12</u>	<u>684.00</u>
	<u>Stand by for fluid to be</u>			
	<u>pulled from unit.</u>			

Time Start 3:00 Am Type Fld. Used \_\_\_\_\_ Loaded Miles 22  
Time Stop 3:00 Pm Equipment \_\_\_\_\_ Unloaded Miles 22  
Total Hours 12 Mileage 44 Total Miles 44  
Operator: Pandy Off Road Miles 2  
Company Representative: \_\_\_\_\_

Date \_\_\_\_\_ Accepted \_\_\_\_\_

Fuel Adj. Cost	
Sub Total	<u>684.00</u>
Tax	<u>35.91</u>
Chemical	
Brine Water	
Fuel	
Fresh Water	
TOTAL	<u>719.91</u>

White - File Copy

Canary - Invoice Copy

Pink - Yard Copy

Gold - Customer Copy

P.O. Box 1438  
Hobbs, N.M. 88240  
(505) 393-4521

# Sonny's

OILFIELD SERVICES, INC.

Name RT Services

Address \_\_\_\_\_

Date 3-1-97Lease Yard

Well No. \_\_\_\_\_

Order # \_\_\_\_\_

DESTINATION FROM: Yard TO: Loc.

CODE	DESCRIPTION OF WORK	RATE	HOURS BBLs.	AMOUNT
	Furnished transport unit with	57.00	12	684.00
	operator to haul 100 HLP of	.40	100	40.00
	B/W to location. Used water			
	to put tanks on vacuum units			
	and empty tanks.			

Time Start 7:00 am Type Fld. Used B/W Loaded Miles 2Time Stop 7:00 pm Equipment 31 Unloaded Miles 2Total Hours 12 Mileage \_\_\_\_\_ Total Miles 4Operator: Virgil Woods Off Road Miles 1

Company Representative: \_\_\_\_\_

Date \_\_\_\_\_ Accepted \_\_\_\_\_

Fuel Adj. Cost

Sub Total 724.00Tax 38.01

Chemical

Brine Water

Fuel

Fresh Water

TOTAL 762.01

White - File Copy

Canary - Invoice Copy

Pink - Yard Copy

Gold - Customer Copy

P.O. Box 1438  
Hobbs, N.M. 88240  
(505) 393-4521

# Sonny's

OILFIELD SERVICES, INC.

HB NO. 42881

Name BJ

Address \_\_\_\_\_

Date

3-1

Lease

Hobbs 46

Well No.

Order #

DESTINATION FROM: BJ YARD TO: CRI

CODE	DESCRIPTION OF WORK	RATE	HOURS BBLs.	AMOUNT
	<u>T/P 260 bbl BSW to CRI</u>	<u>60.00</u>	<u>11</u>	<u>660.00</u>

Time Start 7:00 Type Fld. Used BSW Loaded Miles 40  
Time Stop 6:00 Equipment 36 Unloaded Miles 40  
Total Hours 11 Mileage \_\_\_\_\_ Total Miles 80  
Operator: Jim Sney Off Road Miles \_\_\_\_\_  
Company Representative: \_\_\_\_\_

Date \_\_\_\_\_ Accepted \_\_\_\_\_

Fuel Adj. Cost

Sub Total

Tax

Chemical

Brine Water

Fuel

Fresh Water

TOTAL

660.00

34.65

694.65

White - File Copy

Canary - Invoice Copy

Pink - Yard Copy

Gold - Customer Copy

P.O. Box 1438  
Hobbs, N.M. 88240  
(505) 393-4521

# Sonny's

OILFIELD SERVICES, INC.

Name BJ  
Address \_\_\_\_\_

Date 3-2  
Lease Hobbs Yd  
Well No. \_\_\_\_\_  
Order # Dan

DESTINATION FROM: BJ TO: CRI

CODE	DESCRIPTION OF WORK	RATE	HOURS BBLs.	AMOUNT
	T/P 260 bbl BS/W + O CRI	60.00	11.5	690.00

Time Start 7:30 Type Fld. Used BS/W Loaded Miles \_\_\_\_\_  
Time Stop 7:00 Equipment 3/6 Unloaded Miles \_\_\_\_\_  
Total Hours 1 1/2 Mileage \_\_\_\_\_ Total Miles \_\_\_\_\_  
Operator: John Sany Off Road Miles \_\_\_\_\_  
Company Representative: \_\_\_\_\_

Fuel Adj. Cost	
Sub Total	690.00
Tax	36.23
Chemical	
Brine Water	
Fuel	
Fresh Water	
TOTAL	726.23

Date \_\_\_\_\_ Accepted \_\_\_\_\_

White - File Copy

Canary - Invoice Copy

Pink - Yard Copy

Gold - Customer Copy



# A.A. OILFIELD SERVICE, INC.

P.O. BOX 5208

HOBBS, NEW MEXICO 88241-5208

## WORK TICKET

INVOICE DATE  
INVOICE NO.

3/05/91  
107032

CUSTOMER NO: 2070

VENDOR:

SOLD TO

52 SERVICES COMPANY  
P.O. BOX 4442  
HOUSTON TX 77011

LOCATION:

HOBBS PARK

AUTHORIZED BY:

MANAGER

QUANTITY	DESCRIPTION	PRICE/UNIT	AMOUNT
TICKET #	DATE	TICKET #	DATE
73202	3/05/91		
JET #1 YAMBUROSH 5:30PM-7:00PM PULLED 3 GALS SPILLED FLUID FROM JET AND HAULED TO C.P.I. JETTED OUT AT C.P.I.			
5.00	VACUUM TRUCK	\$36.00HR	\$180.00
2.00	CONTROLLED RECOVERY INC. DISPOSAL	\$2.00BL	\$4.00
1.00	CONTROLLED RECOVERY INC. CALL OUT CHARGE	\$50.00LT	\$50.00
1.00	CONTROLLED RECOVERY INC. JET OUT	\$40.00LT	\$40.00

INVOICE SUB-TOTAL ----- \$300.00  
GROSS RECEIPTS TAX 6.0002 ----- \$18.02  
INVOICE TOTAL ----- \$318.02

OPERATOR:

APPROVED BY:

THIS IS NOT AN INVOICE



# A.A. OILFIELD SERVICE, INC.

P.O. BOX 5208

HOBBS, NEW MEXICO 88241-5208

## WORK TICKET

INVOICE DATE  
INVOICE NO.

3/05/97  
107532

CUSTOMER NO: 2070

VENDOR:

SOLD TO

50 SERVICES COMPANY  
P.O. BOX 4442  
HOUSTON TX 77211

TX 77211

LOCATION:

HOBBS TANK

AUTHORIZED BY:

LEWIS

QUANTITY	DESCRIPTION	UNIT	AMOUNT
TICKET #	DATE	TICKET #	DATE
T3202	3/05/97		
	JET 15 YARDPOUGH 5:30PM-8:00PM PULLED 3 BALS SPILLED FLUID FROM PIT AND HAULED TO O.P.I. DETTER OUT AT O.P.I.		
1.00	VACUUM TRUCK	\$25.00/HR	\$25.00
1.00	CONTROLLED RECOVERY INC.	\$2.00/BL	\$2.00
1.00	DISPOSAL		
1.00	CONTROLLED RECOVERY INC.	\$50.00/IT	\$50.00
1.00	CALL OUT CHARGE		
1.00	CONTROLLED RECOVERY INC.	\$40.00/IT	\$40.00
1.00	JET OUT		

INVOICE SUB-TOTAL ----- \$300.25  
GROSS RECEIPTS TAX 6.000% ----- \$18.02  
INVOICE TOTAL ----- \$318.27

OPERATOR:

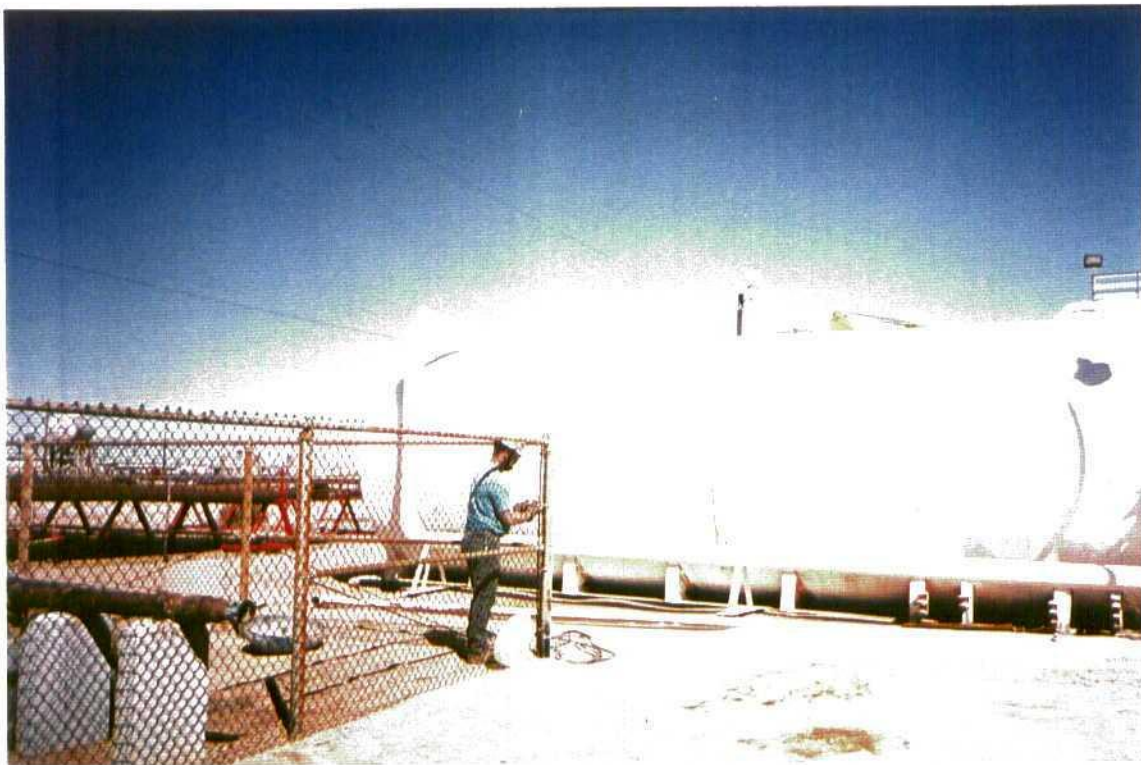
APPROVED BY:

THIS IS NOT AN INVOICE

**APPENDIX E**  
**PHOTOGRAPHS OF REMOVAL**



**Photograph #1**  
**Three 12,000 gallon wastewater tanks prior to removal**



**Photograph #2**  
**Fence removal**



**Photograph #3**

**All four wastewater tanks prior to removal; excavator positioning to begin digging**



**Photograph #4**

**800 gallon wastewater tank exposed**



**Photograph #5**  
**All four wastewater tanks exposed**



**Photograph #6**  
**Three large wastewater tanks exposed; 800 gallon tank removed**



**Photograph #7**  
**Tank C showing piping juncture; Notice stain radiating down from piping juncture**



**Photograph #8**  
**Capping of pipes coming into the tanks (typical)**



**Photograph #9**  
**Soil at the bottom of tanks between Tanks B and C**



**Photograph #10**  
**Soil immediately below Tank C**



**Photograph #11**  
**Tank C being loaded onto trailer for transport to Rhino landfill (typical loading procedure)**



**Photograph #12**  
**Stained soil on east sidewall next to Tank D (near piping juncture)**



**Photograph #13**

**Condition of tank pit after all four wastewater tanks removed (no overexcavation)**



**Photograph #14**

**South sidewall showing visually impacted layer and capped piping**



**Photograph #15**  
**Tank pit facing west wall after overexcavation (deepest point = 22 feet)**



**Photograph #16**  
**Visually impacted soil**



**Photograph #17**  
**Visually non-impacted stockpile segregated showing stockpile sampling**



**Photograph #18**  
**Visually impacted soil stockpile segregated**



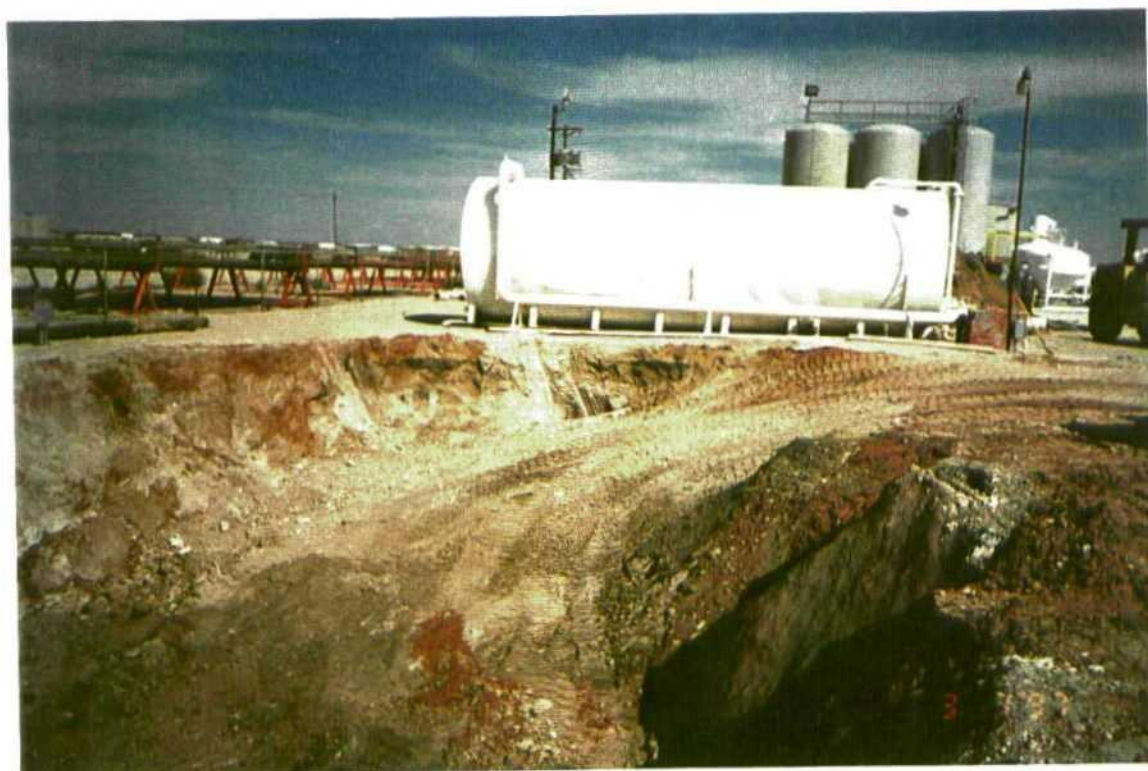
**Photograph #19**  
**Soil field screening method**



**Photograph #20**  
**Tank excavation partially backfilled**



**Photograph #21**  
**Backfilling excavation**



**Photograph #22**  
**Tank excavation partially backfilled**

**APPENDIX F**

**REMOVAL CONTRACTOR REPORT AND CERTIFICATE OF TANK  
DESTRUCTION**



Engineering and  
Construction  
Services

## Constructive Solutions, Inc.

Building a Better Environment

BJ Services Company, USA  
UST Removal Report - Hobbs, NM

April 21, 1997

### SUMMARY REPORT

BJ Services Company, USA ( BJ Services ) currently operates a well service and truck fleet maintenance facility located at 2708 West County Road in Hobbs, New Mexico. Constructive Solutions Inc. ( CSI ) was retained by BJ Services to provide underground storage tank (UST) removal activities at the previously referenced property. The UST removal consisted of three 12,000 gal. USTs and one 800 gal. UST.

On December 17, 1996 New Mexico Energy, Minerals & Natural Resources Department, Oil Conversation Division, ( OCD ) issued their approval of BJ Services plan to remove and remediate the tanks and any contaminated soils at the Hobbs site. CSI submitted a cost estimate to BJ Services on January 6, 1997 for the removal of the above mentioned tanks. Upon the acceptance of CSI's bid, removal activities were scheduled for the week of March 3-7, 1997.

Tank removal activities commenced on Monday, March 3, 1997 and were completed on Wednesday, March 5, 1997. During removal activities hydrocarbon contaminated soils were encountered in tank cavity containing the three 12,000 gal. tanks. This soil was excavated to a depth of 21' without finding the extent of the contamination. All excavated soils were stockpiled on plastic while awaiting disposal. Upon completion of the overexcavation, the tank cavities dimensions were approximately 64' x 23' x 21'.

Backfill activities began on March 7, 1997 with the placement of approximately 200 cyd. of soils that was located on site. An additional 694 cyd. was delivered on site to complete backfill operations. Soil disposal began on April 1, 1997 with soils going to Rhino Environmental Services OCD landfarm. A total of 1,109.37 tons of soil was transported and disposed in the Goo Yea facility.

Andrew J. Landoll  
Project Manager  
Constructive Solutions Inc.



Engineering and  
Construction  
Services

## Constructive Solutions, Inc.

---

Building a Better Environment

**CERTIFICATE OF DESTRUCTION  
BILL OF SALE**

Seller of Tanks  
BJ Services USA  
8701 New Trails Drive  
The Woodlands, TX 77381

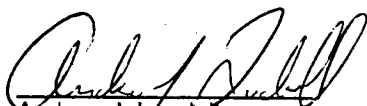
Tank Facility  
BJ Services, Hobbs  
2708 West County Road  
Hobbs, NM 88240

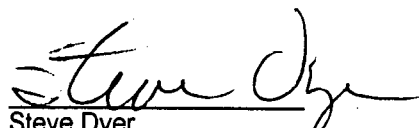
Buyer of Tanks  
Constructive Solutions Inc.  
P.O. Box 25547  
Albuquerque, NM 87125

Tank Identification: (3) - 12,000 gallon and (1) 800 gallon oil / gas well waste water tanks

The ownership of the above referenced tank was transferred to Constructive Solutions Inc. (CSI). Upon transfer of ownership to CSI, all future liabilities connected with the tanks from the date of the destruction was relieved from the former tank owner.

I certify that the above described tanks have been disposed of in accordance with all applicable local, state and federal regulations.

  
Andrew J. Landoll  
Project Manager

  
Steve Dyer  
Albuquerque Operations Manager

**APPENDIX G**  
**SOIL ANALYTICAL LABORATORY REPORT**



LABORATORIES, INC.

## ANALYTICAL AND QUALITY CONTROL REPORT

Andy Landoll  
RHINO ENVIRONMENTAL, INC.  
P.O. Box 25547  
300 Broadway NE, 87102  
Albuquerque, NM 87125

03/11/1997

EPIC Job Number: 97.00820

Enclosed is the Analytical and Quality Control report for the following samples submitted to the Dallas Division of EPIC Laboratories, Inc. for analysis. Reproduction of this analytical report is permitted only in its entirety.

<u>Sample Number</u>	<u>Sample Description</u>	<u>Date Taken</u>	<u>Date Received</u>
329513	South Stock Pile Composite	03/06/1997	03/07/1997
329514	East Stock Pile Composite	03/06/1997	03/07/1997


EPIC Laboratories, Inc. certifies that the analytical results contained herein apply only to the specific samples analyzed.

**Holding Times:** All holding times were within method criteria.

**Method Blanks:** All method blanks were within quality control criteria.

**Instrument calibration:** All calibrations were within method quality control criteria.

**Analysis Comments:** No Unusual Comments

  
Jim Rowley  
Project Manager

1548 Valwood Parkway, Suite 118, Carrollton, Texas 75006  
2621 Ridgpoint Drive, Suite 135, Austin, Texas 78754  
13802 Placid Brook Court, Houston, Texas 77059

(972) 406-8100  
(512) 928-8905  
(281) 286-1400

Fax: (972) 484-2969  
Fax: (512) 928-3208  
Fax: (281) 256-2424

# ANALYTICAL REPORT

Andy Landoll  
RHINO ENVIRONMENTAL, INC.  
P.O. Box 25547  
300 Broadway NE, 87102  
Albuquerque, NM 87125

03/11/1997

EPIC Job Number: 97.00820

Page No.: 2

Project Description: BJ Services Hobbs, NM

Analyte	Result	Flag	Units	Reporting Limit	Date Analyzed	Analyst Initials	Prep Batch No.	Run Batch No.	Method Reference
SAMPLE NO.			SAMPLE DESCRIPTION			DATE-TIME TAKEN			
329513			South Stock Pile Composite			03/06/1997 09:50			
Cyanide, Reactive	<0.25		mg/kg	0.25	03/07/1997	kwo		497	S-7.3.3.1
pH, Corrosivity	8.17		units	N/A	03/10/1997	kwo		1405	S-7.2.2
Sulfide, Reactive	30		mg/kg	12.5	03/07/1997	kwo		520	S-7.3.4.1
TPH-418.1 (Nonaqueous)	1420		ug/g	10	03/10/1997	bss		1280	E-418.1
ICP Metals - Aqueous	complete				03/10/1997	jmc		1595	
TCLP NON-VOLATILE EXTRACTION	c			COMPLETE	03/11/1997	nmw	524		S-1311
EXTRACTION, ZHE VOLATILE	c	3-7-9		COMPLETE	03/10/1997	jwh	538		S-1311
TCLP-Prep AA, ICP	c			COMPLETE	03/10/1997	nmw	1204		S-3010A
TCLP-Arsenic, ICP	<0.03		mg/L	0.03	03/10/1997	jmc	1204	1528	S-6010A
TCLP-Barium, ICP	1.2		mg/L	0.01	03/10/1997	jmc	1204	1415	S-6010A
TCLP-Cadmium, ICP	<0.01		mg/L	0.01	03/10/1997	jmc	1204	1590	S-6010A
TCLP-Chromium, ICP	<0.01		mg/L	0.01	03/10/1997	jmc	1204	1589	S-6010A
TCLP-Lead, ICP	<0.03		mg/L	0.03	03/10/1997	jmc	1204	1598	S-6010A
TCLP-Mercury, CVAA	<0.02	EDL	mg/L	0.0002	03/10/1997	bwb		1342	S-7470A
TCLP-Selenium, ICP	<0.04		mg/L	0.04	03/10/1997	jmc	1204	1527	S-6010A
TCLP-Silver, ICP	<0.01		mg/L	0.01	03/10/1997	jmc	1204	1580	S-6010A
Ignitability	DNB	DNB			03/10/1997	bss		311	ASTM D4982-89
EXTRACTION, TCLP SEMI-VOLATILE	c	3-7-9			03/07/1997	jwh	447		S-1311
EPA 8020-NONAQ									
Benzene	<10		ug/kg	10	03/07/1997	zst		929	S-8020A
Ethylbenzene	<10		ug/kg	10	03/07/1997	zst		929	S-8020A
Toluene	<10		ug/kg	10	03/07/1997	zst		929	S-8020A
Xylenes, Total	<10		ug/kg	10	03/07/1997	zst		929	S-8020A
SURR: a,a,a-TFT	96		% Rec	50-130	03/07/1997	zst		929	
BN/A ANALYSIS	c					dtw		240	E-625/S-8270
Prep, TCLP - BNA	c	3-10-		complete	03/10/1997	jwh	438		S-3510
TCLP-ACID EXTRACTABLES - 8270									
TCLP-Cresols, Total	<0.066		mg/L	0.066	03/10/1997	dtw	438	421	S-8270A
TCLP-Pentachlorophenol	<0.33		mg/L	0.33	03/10/1997	dtw	438	421	S-8270A
TCLP-2,4,5-Trichlorophenol	<0.066		mg/L	0.066	03/10/1997	dtw	438	421	S-8270A
TCLP-2,4,6-Trichlorophenol	<0.066		mg/L	0.066	03/10/1997	dtw	438	421	S-8270A
SURR: 2-Fluorophenol	66		% Rec	21-100	03/10/1997	dtw	438	421	S-8270A
SURR: Phenol-d5	56		% Rec	10-94	03/10/1997	dtw	438	421	S-8270A
SURR: 2,4,6-Tribromophenol	68		% Rec	10-123	03/10/1997	dtw	438	421	S-8270A
TCLP-BASE NEUTRALS - 8270									
TCLP-1,4-Dichlorobenzene	<0.066		mg/L	0.066	03/10/1997	dtw	438	420	S-8270A
TCLP-2,4-Dinitrotoluene	<0.066		mg/L	0.066	03/10/1997	dtw	438	420	S-8270A
TCLP-Hexachlorobenzene	<0.066		mg/L	0.066	03/10/1997	dtw	438	420	S-8270A

DNB - Does not burn.

EDL - Elevated Detection Limit due to matrix interference.

# ANALYTICAL REPORT

Andy Landoll  
RHINO ENVIRONMENTAL, INC.  
P.O. Box 25547  
300 Broadway NE, 87102  
Albuquerque, NM 87125

03/11/1997

EPIC Job Number: 97.00820

Page No.: 3

Project Description: BJ Services Hobbs, NM

Analyte	Result	Flag	Units	Reporting	Date	Analyst	Prep	Run	Method Reference
				Limit	Analyzed	Initials	Batch No.	Batch No.	
SAMPLE NO. 329513	SAMPLE DESCRIPTION South Stock Pile Composite						DATE-TIME TAKEN 03/06/1997 09:50		
TCLP-Hexachlorobutadiene	<0.066		mg/L	0.066	03/10/1997	dtw	438	420	S-8270A
TCLP-Hexachloroethane	<0.066		mg/L	0.066	03/10/1997	dtw	438	420	S-8270A
TCLP-Nitrobenzene	<0.066		mg/L	0.066	03/10/1997	dtw	438	420	S-8270A
TCLP-Pyridine	<0.066		mg/L	0.066	03/10/1997	dtw	438	420	S-8270A
SURR: 2-Fluorobiphenyl	84	%	Rec	43-116	03/10/1997	dtw	438	420	S-8270A
SURR: Nitrobenzene-d5	80	%	Rec	35-114	03/10/1997	dtw	438	420	S-8270A
SURR: Terphenyl-d14	88	%	Rec	33-141	03/10/1997	dtw	438	420	S-8270A
TCLP-8240									
TCLP-Benzene	<0.025		mg/L	0.025	03/08/1997	acg		1175	S-8240A
TCLP-2-Butanone (MEK)	<0.50		mg/L	0.50	03/08/1997	acg		1175	S-8240A
TCLP-Carbon Tetrachloride	<0.025		mg/L	0.025	03/08/1997	acg		1175	S-8240A
TCLP-Chlorobenzene	<0.025		mg/L	0.025	03/08/1997	acg		1175	S-8240A
TCLP-Chloroform	<0.025		mg/L	0.025	03/08/1997	acg		1175	S-8240A
TCLP-1,2-Dichloroethane	<0.025		mg/L	0.025	03/08/1997	acg		1175	S-8240A
TCLP-1,1-Dichloroethene	<0.025		mg/L	0.025	03/08/1997	acg		1175	S-8240A
TCLP-Tetrachloroethene	<0.025		mg/L	0.025	03/08/1997	acg		1175	S-8240A
TCLP-Trichloroethene	<0.025		mg/L	0.025	03/08/1997	acg		1175	S-8240A
TCLP-Vinyl chloride	<0.05		mg/L	0.05	03/08/1997	acg		1175	S-8240A
SURR: 1,2-Dichloroethane-d4	107	%	Rec	76-114	03/08/1997	acg		1175	S-8240A
SURR: Toluene-d8	101	%	Rec	88-110	03/08/1997	acg		1175	S-8240A
SURR: 4-Bromofluorobenzene	108	%	Rec	86-115	03/08/1997	acg		1175	S-8240A
SAMPLE NO. 329514	SAMPLE DESCRIPTION East Stock Pile Composite						DATE-TIME TAKEN 03/06/1997 11:01		
Cyanide, Reactive	<0.25		mg/kg	0.25	03/07/1997	kwo		497	S-7.3.3.1
pH, Corrosivity	8.36		units	N/A	03/10/1997	kwo		1405	S-7.2.2
Sulfide, Reactive	<12.5		mg/kg	12.5	03/07/1997	kwo		520	S-7.3.4.1
TPH-418.1 (Nonaqueous)	444		ug/g	10	03/10/1997	bss		1280	E-418.1
ICP Metals - Aqueous	complete				03/10/1997	jmc		1595	
TCLP NON-VOLATILE EXTRACTION	c			COMPLETE	03/11/1997	nmw	524		S-1311
EXTRACTION, ZHE VOLATILE	c 3-7-9			COMPLETE	03/10/1997	jwh	538		S-1311
TCLP-Prep AA, ICP	c			COMPLETE	03/10/1997	nmw	1204		S-3010A
TCLP-Arsenic, ICP	0.04		mg/L	0.03	03/10/1997	jmc	1204	1528	S-6010A
TCLP-Barium, ICP	1.3		mg/L	0.01	03/10/1997	jmc	1204	1415	S-6010A
TCLP-Cadmium, ICP	<0.01		mg/L	0.01	03/10/1997	jmc	1204	1590	S-6010A

# ANALYTICAL REPORT

Andy Landoll  
RHINO ENVIRONMENTAL, INC.  
P.O. Box 25547  
300 Broadway NE, 87102  
Albuquerque, NM 87125

03/11/1997

EPIC Job Number: 97.00820

Page No.: 4

Project Description: BJ Services Hobbs, NM

Analyte	Result	Flag	Units	Reporting Limit	Date Analyzed	Analyst Initials	Prep Batch No.	Run Batch No.	Method Reference
SAMPLE NO.			SAMPLE DESCRIPTION			DATE-TIME TAKEN			
329514			East Stock Pile Composite			03/06/1997 11:01			
TCLP-Chromium, ICP	<0.01		mg/L	0.01	03/10/1997	jmc	1204	1589	S-6010A
TCLP-Lead, ICP	<0.03		mg/L	0.03	03/10/1997	jmc	1204	1598	S-6010A
TCLP-Mercury, CVAA	<0.02	EDL	mg/L	0.0002	03/10/1997	bwb		1342	S-7470A
TCLP-Selenium, ICP	<0.04		mg/L	0.04	03/10/1997	jmc	1204	1527	S-6010A
TCLP-Silver, ICP	<0.01		mg/L	0.01	03/10/1997	jmc	1204	1580	S-6010A
Ignitability	DNB	DNB			03/10/1997	bss		311	ASTM D4982-89
EXTRACTION, TCLP SEMI-VOLATILE	c	3-7-9			03/07/1997	jwh	447		S-1311
EPA 8020-NONAQ									
Benzene	<10		ug/kg	10	03/07/1997	zst		929	S-8020A
Ethylbenzene	120		ug/kg	10	03/07/1997	zst		929	S-8020A
Toluene	63		ug/kg	10	03/07/1997	zst		929	S-8020A
Xylenes, Total	600		ug/kg	10	03/07/1997	zst		929	S-8020A
SURR: a,a,a-TFT	88		% Rec	50-130	03/07/1997	zst		929	
BN/A ANALYSIS	c					dtw		240	E-625/S-8270
Prep, TCLP - BNA	c	3-10-		complete	03/10/1997	jwh	438		S-3510
TCLP-ACID EXTRACTABLES - 8270									
TCLP-Cresols, Total	<0.066		mg/L	0.066	03/10/1997	dtw	438	421	S-8270A
TCLP-Pentachlorophenol	<0.33		mg/L	0.33	03/10/1997	dtw	438	421	S-8270A
TCLP-2,4,5-Trichlorophenol	<0.066		mg/L	0.066	03/10/1997	dtw	438	421	S-8270A
TCLP-2,4,6-Trichlorophenol	<0.066		mg/L	0.066	03/10/1997	dtw	438	421	S-8270A
SURR: 2-Fluorophenol	62		% Rec	21-100	03/10/1997	dtw	438	421	S-8270A
SURR: Phenol-d5	54		% Rec	10-94	03/10/1997	dtw	438	421	S-8270A
SURR: 2,4,6-Tribromophenol	68		% Rec	10-123	03/10/1997	dtw	438	421	S-8270A
TCLP-BASE NEUTRALS - 8270									
TCLP-1,4-Dichlorobenzene	<0.066		mg/L	0.066	03/10/1997	dtw	438	420	S-8270A
TCLP-2,4-Dinitrotoluene	<0.066		mg/L	0.066	03/10/1997	dtw	438	420	S-8270A
TCLP-Hexachlorobenzene	<0.066		mg/L	0.066	03/10/1997	dtw	438	420	S-8270A
TCLP-Hexachlorobutadiene	<0.066		mg/L	0.066	03/10/1997	dtw	438	420	S-8270A
TCLP-Hexachloroethane	<0.066		mg/L	0.066	03/10/1997	dtw	438	420	S-8270A
TCLP-Nitrobenzene	<0.066		mg/L	0.066	03/10/1997	dtw	438	420	S-8270A
TCLP-Pyridine	<0.066		mg/L	0.066	03/10/1997	dtw	438	420	S-8270A
SURR: 2-Fluorobiphenyl	76		% Rec	43-116	03/10/1997	dtw	438	420	S-8270A
SURR: Nitrobenzene-d5	76		% Rec	35-114	03/10/1997	dtw	438	420	S-8270A
SURR: Terphenyl-d14	80		% Rec	33-141	03/10/1997	dtw	438	420	S-8270A
TCLP-8240									
TCLP-Benzene	<0.025		mg/L	0.025	03/08/1997	acg		1175	S-8240A
TCLP-2-Butanone (MEK)	<0.50		mg/L	0.50	03/08/1997	acg		1175	S-8240A
TCLP-Carbon Tetrachloride	<0.025		mg/L	0.025	03/08/1997	acg		1175	S-8240A

DNB - Does not burn.

EDL - Elevated Detection Limit due to matrix interference.

# ANALYTICAL REPORT

Andy Landoll  
RHINO ENVIRONMENTAL, INC.  
P.O. Box 25547  
300 Broadway NE, 87102  
Albuquerque, NM 87125

03/11/1997

EPIC Job Number: 97.00820

Page No.: 5

Project Description: BJ Services Hobbs, NM

Analyte	Result	Flag	Units	Reporting Limit	Date Analyzed	Analyst Initials	Prep Batch No.	Run Batch No.	Method Reference
SAMPLE NO. 329514	SAMPLE DESCRIPTION East Stock Pile Composite							DATE-TIME TAKEN 03/06/1997 11:01	
TCLP-Chlorobenzene	<0.025		mg/L	0.025	03/08/1997	acg	1175		S-8240A
TCLP-Chloroform	<0.025		mg/L	0.025	03/08/1997	acg	1175		S-8240A
TCLP-1,2-Dichloroethane	<0.025		mg/L	0.025	03/08/1997	acg	1175		S-8240A
TCLP-1,1-Dichloroethene	<0.025		mg/L	0.025	03/08/1997	acg	1175		S-8240A
TCLP-Tetrachloroethene	<0.025		mg/L	0.025	03/08/1997	acg	1175		S-8240A
TCLP-Trichloroethene	<0.025		mg/L	0.025	03/08/1997	acg	1175		S-8240A
TCLP-Vinyl chloride	<0.05		mg/L	0.05	03/08/1997	acg	1175		S-8240A
SURR: 1,2-Dichloroethane-d4	103	%	Rec	76-114	03/08/1997	acg	1175		S-8240A
SURR: Toluene-d8	102	%	Rec	88-110	03/08/1997	acg	1175		S-8240A
SURR: 4-Bromofluorobenzene	107	%	Rec	86-115	03/08/1997	acg	1175		S-8240A

# QUALITY CONTROL REPORT Continuing Calibration Verification (CCV)

JOB NUMBER: 97.00820

Analyte	Prep	Run	Method	CCV		CCV		Date
	Batch	Batch		True	Units	Conc	%	
	No.	No.		Value		Found	Rec	Flag Analyzed
Cyanide, Reactive		497	S-7.3.3.1	1.0	mg/kg	1.02	102	03/07/1997
Sulfide, Reactive		520	S-7.3.4.1	1000	mg/kg	1000	100	03/07/1997
TPH-418.1 (Nonaqueous)		1280	E-418.1	104	ug/g	106.5	102	03/07/1997
TCLP-Arsenic, ICP		1528	S-6010A	1.00	mg/L	1.02	102	03/10/1997
TCLP-Barium, ICP		1415	S-6010A	1.00	mg/L	1.00	100	03/10/1997
TCLP-Cadmium, ICP		1590	S-6010A	1.00	mg/L	1.02	102	03/10/1997
TCLP-Chromium, ICP		1589	S-6010A	1.00	mg/L	1.04	104	03/10/1997
TCLP-Lead, ICP		1598	S-6010A	1.00	mg/L	1.02	102	03/10/1997
TCLP-Mercury, CVAA		1342	S-7470A	0.50	mg/L	0.51	102	03/10/1997
TCLP-Selenium, ICP		1527	S-6010A	1.00	mg/L	1.05	105	03/10/1997
TCLP-Silver, ICP		1580	S-6010A	1.00	mg/L	1.02	102	03/10/1997
EPA 8020-NONAQ			S-8020A					
Benzene		929	S-8020A	20	ug/kg	18	90	03/07/1997
Ethylbenzene		929	S-8020A	20	ug/kg	26	130	03/07/1997
Toluene		929	S-8020A	20	ug/kg	17	85	03/07/1997
Xylenes, Total		929	S-8020A	60	ug/kg	78	130	03/07/1997
TCLP-ACID EXTRACTABLES - 8270			S-8270A					
TCLP-Cresols, Total		421	S-8270A	0.148	mg/L	0.160	108	03/10/1997
TCLP-Pentachlorophenol		421	S-8270A	0.080	mg/L	0.071	89	03/10/1997
TCLP-2,4,5-Trichlorophenol		421	S-8270A	0.080	mg/L	0.065	81	03/10/1997

## Method References and Codes

The Quality Control report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

E-100 through 493: "Methods for Chemical Analysis of Water & Wastes", U.S. EPA, 600/4-79-020, rev. 1983.

E-601 through 625: "Guidelines Establishing Test Procedures for the Analysis of Pollutants", U.S. EPA, 40CFR, Part 136, rev. 1990.

S-1000 through 9999: "Test Methods for Evaluating Solid Waste", U.S. EPA SW-846, 3rd Edition, 1986.

A: "Standard Methods for the Examination of Water and Wastewater", 16th Edition, APHA, 1985.

SM: "Standard Methods for the Examination of Water and Wastewater", 18th Edition, APHA, 1992.

D: ASTM Method

M: Method has been modified

\*: Other Reference

# QUALITY CONTROL REPORT

## Continuing Calibration Verification (CCV)

JOB NUMBER: 97.00820

Analyte	Prep	Run	Method	CCV		CCV		Date
	Batch	Batch		True	Units	Conc	%	
	No.	No.		Value		Found	Rec	Flag Analyzed
TCLP-2,4,6-Trichlorophenol		421	S-8270A	0.080	mg/L	0.067	84	03/10/1997
TCLP-BASE NEUTRALS - 8270			S-8270A					
TCLP-1,4-Dichlorobenzene		420	S-8270A	0.080	mg/L	0.072	90	03/10/1997
TCLP-2,4-Dinitrotoluene		420	S-8270A	0.080	mg/L	0.070	88	03/10/1997
TCLP-Hexachlorobenzene		420	S-8270A	0.080	mg/L	0.062	78	03/10/1997
TCLP-Hexachlorobutadiene		420	S-8270A	0.080	mg/L	0.066	83	03/10/1997
TCLP-Hexachloroethane		420	S-8270A	0.080	mg/L	0.066	83	03/10/1997
TCLP-Nitrobenzene		420	S-8270A	0.080	mg/L	0.068	85	03/10/1997
TCLP-Pyridine		420	S-8270A	0.080	mg/L	0.082	103	03/10/1997
TCLP-8240			S-8240A					
TCLP-Benzene		1175	S-8240A	0.020	mg/L	0.021	105	03/08/1997
TCLP-2-Butanone (MEK)		1175	S-8240A	0.020	mg/L	0.028	140	03/08/1997
TCLP-Carbon Tetrachloride		1175	S-8240A	0.020	mg/L	0.025	125	03/08/1997
TCLP-Chlorobenzene		1175	S-8240A	0.020	mg/L	0.022	110	03/08/1997
TCLP-Chloroform		1175	S-8240A	0.020	mg/L	0.020	100	03/08/1997
TCLP-1,2-Dichloroethane		1175	S-8240A	0.020	mg/L	0.020	100	03/08/1997
TCLP-1,1-Dichloroethene		1175	S-8240A	0.020	mg/L	0.019	95	03/08/1997
TCLP-Tetrachloroethene		1175	S-8240A	0.020	mg/L	0.019	95	03/08/1997
TCLP-Trichloroethene		1175	S-8240A	0.020	mg/L	0.020	100	03/08/1997
TCLP-Vinyl chloride		1175	S-8240A	0.020	mg/L	0.016	80	03/08/1997

### Method References and Codes

The Quality Control report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

E-100 through 493: "Methods for Chemical Analysis of Water & Wastes",  
U.S. EPA, 600/4-79-020, rev. 1983.

E-601 through 625: "Guidelines Establishing Test Procedures for the  
Analysis of Pollutants", U.S. EPA, 40CFR, Part 136,  
rev. 1990.

S-1000 through 9999: "Test Methods for Evaluating Solid Waste", U.S. EPA  
SW-846, 3rd Edition, 1986.

A: "Standard Methods for the Examination of Water and  
Wastewater", 16th Edition, APHA, 1985.

SM: "Standard Methods for the Examination of Water and  
Wastewater", 18th Edition, APHA, 1992.

D: ASTM Method

M: Method has been modified

\*: Other Reference

# QUALITY CONTROL REPORT BLANKS

JOB NUMBER: 97.00820

Analyte	Prep Batch No.	Run Batch No.	Blank Value	Flag	Units	Reporting Limit	Date Analyzed
Cyanide, Reactive		497	<0.25		mg/kg	0.25	03/07/1997
Sulfide, Reactive		520	<12.5		mg/kg	12.5	03/07/1997
TPH-418.1 (Nonaqueous)		1280	<10		ug/g	10	03/07/1997
TCLP-Arsenic, ICP	1204	1528	<0.03		mg/L	0.03	03/10/1997
TCLP-Barium, ICP	1204	1415	<0.01		mg/L	0.01	03/10/1997
TCLP-Cadmium, ICP	1204	1590	<0.01		mg/L	0.01	03/10/1997
TCLP-Chromium, ICP	1204	1589	<0.01		mg/L	0.01	03/10/1997
TCLP-Lead, ICP	1204	1598	<0.03		mg/L	0.03	03/10/1997
TCLP-Mercury, CVAA		1342	<0.0002		mg/L	0.0002	03/10/1997
TCLP-Selenium, ICP	1204	1527	<0.04		mg/L	0.04	03/10/1997
TCLP-Silver, ICP	1204	1580	<0.01		mg/L	0.01	03/10/1997
TCLP-ACID EXTRACTABLES - 8270							
TCLP-Cresols, Total	438	421	<0.066		mg/L	0.066	03/10/1997
TCLP-Pentachlorophenol	438	421	<0.33		mg/L	0.33	03/10/1997
TCLP-2,4,5-Trichlorophenol	438	421	<0.066		mg/L	0.066	03/10/1997
TCLP-2,4,6-Trichlorophenol	438	421	<0.066		mg/L	0.066	03/10/1997
TCLP-BASE NEUTRALS - 8270							
TCLP-1,4-Dichlorobenzene	438	420	<0.066		mg/L	0.066	03/10/1997
TCLP-2,4-Dinitrotoluene	438	420	<0.066		mg/L	0.066	03/10/1997
TCLP-Hexachlorobenzene	438	420	<0.066		mg/L	0.066	03/10/1997
TCLP-Hexachlorobutadiene	438	420	<0.066		mg/L	0.066	03/10/1997
TCLP-Hexachloroethane	438	420	<0.066		mg/L	0.066	03/10/1997
TCLP-Nitrobenzene	438	420	<0.066		mg/L	0.066	03/10/1997
TCLP-Pyridine	438	420	<0.066		mg/L	0.066	03/10/1997
TCLP-8240							
TCLP-Benzene		1175	<0.025		mg/L	0.025	03/08/1997
TCLP-2-Butanone (MEK)		1175	<0.50		mg/L	0.50	03/08/1997
TCLP-Carbon Tetrachloride		1175	<0.025		mg/L	0.025	03/08/1997
TCLP-Chlorobenzene		1175	<0.025		mg/L	0.025	03/08/1997
TCLP-Chloroform		1175	<0.025		mg/L	0.025	03/08/1997
TCLP-1,2-Dichloroethane		1175	<0.025		mg/L	0.025	03/08/1997
TCLP-1,1-Dichloroethene		1175	<0.025		mg/L	0.025	03/08/1997
TCLP-Tetrachloroethene		1175	<0.025		mg/L	0.025	03/08/1997
TCLP-Trichloroethene		1175	<0.025		mg/L	0.025	03/08/1997
TCLP-Vinyl chloride		1175	<0.05		mg/L	0.05	03/08/1997

## Advisory Control Limits for Blanks

Metals/Wet Chemistry/Conventionals/GC - All compounds should be less than the Reporting Limit.

GC/MS Semi-Volatiles - All compounds should be less than the Reporting Limit except for phthalates which should be less than 5 times the Reporting Limit.

GC/MS Volatiles - Toluene, Methylene chloride, Acetone and Chloroform should be less than 5 times the Reporting Limit. All other volatile compounds should be less than the Reporting Limit.

# QUALITY CONTROL REPORT Laboratory Control Sample (LCS)

JOB NUMBER: 97.00820

Analyte	Prep Batch No.	Run Batch No.	LCS True Conc	Units	LCS Conc Found	LCS % Rec.	LCS Dup Conc. Found	LCS Dup % Rec	LCS RPD	Flag	Date Analyzed
Cyanide, Reactive		497	1000	mg/kg	228	23					03/07/1997
pH, Corrosivity		1405	9.18	units	9.08	99					03/10/1997
Sulfide, Reactive		520	250	mg/kg	260	104					03/07/1997
TPH-418.1 (Nonaqueous)		1280	2660	ug/g	2557	96					03/07/1997
TCLP-Arsenic, ICP	1204	1528	1.00	mg/L	0.96	96					03/10/1997
TCLP-Barium, ICP	1204	1415	1.00	mg/L	0.94	94					03/10/1997
TCLP-Cadmium, ICP	1204	1590	1.00	mg/L	0.94	94					03/10/1997
TCLP-Chromium, ICP	1204	1589	1.00	mg/L	0.96	96					03/10/1997
TCLP-Lead, ICP	1204	1598	1.00	mg/L	0.95	95					03/10/1997
TCLP-Mercury, CVAA		1342	0.50	mg/L	0.41	82	0.52	104	24		03/10/1997
TCLP-Selenium, ICP	1204	1527	1.00	mg/L	0.95	95					03/10/1997
TCLP-Silver, ICP	1204	1580	1.00	mg/L	1.03	103					03/10/1997
EPA 8020-NONAQ											
Benzene		929	100	ug/kg	117	117					03/07/1997
Ethylbenzene		929	100	ug/kg	139	139					03/07/1997
Toluene		929	100	ug/kg	119	119					03/07/1997
Xylenes, Total		929	200	ug/kg	271	136					03/07/1997
TCLP-ACID EXTRACTABLES - 8270											
TCLP-Cresols, Total	438	421	0.30	mg/L	0.170	57	0.169	56	0.7		03/10/1997
TCLP-Pentachlorophenol	438	421	0.10	mg/L	0.048	48	0.046	46	4.3		03/10/1997
TCLP-2,4,5-Trichlorophenol	438	421	0.10	mg/L	0.039	39	0.038	38	2.6		03/10/1997
TCLP-2,4,6-Trichlorophenol	438	421	0.10	mg/L	0.062	62	0.059	59	5		03/10/1997
TCLP-BASE NEUTRALS - 8270											
TCLP-1,4-Dichlorobenzene	438	420	0.10	mg/L	0.072	72	0.071	71	1.4		03/10/1997
TCLP-2,4-Dinitrotoluene	438	420	0.10	mg/L	0.063	63	0.061	61	3.2		03/10/1997
TCLP-Hexachlorobenzene	438	420	0.10	mg/L	0.061	61	0.059	59	3.3		03/10/1997
TCLP-Hexachlorobutadiene	438	420	0.10	mg/L	0.057	57	0.057	57	0		03/10/1997
TCLP-Hexachloroethane	438	420	0.10	mg/L	0.059	59	0.058	58	1.7		03/10/1997
TCLP-Nitrobenzene	438	420	0.10	mg/L	0.062	62	0.062	62	0		03/10/1997
TCLP-Pyridine	438	420	0.10	mg/L	0.074	74	0.067	67	9.9		03/10/1997
TCLP-8240											
TCLP-Benzene		1175	0.020	mg/L	0.021	105	0.019	95	10		03/08/1997
TCLP-2-Butanone (MEK)		1175	0.020	mg/L	0.028	140	0.031	155	10		03/08/1997
TCLP-Carbon Tetrachloride		1175	0.020	mg/L	0.026	130	0.028	140	7.4		03/08/1997
TCLP-Chlorobenzene		1175	0.020	mg/L	0.020	100	0.020	100	0		03/08/1997
TCLP-Chloroform		1175	0.020	mg/L	0.020	100	0.018	90	11		03/08/1997
TCLP-1,2-Dichloroethane		1175	0.020	mg/L	0.020	100	0.020	100	0		03/08/1997
TCLP-1,1-Dichloroethene		1175	0.020	mg/L	0.020	100	0.017	85	16		03/08/1997
TCLP-Tetrachloroethene		1175	0.020	mg/L	0.019	95	0.020	100	5.1		03/08/1997
TCLP-Trichloroethene		1175	0.020	mg/L	0.020	100	0.020	100	0		03/08/1997
TCLP-Vinyl chloride		1175	0.020	mg/L	0.013	65	0.016	80	21		03/08/1997

## Advisory Control Limits for LCS

Inorganic Parameters - The LCS recovery should be 80-120%.

**QUALITY CONTROL REPORT**  
**Matrix Spike / Matrix Spike Duplicate**  
**(MS / MSD)**

JOB NUMBER: 97.00820

Analyte	Prep Batch No.	Run Batch No.	MS/MSD Sample Number	Conc. Spike Added	Units	Sample Result	Conc. MS Result	MS %	Conc. MSD Result	MSD %	RPD	Flag	Date Analyzed
TPH-418.1 (Nonaqueous)		1280	329482	500	ug/g	55	532	95	497	88	7.6		03/07/1997
TPH-418.1 (Nonaqueous)		1280	329578	125	ug/g	<10	114	91	122	98	6.8		03/11/1997
TCLP-Arsenic, ICP	1204	1528	329513	1.00	mg/L	<0.03	1.04	104	1.03	103	1		03/10/1997
TCLP-Barium, ICP	1204	1415	329513	1.00	mg/L	1.2	2.2	100	2.2	100	0		03/10/1997
TCLP-Cadmium, ICP	1204	1590	329513	1.00	mg/L	<0.01	0.93	93	0.91	91	2.2		03/10/1997
TCLP-Chromium, ICP	1204	1589	329513	1.00	mg/L	<0.01	0.98	98	0.96	96	2.1		03/10/1997
TCLP-Lead, ICP	1204	1598	329513	1.00	mg/L	<0.03	0.96	96	0.96	96	0		03/10/1997
TCLP-Selenium, ICP	1204	1527	329513	1.00	mg/L	<0.04	0.96	96	0.97	97	1		03/10/1997
TCLP-Silver, ICP	1204	1580	329513	1.00	mg/L	<0.01	1.01	101	1.01	101	0		03/10/1997
TCLP-Silver, ICP		1580	329000	1.00	mg/L	<0.01	1.01	101	1.01	101	0		03/10/1997
EPA 8020-NONAQ			329482										
Benzene		929	329482	100	ug/kg	<10	114	114	109	109	4.5		03/07/1997
Ethylbenzene		929	329482	100	ug/kg	<10	138	138	130	130	6		03/07/1997
Toluene		929	329482	100	ug/kg	<10	109	109	104	104	4.7		03/07/1997
Xylenes, Total		929	329482	200	ug/kg	<10	269	135	251	126	6.9		03/07/1997
TCLP-8240			329513										
TCLP-Benzene		1175	329513	0.020	mg/L	<0.025	0.023	115	0.020	100	14		03/08/1997
TCLP-2-Butanone (MEK)		1175	329513	0.020	mg/L	<0.50	0.017	85	0.018	90	5.7		03/08/1997
TCLP-Carbon Tetrachloride		1175	329513	0.020	mg/L	<0.025	0.025	125	0.026	130	3.9		03/08/1997
TCLP-Chlorobenzene		1175	329513	0.020	mg/L	<0.025	0.025	125	0.022	110	13		03/08/1997
TCLP-Chloroform		1175	329513	0.020	mg/L	<0.025	0.021	105	0.018	90	15		03/08/1997
TCLP-1,2-Dichloroethane		1175	329513	0.020	mg/L	<0.025	0.023	115	0.021	105	9.1		03/08/1997
TCLP-1,1-Dichloroethene		1175	329513	0.020	mg/L	<0.025	0.021	105	0.018	90	15		03/08/1997
TCLP-Tetrachloroethene		1175	329513	0.020	mg/L	<0.025	0.023	115	0.020	100	14		03/08/1997
TCLP-Trichloroethene		1175	329513	0.020	mg/L	<0.025	0.022	110	0.020	100	9.5		03/08/1997
TCLP-Vinyl chloride		1175	329513	0.020	mg/L	<0.05	0.017	85	0.017	85	0		03/08/1997

Advisory Control Limits for MS/MSDs

Inorganic Parameters - The spike recovery should be 75-125% if the spike amount value is greater than or equal to one fourth of the sample result value. The RPD for the MS/MSD should be less than 20.

NOTE: Matrix Spike Samples may not be samples from this job.

QUALITY CONTROL REPORT  
DUPLICATES

JOB NUMBER: 97.00820

<u>Analyte</u>	<u>Prep Batch No.</u>	<u>Run Batch No.</u>	<u>Sample Result</u>	<u>Duplicate Sample Result</u>	<u>Units</u>	<u>RPD</u>	<u>Flag</u>	<u>Date Analyzed</u>
pH, Corrosivity		1405	8.17	8.22	units	0.6		03/10/1997

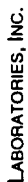
Advisory Control Limits for Spikes

The spike recovery should be 75-125% if the spike amount is greater than or equal to one fourth of the sample result value.

NOTE: Spike Samples may not be samples from this job.

Advisory Control Limits for Duplicates

The RPD for the sample and duplicate should be less than 20.



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# CHAIN OF CUSTODY RECORD

COMPANY CSI / RINDO ENVIRONMENTAL  
ADDRESS P.O. BOX 25547 ALBUQUERQUE, NM 87125  
PHONE 1-505-242-6464 FAX (505) 247-4941  
PROJECT NAME/LOCATION RT SERVICES HOBBS, NM  
PROJECT NUMBER NM-97-001  
PROJECT MANAGER ANDY LANDOLL

**REPORT TO:**  
**INVOICE TO:**  
**P.O. NO. \_\_\_\_\_**  
**EPIC QUOTE \_\_\_\_\_**

**SAMPLED BY**

ERNE J. McFERN  
(PRINT NAME)

**\_\_\_\_\_  
(PRINT NAME)**

**SIGNATURE**

[illegible]

ANALYSES	TPH	TPH METH. 8020	TPH METH. 8015	PAH	TCDF VOLATILES SEMI	PH
TPH METH. 418.1	X					
BTEX METH. 8020	X	X	X		X	
TCDF - BCL	X	X	X			
TPH METH. 8015		X	X			
<del>PAH</del> PAH METALS			X			
PAH			X			
TCDF VOLATILES SEMI					X	
PH						X

**To assist us in selecting the proper method**

**Is this work being conducted for regulatory compliance monitoring?**

**Is this work being conducted for regulatory**

Which regulations apply: RCRA \_\_\_\_\_ NPDES Wastewater \_\_\_\_\_  
UST \_\_\_\_\_ Drinking Water \_\_\_\_\_  
Other \_\_\_\_\_ None \_\_\_\_\_

## COMMENTS

24HR ON BEEF: TPN + PUSH ON TLP - RCL	1 DAY	TWICE AROUND
24HR ON BEEF: TPN + PUSH ON TLP - RCL	2 DAY	TWICE AROUND
24HR ON BEEF: TPN + PUSH ON TLP - RCL	3 DAY	TWICE AROUND
" "	" "	" "
" "	" "	" "
" "	" "	" "
" "	" "	" "

NOTE ON SAMPLES SW-1 SW-5 SW-10  
T-A & T-D CABLES SHOW FA 4/8/1  
THEY NEED TO BE THN 8015

CONDITION OF SAMPLE: BOTTLES INTACT? YES / NO

COC SEALS PRESENT AND INTACT? YES / NO

**TEMPERATURE UPON RECEIPT:**

Bottles supplied by EPIC? YES / NO

**SAMPLE REMAINDER DISPOSAL:** RETURN SAMPLE REMAINDER TO CLIENT VIA

**RETURN SAMPLE REMAINDER TO CLIENT VIA \_\_\_\_\_**  
**I REQUEST EPIC TO DISPOSE OF ALL SAMPLE REMAINDERS**

\_\_\_\_\_

**RELINQUISHED BY:**

DATE	TIME
------	------

RECEIVED BY:

**RELINQUISHED BY:**

DATE \_\_\_\_\_

TIME

.

RECEIVED FOR EPIC BY:

**METHOD OF SHIPMENT**

REMARKS:



LABORATORIES, INC.

## ANALYTICAL AND QUALITY CONTROL REPORT

Andy Landoll  
RHINO ENVIRONMENTAL, INC.  
P.O. Box 25547  
300 Broadway NE, 87102  
Albuquerque, NM 87125

03/19/1997

EPIC Job Number: 97.00840

Enclosed is the Analytical and Quality Control report for the following samples submitted to the Dallas Division of EPIC Laboratories, Inc. for analysis. Reproduction of this analytical report is permitted only in its entirety.

<u>Sample Number</u>	<u>Sample Description</u>	<u>Date Taken</u>	<u>Date Received</u>
329561	SW-E	03/06/1997	03/07/1997
329562	SW-S	03/06/1997	03/07/1997
329563	SW-W	03/06/1997	03/07/1997
329564	T-A	03/06/1997	03/07/1997
329565	T-B	03/06/1997	03/07/1997
329566	T-C	03/06/1997	03/07/1997
329567	T-D	03/06/1997	03/07/1997

RECEIVED MAR 24 1997

EPIC Laboratories, Inc. certifies that the analytical results contained herein apply only to the specific samples analyzed.

**Holding Times:** All holding times were within method criteria.

**Method Blanks:** All method blanks were within quality control criteria.

**Instrument calibration:** All calibrations were within method quality control criteria.

**Analysis Comments:** No Unusual Comments

Jim Rowley  
Project Manager

1555 Valwood Parkway, Suite 100, Carrollton, Texas 75006  
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# ANALYTICAL REPORT

Andy Landoll  
RHINO ENVIRONMENTAL, INC.  
P.O. Box 25547  
300 Broadway NE, 87102  
Albuquerque, NM 87125

03/19/1997

EPIC Job Number: 97.00840

Page No.: 2

Project Description: BJ Services Hobbs, NM

Analyte	Result	Flag	Units	Reporting	Date	Analyst	Prep	Run	Method Reference
				Limit	Analyzed	Initials	Batch	Batch	
SAMPLE NO.	SAMPLE DESCRIPTION					DATE-TIME TAKEN			
329561	SW-E					03/06/1997 11:52			
Prep, ICP Nonaqueous	c			COMPLETE	03/11/1997	nmw	1161		S-3050A
ICP Metals - Nonaqueous	COMPLETE			COMPLETE	03/11/1997	jcm		1442	
Arsenic, ICP	<3.0		ug/g	3.0	03/11/1997	jcm	1161	1379	S-6010A
Barium, ICP	76		ug/g	1.0	03/11/1997	jcm	1161	1260	S-6010A
Cadmium, ICP	<1.0		ug/g	1.0	03/11/1997	jcm	1161	1551	S-6010A
Chromium, ICP	5.6		ug/g	1.0	03/11/1997	jcm	1161	1551	S-6010A
Lead, ICP	9.7		ug/g	3.0	03/11/1997	jcm	1161	1489	S-6010A
Mercury, CVAA	<0.02		ug/g	0.02	03/10/1997	bwb		1017	S-7470A
Selenium, ICP	<4.0		ug/g	4.0	03/11/1997	jcm	1161	1386	S-6010A
Silver, ICP	<1.0	BS	ug/g	1.0	03/11/1997	jcm	1161	1385	S-6010A
EPA 8020-NONAQ									
Benzene	23		ug/kg	10	03/12/1997	zst		934	S-8020A
Ethylbenzene	1300		ug/kg	10	03/12/1997	zst		934	S-8020A
Toluene	150		ug/kg	10	03/12/1997	zst		934	S-8020A
Xylenes, Total	3800		ug/kg	10	03/12/1997	zst		934	S-8020A
SURR: a,a,a-TFT	106		% Rec	50-130	03/12/1997	zst		934	
Prep, DRO (Nonaqueous)	c	3-11-			03/12/1997	jwh	55		S-8015M
DRO-Nonaqueous									
TPH as Diesel	2500		ug/g	1.0	03/13/1997	dtw	55	42	S-8015M
Kerosene	<1.0		ug/g	1.0	03/13/1997	dtw	55	42	S-8015M
Mineral Spirits	<1.0		ug/g	1.0	03/13/1997	dtw	55	42	S-8015M
Oil	<1.0		ug/g	1.0	03/13/1997	dtw	55	42	S-8015M
Naptha - Medium Alaphatic	<1.0		ug/g	1.0	03/13/1997	dtw	55	42	S-8015M
Naptha - Light Aromatic	<1.0		ug/g	1.0	03/13/1997	dtw	55	42	S-8015M

SAMPLE NO.	SAMPLE DESCRIPTION							DATE-TIME TAKEN	
329562	SW-S							03/06/1997 11:56	
EPA 8020-NONAQ									
Benzene	<10		ug/kg	10	03/10/1997	zst		931	S-8020A
Ethylbenzene	110		ug/kg	10	03/10/1997	zst		931	S-8020A
Toluene	65		ug/kg	10	03/10/1997	zst		931	S-8020A
Xylenes, Total	880		ug/kg	10	03/10/1997	zst		931	S-8020A
SURR: a,a,a-TFT	120		% Rec	50-130	03/10/1997	zst		931	
Prep, DRO (Nonaqueous)	c	3-11-			03/12/1997	jwh	55		S-8015M
DRO-Nonaqueous									

BS - MS/MSD outside acceptance criteria, bench spike was 85-115%.

# ANALYTICAL REPORT

Andy Landoll  
RHINO ENVIRONMENTAL, INC.  
P.O. Box 25547  
300 Broadway NE, 87102  
Albuquerque, NM 87125

03/19/1997

EPIC Job Number: 97.00840

Page No.: 3

Project Description: BJ Services Hobbs, NM

Analyte	Result	Flag	Units	Reporting	Date	Analyst	Prep	Run	Method Reference
				Limit	Analyzed	Initials	Batch	Batch	
SAMPLE NO.				SAMPLE DESCRIPTION				DATE-TIME TAKEN	
329562				SW-S				03/06/1997 11:56	
TPH as Diesel	290		ug/g	1.0	03/13/1997	dtw	55	42	S-8015M
Kerosene	<1.0		ug/g	1.0	03/13/1997	dtw	55	42	S-8015M
Mineral Spirits	<1.0		ug/g	1.0	03/13/1997	dtw	55	42	S-8015M
Oil	<1.0		ug/g	1.0	03/13/1997	dtw	55	42	S-8015M
Naptha - Medium Alaphatic	<1.0		ug/g	1.0	03/13/1997	dtw	55	42	S-8015M
Naptha - Light Aromatic	<1.0		ug/g	1.0	03/13/1997	dtw	55	42	S-8015M

SAMPLE NO.		SAMPLE DESCRIPTION					DATE-TIME TAKEN		
329563		SW-W					03/06/1997 12:45		
EPA 8020-NONAQ									
Benzene	<10	ug/kg	10	03/10/1997	zst	931	S-8020A		
Ethylbenzene	11	ug/kg	10	03/10/1997	zst	931	S-8020A		
Toluene	<10	ug/kg	10	03/10/1997	zst	931	S-8020A		
Xylenes, Total	19	ug/kg	10	03/10/1997	zst	931	S-8020A		
SURR: a,a,a-TFT	92	% Rec	50-130	03/10/1997	zst	931			
Prep, DRO (Nonaqueous)	c 3-11-			03/12/1997	jwh	55		S-8015M	
DRO-Nonaqueous									
TPH as Diesel	4.4	ug/g	1.0	03/13/1997	dtw	55	42	S-8015M	
Kerosene	<1.0	ug/g	1.0	03/13/1997	dtw	55	42	S-8015M	
Mineral Spirits	<1.0	ug/g	1.0	03/13/1997	dtw	55	42	S-8015M	
Oil	<1.0	ug/g	1.0	03/13/1997	dtw	55	42	S-8015M	
Naptha - Medium Alaphatic	<1.0	ug/g	1.0	03/13/1997	dtw	55	42	S-8015M	
Naptha - Light Aromatic	<1.0	ug/g	1.0	03/13/1997	dtw	55	42	S-8015M	

SAMPLE NO.		SAMPLE DESCRIPTION				DATE-TIME TAKEN	
329564		T-A				03/06/1997 12:23	
EPA 8020-NONAQ							
Benzene	<10	ug/kg	10	03/10/1997	zst	931	S-8020A
Ethylbenzene	<10	ug/kg	10	03/10/1997	zst	931	S-8020A
Toluene	<10	ug/kg	10	03/10/1997	zst	931	S-8020A
Xylenes, Total	<10	ug/kg	10	03/10/1997	zst	931	S-8020A
SURR: a,a,a-TFT	107	% Rec	50-130	03/10/1997	zst	931	

# ANALYTICAL REPORT

Andy Landoll  
RHINO ENVIRONMENTAL, INC.  
P.O. Box 25547  
300 Broadway NE, 87102  
Albuquerque, NM 87125

03/19/1997

EPIC Job Number: 97.00840

Page No.: 4

Project Description: BJ Services Hobbs, NM

Analyte	Result	Flag	Units	Reporting Limit	Date Analyzed	Analyst Initials	Prep Batch No.	Run Batch No.	Method Reference
SAMPLE NO. 329564	SAMPLE DESCRIPTION T-A							DATE-TIME TAKEN 03/06/1997 12:23	
Prep, DRO (Nonaqueous)	c	3-11-			03/12/1997	jwh	55		S-8015M
DRO-Nonaqueous									
TPH as Diesel	110		ug/g	1.0	03/13/1997	dtw	55	42	S-8015M
Kerosene	<1.0		ug/g	1.0	03/13/1997	dtw	55	42	S-8015M
Mineral Spirits	<1.0		ug/g	1.0	03/13/1997	dtw	55	42	S-8015M
Oil	<1.0		ug/g	1.0	03/13/1997	dtw	55	42	S-8015M
Naptha - Medium Alaphatic	<1.0		ug/g	1.0	03/13/1997	dtw	55	42	S-8015M
Naptha - Light Aromatic	<1.0		ug/g	1.0	03/13/1997	dtw	55	42	S-8015M
SAMPLE NO. 329565	SAMPLE DESCRIPTION T-B							DATE-TIME TAKEN 03/06/1997 12:17	
TPH-418.1 (Nonaqueous)	19100		ug/g	10	03/11/1997	bas		1280	E-418.1
Prep, ICP Nonaqueous	c			COMPLETE	03/11/1997	nmw	1161		S-3050A
ICP Metals - Nonaqueous	COMPLETE			COMPLETE	03/11/1997	jcm		1442	
Arsenic, ICP	<3.0		ug/g	3.0	03/11/1997	jcm	1161	1379	S-6010A
Barium, ICP	380		ug/g	1.0	03/11/1997	jcm	1161	1260	S-6010A
Cadmium, ICP	1.8		ug/g	1.0	03/11/1997	jcm	1161	1551	S-6010A
Chromium, ICP	3.7		ug/g	1.0	03/11/1997	jcm	1161	1551	S-6010A
Lead, ICP	18		ug/g	3.0	03/11/1997	jcm	1161	1489	S-6010A
Mercury, CVAA	<0.02		ug/g	0.02	03/12/1997	bwb		1018	S-7470A
Selenium, ICP	<4.0		ug/g	4.0	03/11/1997	jcm	1161	1386	S-6010A
Silver, ICP	<1.0		ug/g	1.0	03/11/1997	jcm	1161	1385	S-6010A
EPA 8020-NONAO									
Benzene	<150		ug/kg	93	03/10/1997	zst		931	S-8020A
Ethylbenzene	1900		ug/kg	93	03/10/1997	zst		931	S-8020A
Toluene	700		ug/kg	93	03/10/1997	zst		931	S-8020A
Xylenes, Total	21000		ug/kg	93	03/10/1997	zst		931	S-8020A
SURR: a,a,a-TFT	106		% Rec	0	03/10/1997	zst		931	
BN/A ANALYSIS	c					dtw		240	E-625/S-8270
Prep, BNA NONAQUEOUS	c	3-13-			03/13/1997	jwh	543		
BASE/NEUTRALS - 8270									
Acenaphthene	<660		ug/kg	660	03/19/1997	dtw	543	331	S-8270A
Acenaphthylene	<660		ug/kg	660	03/19/1997	dtw	543	331	S-8270A
Anthracene	<660		ug/kg	660	03/19/1997	dtw	543	331	S-8270A
Benzo(a)anthracene	<660		ug/kg	660	03/19/1997	dtw	543	331	S-8270A

# ANALYTICAL REPORT

Andy Landoll  
RHINO ENVIRONMENTAL, INC.  
P.O. Box 25547  
300 Broadway NE, 87102  
Albuquerque, NM 87125

03/19/1997

EPIC Job Number: 97.00840

Page No.: 5

Project Description: BJ Services Hobbs, NM

Analyte	Result	Flag	Units	Reporting Limit	Date Analyzed	Analyst Initials	Prep Batch No.	Run Batch No.	Method Reference
SAMPLE NO. 329565	SAMPLE DESCRIPTION T-B							DATE-TIME TAKEN 03/06/1997 12:17	
Benzo(b)fluoranthene	<660		ug/kg	660	03/19/1997	dtw	543	331	S-8270A
Benzo(k)fluoranthene	<660		ug/kg	660	03/19/1997	dtw	543	331	S-8270A
Benzo(g,h,i)perylene	<660		ug/kg	660	03/19/1997	dtw	543	331	S-8270A
Benzo(a)pyrene	<660		ug/kg	660	03/19/1997	dtw	543	331	S-8270A
Chrysene	<660		ug/kg	660	03/19/1997	dtw	543	331	S-8270A
Dibenz(a,h)anthracene	<660		ug/kg	660	03/19/1997	dtw	543	331	S-8270A
Fluoranthene	<660		ug/kg	660	03/19/1997	dtw	543	331	S-8270A
Fluorene	1500		ug/kg	660	03/19/1997	dtw	543	331	S-8270A
Indeno(1,2,3-cd)pyrene	<660		ug/kg	660	03/19/1997	dtw	543	331	S-8270A
Naphthalene	18000		ug/kg	660	03/19/1997	dtw	543	331	S-8270A
Phenanthrene	1800		ug/kg	660	03/19/1997	dtw	543	331	S-8270A
Pyrene	<660		ug/kg	660	03/19/1997	dtw	543	331	S-8270A
SURR: 2-Fluorobiphenyl	82	%	Rec	30-115	03/19/1997	dtw	543	331	S-8270A
SURR: Nitrobenzene-d5	82	%	Rec	23-120	03/19/1997	dtw	543	331	S-8270A
SURR: Terphenyl-d14	90	%	Rec	18-137	03/19/1997	dtw	543	331	S-8270A

SAMPLE NO. 329566	SAMPLE DESCRIPTION T-C							DATE-TIME TAKEN 03/06/1997 12:06	
TPH-418.1 (Nonaqueous)	21700		ug/g	10	03/11/1997	bss		1280	E-418.1
EPA 8020-NONAQ									
Benzene	<10		ug/kg	10	03/10/1997	zst		931	S-8020A
Ethylbenzene	15		ug/kg	10	03/10/1997	zst		931	S-8020A
Toluene	<10		ug/kg	10	03/10/1997	zst		931	S-8020A
Xylenes, Total	100		ug/kg	10	03/10/1997	zst		931	S-8020A
SURR: a,a,a-TFT	116	%	Rec	50-130	03/10/1997	zst		931	

SAMPLE NO. 329567	SAMPLE DESCRIPTION T-D							DATE-TIME TAKEN 03/06/1997 11:39	
EPA 8020-NONAQ									
Benzene	<10		ug/kg	10	03/12/1997	zst		934	S-8020A
Ethylbenzene	69		ug/kg	10	03/12/1997	zst		934	S-8020A
Toluene	<10		ug/kg	10	03/12/1997	zst		934	S-8020A

# ANALYTICAL REPORT

Andy Landoll  
RHINO ENVIRONMENTAL, INC.  
P.O. Box 25547  
300 Broadway NE, 87102  
Albuquerque, NM 87125

03/19/1997

EPIC Job Number: 97.00840

Page No.: 6

Project Description: BJ Services Hobbs, NM

Analyte	Result	Flag	Units	Reporting Limit	Date Analyzed	Analyst Initials	Prep Batch No.	Run Batch No.	Method Reference
SAMPLE NO. 329567	SAMPLE DESCRIPTION T-D				DATE-TIME TAKEN 03/06/1997 11:39				
Xylenes, Total	430		ug/kg	10	03/12/1997	zst		934	S-8020A
SURR: a,a,a-TFT	81		% Rec	50-130	03/12/1997	zst		934	
Prep, DRO (Nonaqueous)	c	3-11-			03/12/1997	jwh	55		S-8015M
DRO-Nonaqueous									
TPH as Diesel	180		ug/g	1.0	03/13/1997	dtw	55	42	S-8015M
Kerosene	<1.0		ug/g	1.0	03/13/1997	dtw	55	42	S-8015M
Mineral Spirits	<1.0		ug/g	1.0	03/13/1997	dtw	55	42	S-8015M
Oil	<1.0		ug/g	1.0	03/13/1997	dtw	55	42	S-8015M
Naptha - Medium Alaphatic	<1.0		ug/g	1.0	03/13/1997	dtw	55	42	S-8015M
Naptha - Light Aromatic	<1.0		ug/g	1.0	03/13/1997	dtw	55	42	S-8015M

# QUALITY CONTROL REPORT

## Continuing Calibration Verification (CCV)

JOB NUMBER: 97.00840

Analyte	Prep	Run	Method	CCV		CCV	CCV	Date
	Batch	Batch		True	Units	Conc	Rec	
	No.	No.		Value		Found		Flag Analyzed
TPH-418.1 (Nonaqueous)		1280	E-418.1	104	ug/g	106.5	102	03/07/1997
Arsenic, ICP		1379	S-6010A	1.00	mg/L	1.03	103	03/11/1997
Barium, ICP		1260	S-6010A	1.00	mg/L	0.98	98	03/11/1997
Cadmium, ICP		1551	S-6010A	1.00	mg/L	1.03	103	03/11/1997
Chromium, ICP		1551	S-6010A	1.00	mg/L	1.04	104	03/11/1997
Lead, ICP		1489	S-6010A	1.00	mg/L	1.05	105	03/11/1997
Mercury, CVAA		1017	S-7470A	0.50	ug/g	0.51	102	03/10/1997
Mercury, CVAA		1018	S-7470A	0.50	ug/g	0.53	106	03/12/1997
Selenium, ICP		1386	S-6010A	1.00	mg/L	1.05	105	03/11/1997
Silver, ICP		1385	S-6010A	1.00	mg/L	1.02	102	03/11/1997
EPA 8020-NONAQ			S-8020A					
Benzene		931	S-8020A	20	ug/kg	20	100	03/10/1997
Ethylbenzene		931	S-8020A	20	ug/kg	23	115	03/10/1997
Toluene		931	S-8020A	20	ug/kg	22	110	03/10/1997
Xylenes, Total		931	S-8020A	60	ug/kg	67	112	03/10/1997
EPA 8020-NONAQ			S-8020A					
Benzene		934	S-8020A	20	ug/kg	19	95	03/12/1997
Ethylbenzene		934	S-8020A	20	ug/kg	27	135	03/12/1997
Toluene		934	S-8020A	20	ug/kg	20	100	03/12/1997
Xylenes, Total		934	S-8020A	60	ug/kg	77	128	03/12/1997

1

### Method References and Codes

The Quality Control report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

E-100 through 493: "Methods for Chemical Analysis of Water & Wastes",  
U.S. EPA, 600/4-79-020, rev. 1983.

E-601 through 625: "Guidelines Establishing Test Procedures for the  
Analysis of Pollutants", U.S. EPA, 40CFR, Part 136,  
rev. 1990.

S-1000 through 9999: "Test Methods for Evaluating Solid Waste", U.S. EPA  
SW-846, 3rd Edition, 1986.

A: "Standard Methods for the Examination of Water and  
Wastewater", 16th Edition, APHA, 1985.

SM: "Standard Methods for the Examination of Water and  
Wastewater", 18th Edition, APHA, 1992.

D: ASTM Method

M: Method has been modified

\*: Other Reference

# QUALITY CONTROL REPORT

## Continuing Calibration Verification (CCV)

JOB NUMBER: 97.00840

Analyte	Prep	Run	Method	CCV		CCV		Date
	Batch	Batch		True	Units	Conc	%	
	No.	No.		Value		Found	Rec	Flag Analyzed
DRO-Nonaqueous			S-8015M					
TPH as Diesel		42	S-8015M	500	ug/g	486	97	03/13/1997
Kerosene		42	S-8015M	100	ug/g	100	100	03/13/1997
Mineral Spirits		42	S-8015M	100	ug/g	100	100	03/13/1997
Oil		42	S-8015M	100	ug/g	100	100	03/13/1997
Naptha - Medium Alaphatic		42	S-8015M	100	ug/g	100	100	03/13/1997
Naptha - Light Aromatic		42	S-8015M	100	ug/g	100	100	03/13/1997
BASE/NEUTRALS - 8270			S-8270A					
Acenaphthene		331	S-8270A	50	ug/kg	45	90	03/19/1997
Benzo(a)pyrene		331	S-8270A	50	ug/kg	52	104	03/19/1997
Fluoranthene		331	S-8270A	50	ug/kg	57	114	03/19/1997

### Method References and Codes

The Quality Control report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

E-100 through 493: "Methods for Chemical Analysis of Water & Wastes", U.S. EPA, 600/4-79-020, rev. 1983.

E-601 through 625: "Guidelines Establishing Test Procedures for the Analysis of Pollutants", U.S. EPA, 40CFR, Part 136, rev. 1990.

S-1000 through 9999: "Test Methods for Evaluating Solid Waste", U.S. EPA SW-846, 3rd Edition, 1986.

A: "Standard Methods for the Examination of Water and Wastewater", 16th Edition, APHA, 1985.

SM: "Standard Methods for the Examination of Water and Wastewater", 18th Edition, APHA, 1992.

D: ASTM Method

M: Method has been modified

\*: Other Reference

# QUALITY CONTROL REPORT BLANKS

JOB NUMBER: 97.00840

Analyte	Prep Batch No.	Run Batch No.	Blank Value	Flag	Units	Reporting Limit	Date Analyzed
TPH-418.1 (Nonaqueous)		1280	<10		ug/g	10	03/07/1997
Arsenic, ICP	1161	1379	<3.0		ug/g	3.0	03/11/1997
Barium, ICP	1161	1260	<1.0		ug/g	1.0	03/11/1997
Cadmium, ICP	1161	1551	<1.0		ug/g	1.0	03/11/1997
Chromium, ICP	1161	1551	<1.0		ug/g	1.0	03/11/1997
Lead, ICP	1161	1489	<3.0		ug/g	3.0	03/11/1997
Mercury, CVAA		1017	<0.0002		ug/g	0.02	03/10/1997
Mercury, CVAA		1018	<0.0002		ug/g	0.02	03/12/1997
Selenium, ICP	1161	1386	<4.0		ug/g	4.0	03/11/1997
Silver, ICP	1161	1385	<1.0		ug/g	1.0	03/11/1997
EPA 8020-NONAQ							
Benzene		931	<10		ug/kg	10	03/10/1997
Ethylbenzene		931	<10		ug/kg	10	03/10/1997
Toluene		931	<10		ug/kg	10	03/10/1997
Xylenes, Total		931	<10		ug/kg	10	03/10/1997
EPA 8020-NONAQ							
Benzene		934	<10		ug/kg	10	03/12/1997
Ethylbenzene		934	<10		ug/kg	10	03/12/1997
Toluene		934	<10		ug/kg	10	03/12/1997
Xylenes, Total		934	<10		ug/kg	10	03/12/1997
DRD-Nonaqueous							
TPH as Diesel	55	42	<1.0		ug/g	1.0	03/13/1997
Kerosene	55	42	<1.0		ug/g	1.0	03/13/1997
Mineral Spirits	55	42	<1.0		ug/g	1.0	03/13/1997
Oil	55	42	<1.0		ug/g	1.0	03/13/1997
Naptha - Medium Alaphatic	55	42	<1.0		ug/g	1.0	03/13/1997
Naptha - Light Aromatic	55	42	<1.0		ug/g	1.0	03/13/1997
BASE/NEUTRALS - 8270							
Acenaphthene	543	331	<660		ug/kg	660	03/19/1997
Acenaphthylene	543	331	<660		ug/kg	660	03/19/1997
Anthracene	543	331	<660		ug/kg	660	03/19/1997
Benzo(a)anthracene	543	331	<660		ug/kg	660	03/19/1997
Benzo(b)fluoranthene	543	331	<660		ug/kg	660	03/19/1997
Benzo(k)fluoranthene	543	331	<660		ug/kg	660	03/19/1997
Benzo(g,h,i)perylene	543	331	<660		ug/kg	660	03/19/1997
Benzo(a)pyrene	543	331	<660		ug/kg	660	03/19/1997

## Advisory Control Limits for Blanks

Metals/Wet Chemistry/Conventionals/GC - All compounds should be less than the Reporting Limit.

GC/MS Semi-Volatiles - All compounds should be less than the Reporting Limit except for phthalates which should be less than 5 times the Reporting Limit.

GC/MS Volatiles - Toluene, Methylene chloride, Acetone and Chloroform should be less than 5 times the Reporting Limit. All other volatile compounds should be less than the Reporting Limit.

# QUALITY CONTROL REPORT BLANKS

JOB NUMBER: 97.00840

Analyte	Prep Batch No.	Run Batch No.	Blank Value	Flag	Units	Reporting Limit	Date Analyzed
Chrysene	543	331	<660		ug/kg	660	03/19/1997
Dibenz (a,h) anthracene	543	331	<660		ug/kg	660	03/19/1997
Fluoranthene	543	331	<660		ug/kg	660	03/19/1997
Fluorene	543	331	<660		ug/kg	660	03/19/1997
Indeno (1,2,3-cd) pyrene	543	331	<660		ug/kg	660	03/19/1997
Naphthalene	543	331	<660		ug/kg	660	03/19/1997
Phenanthrene	543	331	<660		ug/kg	660	03/19/1997
Pyrene	543	331	<660		ug/kg	660	03/19/1997

## Advisory Control Limits for Blanks

Metals/Wet Chemistry/Conventionals/GC - All compounds should be less than the Reporting Limit.

GC/MS Semi-Volatiles - All compounds should be less than the Reporting Limit except for phthalates which should be less than 5 times the Reporting Limit.

GC/MS Volatiles - Toluene, Methylene chloride, Acetone and Chloroform should be less than 5 times the Reporting Limit. All other volatile compounds should be less than the Reporting Limit.

**QUALITY CONTROL REPORT**  
**Laboratory Control Sample**  
**(LCS)**

JOB NUMBER: 97.00840

Analyte	Prep Batch No.	Run Batch No.	LCS True Conc	Units	LCS Conc Found	LCS % Rec.	LCS Dup Conc. Found	LCS Dup % Rec	LCS % RPD	Flag	Date Analyzed
TPH-418.1 (Nonaqueous)		1280	2660	ug/g	2557	96					03/07/1997
Arsenic, ICP	1161	1379	100	ug/g	90	90					03/11/1997
Barium, ICP	1161	1260	100	ug/g	93	93					03/11/1997
Cadmium, ICP	1161	1551	100	ug/g	96	96					03/11/1997
Chromium, ICP	1161	1551	100	ug/g	97	97					03/11/1997
Lead, ICP	1161	1489	100	ug/g	99	99					03/11/1997
Mercury, CVAA		1017	0.50	ug/g	0.52	104					03/10/1997
Mercury, CVAA		1018	0.50	ug/g	0.50	100					03/12/1997
Selenium, ICP	1161	1386	100	ug/g	95	95					03/11/1997
Silver, ICP	1161	1385	100	ug/g	92	92					03/11/1997
EPA 8020-NONAO											
Benzene		931	100	ug/kg	93	93					03/10/1997
Ethylbenzene		931	100	ug/kg	130	130					03/10/1997
Toluene		931	100	ug/kg	98	98					03/10/1997
Xylenes, Total		931	200	ug/kg	263	132					03/10/1997
EPA 8020-NONAO											
Benzene		934	100	ug/kg	120	120					03/12/1997
Ethylbenzene		934	100	ug/kg	113	113					03/12/1997
Toluene		934	100	ug/kg	109	109					03/12/1997
Xylenes, Total		934	200	ug/kg	220	110					03/12/1997
DRO-Nonaqueous											
TPH as Diesel	55	42	500	ug/g	559	112	510	102	9.2		03/13/1997
Kerosene	55	42	100	ug/g	100	100	100	100			03/13/1997
Mineral Spirits	55	42	100	ug/g	100	100	100	100			03/13/1997
Oil	55	42	100	ug/g	100	100	100	100			03/13/1997
Naptha - Medium Alaphatic	55	42	100	ug/g	100	100	100	100			03/13/1997
Naptha - Light Aromatic	55	42	100	ug/g	100	100	100	100			03/13/1997
BASE/NEUTRALS - 8270											
Acenaphthene	543	331	100	ug/kg	61	61	66	66	7.9		03/19/1997
Pyrene	543	331	100	ug/kg	70	70	72	72	2.8		03/19/1997

Advisory Control Limits for LCS

Inorganic Parameters - The LCS recovery should be 80-120%.

**QUALITY CONTROL REPORT**  
**Matrix Spike / Matrix Spike Duplicate**  
**(MS / MSD)**

JOB NUMBER: 97.00840

Analyte	Prep Batch No.	Run Batch No.	MS/MSD Sample Number	Conc. Spike Added	Units	Sample Result	Conc. MS Result	MS %	Conc. MSD Result	MSD %	RPD	Flag	Date Analyzed
TPH-418.1 (Nonaqueous)		1280	329482	500	ug/g	55	532	95	497	88	7.6		03/07/1997
TPH-418.1 (Nonaqueous)		1280	329578	125	ug/g	<10	114	91	122	98	6.8		03/11/1997
Arsenic, ICP	1161	1379	329561	100	ug/g	<3.0	89	89	89	89	0		03/11/1997
Barium, ICP	1161	1260	329561	100	ug/g	76	167	91	175	99	8.4		03/11/1997
Cadmium, ICP	1161	1551	329561	100	ug/g	<1.0	84	84	80	80	4.9		03/11/1997
Chromium, ICP	1161	1551	329561	100	ug/g	5.6	98	92	84	78	16		03/11/1997
Lead, ICP	1161	1489	329561	100	ug/g	9.7	96	86	83	73	16		03/11/1997
Mercury, CVAA		1017	329081	0.50	ug/g	<0.02	0.47	94	0.50	100	6.1		03/10/1997
Mercury, CVAA		1018	329565	0.50	ug/g	<0.02	0.45	90	0.49	98	8.5		03/12/1997
Selenium, ICP	1161	1386	329561	100	ug/g	<4.0	83	83	71	71	16		03/11/1997
Silver, ICP	1161	1385	329561	100	ug/g	<1.0	62	62	50	50	21	BS	03/11/1997
EPA 8020-NONAQ			329563										
Benzene		931	329563	100	ug/kg	<10	130	130	131	131	0.8		03/10/1997
Ethylbenzene		931	329563	100	ug/kg	11	150	139	150	139	0		03/10/1997
Toluene		931	329563	100	ug/kg	<10	119	119	128	128	7.3		03/10/1997
Xylenes, Total		931	329563	200	ug/kg	19	298	140	299	140	0.4		03/10/1997
EPA 8020-NONAQ			329727										
Benzene		934	329727	100	ug/kg	<10	125	125	129	129	3.1		03/12/1997
Ethylbenzene		934	329727	100	ug/kg	<10	139	139	145	145	4.2		03/12/1997
Toluene		934	329727	100	ug/kg	<10	123	123	130	130	5.5		03/12/1997
Xylenes, Total		934	329727	200	ug/kg	<10	272	136	281	141	3.3		03/12/1997

BS - MS/MSD outside acceptance criteria, bench spike was 85-115%.

Advisory Control Limits for MS/MSDs

Inorganic Parameters - The spike recovery should be 75-125% if the spike amount value is greater than or equal to one fourth of the sample result value. The RPD for the MS/MSD should be less than 20.

NOTE: Matrix Spike Samples may not be samples from this job.



**APPENDIX H**  
**SOIL DISPOSAL DOCUMENTATION**

CERTIFICATE OF WASTE STATUS

NON-EXEMPT WASTE MATERIAL

ORIGINATION LOCATION: BT Services Company, U.S.A. Hobbs, NM District  
SOURCE: Backfill soil surrounding 4 wastewater tanks  
DISPOSAL LOCATION: Goo Yea Landfarm

As a condition of acceptance for disposal, I hereby certify that this waste is a non-exempt waste as defined by the Environmental Protection Agency's (EPA) July 1988 Regulatory Determination. To my knowledge, this waste will be analyzed pursuant to the provisions of 40 CFR Part 261 to verify the nature as non-hazardous. I further certify that to my knowledge no "hazardous or listed waste" pursuant to the provisions of 40 CFR, Part 261, Subparts C and D, has been added or mixed with the waste so as to make the resultant mixture a "hazardous waste" pursuant to the provisions of 40 CFR, section 261.3."

I, the undersigned as the agent for the BT Services Company, U.S.A.  
\_\_\_\_\_ concur with the status of the waste from the subject  
site.

Name: Rick N. Johnson  
Title: Environmental Specialist  
Address: 8701 New Trails Drive  
The Woodlands, TX 77381  
Signature: Rick N. Johnson  
Date: 3-13-97

## BJ - Hobbs Soil Disposal

Manifest #	Gross Weight	Tare Weight	Net Weight	Tons
160228	78,720	32,340	46,380	23.19
160229	78,790	32,340	46,450	23.23
160230	80,990	32,340	48,650	24.33
160231	80,330	32,330	48,000	24.00
160232	85,880	32,390	53,490	26.75
160233	80,980	32,000	48,980	24.49
160234	70,990	33,800	37,190	18.60
160235	78,930	32,340	46,590	23.30
160236	77,780	32,340	45,440	22.72
160237	74,640	32,390	42,250	21.13
160238	87,300	30,060	57,240	28.62
160239	79,590	32,960	46,630	23.32
160240	78,220	31,780	46,440	23.22
160241	82,110	32,390	49,720	24.86
160242	76,110	30,060	46,050	23.03
160243	84,000	32,960	51,040	25.52
160244	74,450	31,780	42,670	21.34
160245	75,440	30,060	45,380	22.69
160246	83,530	32,390	51,140	25.57
160256	78,920	32,960	45,960	22.98
160366	85,600	31,780	53,820	26.91
160367	75,750	31,780	43,970	21.99
160368	75,080	32,960	42,120	21.06
160369	74,620	30,060	44,560	22.28
160370	82,160	32,390	49,770	24.89
160371	72,960	30,060	42,900	21.45
160372	76,170	31,780	44,390	22.20
160373	82,560	32,960	49,600	24.80
160374	81,370	32,390	48,980	24.49
160375	78,530	30,060	48,470	24.24
160376	78,780	31,780	47,000	23.50
160377	75,900	32,960	42,940	21.47
160378A	81,990	32,390	49,600	24.80
160378B	57,010	32,390	24,620	12.31
160379	79,120	32,390	46,730	23.37
1220664	81,620	32,390	49,230	24.62
1220665	80,160	32,390	47,770	23.89
1220683	82,250	32,960	49,290	24.65
1220686	68,290	30,060	38,230	19.12
1220687	80,930	30,060	50,870	25.44
1220688	87,550	32,390	55,160	27.58
1220689	82,140	32,960	49,180	24.59
1220690	78,200	31,780	46,420	23.21
1220691	87,120	30,060	57,060	28.53
1220693	84,080	32,960	51,120	25.56
1220694	81,380	31,780	49,600	24.80
1220695	81,430	31,780	49,650	24.83

TOTALS	3,720,450	1,501,710	2,218,740	1,109.37
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Please type or print. (Form designed for use on elite/12-pitch typewriter.)

INSTRUCTIONS ON REVERSE SIDE.

<b>PETROLEUM-SUBSTANCE WASTE MANIFEST</b>				1. Generator's LPST ID No. or ST ID No.		2. Page 1 of <div style="text-align: center; font-size: 2em;">1</div>			
3. Generator's Name, Contact Person, and Mailing Address B. J. SERVICES COMPANY, U.S.A. 2708 W. COUNTY RD. HOBBS, NM 88240  4. Generator's Phone (505) 392-5556    Generator's Fax (505) 392-7507  5. Generator's Facility Name, Contact Person, and Physical Address   6. Generator's Facility Phone (    )    Generator's Fax (    )						A. State Manifest Document No.  <div style="text-align: center; font-size: 1.5em;">NE 160228</div>			
						B. Generator's Facility ID No.  			
						C. Generator's Tank Owner ID No.  			
7. Transporter 1 Company Name and Address C.S.I. P.O. BOX 25547 Albuquerque, NM 87102  8. Transporter 2 Company Name and Address  						D. Transporter's Phone 505-242-6464 Contact Person: A. Landoll  E. Transporter's Phone  Contact Person:			
9. Designated Facility Name and Site Address RHINO Environmental 600 YEA Landfarm LEA COUNTY, NM  10. Facility ID Number SE/4 SEC. 14 T. 11S R. 38E Lea County						F. Facility's Phone 1-800-762-0241 Contact Person: J. Menicucci			
11. Waste Description (including Proper Class, and ID)		12. Containers		13. Total Quantity		14. Unit		15. Waste Code	
a. Non Hazardous Waste		BULK		23.19		Tons			
b.									
G. Additional Description for Materials Listed Above Hydrocarbon Impacted Soil									
16. Special Handling Instructions and Additional Information									
<b>GENERATOR'S CERTIFICATION:</b> I hereby declare the contents of this consignment are fully and accurately described above by shipping name and are classified, packed, marked, and labeled, and are in all respect in proper condition for transport by highway according to applicable federal and state regulations.									
17. Printed/Typed Name <div style="text-align: center;">Dan</div>					Signature <div style="text-align: center;">Dan</div>		Date		
18. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name MICHAEL SORIANO #550-111					Signature <div style="text-align: center;">Michael Soriano</div>		Date 4/1/97		
19. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name					Signature		Date		
20. Discrepancy Indication Space									
21. Facility Owner/Operator: Certification of receipt of petroleum-substance wastes covered by this manifest except as noted in Item 20. <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;">           Printed/Typed Name  <div style="text-align: center; font-size: 1.5em;">ROYCE COOPER</div> </div> <div style="width: 30%;">           Signature  <div style="text-align: center;">Royce Cooper</div> </div> <div style="width: 20%;">           Date  <div style="text-align: center; font-size: 1.5em;">4-1-97</div> </div> </div>									



Please type or print. (Form designed for use on elite/12-pitch typewriter.)

INSTRUCTIONS ON REVERSE SIDE.

PETROLEUM-SUBSTANCE WASTE MANIFEST				1. Generator's LPST ID No. or ST ID No.		2. Page 1 of 1			
3. Generator's Name, Contact Person, and Mailing Address B.J. Services Company U.S.A. 2708 W. County Rd. HOBBS, NM 88240				A. State Manifest Document No. NE 160229					
				B. Generator's Facility ID No.					
4. Generator's Phone (505) 392-5556 Generator's Fax (505) 392-7307				C. Generator's Tank Owner ID No.					
5. Generator's Facility Name, Contact Person, and Physical Address				D. Transporter's Phone (505) 242-6464 Contact Person: Andy Landoll					
6. Generator's Facility Phone ( ) Generator's Fax ( )				E. Transporter's Phone Contact Person:					
7. Transporter 1 Company Name and Address C.S.I. P.O. BOX 25547 Albuquerque, NM 87102				F. Facility's Phone 1-800-762-0241 Contact Person: J. Menicucci					
8. Transporter 2 Company Name and Address									
9. Designated Facility Name and Site Address RHINO Environmental Goo Yea Landfarm Lea County, NM									
10. Facility ID Number SE/4 SEC. 14 T. 11 S. R. 38 E. Lea County									
11. Waste Description (including Proper Class, and ID)		12. Containers		13. Total Quantity		14. Unit		15. Waste Code	
a. Non Hazardous Waste		Bulk		23.23		Tons			
b.									
G. Additional Description for Materials Listed Above Hydrocarbon Impacted Soil									
16. Special Handling Instructions and Additional Information									
GENERATOR'S CERTIFICATION: I hereby declare the contents of this consignment are fully and accurately described above by shipping name and are classified, packed, marked, and labeled, and are in all respect in proper condition for transport by highway according to applicable federal and state regulations.									
17. Printed/Typed Name					Signature		Date		
18. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name					Signature		Date		
19. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name					Signature		Date		
20. Discrepancy Indication Space									
21. Facility Owner/Operator: Certification of receipt of petroleum-substance wastes covered by this manifest except as noted in Item 20. Printed/Typed Name: ROYCE COOPER Signature: Royce Cooper Date: 4-2-97									



Please type or print. (Form designed for use on elite/12-pitch typewriter.)

INSTRUCTIONS ON REVERSE SIDE.

PETROLEUM-SUBSTANCE WASTE MANIFEST				1. Generator's LPST ID No. or ST ID No.		2. Page 1 of 1			
3. Generator's Name, Contact Person, and Mailing Address BS Services Company U.S.A. 2708 W. County Rd. Hobbs NM 88240				A. State Manifest Document No. NE 160230					
				B. Generator's Facility ID No.					
4. Generator's Phone (505) 392-5556 Generator's Fax (505) 392-7307									
5. Generator's Facility Name, Contact Person, and Physical Address				C. Generator's Tank Owner ID No.					
6. Generator's Facility Phone ( ) Generator's Fax ( )									
7. Transporter 1 Company Name and Address CSI P.O. Box 25547 Albuquerque, NM 87102				D. Transporter's Phone (505) 742-6464					
				Contact Person: Andy Landell					
Transporter 2 Company Name and Address				E. Transporter's Phone					
				Contact Person:					
9. Designated Facility Name and Site Address RHINO Environmental 600 YEA LANDFARM Lea County, NM				F. Facility's Phone 1-800-762-0241					
10. Facility ID Number SE/4 SEC. 14 T. 11 S. R38 E Lea County				Contact Person: J. Menicucci					
11. Waste Description (including Proper Class, and ID)		12. Containers		13. Total Quantity		14. Unit		15. Waste Code	
a. Non Hazardous waste		Bulk		24.33		Tons			
b.									
G. Additional Description for Materials Listed Above Hydrocarbon Impacted Soil									
16. Special Handling Instructions and Additional Information									
GENERATOR'S CERTIFICATION: I hereby declare the contents of this consignment are fully and accurately described above by shipping name and are classified, packed, marked, and labeled, and are in all respect in proper condition for transport by highway according to applicable federal and state regulations.									
17. Printed/Typed Name				Signature		Date			
Michael Soriano 350-111				[Signature]		4-13-97			
18. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name				Signature		Date			
Michael Soriano 350-111				[Signature]		4-2-97			
19. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name				Signature		Date			
20. Discrepancy Indication Space									
21. Facility Owner/Operator: Certification of receipt of petroleum-substance wastes covered by this manifest except as noted in Item 20.									
Printed/Typed Name ROYCE COOPER				Signature [Signature]		Date 4-2-97			



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INSTRUCTIONS ON REVERSE SIDE.

<b>PETROLEUM-SUBSTANCE WASTE MANIFEST</b>		1. Generator's LPST ID No. or ST ID No.		2. Page 1 of <div style="text-align: center; font-size: 2em;">1</div>	
3. Generator's Name, Contact Person, and Mailing Address <i>BS Services Company, USA</i> <i>2708 W. County Rd</i> <i>Hobbs, NM 88240</i>  4. Generator's Phone (505) 392-5556 Generator's Fax (505) 392-7307  5. Generator's Facility Name, Contact Person, and Physical Address   6. Generator's Facility Phone (     ) Generator's Fax (     )				A. State Manifest Document No.  <div style="text-align: center; font-size: 1.5em;">NE 160231</div>	
				B. Generator's Facility ID No.  	
				C. Generator's Tank Owner ID No.  	
7. Transporter 1 Company Name and Address <i>CSI</i> <i>P.O. Box 25547</i> <i>Albuquerque, NM 87102</i>				D. Transporter's Phone <i>(505) 242-6464</i>  Contact Person: <i>Andy Landoll</i>	
8. Transporter 2 Company Name and Address  				E. Transporter's Phone  Contact Person:	
9. Designated Facility Name and Site Address <i>RHINO Environmental</i> <i>GOC YEA Landfarm</i> <i>Lea County, NM</i>				F. Facility's Phone <i>1-800-762-0241</i>  Contact Person: <i>J. Menicucci</i>	
10. Facility ID Number <i>SE/4 Sec. 14 T. 11S R38E L94 County</i>					
11. Waste Description (including Proper Class, and ID)		12. Containers		13. Total Quantity	
a. <i>Non Hazardous Waste</i>		<i>BULK</i>		<i>24.00 TONS</i>	
b.					
G. Additional Description for Materials Listed Above  <i>Hydrocarbon Impacted Soil</i>					
16. Special Handling Instructions and Additional Information  					
<b>GENERATOR'S CERTIFICATION:</b> I hereby declare the contents of this consignment are fully and accurately described above by shipping name and are classified, packed, marked, and labeled, and are in all respect in proper condition for transport by highway according to applicable federal and state regulations.					
17. Printed/Typed Name			Signature <i>Can Sullivan</i>		Date <i>4-14-97</i>
18. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name <i>George Gains</i>			Signature <i>George Gains</i>		Date <i>4-1-97</i>
19. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name			Signature		Date
20. Discrepancy Indication Space					
21. Facility Owner/Operator: Certification of receipt of petroleum-substance wastes covered by this manifest except as noted in Item 20. <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;">           Printed/Typed Name  <i>ROCKE COOPER</i> </div> <div style="width: 45%;">           Signature  <i>Rocke Cooper</i> </div> <div style="width: 10%;">           Date  <i>4-1-97</i> </div> </div>					



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INSTRUCTIONS ON REVERSE SIDE.

PETROLEUM-SUBSTANCE WASTE MANIFEST		1. Generator's LPST ID No. or ST ID No.		2. Page 1 of 1	
3. Generator's Name, Contact Person, and Mailing Address BJ Services Company USA 2708 W. County Rd Hobbs, NM 88240			A. State Manifest Document No. No 160232		
4. Generator's Phone (505) 392-5556 Generator's Fax (505) 392-7307			B. Generator's Facility ID No.		
5. Generator's Facility Name, Contact Person, and Physical Address			C. Generator's Tank Owner ID No.		
6. Generator's Facility Phone ( ) Generator's Fax ( )			D. Transporter's Phone (505) 242-6464 Contact Person: Andy Landoll		
7. Transporter 1 Company Name and Address CSI P.O. BOX 25547 Albuquerque, NM 87102			E. Transporter's Phone  Contact Person:		
8. Transporter 2 Company Name and Address			F. Facility's Phone 1-800-762-0241 Contact Person: J. Menicucci		
9. Designated Facility Name and Site Address Rhino Environmental Goo Yea Landfarm Lea County NM			10. Facility ID Number SE/4 SEC 14 T. 11 S R 38 E Lea County		
11. Waste Description (including Proper Class, and ID) a. Non Hazardous Waste b.		12. Containers Bulk	13. Total Quantity 26.75	14. Unit TONS	15. Waste Code
G. Additional Description for Materials Listed Above Hydrocarbon Impacted Soil					
16. Special Handling Instructions and Additional Information					
GENERATOR'S CERTIFICATION: I hereby declare the contents of this consignment are fully and accurately described above by shipping name and are classified, packed, marked, and labeled, and are in all respect in proper condition for transport by highway according to applicable federal and state regulations.					
17. Printed/Typed Name			Signature Dan Miller		Date 4-13-97
18. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name George Goins			Signature George Goins		Date 4-2-97
19. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name			Signature		Date
20. Discrepancy Indication Space					
21. Facility Owner/Operator: Printed/Typed Name ROUCE COOPER			Certification of receipt of petroleum-substance wastes covered by this manifest except as noted in Item 20. Signature Rouce Cooper Date 4-2-97		



#37

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INSTRUCTIONS ON REVERSE SIDE.

PETROLEUM-SUBSTANCE WASTE MANIFEST		1. Generator's LPST ID No. or ST ID No.		2. Page 1 of 1	
3. Generator's Name, Contact Person, and Mailing Address B.S. Services U.S.A. 2708 W. County Rd. Hobbs, NM 88240			A. State Manifest Document No. NE 160233		
4. Generator's Phone (505) 392-5556 Generator's Fax (505) 392-7307			B. Generator's Facility ID No.		
5. Generator's Facility Name, Contact Person, and Physical Address			C. Generator's Tank Owner ID No.		
6. Generator's Facility Phone ( ) Generator's Fax ( )					
7. Transporter 1 Company Name and Address C.S.I. P.O. Box 25547 Albuquerque, NM 87102			D. Transporter's Phone (505) 242-6464 Contact Person: Andy Landoll		
8. Transporter 2 Company Name and Address			E. Transporter's Phone Contact Person:		
9. Designated Facility Name and Site Address RHINO Environmental 600 Yea Land Farm Lea County NM			F. Facility's Phone 1-800-762-0241 Contact Person: J. Menicucci		
10. Facility ID Number SE/45ec.14 T.11SR38E Lea County					
11. Waste Description (including Proper Class, and ID)		12. Containers	13. Total Quantity	14. Unit	15. Waste Code
a. Non Hazardous waste		Bulk	24.49	Tons	
b.					
G. Additional Description for Materials Listed Above Hydrocarbon Impacted Soil					
16. Special Handling Instructions and Additional Information					
<b>GENERATOR'S CERTIFICATION:</b> I hereby declare the contents of this consignment are fully and accurately described above by shipping name and are classified, packed, marked, and labeled, and are in all respect in proper condition for transport by highway according to applicable federal and state regulations.					
17. Printed/Typed Name			Signature Don Miller		Date 4-13-97
18. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name Jerry Kennedy Jr.			Signature JMK		Date 4/13/97
19. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name			Signature		Date
20. Discrepancy Indication Space					
21. Facility Owner/Operator: Certification of receipt of petroleum-substance wastes covered by this manifest except as noted in Item 20.					
Printed/Typed Name George Goins			Signature George Goins		Date 4-3-97



#73

Please type or print. (Form designed for use on elite/12-pitch typewriter.)

INSTRUCTIONS ON REVERSE SIDE.

PETROLEUM-SUBSTANCE WASTE MANIFEST		1. Generator's LPST ID No. or ST ID No.		2. Page 1 of 1	
3. Generator's Name, Contact Person, and Mailing Address B.J. Services U.S.A. 2708 W. County Rd Hobbs, NM 88240			A. State Manifest Document No. NE 160234		
			B. Generator's Facility ID No.		
			C. Generator's Tank Owner ID No.		
4. Generator's Phone (505) 392-5556 Generator's Fax (505) 392-7307					
5. Generator's Facility Name, Contact Person, and Physical Address					
6. Generator's Facility Phone ( ) Generator's Fax ( )					
7. Transporter 1 Company Name and Address C.S.I. P.O. Box 25547 Albuquerque, NM 87102			D. Transporter's Phone (505) 242-6464 Contact Person: Andy Landoll		
8. Transporter 2 Company Name and Address			E. Transporter's Phone  Contact Person:		
9. Designated Facility Name and Site Address Rhino Environmental Gog Yea Landfarm Lea County NM			F. Facility's Phone 1-800-762-0241 Contact Person: J. Memicucci		
10. Facility ID Number SE/4 Sec. 14 T. 11 S. R. 38 E Lea County					
11. Waste Description (including Proper Class, and ID)		12. Containers	13. Total Quantity	14. Unit	15. Waste Code
a. Non Hazardous Waste		Bulk	18.60	Tons	
b.					
G. Additional Description for Materials Listed Above Hydrocarbon Impacted Soil					
16. Special Handling Instructions and Additional Information					
<b>GENERATOR'S CERTIFICATION:</b> I hereby declare the contents of this consignment are fully and accurately described above by shipping name and are classified, packed, marked, and labeled, and are in all respect in proper condition for transport by highway according to applicable federal and state regulations.					
17. Printed/Typed Name			Signature		Date
			[Signature]		4-13-97
18. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name			Signature		Date
Jerry Kennedy			[Signature]		4/3/97
19. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name			Signature		Date
20. Discrepancy Indication Space					
21. Facility Owner/Operator: Printed/Typed Name			Certification of receipt of petroleum-substance wastes covered by this manifest except as noted in Item 20. Signature		Date
George Goins			George Goins		4-3-97



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INSTRUCTIONS ON REVERSE SIDE.

PETROLEUM-SUBSTANCE WASTE MANIFEST		1. Generator's LPST ID No. or ST ID No.		2. Page 1 of 1	
3. Generator's Name, Contact Person, and Mailing Address BJ Services USA 2708 W. County Rd Hobbs NM 88240			A. State Manifest Document No. NE 160235		
4. Generator's Phone (505) 392-5556 Generator's Fax (505) 392-7307			B. Generator's Facility ID No.		
5. Generator's Facility Name, Contact Person, and Physical Address			C. Generator's Tank Owner ID No.		
6. Generator's Facility Phone ( ) Generator's Fax ( )			D. Transporter's Phone (505) 342-6464 Contact Person: Andy Landoll		
7. Transporter 1 Company Name and Address C.S.I. P.O. Box 25547 Albuquerque, NM 87103			E. Transporter's Phone Contact Person:		
8. Transporter 2 Company Name and Address			F. Facility's Phone 1-800-762-0d41 Contact Person: J. Menicucci		
9. Designated Facility Name and Site Address Rhino Environmental 600 Yea Landfarm Lea County, NM			10. Facility ID Number SE/4 SEC. 14 T. 115 R 38 E Lea County		
11. Waste Description (including Proper Class, and ID) a. Non Hazardous waste b.		12. Containers Bulk	13. Total Quantity 23.30	14. Unit Tons	15. Waste Code
G. Additional Description for Materials Listed Above Hydrocarbon Impacted Soil					
16. Special Handling Instructions and Additional Information					
GENERATOR'S CERTIFICATION: I hereby declare the contents of this consignment are fully and accurately described above by shipping name and are classified, packed, marked, and labeled, and are in all respect in proper condition for transport by highway according to applicable federal and state regulations.					
17. Printed/Typed Name			Signature Dan Miller		Date 4-13-97
18. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name Mike Sierra by Hange Davis 550-111			Signature		Date 4-3-97
19. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name			Signature		Date
20. Discrepancy Indication Space					
21. Facility Owner/Operator: Certification of receipt of petroleum-substance wastes covered by this manifest except as noted in Item 20. Printed/Typed Name ROYCE COOPER Signature Hange Davis Date 4-3-97					



Please type or print. (Form designed for use on elite/12-pitch typewriter.)

INSTRUCTIONS ON REVERSE SIDE.

PETROLEUM-SUBSTANCE WASTE MANIFEST				1. Generator's LPST ID No. or ST ID No.		2. Page 1 of 1	
3. Generator's Name, Contact Person, and Mailing Address B.J. Services 2708 W. County Rd Hobbs NM 88240				A. State Manifest Document No. NE 160236			
				B. Generator's Facility ID No.			
4. Generator's Phone (505) 392-5556 Generator's Fax (505) 392-7507				C. Generator's Tank Owner ID No.			
5. Generator's Facility Name, Contact Person, and Physical Address				D. Transporter's Phone (505) 242-6464 Contact Person: Andy Landoll			
6. Generator's Facility Phone ( ) Generator's Fax ( )				E. Transporter's Phone Contact Person:			
7. Transporter 1 Company Name and Address C.S.I. P.O. Box 25547 Albuquerque, NM 87102				F. Facility's Phone 1-800-762-0241 Contact Person: J. Menicucci			
8. Transporter 2 Company Name and Address							
9. Designated Facility Name and Site Address Rhino Environmental Goo Yea Landfarm Lea County, NM							
10. Facility ID Number SE/4 SEC. 14 T-115 R38 E Lea County							
11. Waste Description (including Proper Class, and ID)		12. Containers	13. Total Quantity	14. Unit	15. Waste Code		
a. Non Hazardous waste		Bulk	22.72	Tons			
b.							
G. Additional Description for Materials Listed Above Hydrocarbon Impacted water in SOIL							
16. Special Handling Instructions and Additional Information							
GENERATOR'S CERTIFICATION: I hereby declare the contents of this consignment are fully and accurately described above by shipping name and are classified, packed, marked, and labeled, and are in all respect in proper condition for transport by highway according to applicable federal and state regulations.							
17. Printed/Typed Name			Signature	Date			
[Signature]			[Signature]	4-13-97			
18. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name			Signature	Date			
[Signature]			[Signature]	4-3-97			
19. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name			Signature	Date			
20. Discrepancy Indication Space							
21. Facility Owner/Operator: Certification of receipt of petroleum-substance wastes covered by this manifest except as noted in Item 20.							
Printed/Typed Name		Signature		Date			
ROYCE COOPER		[Signature]		4-3-97			



Please type or print. (Form designed for use on elite/12-pitch typewriter.)

INSTRUCTIONS ON REVERSE SIDE.

<b>PETROLEUM-SUBSTANCE WASTE MANIFEST</b>		1. Generator's LPST ID No. or ST ID No.		2. Page 1 of 1	
3. Generator's Name, Contact Person, and Mailing Address B.J. Services 2708 W. Country Rd. Hobbs NM 88240 4. Generator's Phone (505) 392-5556 Generator's Fax (505) 392-7307 5. Generator's Facility Name, Contact Person, and Physical Address 6. Generator's Facility Phone ( ) Generator's Fax ( )				A. State Manifest Document No. No 160237	
				B. Generator's Facility ID No.	
				C. Generator's Tank Owner ID No.	
7. Transporter 1 Company Name and Address C.S.I. P.O. Box 25547 Albuquerque, NM 87102 8. Transporter 2 Company Name and Address				D. Transporter's Phone (505) 242-6464 Contact Person: Andy Landell	
9. Designated Facility Name and Site Address Rhino Environmental Goo Yeah Landfarm Lea County, NM 10. Facility ID Number SE/45EL147-115R38 ELPA County				E. Transporter's Phone  Contact Person:	
11. Waste Description (including Proper Class, and ID) a. Non Hazardous Waste b.		12. Containers Bulk	13. Total Quantity 21.13	14. Unit Tons	15. Waste Code
G. Additional Description for Materials Listed Above Hydrocarbon Impacted Soil					
16. Special Handling Instructions and Additional Information					
<b>GENERATOR'S CERTIFICATION:</b> I hereby declare the contents of this consignment are fully and accurately described above by shipping name and are classified, packed, marked, and labeled, and are in all respect in proper condition for transport by highway according to applicable federal and state regulations.					
17. Printed/Typed Name			Signature Dan Muller		Date 4-13-97
18. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name George Goins 530-113			Signature George Goins		Date 4-8-97
19. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name			Signature		Date
20. Discrepancy Indication Space					
21. Facility Owner/Operator: Certification of receipt of petroleum-substance wastes covered by this manifest except as noted in Item 20. Printed/Typed Name ROXCE COOPER Signature Roxce Cooper Date 4-8-97					



Please type or print. (Form designed for use on elite/12-pitch typewriter.)

INSTRUCTIONS ON REVERSE SIDE.

<b>PETROLEUM-SUBSTANCE WASTE MANIFEST</b>				1. Generator's LPST ID No. or ST ID No.		2. Page 1 of <div style="text-align: center; font-size: 2em;">1</div>	
3. Generator's Name, Contact Person, and Mailing Address B.J. Services 2708 W. Country Rd. Hobbs NM 88240  4. Generator's Phone (505) 392-5556 Generator's Fax (505) 392-7307  5. Generator's Facility Name, Contact Person, and Physical Address   6. Generator's Facility Phone (     ) Generator's Fax (     )  7. Transporter 1 Company Name and Address C.S.I. P.O. Box 25547 Albuquerque, NM 87102  8. Transporter 2 Company Name and Address   9. Designated Facility Name and Site Address RHINO Environmental Coo Yeah Landfarm Lea County, NM  10. Facility ID Number SE/45 SEC. 147-115A38 E Lea County						A. State Manifest Document No. <div style="text-align: center; font-size: 1.5em;">NE 160238</div>	
						B. Generator's Facility ID No.	
						C. Generator's Tank Owner ID No.	
11. Waste Description (including Proper Class, and ID) a. Non Hazardous Waste b.  12. Containers Bulk  13. Total Quantity 28.62  14. Unit Tons  15. Waste Code						D. Transporter's Phone (505) 342-6464  Contact Person: Andy Landoll	
						E. Transporter's Phone   Contact Person:	
G. Additional Description for Materials Listed Above Hydrocarbon Impacted Soil  16. Special Handling Instructions and Additional Information						F. Facility's Phone 1-800-762-0241  Contact Person: J. Menicucci	
<b>GENERATOR'S CERTIFICATION:</b> I hereby declare the contents of this consignment are fully and accurately described above by shipping name and are classified, packed, marked, and labeled, and are in all respect in proper condition for transport by highway according to applicable federal and state regulations.							
17. Printed/Typed Name				Signature <i>John Miller</i>		Date 4-13-97	
18. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name <i>DAVID GOMEZ BARELA LR9</i>				Signature <i>David Gomez</i>		Date 4-8-97	
19. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name				Signature		Date	
20. Discrepancy Indication Space							
21. Facility Owner/Operator: Printed/Typed Name <i>DAVID CONPER</i>				Certification of receipt of petroleum-substance wastes covered by this manifest except as noted in Item 20. Signature <i>David Conper</i> Date 4-8-97			



Please type or print. (Form designed for use on elite/12-pitch typewriter.)

INSTRUCTIONS ON REVERSE SIDE.

PETROLEUM-SUBSTANCE WASTE MANIFEST			1. Generator's LPST ID No. or ST ID No.		2. Page 1 of /	
3. Generator's Name, Contact Person, and Mailing Address BJ Services 2708 W. County Rd Hobbs, NM 88240			A. State Manifest Document No. NE 160239			
			B. Generator's Facility ID No.			
4. Generator's Phone (505) 392-5556 Generator's Fax (505) 392-7307			C. Generator's Tank Owner ID No.			
5. Generator's Facility Name, Contact Person, and Physical Address						
6. Generator's Facility Phone ( ) Generator's Fax ( )			D. Transporter's Phone 1505) 242-6464 Contact Person: Andy Landoll			
7. Transporter 1 Company Name and Address C. S. I. P.O. Box 25547 Albuquerque, NM 87102			E. Transporter's Phone  Contact Person:			
8. Transporter 2 Company Name and Address			F. Facility's Phone 1-800-762-0241 Contact Person: J. Menicucci			
9. Designated Facility Name and Site Address RHINO Environmental 600 Yeah Landfarm Lea County, NM			10. Facility ID Number SE/45 SEC. 147-115R38 E. Lea County			
11. Waste Description (including Proper Class, and ID) a. Non Hazardous Waste b.		12. Containers Bulk	13. Total Quantity 23.32	14. Unit Tons	15. Waste Code	
G. Additional Description for Materials Listed Above Hydrocarbon Impacted Soil						
16. Special Handling Instructions and Additional Information						
<b>GENERATOR'S CERTIFICATION:</b> I hereby declare the contents of this consignment are fully and accurately described above by shipping name and are classified, packed, marked, and labeled, and are in all respect in proper condition for transport by highway according to applicable federal and state regulations.						
17. Printed/Typed Name			Signature Dan Mulla		Date 4-13-97	
18. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name			Signature		Date	
19. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name L. Ramirez #8 2			Signature Lloyd Stockham		Date 4-8-97	
20. Discrepancy Indication Space						
21. Facility Owner/Operator: Certification of receipt of petroleum-substance wastes covered by this manifest except as noted in Item 20. Printed/Typed Name ROYCE COOPER Signature Royce Cooper Date 4-8-97						



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INSTRUCTIONS ON REVERSE SIDE.

<b>PETROLEUM-SUBSTANCE WASTE MANIFEST</b>				1. Generator's LPST ID No. or ST ID No.		2. Page 1 of <b>1</b>	
3. Generator's Name, Contact Person, and Mailing Address <b>BS Services</b> <b>2708 W. County Rd</b> <b>Hobbs, NM 88240</b>  4. Generator's Phone (505) 392-5556 Generator's Fax (505) 392-7207  5. Generator's Facility Name, Contact Person, and Physical Address   6. Generator's Facility Phone (     ) Generator's Fax (     )						A. State Manifest Document No. <b>NE 160240</b>	
						B. Generator's Facility ID No.	
						C. Generator's Tank Owner ID No.	
7. Transporter 1 Company Name and Address <b>C.S.I.</b> <b>P.O. Box 25547</b> <b>Albuquerque, NM 87102</b>						D. Transporter's Phone <b>(505) 242-6464</b>  Contact Person: <b>Andy Landolf</b>	
8. Transporter 2 Company Name and Address						E. Transporter's Phone   Contact Person:	
9. Designated Facility Name and Site Address <b>RHINO Environmental</b> <b>600 Yeah Landfarm</b> <b>Lea County, NM</b>						F. Facility's Phone <b>1-800-762-0241</b>  Contact Person:	
10. Facility ID Number <b>SE/45 SEC 14.T-115R38E Lea County</b>						<b>J. Menicucci</b>	
11. Waste Description (including Proper Class, and ID)		12. Containers		13. Total Quantity		14. Unit	
a. <b>Non Hazardous Waste</b>		<b>BULK</b>		<b>23.22</b>		<b>Tons</b>	
b.							
G. Additional Description for Materials Listed Above <b>Hydrocarbon Impacted Soil</b>							
16. Special Handling Instructions and Additional Information							
<b>GENERATOR'S CERTIFICATION:</b> I hereby declare the contents of this consignment are fully and accurately described above by shipping name and are classified, packed, marked, and labeled, and are in all respect in proper condition for transport by highway according to applicable federal and state regulations.							
17. Printed/Typed Name				Signature		Date	
				<b>Menicucci</b>		<b>4-13-97</b>	
18. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name				Signature		Date	
19. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name				Signature		Date	
<b>L. Ramirez Trucking LR-5</b>				<b>Lorenzo Ramirez</b>		<b>4-8-97</b>	
20. Discrepancy Indication Space							
21. Facility Owner/Operator: Certification of receipt of petroleum-substance wastes covered by this manifest except as noted in Item 20. Printed/Typed Name <b>COOPER</b> Signature <b>Cooper</b> Date <b>4-8-97</b>							



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INSTRUCTIONS ON REVERSE SIDE.

PETROLEUM-SUBSTANCE WASTE MANIFEST		1. Generator's LPST ID No. or ST ID No.		2. Page 1 of 1	
3. Generator's Name, Contact Person, and Mailing Address R.J. Services 2708 W. County Rd Hobbs, NM 88240			A. State Manifest Document No. NE 160241		
4. Generator's Phone (505) 392-5556 Generator's Fax (505) 392-7307			B. Generator's Facility ID No.		
5. Generator's Facility Name, Contact Person, and Physical Address			C. Generator's Tank Owner ID No.		
6. Generator's Facility Phone ( ) Generator's Fax ( )			D. Transporter's Phone 505 242-6464 Contact Person: Andy Landoll		
7. Transporter 1 Company Name and Address C.S.I. P.O. Box 25542 Albuquerque, NM 87102			E. Transporter's Phone Contact Person:		
8. Transporter 2 Company Name and Address			F. Facility's Phone 1-800-762-0241 Contact Person: J. Menicucci		
9. Designated Facility Name and Site Address Rhino Environmental 600 Yeah Landfarm Lea County, NM					
10. Facility ID Number SE 145 SEC 14. T 115 R 38 E Lea County					
11. Waste Description (including Proper Class, and ID)		12. Containers	13. Total Quantity	14. Unit	15. Waste Code
a. Non Hazardous Waste		Bulk	24.86	Tons	
b.					
G. Additional Description for Materials Listed Above Hydrocarbon Impacted Soil					
16. Special Handling Instructions and Additional Information					
<b>GENERATOR'S CERTIFICATION:</b> I hereby declare the contents of this consignment are fully and accurately described above by shipping name and are classified, packed, marked, and labeled, and are in all respect in proper condition for transport by highway according to applicable federal and state regulations.					
17. Printed/Typed Name		Signature Dan Miller		Date 4-13-97	
18. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name George Goins 530-113		Signature George Goins		Date 4-8-97	
19. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name		Signature		Date	
20. Discrepancy Indication Space					
21. Facility Owner/Operator: Certification of receipt of petroleum-substance wastes covered by this manifest except as noted in Item 20. Printed/Typed Name Wayne Cooper Signature Wayne Cooper Date 4-8-97					



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INSTRUCTIONS ON REVERSE SIDE.

PETROLEUM-SUBSTANCE WASTE MANIFEST		1. Generator's LPST ID No. or ST ID No.		2. Page 1 of 1	
3. Generator's Name, Contact Person, and Mailing Address <b>BS Services</b> <b>2708 W. County Rd</b> <b>Hobbs, NM 88240</b>			A. State Manifest Document No. <b>№ 160242</b>		
			B. Generator's Facility ID No.		
			C. Generator's Tank Owner ID No.		
4. Generator's Phone (505) 392-5556 Generator's Fax (505) 392-7307					
5. Generator's Facility Name, Contact Person, and Physical Address					
6. Generator's Facility Phone ( ) Generator's Fax ( )					
7. Transporter 1 Company Name and Address <b>C.S.I.</b> <b>P.O. Box 25547</b> <b>Albuquerque, NM 87102</b>			D. Transporter's Phone <b>(505) 242-6464</b>  Contact Person: <b>Andy Landoll</b>		
8. Transporter 2 Company Name and Address			E. Transporter's Phone  Contact Person:		
9. Designated Facility Name and Site Address <b>Rhino Environmental</b> <b>Goos Yeh Landfarm</b> <b>Lea County, NM</b>			F. Facility's Phone <b>1-800-762-0241</b>  Contact Person: <b>J. Menicucci</b>		
10. Facility ID Number <b>SE/45 SEC 14.7 115 R38E Lea County</b>					
11. Waste Description (including Proper Class, and ID)		12. Containers	13. Total Quantity	14. Unit	15. Waste Code
a. <b>Non Hazardous Waste</b>		<b>Bulk</b>	<b>23.03</b>	<b>Tons</b>	
b.					
G. Additional Description for Materials Listed Above <b>Hydrocarbon Impacted Soil</b>					
16. Special Handling Instructions and Additional Information <b>/</b>					
<b>GENERATOR'S CERTIFICATION:</b> I hereby declare the contents of this consignment are fully and accurately described above by shipping name and are classified, packed, marked, and labeled, and are in all respect in proper condition for transport by highway according to applicable federal and state regulations.					
17. Printed/Typed Name			Signature <b>[Signature]</b>		Date <b>4-13-97</b>
18. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name <b>DAVID GOMEZ ZARELA LR9</b>			Signature <b>David M. Zarela</b>		Date <b>4-8-97</b>
19. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name			Signature		Date
20. Discrepancy Indication Space					
21. Facility Owner/Operator: Certification of receipt of petroleum-substance wastes covered by this manifest except as noted in Item 20. Printed/Typed Name <b>Roy F Cooper</b> Signature <b>[Signature]</b> Date <b>4-8-97</b>					



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INSTRUCTIONS ON REVERSE SIDE.

PETROLEUM-SUBSTANCE WASTE MANIFEST				1. Generator's LPST ID No. or ST ID No.		2. Page 1 of 1			
3. Generator's Name, Contact Person, and Mailing Address B J Services 3708 W. County Rd Hobbs, NM 88240				A. State Manifest Document No. NE 160243					
				B. Generator's Facility ID No.					
4. Generator's Phone (505) 392-5556 Generator's Fax (505) 392-7307				C. Generator's Tank Owner ID No.					
5. Generator's Facility Name, Contact Person, and Physical Address									
6. Generator's Facility Phone ( ) Generator's Fax ( )				D. Transporter's Phone (505) 242-6464 Contact Person: Andy Goodell					
7. Transporter 1 Company Name and Address C.S.I. P.O. Box 25547 Albuquerque, NM 87102				E. Transporter's Phone Contact Person:					
8. Transporter 2 Company Name and Address				F. Facility's Phone 1-800-762-0241 Contact Person: J. Menicucci					
9. Designated Facility Name and Site Address Rhino Environmental 600 Yeah Landfarm Lea County, NM				10. Facility ID Number SE 45 SEC 14. T 11.5 R 38 E Lea County					
11. Waste Description (including Proper Class, and ID)		12. Containers		13. Total Quantity		14. Unit		15. Waste Code	
a. Non Hazardous Waste		BULK		25.52		TONS			
b.									
G. Additional Description for Materials Listed Above Hydrocarbon Impacted Soil									
16. Special Handling Instructions and Additional Information									
<b>GENERATOR'S CERTIFICATION:</b> I hereby declare the contents of this consignment are fully and accurately described above by shipping name and are classified, packed, marked, and labeled, and are in all respect in proper condition for transport by highway according to applicable federal and state regulations.									
17. Printed/Typed Name				Signature Dan Miller		Date 4-13-97			
18. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name				Signature		Date			
19. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name L. Ramsey #8				Signature L. Ramsey		Date 4-8-97			
20. Discrepancy Indication Space									
21. Facility Owner/Operator: Certification of receipt of petroleum-substance wastes covered by this manifest except as noted in Item 20. Printed/Typed Name ROYCE COOPER Signature Royce Cooper Date 4-8-97									



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INSTRUCTIONS ON REVERSE SIDE.

PETROLEUM-SUBSTANCE WASTE MANIFEST		1. Generator's LPST ID No. or ST ID No.		2. Page 1 of /	
3. Generator's Name, Contact Person, and Mailing Address BJS Services 2708 W. County Rd Hobbs, NM 88240			A. State Manifest Document No. NE 160244		
			B. Generator's Facility ID No.		
4. Generator's Phone (505) 332-5556 Generator's Fax (505) 332-7307			C. Generator's Tank Owner ID No.		
5. Generator's Facility Name, Contact Person, and Physical Address					
6. Generator's Facility Phone ( ) Generator's Fax ( )			D. Transporter's Phone (505) 242-4464 Contact Person: Andy Landell		
7. Transporter 1 Company Name and Address C.S.I. PO Box 25547 Albuquerque, NM 87102			E. Transporter's Phone  Contact Person:		
8. Transporter 2 Company Name and Address			F. Facility's Phone 1-800-762-0241 Contact Person: J. Menicucci		
9. Designated Facility Name and Site Address Rhino Environmental Goodeak Landfarm Lea County NM			10. Facility ID Number SE\45SEC\147115R38 E. Lea County		
11. Waste Description (including Proper Class, and ID)		12. Containers	13. Total Quantity	14. Unit	15. Waste Code
a. Non Hazardous waste		BULK	21.34	Tons	
b.					
G. Additional Description for Materials Listed Above Hydrocarbon Impacted Soil					
16. Special Handling Instructions and Additional Information					
<b>GENERATOR'S CERTIFICATION:</b> I hereby declare the contents of this consignment are fully and accurately described above by shipping name and are classified, packed, marked, and labeled, and are in all respect in proper condition for transport by highway according to applicable federal and state regulations.					
17. Printed/Typed Name		Signature [Signature]		Date 4-13-97	
18. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name		Signature		Date	
19. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name L. Ramirez Trucking LR-5		Signature [Signature]		Date 4-8-97	
20. Discrepancy Indication Space					
21. Facility Owner/Operator: Printed/Typed Name ROYCE CONPER		Certification of receipt of petroleum-substance waste covered by this manifest except as noted in Item 20. Signature [Signature] Date 4-8-97			



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INSTRUCTIONS ON REVERSE SIDE.

<b>PETROLEUM-SUBSTANCE WASTE MANIFEST</b>				1. Generator's LPST ID No. or ST ID No.		2. Page 1 of 1			
3. Generator's Name, Contact Person, and Mailing Address BJ Services 2708 W. County Rd Hobbs NM 88240						A. State Manifest Document No. NE 160245			
4. Generator's Phone (505) 372-5526      Generator's Fax (505) 372-7307						B. Generator's Facility ID No.			
5. Generator's Facility Name, Contact Person, and Physical Address						C. Generator's Tank Owner ID No.			
6. Generator's Facility Phone (   )      Generator's Fax (   )						D. Transporter's Phone 505 242-6464 Contact Person: Andy Lundall			
7. Transporter 1 Company Name and Address CSI P.O. Box 25547 Albuquerque, NM 87102						E. Transporter's Phone  Contact Person:			
8. Transporter 2 Company Name and Address						F. Facility's Phone 1-800-762-0241 Contact Person: J. Menicucci			
9. Designated Facility Name and Site Address Rhino Environmental 600 Xeq Landfarm Lea County, NM						10. Facility ID Number SE 145 SEC 14 T115 R38E Lea County			
11. Waste Description (including Proper Class, and ID)		12. Containers		13. Total Quantity		14. Unit		15. Waste Code	
a. Non Hazardous Waste		Bulk		22.69		Tons			
b.									
G. Additional Description for Materials Listed Above Hydrocarbon Impacted Soil									
16. Special Handling Instructions and Additional Information									
<b>GENERATOR'S CERTIFICATION:</b> I hereby declare the contents of this consignment are fully and accurately described above by shipping name and are classified, packed, marked, and labeled, and are in all respect in proper condition for transport by highway according to applicable federal and state regulations.									
17. Printed/Typed Name					Signature Dan Miller		Date 4-13-97		
18. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name DAVID GOMEZ BARKLA LR9					Signature David A. Barkla		Date 4-8-97		
19. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name					Signature		Date		
20. Discrepancy Indication Space									
21. Facility Owner/Operator: Printed/Typed Name JOYCE COOPER					Certification of receipt of petroleum-substance wastes covered by this manifest except as noted in Item 20. Signature Date 4-8-97				



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INSTRUCTIONS ON REVERSE SIDE.

PETROLEUM-SUBSTANCE WASTE MANIFEST		1. Generator's LPST ID No. or ST ID No.		2. Page 1 of 1	
3. Generator's Name, Contact Person, and Mailing Address B.J. Services 2708 W. County Rd Hobbs NM 88240			A. State Manifest Document No. NE 160246		
4. Generator's Phone (505) 392-5526 Generator's Fax (505) 342-7307			B. Generator's Facility ID No.		
5. Generator's Facility Name, Contact Person, and Physical Address			C. Generator's Tank Owner ID No.		
6. Generator's Facility Phone ( ) Generator's Fax ( )			D. Transporter's Phone 15051242-6464 Contact Person: Andy Landoll		
7. Transporter 1 Company Name and Address CSI P.O. Box 25547 Albuquerque, NM 87102			E. Transporter's Phone  Contact Person:		
8. Transporter 2 Company Name and Address			F. Facility's Phone 1-800-762-0241 Contact Person: J. Menicucci		
9. Designated Facility Name and Site Address Rhino Environmental 600 Ypa Land farm Lea County, NM			10. Facility ID Number SE 45 SEC 147115 R38E E Lea County		
11. Waste Description (including Proper Class, and ID) a. Non Hazardous waste b.		12. Containers Bulk	13. Total Quantity 25.57	14. Unit Tons	15. Waste Code
G. Additional Description for Materials Listed Above Hydrocarbon Impacted Soil					
16. Special Handling Instructions and Additional Information					
<b>GENERATOR'S CERTIFICATION:</b> I hereby declare the contents of this consignment are fully and accurately described above by shipping name and are classified, packed, marked, and labeled, and are in all respect in proper condition for transport by highway according to applicable federal and state regulations.					
17. Printed/Typed Name			Signature Dan Miller		Date 4-13-97
18. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name George Goins 530-113			Signature George Goins		Date 4-8-97
19. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name			Signature		Date
20. Discrepancy Indication Space					
21. Facility Owner/Operator: Certification of receipt of petroleum-substance wastes covered by this manifest except as noted in Item 20. Printed/Typed Name DORCE COOPER Signature DORCE COOPER Date 4-8-97					



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INSTRUCTIONS ON REVERSE SIDE.

<b>PETROLEUM-SUBSTANCE WASTE MANIFEST</b>				1. Generator's LPST ID No. or ST ID No.		2. Page 1 of <div style="text-align: center; font-size: 2em;">1</div>	
3. Generator's Name, Contact Person, and Mailing Address <i>SS Services Company U.S.A.</i> <i>2768 W. County Rd.</i> <i>Hobbs, NM 88240</i>  4. Generator's Phone (505) 392-5556 Generator's Fax (505) 392-7307  5. Generator's Facility Name, Contact Person, and Physical Address   6. Generator's Facility Phone (     ) Generator's Fax (     )						A. State Manifest Document No.  <div style="text-align: center; font-size: 1.5em;">NE 160256</div>	
						B. Generator's Facility ID No.  	
						C. Generator's Tank Owner ID No.  	
7. Transporter 1 Company Name and Address <i>C.S.I.</i> <i>P.O. Box 25547</i> <i>Albuquerque, NM 87102</i>						D. Transporter's Phone <i>(505) 242-6464</i>  Contact Person: <i>Andy Lyndell</i>	
8. Transporter 2 Company Name and Address  						E. Transporter's Phone  Contact Person:	
9. Designated Facility Name and Site Address <i>Rhino Environmental</i> <i>Goo Ypa Landfarm</i> <i>Lpa County, NM</i>						F. Facility's Phone <i>1-500-762-0241</i>  Contact Person: <i>J. Menicucci</i>	
10. Facility ID Number <i>SE/4SEC-14T11SR38 E. Lpa County</i>							
11. Waste Description (including Proper Class, and ID)		12. Containers		13. Total Quantity		14. Unit	
a. <i>Non Hazardous Waste</i>		<i>Bulk</i>		<i>22.98</i>		<i>Tons</i>	
b.							
G. Additional Description for Materials Listed Above <div style="font-size: 1.5em; margin-top: 10px;"><i>Hydrocarbon Impacted Soil</i></div>							
16. Special Handling Instructions and Additional Information							
<b>GENERATOR'S CERTIFICATION:</b> I hereby declare the contents of this consignment are fully and accurately described above by shipping name and are classified, packed, marked, and labeled, and are in all respect in proper condition for transport by highway according to applicable federal and state regulations.							
17. Printed/Typed Name				Signature <i>San Miller</i>		Date <i>4-13-97</i>	
18. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name				Signature		Date	
19. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name <i>L Ramirez #8</i>				Signature <i>Lloyd Stockham</i>		Date <i>4-8-97</i>	
20. Discrepancy Indication Space							
21. Facility Owner/Operator: Printed/Typed Name <i>ROVCEP COOPER</i>				Signature <i>Ray Cooper</i>		Date <i>4-8-97</i>	



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INSTRUCTIONS ON REVERSE SIDE.

PETROLEUM-SUBSTANCE WASTE MANIFEST		1. Generator's LPST ID No. or ST ID No.		2. Page 1 of 1	
3. Generator's Name, Contact Person, and Mailing Address BJ services company, USA 3708 W. Country Rd Hobbs NM 88240			A. State Manifest Document No. No 160366		
			B. Generator's Facility ID No.		
			C. Generator's Tank Owner ID No.		
4. Generator's Phone (505) 392-5556 Generator's Fax (505) 392-7307					
5. Generator's Facility Name, Contact Person, and Physical Address					
6. Generator's Facility Phone ( ) Generator's Fax ( )					
7. Transporter 1 Company Name and Address C.S.I. P.O. Box 25547 Albuquerque, NM 87102			D. Transporter's Phone (505) 242-4646 Contact Person: Andy Landell		
8. Transporter 2 Company Name and Address			E. Transporter's Phone Contact Person:		
9. Designated Facility Name and Site Address Rhino Environmental Goo Yeg Landfarm Lea County, NM			F. Facility's Phone 1-800-762-0241 Contact Person: J. Menicucci		
10. Facility ID Number SE/4 SEC. 14 T 11 SR 38 E Lea County					
11. Waste Description (including Proper Class, and ID)		12. Containers	13. Total Quantity	14. Unit	15. Waste Code
a. Non Hazardous waste		Bulk	26.91	TONS	
b.					
G. Additional Description for Materials Listed Above Hydrocarbon Impacted Soil					
16. Special Handling Instructions and Additional Information					
GENERATOR'S CERTIFICATION: I hereby declare the contents of this consignment are fully and accurately described above by shipping name and are classified, packed, marked, and labeled, and are in all respect in proper condition for transport by highway according to applicable federal and state regulations.					
17. Printed/Typed Name			Signature [Signature]		Date 4-13-97
18. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name			Signature [Signature]		Date
19. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name L. Ramirez Trucking LR-5			Signature [Signature]		Date 4-8-97
20. Discrepancy Indication Space					
21. Facility Owner/Operator: Printed/Typed Name JOICE COOPER			Certification of receipt of petroleum-substance wastes covered by this manifest except as noted in Item 20. Signature [Signature] Date 4-8-97		



Please type or print. (Form designed for use on elite/12-pitch typewriter.)

INSTRUCTIONS ON REVERSE SIDE.

PETROLEUM-SUBSTANCE WASTE MANIFEST		1. Generator's LPST ID No. or ST ID No.		2. Page 1 of 1	
3. Generator's Name, Contact Person, and Mailing Address B.J. Services U.S.A. 2708 W. County Rd. Hobbs, NM 88240			A. State Manifest Document No. No 160367		
4. Generator's Phone (505) 392-5526 Generator's Fax (505) 392-7307			B. Generator's Facility ID No.		
5. Generator's Facility Name, Contact Person, and Physical Address			C. Generator's Tank Owner ID No.		
6. Generator's Facility Phone ( ) Generator's Fax ( )			D. Transporter's Phone (505) 242-6464 Contact Person: Andy Landell		
7. Transporter 1 Company Name and Address C.S.I. P.O. Box 25547 Albuquerque, NM 87102			E. Transporter's Phone  Contact Person:		
8. Transporter 2 Company Name and Address			F. Facility's Phone 1-800-762-0241 Contact Person: J. Menicucci		
9. Designated Facility Name and Site Address Rhino Environmental 600 Yeg Landfarm Lea County, NM			10. Facility ID Number SE/4SEC.147115R3BE, Lea County		
11. Waste Description (including Proper Class, and ID)		12. Containers	13. Total Quantity	14. Unit	15. Waste Code
a. non hazardous waste		Bulk	21.99	Tons	
b.					
G. Additional Description for Materials Listed Above Hydrocarbon Impacted Soil					
16. Special Handling Instructions and Additional Information					
GENERATOR'S CERTIFICATION: I hereby declare the contents of this consignment are fully and accurately described above by shipping name and are classified, packed, marked, and labeled, and are in all respect in proper condition for transport by highway according to applicable federal and state regulations.					
17. Printed/Typed Name			Signature Dan Miller		Date 4-13-97
18. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name			Signature		Date
19. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name L Ramirez #5			Signature Lloyd Mickham		Date 4-9-97
20. Discrepancy Indication Space					
21. Facility Owner/Operator: Certification of receipt of petroleum-substance wastes covered by this manifest except as noted in Item 20. Printed/Typed Name ROYCE COOPER Signature Royce Cooper Date 4-9-97					



Please type or print. (Form designed for use on elite/12-pitch typewriter.)

INSTRUCTIONS ON REVERSE SIDE.

PETROLEUM-SUBSTANCE WASTE MANIFEST		1. Generator's LPST ID No. or ST ID No.		2. Page 1 of 1	
3. Generator's Name, Contact Person, and Mailing Address B.J. Services U.S.A. 2708 W. County Rd. Hobbs NM 88240			A. State Manifest Document No. No 160368		
			B. Generator's Facility ID No.		
4. Generator's Phone (505) 392-5556 Generator's Fax (505) 392-7307			C. Generator's Tank Owner ID No.		
5. Generator's Facility Name, Contact Person, and Physical Address			D. Transporter's Phone (505) 242-4464 Contact Person: J. Menicucci		
6. Generator's Facility Phone ( ) Generator's Fax ( )			E. Transporter's Phone Contact Person:		
7. Transporter 1 Company Name and Address C.S.I. P.O. Box 25547 Albuquerque, NM 87102			F. Facility's Phone 1-800-762-0241 Contact Person: J. Menicucci		
8. Transporter 2 Company Name and Address					
9. Designated Facility Name and Site Address Rhino Environmental Goo Yee Landfarm Lea County, NM					
10. Facility ID Number SE 14 SEC. 14 T 15 R 38 E, Lea County					
11. Waste Description (including Proper Class, and ID)		12. Containers	13. Total Quantity	14. Unit	15. Waste Code
a. Non Hazardous waste		Bulk	21.06	Tons	
b.					
G. Additional Description for Materials Listed Above Hydrocarbon Impacted Soil					
16. Special Handling Instructions and Additional Information					
<b>GENERATOR'S CERTIFICATION:</b> I hereby declare the contents of this consignment are fully and accurately described above by shipping name and are classified, packed, marked, and labeled, and are in all respect in proper condition for transport by highway according to applicable federal and state regulations.					
17. Printed/Typed Name			Signature Dan Miller		Date 4-13-97
18. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name			Signature Riviera		Date
19. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name L. Ramirez #8			Signature		Date
20. Discrepancy Indication Space					
21. Facility Owner/Operator: Printed/Typed Name ROYCE COOPER			Certification of receipt of petroleum-substance wastes covered by this manifest except as noted in Item 20. Signature Royce Cooper Date 4-9-97		



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INSTRUCTIONS ON REVERSE SIDE.

PETROLEUM-SUBSTANCE WASTE MANIFEST		1. Generator's LPST ID No. or ST ID No.		2. Page 1 of 1	
3. Generator's Name, Contact Person, and Mailing Address B.J. Services U.S.A. 2708 W. County Rd. Hobbs NM 88240			A. State Manifest Document No. NE 160369		
			B. Generator's Facility ID No.		
4. Generator's Phone (505) 392-5556 Generator's Fax (505) 392-7307			C. Generator's Tank Owner ID No.		
5. Generator's Facility Name, Contact Person, and Physical Address			D. Transporter's Phone 15051242-6464 Contact Person: J. Menicucci		
6. Generator's Facility Phone ( ) Generator's Fax ( )			E. Transporter's Phone Contact Person:		
7. Transporter 1 Company Name and Address C.S.I. PO Box 25547 Albuquerque, NM 87102			F. Facility's Phone 1-800-762-0241 Contact Person: J. Menicucci		
8. Transporter 2 Company Name and Address					
9. Designated Facility Name and Site Address Rhino Environmental Goo Yee Landfarm Lea County, NM					
10. Facility ID Number SE\4SEC\4T\115R38E\LEA County					
11. Waste Description (including Proper Class, and ID)		12. Containers	13. Total Quantity	14. Unit	15. Waste Code
a. Non Hazardous waste		Bulk	22.28	TONS	
b.					
G. Additional Description for Materials Listed Above Hydrocarbon Impacted Soil					
16. Special Handling Instructions and Additional Information					
GENERATOR'S CERTIFICATION: I hereby declare the contents of this consignment are fully and accurately described above by shipping name and are classified, packed, marked, and labeled, and are in all respect in proper condition for transport by highway according to applicable federal and state regulations.					
17. Printed/Typed Name		Signature Dan Miller		Date 4-13-97	
18. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name		Signature		Date	
19. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name DAVID GOMEZ RANDE		Signature David H. Rand		Date 4-9-97	
20. Discrepancy Indication Space					
21. Facility Owner/Operator: Certification of receipt of petroleum-substance wastes covered by this manifest except as noted in Item 20. Printed/Typed Name ROYCE COOPER Signature Royce Cooper Date 4-9-97					



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INSTRUCTIONS ON REVERSE SIDE.

PETROLEUM-SUBSTANCE WASTE MANIFEST		1. Generator's LPST ID No. or ST ID No.		2. Page 1 of 1	
3. Generator's Name, Contact Person, and Mailing Address B.D. Services 2708 W. County Rd Hobbs, NM 88240			A. State Manifest Document No. No 160370		
4. Generator's Phone (505) 392-5556 Generator's Fax (505) 392-7307			B. Generator's Facility ID No.		
5. Generator's Facility Name, Contact Person, and Physical Address			C. Generator's Tank Owner ID No.		
6. Generator's Facility Phone ( ) Generator's Fax ( )			D. Transporter's Phone 15051242-6464 Contact Person: J. Menicucci		
7. Transporter 1 Company Name and Address CSI P.O. Box 25547 Albuquerque, NM 87102			E. Transporter's Phone  Contact Person:		
8. Transporter 2 Company Name and Address			F. Facility's Phone 1-800-762-0240 Contact Person: J. Menicucci		
9. Designated Facility Name and Site Address Rhino Environmental 600 Yea Landfarm Lea County NM			10. Facility ID Number SE145EC 147115R2PE Lea County		
11. Waste Description (including Proper Class, and ID) a. Non Hazardous waste b.		12. Containers Bulk	13. Total Quantity 24.89	14. Unit Tons	15. Waste Code
G. Additional Description for Materials Listed Above Hydrocarbon Impacted Soil					
16. Special Handling Instructions and Additional Information					
<b>GENERATOR'S CERTIFICATION:</b> I hereby declare the contents of this consignment are fully and accurately described above by shipping name and are classified, packed, marked, and labeled, and are in all respect in proper condition for transport by highway according to applicable federal and state regulations.					
17. Printed/Typed Name		Signature Dan Miller		Date 4-13-97	
18. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name George Goins 530-113		Signature George Goins		Date 4-9-97	
19. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name		Signature		Date	
20. Discrepancy Indication Space					
21. Facility Owner/Operator: Printed/Typed Name KORF COOPER		Certification of receipt of petroleum-substance wastes covered by this manifest except as noted in Item 20. Signature Kara B. Miller Date 4-9-97			



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INSTRUCTIONS ON REVERSE SIDE.

PETROLEUM-SUBSTANCE WASTE MANIFEST		1. Generator's LPST ID No. or ST ID No.		2. Page 1 of 1	
3. Generator's Name, Contact Person, and Mailing Address B-J Services 2708 W. County Rd Hobbs, NM 88240			A. State Manifest Document No. No 160371		
			B. Generator's Facility ID No.		
			C. Generator's Tank Owner ID No.		
4. Generator's Phone (505) 392-5526 Generator's Fax (505) 392-7307					
5. Generator's Facility Name, Contact Person, and Physical Address					
6. Generator's Facility Phone ( ) Generator's Fax ( )					
7. Transporter 1 Company Name and Address CSI P.O. Box 25547 Albuquerque, NM 87102			D. Transporter's Phone (505) 342-6464 Contact Person: J. Menicucci		
8. Transporter 2 Company Name and Address			E. Transporter's Phone  Contact Person:		
9. Designated Facility Name and Site Address Rhino Environmental Goodyear Land Farm Lea County, NM			F. Facility's Phone 1-800-762-0241 Contact Person: J. Menicucci		
10. Facility ID Number SE 45EC 147115R38E Lea County					
11. Waste Description (including Proper Class, and ID)		12. Containers	13. Total Quantity	14. Unit	15. Waste Code
a. Non Hazardous Waste		Bulk	21.45	Tons	
b.					
G. Additional Description for Materials Listed Above Hydrocarbon Impacted Soil					
16. Special Handling Instructions and Additional Information					
<b>GENERATOR'S CERTIFICATION:</b> I hereby declare the contents of this consignment are fully and accurately described above by shipping name and are classified, packed, marked, and labeled, and are in all respect in proper condition for transport by highway according to applicable federal and state regulations.					
17. Printed/Typed Name			Signature Dan Miller Date 4-13-97		
18. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name DAVIS CORNEZ RARELL #9			Signature David H. Rarell Date 4-9-97		
19. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name			Signature Date		
20. Discrepancy Indication Space					
21. Facility Owner/Operator: Certification of receipt of petroleum-substance wastes covered by this manifest except as noted in Item 20. Printed/Typed Name KARCE COOPER Signature KARCE COOPER Date 4-9-97					



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INSTRUCTIONS ON REVERSE SIDE.

PETROLEUM-SUBSTANCE WASTE MANIFEST		1. Generator's LPST ID No. or ST ID No.		2. Page 1 of 1	
3. Generator's Name, Contact Person, and Mailing Address RJ Services 9708 W. County Rd. Hobbs, NM 88240			A. State Manifest Document No. No 160372		
			B. Generator's Facility ID No.		
			C. Generator's Tank Owner ID No.		
4. Generator's Phone (505) 392-5526 Generator's Fax (505) 392-7307					
5. Generator's Facility Name, Contact Person, and Physical Address					
6. Generator's Facility Phone ( ) Generator's Fax ( )					
7. Transporter 1 Company Name and Address CSI P.O. Box 25547 Albuquerque, NM 87102			D. Transporter's Phone (505) 242-6464 Contact Person: Andy Landoll		
8. Transporter 2 Company Name and Address			E. Transporter's Phone Contact Person:		
9. Designated Facility Name and Site Address Rhino Environmental 600 Yea Landfarm Lea County, NM			F. Facility's Phone 1-800-762-0241 Contact Person: J. Menicucci		
10. Facility ID Number SE\4 SEC. 14 T 11 S R38 E. Lea County					
11. Waste Description (including Proper Class, and ID)		12. Containers	13. Total Quantity	14. Unit	15. Waste Code
a. Non Hazardous waste		Bulk	22.20	Tons	
b.					
G. Additional Description for Materials Listed Above Hydrocarbon Impacted Soil					
16. Special Handling Instructions and Additional Information					
GENERATOR'S CERTIFICATION: I hereby declare the contents of this consignment are fully and accurately described above by shipping name and are classified, packed, marked, and labeled, and are in all respect in proper condition for transport by highway according to applicable federal and state regulations.					
17. Printed/Typed Name			Signature		Date
			Dan Miller		4-13-97
18. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name			Signature		Date
19. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name			Signature		Date
L. Ramirez #5			L. Ramirez		4-9-97
20. Discrepancy Indication Space					
21. Facility Owner/Operator: Certification of receipt of petroleum-substance wastes covered by this manifest except as noted in Item 20.					
Printed/Typed Name		Signature		Date	
ROYCE CONPER		Royce Conper		4-9-97	



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INSTRUCTIONS ON REVERSE SIDE.

<b>PETROLEUM-SUBSTANCE WASTE MANIFEST</b>		1. Generator's LPST ID No. or ST ID No.		2. Page 1 of <u>1</u>	
3. Generator's Name, Contact Person, and Mailing Address <i>BJ Services</i> <i>2708 W. Country Club Rd</i> <i>Hobbs, NM 88240</i> 4. Generator's Phone (505) 392-5526      Generator's Fax (505) 392-7307 5. Generator's Facility Name, Contact Person, and Physical Address 6. Generator's Facility Phone (    )      Generator's Fax (    )				A. State Manifest Document No.  <div style="text-align: center; font-size: 1.2em;">NE 160373</div>	
				B. Generator's Facility ID No.	
				C. Generator's Tank Owner ID No.	
7. Transporter 1 Company Name and Address <i>CSI</i> <i>P.O. Box 25547</i> <i>Albuquerque, NM 87102</i>				D. Transporter's Phone <i>(505) 242-6464</i> Contact Person: <i>Andy Landell</i>	
8. Transporter 2 Company Name and Address  				E. Transporter's Phone  Contact Person:	
9. Designated Facility Name and Site Address <i>Rhino Environmental</i> <i>Goodyear Landfarm</i> <i>Lea County, NM</i>				F. Facility's Phone <i>1-800-762-0241</i> Contact Person: <i>J. Menicucci</i>	
10. Facility ID Number <i>SE14 SEC. 14 T 11 S R 38 E. Lea County</i>					
11. Waste Description (including Proper Class, and ID)		12. Containers		13. Total Quantity	
a. <i>Non Hazardous waste</i>		<i>Bulk</i>		<i>24.80</i>	
b.				<i>Tons</i>	
G. Additional Description for Materials Listed Above <div style="font-size: 1.2em; margin-top: 10px;"><i>Hydrocarbon Impacted Soil</i></div>					
16. Special Handling Instructions and Additional Information					
<b>GENERATOR'S CERTIFICATION:</b> I hereby declare the contents of this consignment are fully and accurately described above by shipping name and are classified, packed, marked, and labeled, and are in all respect in proper condition for transport by highway according to applicable federal and state regulations.					
17. Printed/Typed Name			Signature <i>Landell</i>		Date <i>4-13-97</i>
18. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name <i>J. Ramirez #8</i>			Signature <i>Rivera</i>		Date <i>4-9-97</i>
19. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name			Signature		Date
20. Discrepancy Indication Space					
21. Facility Owner/Operator: Certification of receipt of petroleum-substance wastes covered by this manifest except as noted in Item 20. <div style="display: flex; justify-content: space-between; align-items: flex-end;"> <div>           Printed/Typed Name  <div style="font-size: 1.5em;"><i>ROVCE COOPER</i></div> </div> <div>           Signature  <div style="font-size: 1.5em;"><i>[Signature]</i></div> </div> <div>           Date  <div style="font-size: 1.5em;"><i>4-9-97</i></div> </div> </div>					



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INSTRUCTIONS ON REVERSE SIDE.

PETROLEUM-SUBSTANCE WASTE MANIFEST				1. Generator's LPST ID No. or ST ID No.		2. Page 1 of 1			
3. Generator's Name, Contact Person, and Mailing Address BJ Services 2708 W. Country Club Rd Hobbs, NM 88240				A. State Manifest Document No. NE 160374					
				B. Generator's Facility ID No.					
4. Generator's Phone (505) 392-5526 Generator's Fax (505) 392-7307				C. Generator's Tank Owner ID No.					
5. Generator's Facility Name, Contact Person, and Physical Address				D. Transporter's Phone (505) 242-6464 Contact Person: Andy Landolf					
6. Generator's Facility Phone ( ) Generator's Fax ( )				E. Transporter's Phone  Contact Person:					
7. Transporter 1 Company Name and Address CSI P.O. Box 25547 Albuquerque, NM 87102				F. Facility's Phone 1-800-762-0341 Contact Person: J. Manicucci					
8. Transporter 2 Company Name and Address									
9. Designated Facility Name and Site Address Rhino Environmental Goodyea Landfarm Lea County, NM									
10. Facility ID Number SE\4 SEC. 14 T15R38 E, Lea County									
11. Waste Description (including Proper Class, and ID)		12. Containers		13. Total Quantity		14. Unit		15. Waste Code	
a. Non Hazardous waste		Bulk		24.49		Tons			
b.									
G. Additional Description for Materials Listed Above Hydrocarbon Impacted Soil									
16. Special Handling Instructions and Additional Information									
GENERATOR'S CERTIFICATION: I hereby declare the contents of this consignment are fully and accurately described above by shipping name and are classified, packed, marked, and labeled, and are in all respect in proper condition for transport by highway according to applicable federal and state regulations.									
17. Printed/Typed Name				Signature		Date			
				[Signature]		4-13-97			
18. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name				Signature		Date			
George Goins 530-113				[Signature]		4-9-97			
19. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name				Signature		Date			
20. Discrepancy Indication Space									
21. Facility Owner/Operator: Certification of receipt of petroleum-substance wastes covered by this manifest except as noted in Item 20. Printed/Typed Name Signature Date									
ROYCE COOPER				[Signature]		4-9-97			



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INSTRUCTIONS ON REVERSE SIDE.

PETROLEUM-SUBSTANCE WASTE MANIFEST		1. Generator's LPST ID No. or ST ID No.	2. Page 1 of 1		
3. Generator's Name, Contact Person, and Mailing Address BJ Services 2708 W. Country Club Rd Hobbs NM 88240		A. State Manifest Document No. NE 160375			
4. Generator's Phone (505) 392-5526 Generator's Fax (505) 392-7302		B. Generator's Facility ID No.			
5. Generator's Facility Name, Contact Person, and Physical Address		C. Generator's Tank Owner ID No.			
6. Generator's Facility Phone ( ) Generator's Fax ( )		D. Transporter's Phone (505) 342-6464 Contact Person: Andy Landoll			
7. Transporter 1 Company Name and Address C.S.I. P.O. Box 2554 Albuquerque, NM 87102		E. Transporter's Phone			
8. Transporter 2 Company Name and Address		F. Facility's Phone 1-800-762-0241 Contact Person: J. Menicucci			
9. Designated Facility Name and Site Address Rhino Environmental Goodyea Landfarm Lea County, NM		10. Facility ID Number SE 14 Sec. 14 T115 R38 E. Lea County			
11. Waste Description (including Proper Class, and ID)	12. Containers	13. Total Quantity	14. Unit	15. Waste Code	
a. Non Hazardous Waste	Bulk	24.24	Tons		
b.					
G. Additional Description for Materials Listed Above Hydrocarbon Impacted Soil					
16. Special Handling Instructions and Additional Information					
<b>GENERATOR'S CERTIFICATION:</b> I hereby declare the contents of this consignment are fully and accurately described above by shipping name and are classified, packed, marked, and labeled, and are in all respect in proper condition for transport by highway according to applicable federal and state regulations.					
17. Printed/Typed Name		Signature		Date	
		[Signature]		4-13-97	
18. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name		Signature		Date	
DAVID GOMEZ PARELA #9		[Signature]		4-9-97	
19. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name		Signature		Date	
20. Discrepancy Indication Space					
21. Facility Owner/Operator: Certification of receipt of petroleum-substance wastes covered by this manifest except as noted in Item 20.					
Printed/Typed Name		Signature		Date	
ROSE COOPER		[Signature]		4-9-97	



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INSTRUCTIONS ON REVERSE SIDE.

PETROLEUM-SUBSTANCE WASTE MANIFEST		1. Generator's LPST ID No. or ST ID No.		2. Page 1 of 1	
3. Generator's Name, Contact Person, and Mailing Address BJ Services 2708 W. Country Club Hobbs, NM 88240 4. Generator's Phone (505) 392-5526 Generator's Fax (505) 392-7307			A. State Manifest Document No. NE 160376		
			B. Generator's Facility ID No.		
5. Generator's Facility Name, Contact Person, and Physical Address			C. Generator's Tank Owner ID No.		
6. Generator's Facility Phone ( ) Generator's Fax ( )					
7. Transporter 1 Company Name and Address C.S.I. P.O. Box 25547 Albuquerque, NM 87102			D. Transporter's Phone (505) 242-6464 Contact Person: Andy Landoll		
8. Transporter 2 Company Name and Address			E. Transporter's Phone Contact Person:		
9. Designated Facility Name and Site Address Rhino Environmental 600 Xceland Farm Lea County, NM			F. Facility's Phone 1-800-762-0241 Contact Person: J. Menicucci		
10. Facility ID Number SE/45EC/14T115R38 E. Lea County					
11. Waste Description (including Proper Class, and ID)		12. Containers	13. Total Quantity	14. Unit	15. Waste Code
a. Non Hazardous Waste		Bulk	23.50	Tons	
b.					
G. Additional Description for Materials Listed Above Hydrocarbon Impacted Soil					
16. Special Handling Instructions and Additional Information					
GENERATOR'S CERTIFICATION: I hereby declare the contents of this consignment are fully and accurately described above by shipping name and are classified, packed, marked, and labeled, and are in all respect in proper condition for transport by highway according to applicable federal and state regulations.					
17. Printed/Typed Name			Signature		Date
			Dan Miller		4-13-97
18. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name			Signature		Date
19. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name			Signature		Date
L. Ramirez #5			Lloyd Stockham		4-9-97
20. Discrepancy Indication Space					
21. Facility Owner/Operator: Certification of receipt of petroleum-substance wastes covered by this manifest except as noted in Item 20.					
Printed/Typed Name		Signature		Date	
ROYCE COOPER		[Signature]		4-9-97	



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INSTRUCTIONS ON REVERSE SIDE.

<b>PETROLEUM-SUBSTANCE WASTE MANIFEST</b>		1. Generator's LPST ID No. or ST ID No.		2. Page 1 of 1	
3. Generator's Name, Contact Person, and Mailing Address PJ Services 3708 W. Country Club Hobbs NM 88240			A. State Manifest Document No. No 160377		
4. Generator's Phone (505) 392-5526 Generator's Fax (505) 392-7307			B. Generator's Facility ID No.		
5. Generator's Facility Name, Contact Person, and Physical Address			C. Generator's Tank Owner ID No.		
6. Generator's Facility Phone ( ) Generator's Fax ( )			D. Transporter's Phone (505) 242-6464 Contact Person: Andy Candoli		
7. Transporter 1 Company Name and Address C.S.I. P.O. Box 25547 Albuquerque, NM 87102			E. Transporter's Phone  Contact Person:		
8. Transporter 2 Company Name and Address			F. Facility's Phone 1-800-762-0241 Contact Person: J. Memicucci		
9. Designated Facility Name and Site Address Rhino Environmental 600 Yea Landfarm Lea County, NM					
10. Facility ID Number SE \ 4 SEC, 14 T115R38E, Lea County					
11. Waste Description (including Proper Class, and ID)		12. Containers	13. Total Quantity	14. Unit	15. Waste Code
a. Non Hazardous Waste		Bulk	21.47	Tons	
b.					
G. Additional Description for Materials Listed Above Hydrocarbon Impacted Soil					
16. Special Handling Instructions and Additional Information					
<b>GENERATOR'S CERTIFICATION:</b> I hereby declare the contents of this consignment are fully and accurately described above by shipping name and are classified, packed, marked, and labeled, and are in all respect in proper condition for transport by highway according to applicable federal and state regulations.					
17. Printed/Typed Name J Ramirez #8		Signature [Signature]		Date 4-13-97	
18. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name J Ramirez #8		Signature Rivera		Date 4-9-97	
19. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name		Signature		Date	
20. Discrepancy Indication Space					
21. Facility Owner/Operator: Certification of receipt of petroleum-substance wastes covered by this manifest except as noted in Item 20. Printed/Typed Name ROBERT COOPER Signature [Signature] Date 4-9-97					



Please type or print. (Form designed for use on elite/12-pitch typewriter.)

INSTRUCTIONS ON REVERSE SIDE.

PETROLEUM-SUBSTANCE WASTE MANIFEST		1. Generator's LPST ID No. or ST ID No.		2. Page 1 of 1					
3. Generator's Name, Contact Person, and Mailing Address BJ SERVICES 2708 W. Country Club Hobbs NM 88240			A. State Manifest Document No. NE 160378						
4. Generator's Phone (505) 392-7307 Generator's Fax (505) 392-5556			B. Generator's Facility ID No.						
5. Generator's Facility Name, Contact Person, and Physical Address			C. Generator's Tank Owner ID No.						
6. Generator's Facility Phone ( ) Generator's Fax ( )			D. Transporter's Phone (505) 242-6464 Contact Person: Andy Landoll						
7. Transporter 1 Company Name and Address CSI P.O. Box 25547 Albuquerque, NM 87102			E. Transporter's Phone  Contact Person:						
8. Transporter 2 Company Name and Address			F. Facility's Phone 1-800-762-0241 Contact Person: J. M. Picucci						
9. Designated Facility Name and Site Address Rhino Environmental Goodyear Landfarm Lea County, NM			10. Facility ID Number SE 14 SEC, 14 T11SR38 E. Lea County						
11. Waste Description (including Proper Class, and ID)		12. Containers	13. Total Quantity	14. Unit	15. Waste Code				
a. Non Hazardous Waste		BULK	24.80	TONS					
b. Non Hazardous Soils		BULK	12.31	TONS					
G. Additional Description for Materials Listed Above Hydrocarbon Impacted Soil									
16. Special Handling Instructions and Additional Information									
GENERATOR'S CERTIFICATION: I hereby declare the contents of this consignment are fully and accurately described above by shipping name and are classified, packed, marked, and labeled, and are in all respect in proper condition for transport by highway according to applicable federal and state regulations.									
17. Printed/Typed Name			Signature Dan Miller		Date 4-13-97				
18. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name George Boins 530-113			Signature George Boins		Date 4-11-97				
19. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name			Signature		Date				
20. Discrepancy Indication Space									
21. Facility Owner/Operator: Certification of receipt of petroleum-substance wastes covered by this manifest except as noted in Item 20. Printed/Typed Name ROYCE COOPER						Signature Mayb Cooper		Date 4-11-97	



Please type or print. (Form designed for use on elite/12-pitch typewriter.)

INSTRUCTIONS ON REVERSE SIDE.

PETROLEUM-SUBSTANCE WASTE MANIFEST		1. Generator's LPST ID No. or ST ID No.		2. Page 1 of 1	
3. Generator's Name, Contact Person, and Mailing Address BJ Services 2708 W. Country Club Hobbs NM 882410			A. State Manifest Document No. No 160379		
4. Generator's Phone ( ) Generator's Fax ( )			B. Generator's Facility ID No.		
5. Generator's Facility Name, Contact Person, and Physical Address			C. Generator's Tank Owner ID No.		
6. Generator's Facility Phone ( ) Generator's Fax ( )			D. Transporter's Phone		
7. Transporter 1 Company Name and Address CSI P.O. Box 25547 Albuquerque NM 87102			Contact Person:		
8. Transporter 2 Company Name and Address			E. Transporter's Phone		
Contact Person:			F. Facility's Phone		
9. Designated Facility Name and Site Address Rhino Environmental Goo Yee Landfarm LPGA Country, NM			1-800-762-0241		
10. Facility ID Number SE 45PC 14 T 11 SA 3 SE LPGA Country			Contact Person: J. Menicucci		
11. Waste Description (including Proper Class, and ID)		12. Containers	13. Total Quantity	14. Unit	15. Waste Code
a. Non Hazardous waste		Bulk	23.37	Tons	
b.					
G. Additional Description for Materials Listed Above Hydrocarbon Impacted Soil					
16. Special Handling Instructions and Additional Information					
<b>GENERATOR'S CERTIFICATION:</b> I hereby declare the contents of this consignment are fully and accurately described above by shipping name and are classified, packed, marked, and labeled, and are in all respect in proper condition for transport by highway according to applicable federal and state regulations.					
17. Printed/Typed Name			Signature		Date
			Dan Miller		4-13-97
18. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name			Signature		Date
George Gains 530-113			George Gains		
19. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name			Signature		Date
20. Discrepancy Indication Space					
21. Facility Owner/Operator: Certification of receipt of petroleum-substance wastes covered by this manifest except as noted in Item 20.					
Printed/Typed Name			Signature		Date
RUI COOPER			RUI COOPER		4-9-97



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UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No.		Manifest Document No.		2. Page 1 of 1		Information in the shaded areas is not required by Federal law.			
3. Generator's Name and Mailing Address B.J. Services Company USA 2708 W. County Rd.						A. State Manifest Document Number 01220664					
4. Generator's Phone (505) 392-5556 Hobbs N.M. 88240						B. State Generator's ID					
5. Transporter 1 Company Name CSI P.O. Box 25547 Alb., N.M. 87102						C. State Transporter's ID					
6. US EPA ID Number						D. Transporter's Phone 505-242-6464					
7. Transporter 2 Company Name						E. State Transporter's ID					
8. US EPA ID Number						F. Transporter's Phone					
9. Designated Facility Name and Site Address Rhino Environmental 60049 Land Farm Lea Co., N.M.						G. State Facility's ID					
10. US EPA ID Number						H. Facility's Phone 1-800-762-0241					
11A. HM		11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)		12. Containers No. Type		13. Total Quantity		14. Unit Wt/Vol		15. Waste No.	
		a. Hydrocarbon Soils Non-Hazardous				24.62		Tons			
		b.									
		c.									
		d.									
J. Additional Descriptions for Materials Listed Above						K. Handling Codes for Wastes Listed Above					
15. Special Handling Instructions and Additional Information											
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.											
Printed/Typed Name				Signature				Month Day Year			
				Dan Miller				4/13/97			
17. Transporter 1 Acknowledgement of Receipt of Materials											
Printed/Typed Name				Signature				Month Day Year			
George Boins 530-113				George Boins				4/10/97			
18. Transporter 2 Acknowledgement of Receipt of Materials											
Printed/Typed Name				Signature				Month Day Year			
19. Discrepancy Indication Space											
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.											
Printed/Typed Name				Signature				Date			
ROYCE COOPER				Royce Cooper				4/10/97			



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UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No.		Manifest Document No.		2. Page 1 of 1		Information in the shaded areas is not required by Federal law.		
3. Generator's Name and Mailing Address <b>B.J. Services Company USA 2708 W. County Rd.</b>						A. State Manifest Document Number <b>01220665</b>				
4. Generator's Phone ( <b>505 1392-5556</b> ) <b>Hobbs, N.M. 88240</b>						B. State Generator's ID				
5. Transporter 1 Company Name <b>CSI P.D. Box 25547 Alb., N.M. 87102</b>						C. State Transporter's ID				
6. US EPA ID Number						D. Transporter's Phone <b>505-242-6464</b>				
7. Transporter 2 Company Name						E. State Transporter's ID				
8. US EPA ID Number						F. Transporter's Phone				
9. Designated Facility Name and Site Address <b>Rhino Environmental Goodyear Landfarm Lea Co., N.M.</b>						G. State Facility's ID				
10. US EPA ID Number						H. Facility's Phone <b>1-800-762-0241</b>				
11A. HM	11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)					12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol	15. Waste No.
a.	<b>Hydrocarbon Soils Non-Hazardous</b>							<b>23.89</b>	<b>lbs</b>	
b.										
c.										
d.										
J. Additional Descriptions for Materials Listed Above						K. Handling Codes for Wastes Listed Above				
15. Special Handling Instructions and Additional Information										
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.										
Printed/Typed Name						Signature		Month Day Year		
						<b>[Signature]</b>		<b>4/13/97</b>		
17. Transporter 1 Acknowledgement of Receipt of Materials										
Printed/Typed Name						Signature		Month Day Year		
<b>George Goins 530-113</b>						<b>[Signature]</b>		<b>4/10/97</b>		
18. Transporter 2 Acknowledgement of Receipt of Materials										
Printed/Typed Name						Signature		Month Day Year		
19. Discrepancy Indication Space										
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.										
Printed/Typed Name						Signature		Month Day Year		
<b>ROYCE COOPER</b>						<b>[Signature]</b>		<b>4/10/97</b>		



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<b>UNIFORM HAZARDOUS WASTE MANIFEST</b>		1. Generator's US EPA ID No.		Manifest Document No.	2. Page 1 of 1	Information in the shaded areas is not required by Federal law.	
3. Generator's Name and Mailing Address <i>B.J. Services Company USA 2708 W. County Rd. Hobbs, N.M. 88240</i>					A. State Manifest Document Number <b>01220683</b>		
					B. State Generator's ID		
4. Generator's Phone (505) 392-5556		6. US EPA ID Number		C. State Transporter's ID			
5. Transporter 1 Company Name <i>CSI P.O. Box 25547 ALB, N.M. 87102</i>		8. US EPA ID Number		D. Transporter's Phone			
7. Transporter 2 Company Name		10. US EPA ID Number		E. State Transporter's ID			
9. Designated Facility Name and Site Address <i>Rhino Environmental 600429 Landfarm Leg Co., N.M.</i>				F. Transporter's Phone			
				G. State Facility's ID			
				H. Facility's Phone			
GENERATOR	11A. HM	11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)		12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol
	a.	<i>Hydrocarbon Soils Non-Hazardous</i>				<i>24.65</i>	<i>Tons</i>
	b.						
	c.						
	d.						
J. Additional Descriptions for Materials Listed Above					K. Handling Codes for Wastes Listed Above		
15. Special Handling Instructions and Additional Information							
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.							
Printed/Typed Name				Signature		Month Day Year	
				<i>Don Miller</i>		<i>4 13 97</i>	
TRANSPORTER	17. Transporter 1 Acknowledgement of Receipt of Materials				Date		
	Printed/Typed Name		Signature		Month Day Year		
	18. Transporter 2 Acknowledgement of Receipt of Materials				Date		
Printed/Typed Name		Signature		Month Day Year			
<i>R. Ramirez #8</i>		<i>Rivera</i>		<i>12 10 97</i>			
19. Discrepancy Indication Space							
<i>ROYCE COOPER</i>							
FACILITY	20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.						
	Printed/Typed Name				Signature		Date
	<i>ROYCE COOPER</i>				<i>Royce Cooper</i>		<i>4 13 97</i>



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UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of 1	Information in the shaded areas is not required by Federal law.	
3. Generator's Name and Mailing Address B.J. Services Companu USA 2708 W. Country Rd. Hobbs, NM 88240 4. Generator's Phone ( ) 505-242-6464 392-5556				A. State Manifest Document Number 01220686		
5. Transporter 1 Company Name CSI P.D. Box 25547 Alb., N.M. 87102				B. State Generator's ID		
7. Transporter 2 Company Name				C. State Transporter's ID		
8. US EPA ID Number				D. Transporter's Phone 505-242-6464		
9. Designated Facility Name and Site Address Geoyea Landfarm Lea Cunty. NM Rhino Enivironmental				E. State Transporter's ID		
10. US EPA ID Number				F. Transporter's Phone		
11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)				G. State Facility's ID		
12. Containers No. Type				H. Facility's Phone 1-800-762-0241		
13. Total Quantity				14. Unit Wt/Vol		
1. Waste No.						
a. Hydrocarbon Soils Non-Hazardous				19.12 Tons		
b.						
c.						
d.						
J. Additional Descriptions for Materials Listed Above				K. Handling Codes for Wastes Listed Above		
15. Special Handling Instructions and Additional Information						
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.						
Printed/Typed Name				Signature		Month Day Year
				[Signature]		4/13/97
17. Transporter 1 Acknowledgement of Receipt of Materials				Signature		Month Day Year
Printed/Typed Name				Signature		Month Day Year
18. Transporter 2 Acknowledgement of Receipt of Materials				Signature		Month Day Year
Printed/Typed Name				Signature		Month Day Year
DAVID GOMZ BARETA				David A. Lorela		4/10/97
19. Discrepancy Indication Space						
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.						
Printed/Typed Name				Signature		Month Day Year
ROYCE COOPER				Royce Cooper		4/18/97

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CONSERVATION COMMISSION  
P.O. Box 13087  
Austin, Texas 78711-3087



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UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of 1	Information in the shaded areas is not required by Federal law.	
3. Generator's Name and Mailing Address B.J. Services Company USA 2708 W. County Rd.		4. Generator's Phone (505) 392-5556		A. State Manifest Document Number 01220687		
5. Transporter 1 Company Name CSI P.O. Box 25547 Alb., N.M. 87102		6. US EPA ID Number		B. State Generator's ID		
7. Transporter 2 Company Name		8. US EPA ID Number		C. State Transporter's ID		
9. Designated Facility Name and Site Address Rhino Environmental Goodyear Landfarm Lea Co., N.M.		10. US EPA ID Number		D. Transporter's Phone 505-242-6464		
				E. State Transporter's ID		
				F. Transporter's Phone		
				G. State Facility's ID		
				H. Facility's Phone 1-800-762-0241		
11A. HM	11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol	15. Waste No.
	a. Hydrocarbon Soils Non-Hazardous			25.44	Tons	
	b.					
	c.					
	d.					
J. Additional Descriptions for Materials Listed Above				K. Handling Codes for Wastes Listed Above		
15. Special Handling Instructions and Additional Information						
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.						
Printed/Typed Name		Signature		Month Day Year		
		Alan Miller		4/13/97		
17. Transporter 1 Acknowledgement of Receipt of Materials		Signature		Date		
Printed/Typed Name		Signature		Month Day Year		
18. Transporter 2 Acknowledgement of Receipt of Materials		Signature		Date		
Printed/Typed Name		Signature		Month Day Year		
DAVID GOMEZ BANETA		David A Baneta		4/10/97		
19. Discrepancy Indication Space						
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.						
Printed/Typed Name		Signature		Date		
ROYCE COOPER		Royce Cooper		4/13/97		

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UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No.		Manifest Document No.		2. Page 1 of		Information in the shaded areas is not required by Federal law.		
3. Generator's Name and Mailing Address B.J. Services Company USA 2708 W. County Rd. Hobbs, NM 88240 505-392-5566						A. State Manifest Document Number 01220688				
4. Generator's Phone						B. State Generator's ID				
5. Transporter 1 Company Name CSI PO BOX 25547 Alb. NM 87102						C. State Transporter's ID				
6. US EPA ID Number						D. Transporter's Phone 505-242-6464				
7. Transporter 2 Company Name						E. State Transporter's ID				
8. US EPA ID Number						F. Transporter's Phone				
9. Designated Facility Name and Site Address Rhino Environmental Gooyea Landfarm Lea Co. NM						G. State Facility's ID				
10. US EPA ID Number						H. Facility's Phone 1-800-762-0241				
11A. HM	11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)					12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
	a. Hydrocarbon Soils Non-Hazardous							27.58	tons	
	b.									
	c.									
	d.									
J. Additional Descriptions for Materials Listed Above						K. Handling Codes for Wastes Listed Above				
15. Special Handling Instructions and Additional Information										
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.										
Printed/Typed Name						Signature			Month Day Year	
						Dan Miller			4/13/92	
17. Transporter 1 Acknowledgement of Receipt of Materials									Date	
Printed/Typed Name						Signature			Month Day Year	
George Goins 530-113						George Goins			4/10/92	
18. Transporter 2 Acknowledgement of Receipt of Materials									Date	
Printed/Typed Name						Signature			Month Day Year	
19. Discrepancy Indication Space										
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.										
Printed/Typed Name						Signature			Month Day Year	
ROYCE COOPER						Royce Cooper			4/10/92	



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UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of 1	Information in the shaded areas is not required by Federal law.	
3. Generator's Name and Mailing Address <b>BS Services Company USA</b> <b>2708 W. County Rd</b> <b>Hobbs, NM 88240</b>				A. State Manifest Document Number <b>01220689</b>		
4. Generator's Phone (505) <b>392-5556</b>				B. State Generator's ID		
5. Transporter 1 Company Name <b>CSI P.O. Box 25547 Alb, NM 87102</b>		6. US EPA ID Number		C. State Transporter's ID		
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone <b>505-242-6464</b>		
9. Designated Facility Name and Site Address <b>Rhino Env. Goo Yea Landfarm</b> <b>Lea County, N.M.</b>		10. US EPA ID Number		E. State Transporter's ID		
				F. Transporter's Phone		
				G. State Facility's ID		
				H. Facility's Phone <b>1-800-762-0241</b>		
11A. HM	11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	15. Waste No.
a.	<b>Hydrocarbon Soils Non-Haz.</b>			<b>24.59</b>	<b>Tons</b>	
b.						
c.						
d.						
J. Additional Descriptions for Materials Listed Above				K. Handling Codes for Wastes Listed Above		
15. Special Handling Instructions and Additional Information						
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.						
Printed/Typed Name		Signature		Month Day Year		
		<i>Don Miller</i>		<b>4/13/97</b>		
17. Transporter 1 Acknowledgement of Receipt of Materials				Date		
Printed/Typed Name		Signature		Month Day Year		
18. Transporter 2 Acknowledgement of Receipt of Materials				Date		
Printed/Typed Name		Signature		Month Day Year		
<b>L. Ramirez #8</b>		<i>Rivera</i>		<b>4/10/98</b>		
19. Discrepancy Indication Space						
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.						
Printed/Typed Name		Signature		Date		
<b>ROYCE COOPER</b>		<i>Royce Cooper</i>		<b>4/10/98</b>		

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P.O. Box 13087

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UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of 1	Information in the shaded areas is not required by Federal law.	
3. Generator's Name and Mailing Address <b>BS Services, Company USA</b> <b>2709 W. County Rd</b> <b>Hobbs, NM 88240</b>				A. State Manifest Document Number <b>01220690</b>		
4. Generator's Phone (505) <b>392-5556</b>				B. State Generator's ID		
5. Transporter 1 Company Name <b>CSIT, Box 25547 Alb, N.M. 87102</b>		6. US EPA ID Number		C. State Transporter's ID		
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone <b>505-242-6464</b>		
9. Designated Facility Name and Site Address <b>Rhino Enr. Goodyea Landfarm</b> <b>Lea County, N.M.</b>		10. US EPA ID Number		E. State Transporter's ID		
				F. Transporter's Phone		
				G. State Facility's ID		
				H. Facility's Phone <b>1-800-762-0241</b>		
11A. HM	11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	15. Waste No.
a.	<b>Hydrocarbon Soils Non-Haz.</b>			<b>23.21</b>	<b>Tons</b>	
b.						
c.						
d.						
J. Additional Descriptions for Materials Listed Above				K. Handling Codes for Wastes Listed Above		
15. Special Handling Instructions and Additional Information						
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.						
Printed/Typed Name		Signature		Month Day Year		
		<i>Don Miller</i>		<b>7/13/97</b>		
17. Transporter 1 Acknowledgement of Receipt of Materials		Signature		Date		
Printed/Typed Name				Month Day Year		
18. Transporter 2 Acknowledgement of Receipt of Materials		Signature		Date		
Printed/Typed Name				Month Day Year		
<b>L. Ramirez #5</b>		<i>Lloyd Stockham</i>		<b>7/10/97</b>		
19. Discrepancy Indication Space						
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.						
Printed/Typed Name		Signature		Date		
<b>ROYCE COOPER</b>		<i>Royce Cooper</i>		<b>7/10/97</b>		

TEXAS NATURAL RESOURCE  
CONSERVATION COMMISSION  
P.O. Box 13087

Austin, Texas 78711-3087



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Form approved. OMB No. 2050-0039. expires 09/30/95

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of 1	Information in the shaded areas is not required by Federal law.	
3. Generator's Name and Mailing Address <b>BS Services, Company USA</b> <b>2708 W. County Rd</b> <b>Hobbs, N.M. 88240</b>				A. State Manifest Document Number <b>01220691</b>		
4. Generator's Phone (505) 392-5556				B. State Generator's ID		
5. Transporter 1 Company Name <b>CSI P.O. Box 25547 Alb., N.M. 87102</b>		6. US EPA ID Number		C. State Transporter's ID		
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone 505-242-6464		
9. Designated Facility Name and Site Address <b>Rhino Env. Goo 4ea Landfarm</b> <b>Lea County, N.M.</b>		10. US EPA ID Number		E. State Transporter's ID		
				F. Transporter's Phone		
				G. State Facility's ID		
				H. Facility's Phone <b>1-800-762-0241</b>		
11A. HM	11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	15. Waste No.
a.	<b>Hydrocarbon Soils Non-Haz.</b>			<b>28.53</b>	<b>tons</b>	
b.						
c.						
d.						
J. Additional Descriptions for Materials Listed Above				K. Handling Codes for Wastes Listed Above		
15. Special Handling Instructions and Additional Information						
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.						
Printed/Typed Name		Signature		Month Day Year		
		<b>Alan Smullen</b>		<b>4/13/97</b>		
17. Transporter 1 Acknowledgement of Receipt of Materials		Signature		Date		
Printed/Typed Name				Month Day Year		
18. Transporter 2 Acknowledgement of Receipt of Materials		Signature		Date		
Printed/Typed Name				Month Day Year		
<b>DAVID GOMEZ PAREJA</b>		<b>David M. Pareja</b>		<b>4/16/97</b>		
19. Discrepancy Indication Space						
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.						
Printed/Typed Name		Signature		Date		
<b>ROYCE COOPER</b>		<b>Royce Cooper</b>		<b>4/16/97</b>		



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<b>UNIFORM HAZARDOUS WASTE MANIFEST</b>		1. Generator's US EPA ID No.		Manifest Document No.		2. Page 1 of 1		Information in the shaded areas is not required by Federal law.		
3. Generator's Name and Mailing Address <b>B.J. Services Company, USA 2708 W. County Rd. 4. Generator's Phone (505) 392-5556 Hobbs, N.M. 88240</b>						A. State Manifest Document Number <b>01220693</b>				
						B. State Generator's ID				
5. Transporter 1 Company Name <b>CSIP, P.O. Box 25547 Alb., N.M. 87102</b>						6. US EPA ID Number				
7. Transporter 2 Company Name						8. US EPA ID Number				
9. Designated Facility Name and Site Address <b>Rhino Environmental Good Hope Landfarm Lea Co., N.M.</b>						10. US EPA ID Number				
						C. State Transporter's ID				
						D. Transporter's Phone <b>505-242-6464</b>				
						E. State Transporter's ID				
						F. Transporter's Phone				
						G. State Facility's ID				
						H. Facility's Phone <b>1-800-762-0241</b>				
11A. HM	11. US DOT Description (including Proper Shipping Name, Hazard Class. and ID Number)					12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol	15. Waste No.
	a. <b>Hydrocarbon Soils Non-Hazardous</b>							<b>25.56</b>	<b>Tons</b>	
	b.									
	c.									
	d.									
J. Additional Descriptions for Materials Listed Above						K. Handling Codes for Wastes Listed Above				
15. Special Handling Instructions and Additional Information										
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.										
Printed/Typed Name						Signature <b>Don Miller</b>			Month Day Year <b>4/13/97</b>	
17. Transporter 1 Acknowledgement of Receipt of Materials						Signature			Date	
Printed/Typed Name						Signature			Month Day Year	
18. Transporter 2 Acknowledgement of Receipt of Materials						Signature			Date	
Printed/Typed Name <b>F. Ramirez LR-8</b>						Signature <b>Rivera</b>			Month Day Year <b>4/10/97</b>	
19. Discrepancy Indication Space										
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.										
Printed/Typed Name <b>ROYCE COOPER</b>						Signature <b>Royce Cooper</b>			Date <b>4/10/97</b>	

TEXAS NATURAL RESOURCE  
CONSERVATION COMMISSION

P.O. Box 13087

Austin, Texas 78711-3087



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<b>UNIFORM HAZARDOUS WASTE MANIFEST</b>		1. Generator's US EPA ID No.		Manifest Document No.	2. Page 1 of	Information in the shaded areas is not required by Federal law.	
3. Generator's Name and Mailing Address  BJ Services Company U.S.A. 2708 W. County Rd. Hobbs, N.M. 88240					A. State Manifest Document Number <div style="text-align: right; font-size: 1.2em;">01220694</div>		
					B. State Generator's ID		
4. Generator's Phone (505) 392 5556					C. State Transporter's ID		
5. Transporter 1 Company Name k k k					D. Transporter's Phone		
7. Transporter 2 Company Name CSI P.O. Box 25547 ALbq. N.M. 87102					E. State Transporter's ID (505) 242-6464		
8. US EPA ID Number					F. Transporter's Phone 1-800-762-024		
9. Designated Facility Name and Site Address Rhino Environment Goo Yea Landfarm Lea county N.M.					G. State Facility's ID		
10. US EPA ID Number					H. Facility's Phone		
11A. HM	11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)				12. Containers No.	Type	13. Total Quantity
	a. Non-HAZ - HYDROCARBON IMPACTED Soils						24.80
	b.						10.45
	c.						
	d.						
J. Additional Descriptions for Materials Listed Above					K. Handling Codes for Wastes Listed Above		
15. Special Handling Instructions and Additional Information							
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Printed/Typed Name				Signature		Month Day Year	
				<i>Don Miller</i>		4 13 97	
17. Transporter 1 Acknowledgement of Receipt of Materials							
Printed/Typed Name				Signature		Month Day Year	
18. Transporter 2 Acknowledgement of Receipt of Materials							
Printed/Typed Name				Signature		Month Day Year	
<i>L Ramsey #5</i>				<i>Lloyd Smith</i>		4 10 97	
19. Discrepancy Indication Space							
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.							
Printed/Typed Name				Signature		Month Day Year	
<i>ROYCE COOPER</i>				<i>Royce Cooper</i>		10 16 97	

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UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No.		Manifest Document No.		2. Page 1 of		Information in the shaded areas is not required by Federal law.		
3. Generator's Name and Mailing Address B.J. Services Company U.S.a. 2708 W. County Rd. Hobbs, N.M. 88240 4. Generator's Phone (505) 392-5556						A. State Manifest Document Number 01220695				
5. Transporter 1 Company Name						B. State Generator's ID				
6. US EPA ID Number						C. State Transporter's ID				
7. Transporter 2 Company Name CSI						D. Transporter's Phone				
8. US EPA ID Number						E. State Transporter's ID				
9. Designated Facility Name and Site Address Rhino Environmental Goo Yea Landfarm Lea County N.M.						F. Transporter's Phone				
10. US EPA ID Number						G. State Facility's ID				
						H. Facility's Phone				
11A. HM	11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)					12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	15. Waste No.
	a. Non Hazardous Waste Hydrocarbon Impacted Soil							24.83	Tons	
	b.									
	c.									
	d.									
J. Additional Descriptions for Materials Listed Above						K. Handling Codes for Wastes Listed Above				
15. Special Handling Instructions and Additional Information										
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Printed/Typed Name						Signature			Month Day Year	
						Dan Miller			4/13/92	
17. Transporter 1 Acknowledgement of Receipt of Materials										
Printed/Typed Name						Signature			Date	
18. Transporter 2 Acknowledgement of Receipt of Materials										
Printed/Typed Name						Signature			Month Day Year	
A Ramirez #5						Randy Smith			4/10/92	
19. Discrepancy Indication Space										
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.										
Printed/Typed Name						Signature			Date	
ROYCE COCKER						Royce Cocker			4/16/92	

HOBBS IRON & METAL — Hobbs, N.M. Date 4-1-97

Load of Soil Trk. 550 PTF

Gross 78720 Contractor Rhino Environmental

Tare 32340 Customer BJ Service

Net \_\_\_\_\_ To \_\_\_\_\_

From \_\_\_\_\_

Driver \_\_\_\_\_ On \_\_\_\_\_ Off \_\_\_\_\_

40646 Weighmaster Brad Craig NMDA APPROVED LICENSE #003

HOBBS IRON & METAL — Hobbs, N.M. Date 4/2/97

Load of Soil Trk. 550 PTF

Gross 78720 Contractor Rhino

Tare 32340 Customer BJ Services

Net \_\_\_\_\_ To \_\_\_\_\_

From \_\_\_\_\_

Driver Randy Craig On \_\_\_\_\_ Off \_\_\_\_\_

40650 Weighmaster Randy Craig NMDA APPROVED LICENSE #003

HOBBS IRON & METAL — Hobbs, N.M. Date 4-2-97

Load of Soil Trk. 550 PTF

Gross 80000 Contractor Rhino Environmental

Tare 32340 Customer BJ Services

Net \_\_\_\_\_ To \_\_\_\_\_

From \_\_\_\_\_

Driver \_\_\_\_\_ On \_\_\_\_\_ Off X

40899 Weighmaster XD NMDA APPROVED LICENSE #003

HOBBS IRON & METAL — Hobbs, N.M. Date 4-1-97

Load of Soil Trk. 530 PTF

Gross 80330 Contractor Trailer 113

Tare 32330 Customer BJ Services

Net \_\_\_\_\_ To (Rhino Environmental)

From \_\_\_\_\_

Driver XD On \_\_\_\_\_ Off X

40645 Weighmaster XD NMDA APPROVED LICENSE #003

HOBBS IRON & METAL — Hobbs, N.M. Date 4-2-97

Load of Soil Trk. \_\_\_\_\_ PTF \_\_\_\_\_

Gross 80000 Contractor Rhino Environmental from

Tare 32340 Customer BJ Services

Net \_\_\_\_\_ To \_\_\_\_\_

From \_\_\_\_\_

Driver \_\_\_\_\_ On \_\_\_\_\_ Off X

40895 Weighmaster XD George L... NMDA APPROVED LICENSE #003

HOBBS IRON & METAL — Hobbs, N.M. Date 4-3-97

Load of Soil Trk. 37 PTF \_\_\_\_\_

Gross 80980 Contractor trailer 37

Tare 32000 Customer Medley Trucking (Rhino)

Net 48980 To \_\_\_\_\_

From BJ Services

Driver \_\_\_\_\_ On \_\_\_\_\_ Off \_\_\_\_\_

40897 Weighmaster KD

NMDA APPROVED LICENSE #003

HOBBS IRON & METAL — Hobbs, N.M. Date 4-3-97

Load of Soil Trk. 73 PTF \_\_\_\_\_

Gross 10990 Contractor Rhino

Tare 33800 Customer BT Service

Net 37190 To \_\_\_\_\_

From \_\_\_\_\_

Driver \_\_\_\_\_ On \_\_\_\_\_ Off \_\_\_\_\_

40658 Weighmaster Bradley

NMDA APPROVED LICENSE #003

HOBBS IRON & METAL — Hobbs, N.M. Date 4-3-97

Load of Soil Trk. 550 PTF \_\_\_\_\_

Gross 76500 Contractor trailer 111

Tare 32340 Customer Rhino - from BJ Services

Net 44150 To \_\_\_\_\_

From \_\_\_\_\_

Driver \_\_\_\_\_ On \_\_\_\_\_ Off X

40660 Weighmaster KD

NMDA APPROVED LICENSE #003

HOBBS IRON & METAL — Hobbs, N.M. Date 4-3-97

Load of Soil Trk. 550 PTF \_\_\_\_\_

Gross 11170 Contractor Rhino Environmental

Tare 32340 Customer BT Service

Net \_\_\_\_\_ To \_\_\_\_\_

From \_\_\_\_\_

Driver \_\_\_\_\_ On \_\_\_\_\_ Off \_\_\_\_\_

40656 Weighmaster Bradley

NMDA APPROVED LICENSE #003

HOBBS IRON & METAL — Hobbs, N.M. Date 4-8-97

Load of Soil Trk. 530 PTF \_\_\_\_\_

Gross 174510 Contractor Rhino Environmental

Tare 32390 Customer BT Services

Net \_\_\_\_\_ To \_\_\_\_\_

From Geo L

Driver \_\_\_\_\_ On \_\_\_\_\_ Off \_\_\_\_\_

40915 Weighmaster Bradley

NMDA APPROVED LICENSE #003

Load of Soil Trk. 49 PTF  
Contractor L. Ramirez Telling  
Gross 87100 Customer Thins  
Tare 30060 To BT Services  
From  
Net 40904 Driver LD On X Off  
Weighmaster LD  
NMDA APPROVED LICENSE #003

HOBBS IRON & METAL — Hobbs, N.M. Date 4-8-97  
Load of Soil Trk. 8 PTF  
Contractor L. Ramirez  
Gross 79590 Customer BT Service  
Tare 32960 To  
From  
Net 40916 Driver On Off  
Weighmaster Bob Cruz  
NMDA APPROVED LICENSE #003

HOBBS IRON & METAL — Hobbs, N.M. Date 4/8/97  
Load of Soil Trk. LR5 PTF  
Contractor  
Gross 78220 Customer Rhino Environmental  
Tare 31780 To  
From  
Net 40619 Driver On Off  
Weighmaster pm  
NMDA APPROVED LICENSE #003

HOBBS IRON & METAL — Hobbs, N.M. Date 4-8-97  
Load of Soil Trk. 530 PTF 113  
Contractor BT Services  
Gross 82110 Customer Thins  
Tare 32390 To  
From  
Net 40905 Driver On Off  
Weighmaster LD  
NMDA APPROVED LICENSE #003

HOBBS IRON & METAL — Hobbs, N.M. Date 4-8-97  
Load of Soil Trk. 109 PTF  
Contractor L. Ramirez  
Gross 176110 Customer BT Service  
Tare 30060 To  
From  
Net 40902 Driver On Off  
Weighmaster Bob Cruz  
NMDA APPROVED LICENSE #003

HOBBS IRON & METAL — Hobbs. N.M. Date 4-8-97

Load of Soil Trk. 118 PTF \_\_\_\_\_

Gross \_\_\_\_\_ Contractor L. Ramirez

Tare 32960 Customer BT Service

Net \_\_\_\_\_ To \_\_\_\_\_

From \_\_\_\_\_ Driver \_\_\_\_\_ On \_\_\_\_\_ Off \_\_\_\_\_

40920 Weighmaster Bud Craig LICENSE #003

NMMA APPROVED

HOBBS IRON & METAL — Hobbs. N.M. Date 4-8-97

Load of Soil Trk. 5 PTF \_\_\_\_\_

Gross 74530 Contractor \_\_\_\_\_

Tare 31780 Customer Rhino

Net \_\_\_\_\_ To \_\_\_\_\_

From \_\_\_\_\_ Driver \_\_\_\_\_ On \_\_\_\_\_ Off X

40923 Weighmaster XD LICENSE #003

NMMA APPROVED

HOBBS IRON & METAL — Hobbs. N.M. Date 4-8-97

Load of Soil Trk. 117 PTF \_\_\_\_\_

Gross 75440 Contractor L. Ramirez

Tare 30060 Customer BT Service

Net \_\_\_\_\_ To \_\_\_\_\_

From \_\_\_\_\_ Driver \_\_\_\_\_ On \_\_\_\_\_ Off \_\_\_\_\_

40917 Weighmaster Bud Craig LICENSE #003

NMMA APPROVED

HOBBS IRON & METAL — Hobbs. N.M. Date 4-8-97

Load of Soil Trk. 530 PTF 113

Gross 82390 Contractor Rhino Environmental

Tare 32390 Customer BT Service

Net \_\_\_\_\_ To \_\_\_\_\_

From \_\_\_\_\_ Driver \_\_\_\_\_ On \_\_\_\_\_ Off \_\_\_\_\_

40919 Weighmaster Bud Craig LICENSE #003

NMMA APPROVED

HOBBS IRON & METAL — Hobbs. N.M. Date 4/8/97

Load of Soil Trk. 8 PTF \_\_\_\_\_

Gross 70960 Contractor Rhino Environmental

Tare 32960 Customer BT Services

Net \_\_\_\_\_ To \_\_\_\_\_

From \_\_\_\_\_ Driver \_\_\_\_\_ On \_\_\_\_\_ Off \_\_\_\_\_

40673 Weighmaster PM LICENSE #003

NMMA APPROVED

HOBBS IRON & METAL — Hobbs, N.M.

Date 8-9-97

Load of Soil Trk. 125 PTF  
 Contractor L. Ramirez  
 Gross 85600 Customer BT Service  
 Tare 31780 To  
 From  
 Net Driver On Off  
 40670 Weighmaster Pulling  
 NMDA APPROVED LICENSE #003

HOBBS IRON & METAL — Hobbs, N.M.

Date 4-9-97

Load of Soil Trk. 125 PTF  
 Contractor Rhino  
 Gross 75750 Customer BT Services  
 Tare 31780 To  
 From  
 Net Driver On Off X  
 40939 Weighmaster KD  
 NMDA APPROVED LICENSE #003

HOBBS IRON & METAL — Hobbs, N.M.

Date 4-9-97

Load of Soil Trk. 8 PTF  
 Contractor Rhino  
 Gross 75030 Customer Rhino  
 Tare 32960 To  
 From  
 Net Driver On Off X  
 40943 Weighmaster KD  
 NMDA APPROVED LICENSE #003

HOBBS IRON & METAL — Hobbs, N.M.

Date 4-9-97

Load of Soil Trk. 129 PTF  
 Contractor Rhino  
 Gross 74620 Customer Rhino  
 Tare 30060 To BT Services  
 From  
 Net Driver On Off X  
 40941 Weighmaster KD  
 NMDA APPROVED LICENSE #003

HOBBS IRON & METAL — Hobbs, N.M.

Date 8-4-97

Load of Soil Trk. 530 PTF  
 Contractor Rhino  
 Gross 82130 Customer Rhino  
 Tare 32390 To BT Services  
 From  
 Net Driver On Off X  
 40938 Weighmaster KD  
 NMDA APPROVED LICENSE #003

HOBBS IRON & METAL — Hobbs, N.M. Date 4-9-97

Load of Soil Trk. LR9 PTF \_\_\_\_\_

Contractor \_\_\_\_\_

Gross 72550 Customer Rhino

Tare 30060 To BS Services

From \_\_\_\_\_

Net \_\_\_\_\_ Driver \_\_\_\_\_ On \_\_\_\_\_ Off X

40930 Weighmaster LD

NMMA APPROVED LICENSE #003

HOBBS IRON & METAL — Hobbs, N.M. Date 4-9-97

Load of Soil Trk. 5 PTF \_\_\_\_\_

Contractor \_\_\_\_\_

Gross 76170 Customer Rhino

Tare 31780 To BS Services

From \_\_\_\_\_

Net \_\_\_\_\_ Driver \_\_\_\_\_ On \_\_\_\_\_ Off X

40942 Weighmaster LD

NMMA APPROVED LICENSE #003

HOBBS IRON & METAL — Hobbs, N.M. Date 4-9-97

Load of Soil Trk. 8 PTF \_\_\_\_\_

Contractor \_\_\_\_\_

Gross 82550 Customer Rhino

Tare 32960 To BS Services

From \_\_\_\_\_

Net \_\_\_\_\_ Driver \_\_\_\_\_ On \_\_\_\_\_ Off X

40922 Weighmaster LD

NMMA APPROVED LICENSE #003

HOBBS IRON & METAL — Hobbs, N.M. Date 4-9-97

Load of Soil Trk. 530 PTF \_\_\_\_\_

Contractor \_\_\_\_\_

Gross 81170 Customer Rhino

Tare 32390 To BS Services

From \_\_\_\_\_

Net \_\_\_\_\_ Driver \_\_\_\_\_ On \_\_\_\_\_ Off X

40944 Weighmaster LD

NMMA APPROVED LICENSE #003

HOBBS IRON & METAL — Hobbs, N.M. Date 4-9-97

Load of Soil Trk. LR9 PTF \_\_\_\_\_

Contractor \_\_\_\_\_

Gross 78550 Customer Rhino

Tare 30060 To BS Services

From \_\_\_\_\_

Net \_\_\_\_\_ Driver \_\_\_\_\_ On \_\_\_\_\_ Off \_\_\_\_\_

40936 Weighmaster LD

NMMA APPROVED LICENSE #003

Load of Soil Trk. 425 PTF \_\_\_\_\_  
Contractor L. Ramirez  
Gross 78730 Customer BJ Service  
Tare 31780 To \_\_\_\_\_  
From \_\_\_\_\_  
Net \_\_\_\_\_ Driver \_\_\_\_\_ On \_\_\_\_\_ Off \_\_\_\_\_  
**40937** Weighmaster Brad C... On \_\_\_\_\_ Off \_\_\_\_\_  
NMCA APPROVED LICENSE #003

HOBBS IRON & METAL — Hobbs. N.M. Date 4-9-97  
Load of Soil Trk. 8 PTF \_\_\_\_\_  
Contractor \_\_\_\_\_  
Gross 75900 Customer Rhino  
Tare 32960 To BJ Services  
From \_\_\_\_\_  
Net \_\_\_\_\_ Driver \_\_\_\_\_ On \_\_\_\_\_ Off X  
**40934** Weighmaster KD On \_\_\_\_\_ Off X  
NMCA APPROVED LICENSE #003

HOBBS IRON & METAL — Hobbs. N.M. Date 4-11-97  
Load of Soil Trk. 530 PTF \_\_\_\_\_  
Contractor \_\_\_\_\_  
Gross 37010 Customer Rhino  
Tare 32390 To BJ Services  
From \_\_\_\_\_  
Net \_\_\_\_\_ Driver \_\_\_\_\_ On \_\_\_\_\_ Off X  
**40970** Weighmaster KD On \_\_\_\_\_ Off X  
NMCA APPROVED LICENSE #003

HOBBS IRON & METAL — Hobbs. N.M. Date 4-11-97  
Load of Soil Trk. 530 PTF \_\_\_\_\_  
Contractor \_\_\_\_\_  
Gross 37010 Customer Rhino  
Tare 32390 To BJ Services  
From \_\_\_\_\_  
Net \_\_\_\_\_ Driver \_\_\_\_\_ On \_\_\_\_\_ Off X  
**40968** Weighmaster KD On \_\_\_\_\_ Off X  
NMCA APPROVED LICENSE #003

HOBBS IRON & METAL — Hobbs. N.M. Date 4-9-97  
Load of Soil Trk. 530 PTF \_\_\_\_\_  
Contractor \_\_\_\_\_  
Gross 75120 Customer Rhino  
Tare 32390 To BJ Services  
From \_\_\_\_\_  
Net \_\_\_\_\_ Driver \_\_\_\_\_ On \_\_\_\_\_ Off X  
**40940** Weighmaster KD On \_\_\_\_\_ Off X  
NMCA APPROVED LICENSE #003

Load of Soil Trk S30 PTF \_\_\_\_\_  
Contractor \_\_\_\_\_  
Gross 81620 Customer Rhino LCSI  
Tare 32390 To BS Services  
From \_\_\_\_\_  
Net \_\_\_\_\_ Driver Geo Gains On \_\_\_\_\_ Off X  
**40946** Weighmaster YD  
NMDA APPROVED LICENSE #003

HOBBS IRON & METAL — Hobbs, N.M. Date 4-10-97  
Load of Soil Trk S30 PTF \_\_\_\_\_  
Contractor \_\_\_\_\_  
Gross 80160 Customer Rhino LCSI  
Tare 32390 To BS Services  
From \_\_\_\_\_  
Net \_\_\_\_\_ Driver Geo Gains On \_\_\_\_\_ Off X  
**40947** Weighmaster YD  
NMDA APPROVED LICENSE #003

HOBBS IRON & METAL — Hobbs, N.M. Date 4-10-97  
Load of Soil Trk LR9 PTF \_\_\_\_\_  
Contractor L. Ramirez  
Gross 32250 Customer B.T. Service  
Tare 32960 To \_\_\_\_\_  
From \_\_\_\_\_  
Net \_\_\_\_\_ Driver \_\_\_\_\_ On \_\_\_\_\_ Off \_\_\_\_\_  
**40945** Weighmaster Brad Ray  
NMDA APPROVED LICENSE #003

HOBBS IRON & METAL — Hobbs, N.M. Date 4-10-97  
Load of Soil Trk LR9 PTF \_\_\_\_\_  
Contractor L. Ramirez  
Gross 60250 Customer BT Service  
Tare 30060 To \_\_\_\_\_  
From \_\_\_\_\_  
Net \_\_\_\_\_ Driver \_\_\_\_\_ On \_\_\_\_\_ Off \_\_\_\_\_  
**40950** Weighmaster Brad Ray  
NMDA APPROVED LICENSE #003

HOBBS IRON & METAL — Hobbs, N.M. Date 4/10/97  
Load of Soil Trk #9 PTF \_\_\_\_\_  
Contractor \_\_\_\_\_  
Gross 80400 Customer Chin Environmental  
Tare 30060 To \_\_\_\_\_  
From \_\_\_\_\_  
Net \_\_\_\_\_ Driver \_\_\_\_\_ On \_\_\_\_\_ Off \_\_\_\_\_  
**40959** Weighmaster Messick  
NMDA APPROVED LICENSE #003

Load of Soil Trk 530 PTF \_\_\_\_\_

Contractor \_\_\_\_\_

Gross \_\_\_\_\_ Customer PHINO / EST

Tare 32390 To BS Services

From \_\_\_\_\_

Net \_\_\_\_\_ Driver Geo Gains On \_\_\_\_\_ Off X

40961 Weighmaster KD NMDA APPROVED LICENSE #003

HOBBS IRON & METAL — Hobbs, N.M. Date 4-10-97

Load of Soil Trk 415 PTF \_\_\_\_\_

Contractor L. Ramirez

Gross 82140 Customer BJ Services

Tare 32960 To \_\_\_\_\_

From \_\_\_\_\_

Net \_\_\_\_\_ Driver \_\_\_\_\_ On \_\_\_\_\_ Off \_\_\_\_\_

40678 Weighmaster Bradley NMDA APPROVED LICENSE #003

HOBBS IRON & METAL — Hobbs, N.M. Date 4/10/97

Load of Soil Trk 5 PTF \_\_\_\_\_

Contractor Rhino Environmental

Gross 78200 Customer BJ Services

Tare 31780 To \_\_\_\_\_

From \_\_\_\_\_

Net \_\_\_\_\_ Driver \_\_\_\_\_ On \_\_\_\_\_ Off \_\_\_\_\_

40957 Weighmaster Minnick NMDA APPROVED LICENSE #003

HOBBS IRON & METAL — Hobbs, N.M. Date 4-10-97

Load of \_\_\_\_\_ Trk #9 PTF \_\_\_\_\_

Contractor Rhino

Gross 87120 Customer Rhino

Tare 30060 To \_\_\_\_\_

From \_\_\_\_\_

Net \_\_\_\_\_ Driver Landy Craig On \_\_\_\_\_ Off \_\_\_\_\_

40928 Weighmaster Landy Craig NMDA APPROVED LICENSE #003

HOBBS IRON & METAL — Hobbs, N.M. Date 4-10-97

Load of Soil Trk 8 PTF \_\_\_\_\_

Contractor Rhino

Gross 84000 Customer Rhino

Tare 32960 To \_\_\_\_\_

From \_\_\_\_\_

Net \_\_\_\_\_ Driver \_\_\_\_\_ On \_\_\_\_\_ Off X

40954 Weighmaster KD NMDA APPROVED LICENSE #003

HOBBS IRON & METAL — Hobbs, N.M.

Date 4-10-97

Load of Sail Trk. S PTF

Contractor

Gross 81430  
Tare 31780

Customer Rhino  
To BS Services

From

Net Driver On Off X

40956 Weighmaster XD  
NMDA APPROVED

LICENSE #003

HOBBS IRON & METAL — Hobbs, N.M.

Date 4-10-97

Load of Sail Trk. S PTF

Contractor

Gross 81430  
Tare 31780

Customer Rhino  
To BS Services

From

Net Driver On Off X

40925 Weighmaster XD  
NMDA APPROVED

LICENSE #003



July 10, 1995

*Mark*  
Ms. Kathy Brown  
State of New Mexico  
Energy, Minerals, and Natural Resources Dept.  
Oil Conservation Division  
State Land Office Building  
P.O. Box 2088  
Santa Fe, New Mexico 87504

RE: May 1995 Monitoring Well Sampling Event  
BJ Services Company, U.S.A.  
Hobbs, New Mexico

Dear Ms. Brown:

Enclosed is the Monitoring Well Sampling Event Report prepared by Brown and Caldwell for the site previously owned by Western Company of North America in Hobbs, New Mexico. BJ Services Company, U.S.A. acquired the Western Company of North America on April 13, 1995. BJ Services will continue to work with the state to complete this project. I am the Manager, Environmental Services for BJ Services and will be the primary contact for this project. Please contact me at (713) 363-7528 or at the address below for any questions or concerns. I look forward to working with you on this matter.

Sincerely,

A handwritten signature in cursive script that reads "Jo Ann Cobb".

Jo Ann Cobb, REM  
Manager, Environmental Services

cc: Clint Chamberlain, BJ, Hobbs

# BROWN AND CALDWELL

June 29, 1995

Ms. Kathy Brown  
State of New Mexico  
Energy, Minerals, and Natural Resources Dept.  
Oil Conservation Division  
Post Office Box 2088  
State Land Office Building  
Santa Fe, New Mexico 87504

19-1892-10

Subject: BJ Services Company, U.S.A.  
Hobbs, New Mexico Facility  
May 1995 Monitoring Well Sampling Event

Dear Ms. Brown:

BJ Services Company, U.S.A. acquired The Western Company of North America (Western) oil well servicing district office in Hobbs, New Mexico effective April 13, 1995. On May 3 and 4, 1995, Brown and Caldwell conducted a groundwater monitoring well sampling event at the BJ Services facility located in Hobbs, New Mexico. The sampling event was conducted to determine concentrations of dissolved-phase hydrocarbons in the groundwater at the facility. The following is a description of the activities conducted during this sampling event.

The depth to groundwater was measured with an oil/water interface probe to the nearest 0.01 foot, and recorded in the field log book. A cumulative table of groundwater elevation data is presented on Table 1. The groundwater elevation data was used to calculate well purge volumes and estimate groundwater gradient and direction. The groundwater flow direction at the facility continues to be generally to the east. The groundwater elevations are 1.0 to 1.5 feet lower than measured in January 1994. Based on the current measurements, the gradient is estimated to be 0.005 feet per foot. A potentiometric surface map is presented in Figure 1.

Approximately 3 feet of phase-separated hydrocarbons (PSH) was detected in MW-4 and 0.2 feet of PSH was detected in MW-1. MW-2 could not be located and is assumed to have been destroyed during facility activities such as grading.

Monitoring well purging was accomplished using a 2-inch diameter stainless steel submersible pump. During purging of each well, pH, temperature, specific conductivity, dissolved oxygen (DO), and oxidation/reduction potential (Redox) readings were collected. These readings were collected at one well volume intervals. Two consecutive readings within five percent (for each of the three parameters: pH, temperature, and specific conductivity) were used to indicate that

*Use or disclosure of data contained on this sheet is subject to the restriction specified at the beginning of this document.*  
Environmental Engineering And Consulting • Analytical Services

1415 LOUISIANA, SUITE 2500, HOUSTON, TX 77002  
(713) 759-0999 FAX (713) 759-0952

groundwater had stabilized. The parameters in each monitoring well typically stabilized after two well volumes had been removed; however, at least three well volumes were removed from each well. The fresh water well was purged by allowing the well pump to remove water and discharge into the associated water storage tank. After purging activities were completed, each monitoring well was allowed to recover to near static water level before a groundwater sample was obtained. MW-1 and MW-4 were not sampled because of PSH present in the wells.

Groundwater samples were collected using disposable bailers. The fresh water well sample was obtained directly from a tap located at the wellhead. Samples were placed directly from the bailer or tap into laboratory cleaned sample containers and labelled. An equipment rinse blank was collected from the submersible pump by pouring distilled water over the pump and collecting the water in laboratory containers. The groundwater samples were then placed on ice, and shipped by overnight courier to BC Analytical in Glendale, California using chain-of-custody procedures.

Purging equipment was cleaned prior to each use by washing with a laboratory grade detergent, rinsing with tap water, and then rinsing with distilled water. Purged water and excess water generated by equipment cleaning operations was placed in the on-site waste collection system for treatment and disposal by BJ Services.

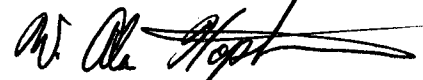
Groundwater samples collected during this sampling event were analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX) by EPA Method 8020, and nitrate, sulfate, and alkalinity.

Total concentrations of BTEX constituents above the laboratory detection limit were reported in the groundwater samples obtained from each monitoring well except MW-11 and the fresh water well. Total benzene concentrations ranged from 3.0 micrograms per liter ( $\mu\text{g/L}$ ) in MW-8 to 7,960  $\mu\text{g/L}$  in MW-6. Total BTEX concentrations ranged from 12.35  $\mu\text{g/L}$  in MW-8 to 36,900  $\mu\text{g/L}$  in MW-6. A cumulative summary of BTEX analytical results for groundwater samples is included as Table 2. The laboratory analytical reports and chain of custody record are included as Appendix A.

If you have any questions regarding the information contained in this letter report, please call me at (713) 759-0999.

Very truly yours,

BROWN AND CALDWELL



W. Alan Hopkins, P.G.  
Project Manager

Robert N. Jennings, P.E.  
Manager, Gulf Coast Region

cc: Ms. Jo Ann Cobb, BJ Services/Western Company of North America

# Tables

**TABLES**

Cumulative Groundwater Elevation Data  
Cumulative Results of BTEX Analysis for Groundwater Samples

**CUMULATIVE GROUNDWATER ELEVATION DATA**

Table 1.  
Cumulative Groundwater Elevation Data  
BJ Services/Western Hobbs Facility  
Hobbs, New Mexico

Well ID	Date Measured	Top of Casing Elevation (ft) (relative)	Depth to Water from TOC (ft)	Groundwater Elevation (ft)
MW-1	August 10, 1992	101.44	53.22	48.22
	February 9, 1993	101.44	53.03	48.41
	August 18, 1993	101.44	53.1	48.34
	January 26, 1994	101.44	53.31	48.13
	May 3, 1995	101.44	54.64	NA-Free product
MW-2	August 10, 1992	101.5	52.82	48.68
	February 9, 1993	98.75	49.6	49.15
	August 18, 1993	98.75	49.71	49.04
	January 26, 1994	98.75	49.97	48.78
	May 3, 1995	98.75	Well destroyed	
MW-3	August 10, 1992	101.44	52.99	48.45
	February 9, 1993	101.44	52.72	48.72
	August 18, 1993	101.44	52.82	48.62
	January 26, 1994	101.44	53.05	48.39
	May 3, 1995	101.44	54.31	47.13
MW-4	August 10, 1992	99.33	50.55	48.78
	February 9, 1993	99.33	50.26	49.07
	August 18, 1993	99.33	50.38	48.95
	January 26, 1994	99.33	50.9	48.43
	May 3, 1995	99.33	54.51	NA-Free product
MW-5	August 10, 1992	101.85	52.38	49.47
	February 9, 1993	101.85	52.06	49.79
	August 18, 1993	101.85	52.16	49.69
	January 26, 1994	101.85	52.5	49.35
	May 3, 1995	101.85	53.57	48.28
MW-6	August 10, 1992	NM	NM	NM
	February 9, 1993	99.25	50.58	48.67
	August 18, 1993	99.25	50.78	48.47
	January 26, 1994	99.25	51	48.25
	May 3, 1995	99.25	52.63	46.62
MW-7	August 10, 1992	NM	NM	NM
	February 9, 1993	98.96	50.53	48.43
	August 18, 1993	98.96	50.74	48.22
	January 26, 1994	98.96	51.01	47.95
	May 3, 1995	98.96	52.25	46.71
MW-8	August 10, 1992	NM	NM	NM
	February 9, 1993	99.12	50.48	48.64
	August 18, 1993	99.12	50.67	48.45
	January 26, 1994	99.12	50.96	48.16
	May 3, 1995	99.12	52.15	46.97
MW-9	August 10, 1992	NM	NM	NM
	February 9, 1993	NM	NM	NM
	April 22, 1993	99.18	49.73	49.45
	July 15, 1993	99.18	49.65	49.53
	August 18, 1993	99.18	49.85	49.33
	January 26, 1994	99.18	50.02	49.16
MW-10	May 3, 1995	99.18	51.35	47.83
	August 10, 1992	NM	NM	NM
	February 9, 1993	NM	NM	NM
	August 18, 1993	98.9	51.54	47.36
	January 26, 1994	98.9	51.9	47
MW-11	May 3, 1995	98.9	52.97	45.93
	August 10, 1992	NM	NM	NM
	February 9, 1993	NM	NM	NM
	August 18, 1993	98.82	51.92	46.9
	January 26, 1994	98.92	52.32	46.6
	May 3, 1995	98.92	53.38	45.54

NA-Free product: Free phase hydrocarbons were encountered in the well. No water level was calculated.

Note: MW-2 could not be located and is assumed destroyed.

NM - Not measured.

**CUMULATIVE RESULTS OF BTEX ANALYSIS FOR GROUNDWATER SAMPLES**

Table 2.  
Cumulative Results of BTEX Analysis for Groundwater Samples  
BJ Services/Western Hobbs Facility  
Hobbs, New Mexico

Well ID	Sampling Date	Benzene	Toluene	Ethylbenzene	Xylenes
MW-1	8/10/92	5,550	12,090	2,160	7,370
	2/9/93	2,100	6,500	1,300	7,400
	8/19/93	3,200	7,300	1,200	3,700
	1/27/94	1,930	4,580	672	2,390
	5/3/95	NS	NS	NS	NS
MW-2	8/10/93	14.9	<4.0	<4.0	<4.0
	2/9/93	<2.0	<2.0	<2.0	<6.0
	8/19/93	100	12	3	13
	1/27/94	<1.0	1.2	2	2.5
	5/3/95	NS	NS	NS	NS
MW-3	8/10/93	304.9	2,099	6,760	1,586
	2/9/93	130	<10.0	<10.0	190
	8/19/93	560	3,100	630	1,900
	1/27/94	1,070	5,380	510	3,120
	5/4/95	770	3,300	470	1,800
MW-4	8/10/93	2,594	10,360	2,160	6,740
	2/9/93	5,200	15,000	2,200	10,000
	8/19/93	3,000	12,000	<2,000	7,000
	1/27/94	NS	NS	NS	NS
	5/3/95	NS	NS	NS	NS
MW-5	8/10/93	<4.0	<4.0	<4.0	<4.0
	2/9/93	<2.0	<2.0	<2.0	<6.0
	8/10/93	<2.0	<2.0	<2.0	<2.0
	1/27/94	8.7	29.9	4	11.3
	5/3/95	3.7	5.3	0.92	4.6
MW-6	8/10/92	NS	NS	NS	NS
	2/9/93	7,000	19,000	3,100	7,200
	8/19/93	8,100	19,000	3,500	6,400
	1/27/94	7,960	20,200	3,830	6,150
	5/4/95	11,000	17,000	2,900	6,000
MW-7	8/10/92	NS	NS	NS	NS
	2/9/93	<2.0	<2.0	<2.0	<6.0
	8/19/93	<2.0	3	<2.0	<2.0
	1/27/94	1.1	<1.0	<1.0	<1.0
	5/3/95	52	3.4	0.67	2.8
MW-8	8/10/92	NS	NS	NS	NS
	2/9/93	<2.0	<2.0	<2.0	<6.0
	8/19/93	<2.0	<2.0	<2.0	<2.0
	1/27/94	<1.0	<1.0	<1.0	<1.0
	5/3/95	3	4.9	0.75	3.7
MW-9	8/10/92	NS	NS	NS	NS
	2/9/93	NS	NS	NS	NS
	4/22/93	570	380	<50.0	870
	7/15/93	121	7.3	3	458
	8/19/93	390	290	40	250
	1/27/94	327	357	51.1	293
	5/3/95	380	110	19	120
MW-10	8/10/92	NS	NS	NS	NS
	2/9/93	NS	NS	NS	NS
	8/19/93	190	460	<200	240
	1/27/94	13.4	4	5.5	33.6
	5/4/95	980	15	11	84
MW-11	8/10/92	NS	NS	NS	NS
	2/9/93	NS	NS	NS	NS
	8/19/93	<2.0	<2.0	<2.0	<2.0
	1/27/94	<1.0	<1.0	<1.0	<1.0
	5/4/95	<0.3	<0.3	<0.3	<0.6
Fresh Water Well	8/10/92	<4.0	<4.0	<4.0	<4.0
	2/9/93	77	10	<2.0	73
	8/19/93	NS	NS	NS	NS
	1/27/94	<1.0	<1.0	<1.0	<1.0
	5/4/95	<0.3	<0.3	<0.3	<0.6

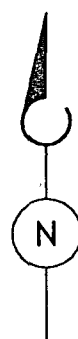
NS - Not sampled



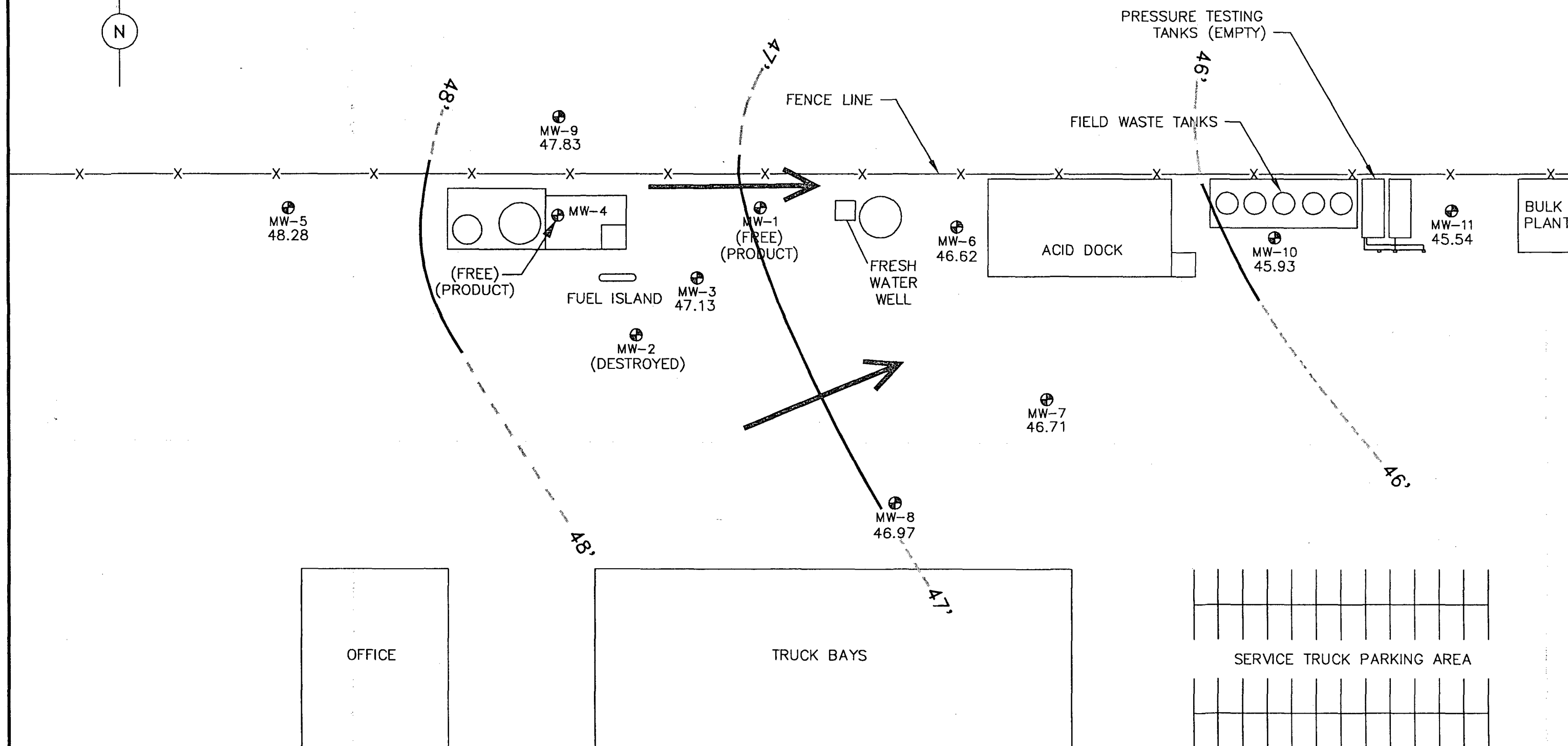
**FIGURE**

Potentiometric Surface Map

**POTENTIOMETRIC SURFACE MAP**



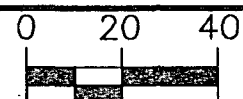
HOMCO PROPERTY



T:\1892\POTENTIO 8/29/95 DHD

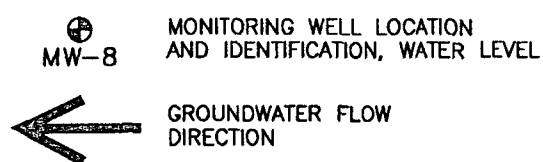
**BROWN AND CALDWELL**  
HOUSTON, TEXAS

SUBMITTED: \_\_\_\_\_ DATE: \_\_\_\_\_  
PROJECT MANAGER  
APPROVED: \_\_\_\_\_ DATE: \_\_\_\_\_  
BROWN AND CALDWELL



SCALE: 1" = 40'  
DRAWN BY: DHD DATE 5/22  
CHK'D BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
APPROVED: \_\_\_\_\_ DATE: \_\_\_\_\_

LEGEND



TITLE	POTENTIOMETRIC SURFACE MAP	DATE	6/29/95
CLIENT	BJ SERVICES/WESTERN	PROJECT NUMBER	1892-10
SITE	HOBBS, NEW MEXICO	FIGURE NUMBER	1

# Appendices

## **APPENDICES**

Laboratory Analytical Reports

A



**LABORATORY ANALYTICAL REPORTS**

## ***B C Analytical***

801 Western Avenue  
Glendale, CA 91201  
818/247-5737  
Fax: 818/247-9797

May 16, 1995

Brown and Caldwell Consultants  
1415 Louisiana, Suite 2500  
Houston, Tx 77002  
Attn: Mr. Alan Hopkins

Dear Mr. Hopkins,

Enclosed is the analytical report for chemical testing for samples taken on 04/26/95.  
It includes the following:

- 1) Analytical Report of results
- 2) QC summary including LCS/LCSD, MS/MSD, duplicate samples, method blanks, and surrogates.
- 3) Cross reference sheet containing analyte, date analyzed, method, and batch number.
- 4) Case narrative explaining QC deficiencies and/or problems encountered in testing.
- 5) Electronic data in agreed upon format.

If you have any questions, please do not hesitate to call.

Very truly yours,

*Brian Moore*

Brian Moore  
Program Specialist



## ***B C Analytical***

---

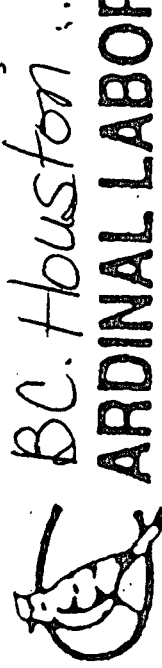
801 Western Avenue  
Glendale, CA 91201  
818/247-5737  
Fax: 818/247-9797

### **Case Narrative**

All quality objectives were met including holding times, LCS/LCSD, MS/MSD, Duplicate samples, and Method Blanks as applicable.

No analytical difficulties were encountered with any project samples with the following:

All samples for method 8020 BTEX that were received in duplicate were analyzed in duplicate (both vials were analyzed and reported). The results for the duplicates all match except samples G95-05-088-7 and G95-05-088-14 (MW-10). Both vials were analyzed a second time, and both vials showed similar results.



118 S. Commercial Ave.  
 Farmington, NM 87401  
 505-326-4669  
 FAX 505-326-4535

101 E. Marland  
 Hobbs, NM 88240  
 505-393-2326  
 FAX 505-393-2476

# Chain of Custody Record

Project I.D. WESTERN-HOBBS  
 Project Location \_\_\_\_\_  
 Sampled By ALAN HOPKINS  
 Client Name \_\_\_\_\_  
 Address #1892-10  
 Telephone \_\_\_\_\_

Sample Number	Date	Time	Composite	Grab	Sample Location	Number of Containers	Analysis Required	Remarks (Type sample, preservation, etc.)
	5/3/14	1415		X	MW-9	3	X	
	5/3	1545		X	MW-5	3	X	
	5/3	1715		X	MW-8	3	X	
	5/3	1815		X	MW-7	3	X	
	5/4	1630		X	MW-11	3	X	
		1645		X	MW-10	3	X	
		1700		X	MW-6	3	X	
		1715		X	MW-3	3	X	
				X	DUPE-1	2	X	
		1730		X	RINSE BLANK	2	X	
				X	TRIP BLANK	2	X	

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for the analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal regardless of whether such

Released by: (Signature) [Signature] Date 5/1/17 Time 1700  
 Received by: (Signature) Susan C. [Signature]  
 Released by: (Signature) [Signature] Date 5/4/15 Time 1715  
 Received by: (Signature) [Signature] Date 5/5/15 Time 1040



# ARDINAL LABORATORIES

118 S. Commercial Ave.  
Farmington, NM 87401  
505-326-4669  
FAX 505-326-4535

# Chain of Custody Record

Project I.D. WESTERN-HOBBS  
Project Location \_\_\_\_\_  
Sampled By ALAN HOPKINS  
Client Name \_\_\_\_\_  
Address # 1892-10  
Telephone \_\_\_\_\_

[illegible]

## ANALYTICAL REPORT

**B C Analytical**

801 Western Avenue  
Glendale, CA 91201  
818/247-5737  
Fax: 818/247-9797

LOG NO: G95-05-088

Received: 05 MAY 95

Mailed: MAY 16 1995

Mr. Alan Hopkins  
Brown and Caldwell Consultants  
1415 Louisiana, Suite 2500  
Houston, Texas 77002

Project: 1892-10

## REPORT OF ANALYTICAL RESULTS

Page 1

LOG NO	SAMPLE DESCRIPTION, GROUND WATER SAMPLES					DATE SAMPLED
05-088-1	MW-9					03 MAY 95
05-088-2	MW-5					03 MAY 95
05-088-3	MW-8					03 MAY 95
05-088-4	MW-7					03 MAY 95
05-088-5	MW-11					04 MAY 95
PARAMETER	05-088-1	05-088-2	05-088-3	05-088-4	05-088-5	
Nitrate (300.0/9056), mg/L	6.7	30	9.8	9.0	2.8	
Sulfate (300.0/9056), mg/L	130	240	130	160	240	
Alkalinity (310.1)						
Carbonate Alk (as CaCO <sub>3</sub> ), mg/L	<1	<1	<1	<1	<1	
Bicarbonate Alk (as CaCO <sub>3</sub> ), mg/L	500	300	310	450	530	
Hydroxide Alk (as CaCO <sub>3</sub> ), mg/L	<1	<1	<1	<1	<1	
Total Alkalinity (as CaCO <sub>3</sub> ), mg/L	500	300	310	450	530	
EPA 8020 BTEX						
Date Analyzed	05/09/95	05/09/95	05/09/95	05/10/95	05/10/95	
Dilution Factor, Times	2	1	1	1	1	
Benzene, ug/L	380	3.7	3.0	52	<0.3	
Toluene, ug/L	110	5.3	4.9	3.4	<0.3	
Ethylbenzene, ug/L	19	0.92	0.75	0.67	<0.3	
Total Xylene Isomers, ug/L	120	4.6	3.7	2.8	<0.6	
Other EPA 8020 BTEX	---	---	---	---	---	

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## REPORT OF ANALYTICAL RESULTS

Page 2

LOG NO	SAMPLE DESCRIPTION, GROUND WATER SAMPLES	DATE SAMPLED		
05-088-6	MW-10	04 MAY 95		
05-088-7	MW-6	04 MAY 95		
05-088-8	MW-3	04 MAY 95		
PARAMETER		05-088-6	05-088-7	05-088-8
Nitrate (300.0/9056), mg/L		1.6	<0.2	5.6
Sulfate (300.0/9056), mg/L		91	8.4	140
Alkalinity (310.1)				
Carbonate Alk (as CaCO3), mg/L		<1	<1	<1
Bicarbonate Alk (as CaCO3), mg/L		480	650	390
Hydroxide Alk (as CaCO3), mg/L		<1	<1	<1
Total Alkalinity (as CaCO3), mg/L		480	650	390
EPA 8020 BTEX				
Date Analyzed		05/10/95	05/12/95	05/12/95
Dilution Factor, Times		5	100	50
Benzene, ug/L		980	11000	770
Toluene, ug/L		15	17000	3300
Ethylbenzene, ug/L		11	2900	470
Total Xylene Isomers, ug/L		84	6000	1800
Other EPA 8020 BTEX		---	---	---

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Project: 1892-10

## REPORT OF ANALYTICAL RESULTS

Page 3

LOG NO	SAMPLE DESCRIPTION, GROUND WATER SAMPLES					DATE SAMPLED
05-088-9	MW-9	Dup				03 MAY 95
05-088-10	MW-5	Dup				03 MAY 95
05-088-11	MW-8	Dup				03 MAY 95
05-088-12	MW-7	Dup				03 MAY 95
05-088-13	MW-11	Dup				04 MAY 95
PARAMETER	05-088-9	05-088-10	05-088-11	05-088-12	05-088-13	
EPA 8020 BTEX						
Date Analyzed	05/09/95	05/09/95	05/09/95	05/09/95	05/10/95	
Dilution Factor, Times	2	1	1	1	1	
Benzene, ug/L	360	3.7	4.0	53	<0.3	
Toluene, ug/L	110	5.0	5.1	4.6	<0.3	
Ethylbenzene, ug/L	18	0.88	0.86	0.87	<0.3	
Total Xylene Isomers, ug/L	120	4.1	3.5	3.4	<0.6	
Other EPA 8020 BTEX	---	---	---	---	---	

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LOG NO: G95-05-088

Received: 05 MAY 95

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Houston, Texas 77002

Project: 1892-10

## REPORT OF ANALYTICAL RESULTS

Page 4

LOG NO	SAMPLE DESCRIPTION, GROUND WATER SAMPLES	DATE SAMPLED			
05-088-14	MW-10 Dup	04 MAY 95			
05-088-15	MW-6 Dup	04 MAY 95			
05-088-16	MW-3 Dup	04 MAY 95			
05-088-17	Dupe-1	04 MAY 95			
PARAMETER		05-088-14	05-088-15	05-088-16	05-088-17
EPA 8020 BTEX					
Date Analyzed		05/10/95	05/12/95	05/12/95	05/11/95
Dilution Factor, Times		5	100	50	100
Benzene, ug/L		980	4900	790	9600
Toluene, ug/L		14	6900	3500	15000
Ethylbenzene, ug/L		9.9	1100	430	2600
Total Xylene Isomers, ug/L		84	2500	1800	5400
Other EPA 8020 BTEX		---	---	---	---



# B C Analytical

801 Western Avenue  
Glendale, CA 91201  
818/247-5737  
Fax: 818/247-9797

LOG NO: G95-05-088

Received: 05 MAY 95

Mr. Alan Hopkins  
Brown and Caldwell Consultants  
1415 Louisiana, Suite 2500  
Houston, Texas 77002

Project: 1892-10

## REPORT OF ANALYTICAL RESULTS

Page 5

LOG NO	SAMPLE DESCRIPTION, BLANK WATER SAMPLES	DATE SAMPLED	
05-088-18	Rinse Blank	04 MAY 95	
05-088-19	Trip Blank	04 MAY 95	
PARAMETER		05-088-18	05-088-19
EPA 8020 BTEX			
Date Analyzed		05/11/95	05/11/95
Dilution Factor, Times		1	1
Benzene, ug/L		<0.3	<0.3
Toluene, ug/L		<0.3	<0.3
Ethylbenzene, ug/L		<0.3	<0.3
Total Xylene Isomers, ug/L		<0.6	<0.6
Other EPA 8020 BTEX		---	---

# B C Analytical

801 Western Avenue  
Glendale, CA 91201  
818/247-5737  
Fax: 818/247-9797

## ANALYTICAL REPORT

LOG NO: G95-05-110

Received: 08 MAY 95


Mr. Alan Hopkins  
Brown and Caldwell Consultants  
1415 Louisiana, Suite 2500  
Houston, Texas 77002

Project: 1892-10

### REPORT OF ANALYTICAL RESULTS

Page 1

LOG NO	SAMPLE DESCRIPTION, GROUND WATER SAMPLES	DATE SAMPLED
05-110-1	Well	04 MAY 95
PARAMETER	05-110-1	
EPA 8020 BTEX		
Date Analyzed	05/11/95	
Dilution Factor, Times	1	
Benzene, ug/L	<0.3	
Toluene, ug/L	<0.3	
Ethylbenzene, ug/L	<0.3	
Total Xylene Isomers, ug/L	<0.6	
Other EPA 8020 BTEX	---	

  
Jane Freemyer, Program Manager

: ORDER PLACED FOR CLIENT: Brown and Caldwell Consultants 9505088 :  
 : BC ANALYTICAL : GLEN LAB : 15:06:16 15 MAY 1995 - P. 1 :  
 =====

SAMPLES...	SAMPLE DESCRIPTION..	DETERM.....	DATE.....	METHOD.....	EQUIP.	BATCH..
			ANALYZED			
9505088*1	MW-9	ANIONS, NO3	05.05.95	300.0	533-23	950505
		ANIONS, SO4	05.05.95	300.0	533-23	950505
		ALK	05.10.95	310.1	533-08	9524
		GAS.BTEX	05.09.95	8015M	536-21	95205
9505088*2	MW-5	ANIONS, NO3	05.05.95	300.0	533-23	950505
		ANIONS, SO4	05.05.95	300.0	533-23	950505
		ALK	05.10.95	310.1	533-08	9524
		GAS.BTEX	05.09.95	8015M	536-21	95203
9505088*3	MW-8	ANIONS, NO3	05.05.95	300.0	533-23	950505
		ANIONS, SO4	05.05.95	300.0	533-23	950505
		ALK	05.10.95	310.1	533-08	9524
		GAS.BTEX	05.09.95	8015M	536-21	95203
9505088*4	MW-7	ANIONS, NO3	05.05.95	300.0	533-23	950505
		ANIONS, SO4	05.05.95	300.0	533-23	950505
		ALK	05.10.95	310.1	533-08	9524
		GAS.BTEX	05.10.95	8015M	536-21	95206
9505088*5	MW-11	ANIONS, NO3	05.05.95	300.0	533-23	950505
		ANIONS, SO4	05.05.95	300.0	533-23	950505
		ALK	05.10.95	310.1	533-08	9524
		GAS.BTEX	05.10.95	8015M	536-21	95206
9505088*6	MW-10	ANIONS, NO3	05.05.95	300.0	533-23	950505
		ANIONS, SO4	05.05.95	300.0	533-23	950505
		ALK	05.10.95	310.1	533-08	9524
		GAS.BTEX	05.10.95	8015M	536-21	95206
9505088*7	MW-6	ANIONS, NO3	05.05.95	300.0	533-23	950505
		ANIONS, SO4	05.05.95	300.0	533-23	950505
		ALK	05.10.95	310.1	533-08	9524
		GAS.BTEX	05.12.95	8015M	536-21	95207
9505088*8	MW-3	ANIONS, NO3	05.05.95	300.0	533-23	950505
		ANIONS, SO4	05.05.95	300.0	533-23	950505
		ALK	05.10.95	310.1	533-08	9524
		GAS.BTEX	05.12.95	8015M	536-21	95207
9505088*9	MW-9 Dup	GAS.BTEX	05.09.95	8015M	536-21	95205
9505088*10	MW-5 Dup	GAS.BTEX	05.09.95	8015M	536-21	95203
9505088*11	MW-8 Dup	GAS.BTEX	05.09.95	8015M	536-21	95203
9505088*12	MW-7 Dup	GAS.BTEX	05.09.95	8015M	536-21	95205
9505088*13	MW-11 Dup	GAS.BTEX	05.10.95	8015M	536-21	95205
9505088*14	MW-10 Dup	GAS.BTEX	05.10.95	8015M	536-21	95206
9505088*15	MW-6 Dup	GAS.BTEX	05.12.95	8015M	536-21	95207
9505088*16	MW-3 Dup	GAS.BTEX	05.12.95	8015M	536-21	95207
9505088*17	Dupe-1	GAS.BTEX	05.11.95	8015M	536-21	95207
9505088*18	Rinse Blank	GAS.BTEX	05.11.95	8015M	536-21	95207
9505088*19	Trip Blank	GAS.BTEX	05.11.95	8015M	536-21	95207

Notes: Equipment = BC Analytical identification number for a particular piece of analytical equipment.

ID.NO = BC Analytical employee identification number of analyst.

: ORDER PLACED FOR CLIENT: Brown and Caldwell Consultants 9505110 :  
: BC ANALYTICAL : GLEN LAB : 15:06:16 15 MAY 1995 - P. 2 :  
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SAMPLES...	SAMPLE DESCRIPTION..	DETERM.....	DATE.....	METHOD.....	EQUIP.	BATCH..
			ANALYZED			

9505110*1	Well	GAS.BTEX	05.11.95	8015M	536-21	95207
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Notes: Equipment = BC Analytical identification number for a particular piece of analytical equipment.

ID.NO = BC Analytical employee identification number of analyst.

## BC ANALYTICAL

## ORDER QC REPORT FOR G9505110

DATE REPORTED : 05/15/95

Page 1

LABORATORY CONTROL STANDARDS  
FOR BATCHES WHICH INCLUDE THIS ORDER

PARAMETER	DATE ANALYZED	BATCH NUMBER	LC RESULT	LT RESULT	UNIT	PERCENT RECOVERY
1. Nitrate (300.0/905	C5051018*1	05.05.95 950505	23.6	25.0	mg/L	94
2. Nitrate (300.0/905	C5051019*1	05.05.95 950505	23.4	25.0	mg/L	94
3. Sulfate (300.0/905	C5051022*1	05.05.95 950505	98.9	100	mg/L	99
4. Sulfate (300.0/905	C5051023*1	05.05.95 950505	97.4	100	mg/L	97
5. Alkalinity (310.1)	C5051002*1					
Bicarbonate Alk (as CaCO <sub>3</sub> )	05.10.95 9524		610	596	mg/L	102
Total Alkalinity (as CaCO <sub>3</sub> )	05.10.95 9524		610	596	mg/L	102
6. Alkalinity (310.1)	C5051003*1					
Bicarbonate Alk (as CaCO <sub>3</sub> )	05.10.95 9524		622	596	mg/L	104
Total Alkalinity (as CaCO <sub>3</sub> )	05.10.95 9524		622	596	mg/L	104
7. EPA 8020 BTEX	C5051407*1					
Date Analyzed	05.09.95 95205	05/09/95	05/09/95	Date		N/A
Benzene	05.09.95 95205		15.9	15.2	ug/L	105
Toluene	05.09.95 95205		93.3	97.4	ug/L	96
Ethylbenzene	05.09.95 95205		19.7	20.4	ug/L	97
Total Xylene Isomers	05.09.95 95205		112	119	ug/L	94
8. EPA 8020 BTEX	C5051408*1					
Date Analyzed	05.09.95 95205	05/09/95	05/09/95	Date		N/A
Benzene	05.09.95 95205		14.6	15.2	ug/L	96
Toluene	05.09.95 95205		85.4	97.4	ug/L	88
Ethylbenzene	05.09.95 95205		18.1	20.4	ug/L	89
Total Xylene Isomers	05.09.95 95205		103	119	ug/L	87
9. TPH (8015M/8020)	C5051038*1					
Date Analyzed	05.08.95 95203	05/08/95	05/08/95	Date		N/A
Benzene	05.08.95 95203		13.1	15.2	ug/L	86
Toluene	05.08.95 95203		87.1	97.4	ug/L	89
Ethylbenzene	05.08.95 95203		18.1	20.4	ug/L	89
Total Xylene Isomers	05.08.95 95203		104	119	ug/L	87
TPH (Gasoline Range)	05.08.95 95203		1030	1100	ug/L	94
10. TPH (8015M/8020)	C5051039*1					
Date Analyzed	05.08.95 95203	05/08/95	05/08/95	Date		N/A
Benzene	05.08.95 95203		11.9	15.2	ug/L	78
Toluene	05.08.95 95203		84.6	97.4	ug/L	87
Ethylbenzene	05.08.95 95203		17.4	20.4	ug/L	85
Total Xylene Isomers	05.08.95 95203		98.1	119	ug/L	82
TPH (Gasoline Range)	05.08.95 95203		1010	1100	ug/L	92
11. TPH (8015M/8020)	C5051475*1					
Date Analyzed	05.10.95 95206	05/10/95	05/10/95	Date		N/A
Benzene	05.10.95 95206		13.9	15.2	ug/L	91
Toluene	05.10.95 95206		89.6	97.4	ug/L	92
Ethylbenzene	05.10.95 95206		19.9	20.4	ug/L	98
Total Xylene Isomers	05.10.95 95206		113	119	ug/L	95
TPH (Gasoline Range)	05.10.95 95206		1020	1100	ug/L	93
12. TPH (8015M/8020)	C5051476*1					
Date Analyzed	05.10.95 95206	05/10/95	05/10/95	Date		N/A

## BC ANALYTICAL

ORDER QC REPORT FOR G9505110

DATE REPORTED : 05/15/95

Page 2

LABORATORY CONTROL STANDARDS  
FOR BATCHES WHICH INCLUDE THIS ORDER

PARAMETER	DATE ANALYZED	BATCH NUMBER	LC RESULT	LT RESULT	UNIT	PERCENT RECOVERY
Benzene	05.10.95	95206	13.4	15.2	ug/L	88
Toluene	05.10.95	95206	89.0	97.4	ug/L	91
Ethylbenzene	05.10.95	95206	20.1	20.4	ug/L	99
Total Xylene Isomers	05.10.95	95206	114	119	ug/L	96
TPH (Gasoline Range)	05.10.95	95206	990	1100	ug/L	90
13. TPH (8015M/8020)	C5051631*1					
Date Analyzed	05.11.95	95207	05/11/95	05/11/95	Date	N/A
Benzene	05.11.95	95207	16.5	15.2	ug/L	109
Toluene	05.11.95	95207	96.6	97.4	ug/L	99
Ethylbenzene	05.11.95	95207	21.4	20.4	ug/L	105
Total Xylene Isomers	05.11.95	95207	121	119	ug/L	102
TPH (Gasoline Range)	05.11.95	95207	1010	1100	ug/L	92
14. TPH (8015M/8020)	C5051632*1					
Date Analyzed	05.11.95	95207	05/11/95	05/11/95	Date	N/A
Benzene	05.11.95	95207	14.7	15.2	ug/L	97
Toluene	05.11.95	95207	91.0	97.4	ug/L	93
Ethylbenzene	05.11.95	95207	20.6	20.4	ug/L	101
Total Xylene Isomers	05.11.95	95207	115	119	ug/L	97
TPH (Gasoline Range)	05.11.95	95207	1090	1100	ug/L	99

## BC ANALYTICAL

## ORDER QC REPORT FOR G9505110

DATE REPORTED : 05/15/95

Page 1

ADDITIONAL LCS PRECISION (DUPLICATES)  
FOR SAMPLES ON THIS ORDER

PARAMETER	SAMPLE NUMBER	DATE ANALYZED	BATCH NUMBER	LC1 RESULT	LC2 RESULT	UNIT	RELATIVE % DIFF
1. Nitrate (300.0/905		05.05.95	950505	23.6	23.4	mg/L	1
2. Sulfate (300.0/905		05.05.95	950505	98.9	97.4	mg/L	2
3. Alkalinity (310.1)							
Carbonate Alk (as CaCO3)		05.10.95	9524	<1	<1	mg/L	NA
Bicarbonate Alk (as CaCO3)		05.10.95	9524	610	622	mg/L	2
Hydroxide Alk (as CaCO3)		05.10.95	9524	<1	<1	mg/L	NA
Total Alkalinity (as CaCO3)		05.10.95	9524	610	622	mg/L	2
4. EPA 8020 BTEX							
Date Analyzed		05.09.95	95205	05/09/95	05/09/95	Date	N/A
Benzene		05.09.95	95205	15.9	14.6	ug/L	9
Toluene		05.09.95	95205	93.3	85.4	ug/L	9
Ethylbenzene		05.09.95	95205	19.7	18.1	ug/L	8
Total Xylene Isomers		05.09.95	95205	112	103	ug/L	8
5. TPH (8015M/8020)							
Date Analyzed		05.08.95	95203	05/08/95	05/08/95	Date	N/A
Benzene		05.08.95	95203	13.1	11.9	ug/L	10
Toluene		05.08.95	95203	87.1	84.6	ug/L	3
Ethylbenzene		05.08.95	95203	18.1	17.4	ug/L	4
Total Xylene Isomers		05.08.95	95203	104	98.1	ug/L	6
TPH (Gasoline Range)		05.08.95	95203	1030	1010	ug/L	2
6. TPH (8015M/8020)							
Date Analyzed		05.10.95	95206	05/10/95	05/10/95	Date	N/A
Benzene		05.10.95	95206	13.9	13.4	ug/L	4
Toluene		05.10.95	95206	89.6	89.0	ug/L	1
Ethylbenzene		05.10.95	95206	19.9	20.1	ug/L	1
Total Xylene Isomers		05.10.95	95206	113	114	ug/L	1
TPH (Gasoline Range)		05.10.95	95206	1020	990	ug/L	3
7. TPH (8015M/8020)							
Date Analyzed		05.11.95	95207	05/11/95	05/11/95	Date	N/A
Benzene		05.11.95	95207	16.5	14.7	ug/L	12
Toluene		05.11.95	95207	96.6	91.0	ug/L	6
Ethylbenzene		05.11.95	95207	21.4	20.6	ug/L	4
Total Xylene Isomers		05.11.95	95207	121	115	ug/L	5
TPH (Gasoline Range)		05.11.95	95207	1010	1090	ug/L	8

BC ANALYTICAL

ORDER QC REPORT FOR G9505110

DATE REPORTED : 05/15/95

Page 1

MATRIX QC PRECISION (DUPLICATE SPIKES)  
FOR SAMPLES ON THIS ORDER

PARAMETER	SAMPLE NUMBER	DATE ANALYZED	BATCH NUMBER	MS RESULT	MSD RESULT	UNIT	RELATIVE % DIFF
1. Nitrate (300.0/905	9505088*1	05.05.95	950505	37.6	37.0	mg/L	2
2. Sulfate (300.0/905	9505088*1	05.05.95	950505	154	153	mg/L	1

## BC ANALYTICAL

## ORDER QC REPORT FOR G9505110

DATE REPORTED : 05/15/95

Page 1

MATRIX QC ACCURACY (SPIKES)  
FOR SAMPLES ON THIS ORDER

PARAMETER	SAMPLE NUMBER	DATE ANALYZED	BATCH NUMBER	MS %	MSD %	TRUE RESULT	UNIT	
1. Nitrate (300.0/905	9505088*1	05.05.95	950505	94	92	39.7	mg/L	
2. Sulfate (300.0/905	9505088*1	05.05.95	950505	NC	NC	158	mg/L	NC

## BC ANALYTICAL

## ORDER QC REPORT FOR G9505110

DATE REPORTED : 05/15/95

Page 1

METHOD BLANKS AND REPORTING DETECTION LIMIT (RDL)  
FOR BATCHES WHICH INCLUDE THIS ORDER

PARAMETER	DATE ANALYZED	BATCH NUMBER	BLANK RESULT	RDL	UNIT	METHOD
1. Nitrate (300.0/905 B505496*1	05.05.95	950505	0	0.1	mg/L	300.0
2. Sulfate (300.0/905 B505498*1	05.05.95	950505	0	0.1	mg/L	300.0
3. Alkalinity (310.1) B505734*1						
Carbonate Alk (as CaCO3)	05.10.95	9524	<1	10	mg/L	310.1
Bicarbonate Alk (as CaCO3)	05.10.95	9524	0	10	mg/L	310.1
Hydroxide Alk (as CaCO3)	05.10.95	9524	<1	10	mg/L	310.1
Total Alkalinity (as CaCO3)	05.10.95	9524	0	10	mg/L	310.1
4. EPA 8020 BTEX B505694*1						
Date Analyzed	05.09.95	95205	05/09/95	NA	Date	8015M
Benzene	05.09.95	95205	0	0.3	ug/L	8015M
Toluene	05.09.95	95205	0.14	0.3	ug/L	8015M
Ethylbenzene	05.09.95	95205	0	0.3	ug/L	8015M
Total Xylene Isomers	05.09.95	95205	0.17	0.6	ug/L	8015M
5. TPH (8015M/8020) B505506*1						
Date Analyzed	05.08.95	95203	05/08/95	NA	Date	8015M.TX
Benzene	05.08.95	95203	0.19	0.5	ug/L	8015M.TX
Toluene	05.08.95	95203	0.14	0.5	ug/L	8015M.TX
Ethylbenzene	05.08.95	95203	0.14	0.5	ug/L	8015M.TX
Total Xylene Isomers	05.08.95	95203	0.43	0.5	ug/L	8015M.TX
TPH (Gasoline Range)	05.08.95	95203	35	50	ug/L	8015M.TX
6. TPH (8015M/8020) B505728*1						
Date Analyzed	05.10.95	95206	05/10/95	NA	Date	8015M.TX
Benzene	05.10.95	95206	0	0.5	ug/L	8015M.TX
Toluene	05.10.95	95206	0.094	0.5	ug/L	8015M.TX
Ethylbenzene	05.10.95	95206	0	0.5	ug/L	8015M.TX
Total Xylene Isomers	05.10.95	95206	0.11	0.5	ug/L	8015M.TX
TPH (Gasoline Range)	05.10.95	95206	21	50	ug/L	8015M.TX
7. TPH (8015M/8020) B505806*1						
Date Analyzed	05.11.95	95207	05/11/95	NA	Date	8015M.TX
Benzene	05.11.95	95207	0	0.5	ug/L	8015M.TX
Toluene	05.11.95	95207	0.27	0.5	ug/L	8015M.TX
Ethylbenzene	05.11.95	95207	0	0.5	ug/L	8015M.TX
Total Xylene Isomers	05.11.95	95207	0.33	0.5	ug/L	8015M.TX
TPH (Gasoline Range)	05.11.95	95207	33	50	ug/L	8015M.TX

: SURROGATE RECOVERIES :

: BC ANALYTICAL : GLEN LAB : 15:06:13 15 MAY 1995 - P. 1 :

METHOD	ANALYTE	BATCH	ANALYZED	REPORTED	TRUE	%REC	FLAG
9505088*1							
8015M	a,a,a-Trifluorotoluene	95205	05/09/95	45.1	50.0	90	
9505088*2							
8015M	a,a,a-Trifluorotoluene	95203	05/09/95	51.4	50.0	103	
9505088*3							
8015M	a,a,a-Trifluorotoluene	95203	05/09/95	51.6	50.0	103	
9505088*4							
8015M	a,a,a-Trifluorotoluene	95206	05/10/95	51.1	50.0	102	
9505088*5							
8015M	a,a,a-Trifluorotoluene	95206	05/10/95	51.4	50.0	103	
9505088*6							
8015M	a,a,a-Trifluorotoluene	95206	05/10/95	50.1	50.0	100	
9505088*7							
8015M	a,a,a-Trifluorotoluene	95207	05/12/95	50.8	50.0	102	
9505088*8							
8015M	a,a,a-Trifluorotoluene	95207	05/12/95	49.7	50.0	99	
9505088*9							
8015M	a,a,a-Trifluorotoluene	95205	05/09/95	45.6	50.0	91	
9505088*10							
8015M	a,a,a-Trifluorotoluene	95203	05/09/95	51.1	50.0	102	
9505088*11							
8015M	a,a,a-Trifluorotoluene	95203	05/09/95	51.8	50.0	104	
9505088*12							
8015M	a,a,a-Trifluorotoluene	95205	05/09/95	51.4	50.0	103	
9505088*13							
8015M	a,a,a-Trifluorotoluene	95205	05/10/95	51.2	50.0	102	
9505088*14							
8015M	a,a,a-Trifluorotoluene	95206	05/10/95	49.9	50.0	100	

: SURROGATE RECOVERIES :

: BC ANALYTICAL : GLEN LAB : 15:06:13 15 MAY 1995 - P. 2 :

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METHOD	ANALYTE	BATCH	ANALYZED	REPORTED	TRUE	%REC	FLAG
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9505088\*15

8015M	a,a,a-Trifluorotoluene	95207	05/12/95	50.6	50.0	101
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9505088\*16

8015M	a,a,a-Trifluorotoluene	95207	05/12/95	47.6	50.0	95
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9505088\*17

8015M	a,a,a-Trifluorotoluene	95207	05/11/95	50.9	50.0	102
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9505088\*18

8015M	a,a,a-Trifluorotoluene	95207	05/11/95	51.6	50.0	103
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9505088\*19

8015M	a,a,a-Trifluorotoluene	95207	05/11/95	51.5	50.0	103
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9505110\*1

8015M	a,a,a-Trifluorotoluene	95207	05/11/95	51.5	50.0	103
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: SURROGATE RECOVERIES :

: BC ANALYTICAL : GLEN LAB : 15:06:15 15 MAY 1995 - P. 1 :

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METHOD	ANALYTE	BATCH	ANALYZED	REPORTED	TRUE	%REC	FLAG
B505506*1*MB							
8015M.TXa,a,a-Trifluorotoluene		95203	05/08/95	50.4	50.0	101	
B505694*1*MB							
8015M a,a,a-Trifluorotoluene		95205	05/09/95	51.8	50.0	104	
B505728*1*MB							
8015M.TXa,a,a-Trifluorotoluene		95206	05/10/95	51.5	50.0	103	
B505806*1*MB							
8015M.TXa,a,a-Trifluorotoluene		95207	05/11/95	52.1	50.0	104	
C5051038*1*LC							
8015M.TXa,a,a-Trifluorotoluene		95203	05/08/95	53.6	50.0	107	
C5051038*1*LT							
8015M.TXa,a,a-Trifluorotoluene		95203	05/08/95	50.0	50.0	100	
C5051039*1*LC							
8015M.TXa,a,a-Trifluorotoluene		95203	05/08/95	51.4	50.0	103	
C5051039*1*LT							
8015M.TXa,a,a-Trifluorotoluene		95203	05/08/95	50.0	50.0	100	
C5051407*1*LC							
8015M a,a,a-Trifluorotoluene		95205	05/09/95	54.3	50.0	109	
C5051407*1*LT							
8015M a,a,a-Trifluorotoluene		95205	05/09/95	50.0	50.0	100	
C5051408*1*LC							
8015M a,a,a-Trifluorotoluene		95205	05/09/95	52.7	50.0	105	
C5051408*1*LT							
8015M a,a,a-Trifluorotoluene		95205	05/09/95	50.0	50.0	100	
C5051475*1*LC							
8015M.TXa,a,a-Trifluorotoluene		95206	05/10/95	50.9	50.0	102	
C5051475*1*LT							
8015M.TXa,a,a-Trifluorotoluene		95206	05/10/95	50.0	50.0	100	

: SURROGATE RECOVERIES :  
: BC ANALYTICAL : GLEN LAB : 15:06:16 15 MAY 1995 - P. 2 :  
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METHOD	ANALYTE	BATCH	ANALYZED	REPORTED	TRUE	%REC	FLAG
C5051476*1*LC							
8015M.TXa,a,a-Trifluorotoluene		95206	05/10/95	51.0	50.0	102	
C5051476*1*LT							
8015M.TXa,a,a-Trifluorotoluene		95206	05/10/95	50.0	50.0	100	
C5051631*1*LC							
8015M.TXa,a,a-Trifluorotoluene		95207	05/11/95	53.5	50.0	107	
C5051631*1*LT							
8015M.TXa,a,a-Trifluorotoluene		95207	05/11/95	50.0	50.0	100	
C5051632*1*LC							
8015M.TXa,a,a-Trifluorotoluene		95207	05/11/95	52.6	50.0	105	
C5051632*1*LT							
8015M.TXa,a,a-Trifluorotoluene		95207	05/11/95	50.0	50.0	100	





**U.S. Environmental Protection Agency**

**Contract No. 68-W4-0007**

**RCRA Enforcement, Permitting, and  
Assistance Contract—EPA Zone II**

**RECEIVED**

**AUG 16 1995**

**Environmental Bureau  
Oil Conservation Division**

***PRC***

**PRC Environmental Management, Inc.**



Printed on recycled paper

July 11, 1995



Mr. Gregory Pashia  
Work Assignment Manager  
RCRA Enforcement Branch  
U.S. EPA Region 6  
1445 Ross Avenue  
Dallas, TX 75202

**Subject: U.S. EPA Contract No. 68-W4-0007  
Work Assignment No. R06032  
BJ Western  
NMD052377637  
Submittal of Inspection Report**

Dear Mr. Pashia:

PRC Environmental Management, Inc. (PRC), is submitting four copies of the Inspection Report and two copies of the videotapes for the April 24 and 25, 1995, compliance evaluation inspection of BJ Western in Hobbs, New Mexico. PRC collected samples at BJ Western in accordance with the sampling procedures outlined in the work assignment-specific quality assurance project plan, dated March 9, 1995. This report documents PRC's activities and observations. One copy of the report contains original photographs and color slides.

Please call me at (214) 754-8765 if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Mark Butler". The signature is fluid and cursive, with the first name "Mark" and last name "Butler" clearly distinguishable.

Mark Butler  
Project Manager

Enclosure

cc: Rena McClurg, EPA RPO (letter only)  
Arthur Glazer, PRC Program Manager  
Stephen Phillips, PRC Regional Manager (letter only)  
File

**COMPLIANCE EVALUATION INSPECTION**

**BJ WESTERN  
HOBBS, NEW MEXICO  
NMD052377637**

**INSPECTION REPORT**

**Prepared for**

**U.S. ENVIRONMENTAL PROTECTION AGENCY  
Office of Solid Waste  
Washington, DC 20460**

Work Assignment No.	:	R06032
EPA Region	:	6
Date Prepared	:	July 11, 1995
Contract No.	:	68-W4-0007
Prepared by	:	PRC Environmental Management, Inc.
Telephone No.	:	214/754-8765
EPA Work Assignment Manager	:	Mr. Greg Pashia
Telephone No.	:	214/665-2287

## CONTENTS

<u>Section</u>	<u>Page</u>
1.0 INTRODUCTION .....	1
2.0 BACKGROUND .....	1
3.0 INSPECTION ACTIVITIES .....	2
3.1 WASTEWATER TREATMENT SYSTEM .....	3
3.1.1 Sumps .....	4
3.1.2 Sand Trap Tank .....	4
3.1.3 Tank A .....	5
3.1.4 Tank B .....	6
3.1.5 Tank C .....	6
3.2 EMPTY DRUM STORAGE AREA .....	7
3.3 USED OIL STORAGE TANK .....	7
3.4 SOLVENT RAGS .....	8
3.5 SOLVENT RECYCLING BY SAFETY-KLEEN CORPORATION .....	8
4.0 SUMMARY .....	8

### Appendices

A	FACILITY LOCATION MAP
B	FACILITY LAYOUT MAP
C	SAMPLE LOCATION MAP
D	PHOTOGRAPHS
E	INSPECTION NOTES
F	COMPLIANCE EVALUATION INSPECTION CHECKLIST
G	CHAIN-OF-CUSTODY FORMS
H	WEIGHT CALCULATIONS

### Attachments

A	MATERIAL SAFETY DATA SHEETS (MSDSs) OF CHEMICAL PRODUCTS HANDLED BY BJ WESTERN
B	TOXICITY CHARACTERISTIC LEACHING PROCEDURE (TCLP) ANALYSIS OF SLUDGE FROM SAND TRAP TANK, CONDUCTED BY BJ WESTERN
C	SAFETY-KLEEN SOLVENT RECYCLING MANIFESTS
D	ANALYTICAL DATA FROM SAMPLES COLLECTED DURING THE INSPECTION

## 1.0 INTRODUCTION

PRC Environmental Management, Inc. (PRC), provided technical assistance to U.S. Environmental Protection Agency (EPA) Region 6 in conducting a compliance evaluation inspection (CEI) of BJ Western, a chemical blending and distributor facility in Hobbs, Lea County, New Mexico (Appendix A). PRC provided assistance to EPA under Resource Conservation and Recovery Act (RCRA) Enforcement, Permitting, and Assistance (REPA) Contract No. 68-W4-0007, Work Assignment No. R06032. This inspection was conducted in conjunction with the EPA Region 6 RCRA Enforcement Branch Pesticide Toxicity Characteristic Leaching Procedure (TCLP) Enforcement Initiative.

This report summarizes the CEI of the BJ Western facility. Section 2.0 provides general facility information; Section 3.0 describes waste management units and inspection activities; and Section 4.0 is a summary. Appendices A through H contain information compiled by PRC, and Attachments A through D contain information provided to PRC.

## 2.0 BACKGROUND

BJ Western is located at 2708 West County Road, Lea County, Hobbs, New Mexico (Appendix A, Figure A-1). BJ Western was formed by a merger between Western Company of North America and BJ Services. The merger was completed during the week before the inspection was conducted.

BJ Western is a chemical blending and distributor facility that provides drummed and bulk (trucked) volumes of chemicals to the oil production industry. Attachment A contains available material safety data sheets (MSDS) for chemical products handled at the facility. BJ Western has obtained EPA hazardous waste identification number NMD052377637; its latest date of notification was August 18, 1980, as a small-quantity generator.

Following are the facility data:

- Facility Address—2708 West County Road  
Hobbs, NM 88240
- Telephone Number—(505) 392-5556

- EPA Identification Number—NMD052377637

### 3.0 INSPECTION ACTIVITIES

On April 24 and 25, 1995, personnel from EPA and PRC inspected the BJ Western facility. The purpose of the inspection was to conduct (1) an unannounced RCRA CEI of the facility, and (2) any sampling activities necessary to support potential enforcement actions.

After arriving at the facility, personnel from EPA and PRC met with facility representatives to discuss the purpose of the visit and to plan the schedule for completing the CEI activities. During the preliminary meeting, facility representatives outlined the facility history, processes, and waste management activities. The following personnel participated in the preliminary meeting and the CEI activities:

- |   |                   |                                     |
|---|-------------------|-------------------------------------|
| • | Gregory Pashia    | EPA                                 |
| • | Mark Butler       | PRC                                 |
| • | Jeff Ayers        | PRC                                 |
| • | Luis Vega         | PRC                                 |
| • | Lynette Collins   | PRC                                 |
| • | Jim Frazier       | BJ Western<br>Facility Manager      |
| • | Jim Boling        | BJ Western<br>Operations Supervisor |
| • | Clint Chamberlain | BJ Western<br>District Manager      |

PRC and EPA personnel began the inspection by conducting a site reconnaissance. Appendix D contains photographs taken during the inspection. Appendix E contains inspection notes. Facility representatives provided PRC with the following documents, which are attached to this report:

- Material Safety Data Sheets (MSDS) of Chemical Products Handled by BJ Western (Attachment A)
- TCLP Analysis of Sludge from Sand Trap Tank, Conducted By BJ Western (Attachment B)
- Safety-Kleen Solvent Recycling Manifests (Attachment C)

The following subsections present information regarding the facility processes, waste management units, and associated sampling activities conducted during the inspection.

### **3.1 WASTEWATER TREATMENT SYSTEM**

The facility's wastewater treatment system, which receives flow from sumps around the facility, consists of four cylindrical fiberglass tanks (Sand Trap Tank and Tanks A, B, and C), which are in-ground, open-top tanks, and are operated in series (Appendix B, Figure B-1). The Sand Trap Tank, which is the first tank in the series, receives all sump flow to the system generated at the facility. According to facility representatives, the Sand Trap Tank's function in the system is to gravity-separate influent solids from liquids. Liquids are then gravity-fed to the remaining series of tanks (Tanks A, B, and C) for subsequent separation of phased liquids. Facility representatives stated that water from Tank B is (1) loaded into trucks for pH neutralization with soda ash, and (2) transported to the City of Hobbs publicly-owned treatment works (POTW). According to facility representatives, once every 2 months, sludge from the Sand Trap Tank is transported off site for commercial disposal at Controlled Recovery, Inc. (CRI). Facility representatives stated that, since September 1992, none of the contents of Tanks A and C have been removed. Facility representatives stated that a composite sample of all phases in the Sand Trap Tank is analyzed once each year for TCLP volatile organic compounds (VOC), TCLP semivolatile organic compounds (SVOC), and TCLP metals (Attachment C).

B

### 3.1.1 Sumps

Facility representatives stated that influent to the Sand Trap Tank consists of flow from sumps at (1) the truck maintenance shop, (2) the truck washing station, and (3) the product loading bay. All of the sumps are connected in series by underground piping before draining to the Sand Trap Tank. According to facility personnel, floor sumps in the truck maintenance shop are used when the floors are cleaned with a high-pH soap. The truck washing station is used to clean the outside of facility trucks by using a high-pH degreaser. Facility representatives stated that the sump in the product loading bay receives any spills or washdown resulting from product loading during cleaning in that area. Review of the MSDSs (Attachment A) for the chemical products (about 40 different products) handled at the product loading bay, indicate that the constituents of these products include (1) methanol, (2) xylene, (3) trimethylbenzene, (4) isopropanol, (5) acetic acid, (6) isobutanol, (7) hydrochloric acid, (8) diethanolamine, (9) potassium carbonate, (10) sodium diacetate, (11) boric acid, (12) anhydrous ammonia, (13) hydrocarbon distillate, (14) complex hydrocarbon solvent, (15) methyl alcohol, (16) ethylene glycol, (17) heavy aromatic naptha, (18) light aromatic naptha, and (19) citric acid.

As directed by EPA, PRC collected a grab sample (designated BJWest-Outsump-01) of the sludge in the product loading bay sump for analyses for TCLP VOCs, TCLP SVOCs, TCLP metals, total VOCs (SW-846 Method 8240), and specific gravity. ~~Analysis did not detect any constituents at concentrations above toxicity characteristic (TC) regulatory levels (Attachment D) for TCLP VOCs, TCLP SVOCs, and TCLP metals. Analysis for total VOCs detected 4,400 mg/kg of toluene, 13,000 mg/kg of ethylbenzene, and 100,000 mg/kg of xylene (Attachment D). Specific gravity of the sludge was determined to be 1.74 (Attachment D).~~

### 3.1.2 Sand Trap Tank

The Sand Trap Tank has a diameter of 7.5 feet and a depth of 6 feet. Based on PRC's visual inspection, this tank contained distinct liquid and sludge phases. The measured depth of the liquids was 2.0 feet, and the measured depth of the sludge was 2.2 feet. This provides waste quantities of 2,203 kilograms of the liquids and 5,406 kilograms of the sludge (Appendix H, Table H-1).

As directed by EPA, PRC collected grab samples of the liquid (designated BJWest-Sandtrap-02 and BJWest-Sandtrap-03, a duplicate) and of the sludge (BJWest-Sandtrap-04 and BJWest-Sandtrap-05, a duplicate) for analyses for TCLP VOCs, TCLP SVOCs, TCLP metals, total VOCs, and specific gravity. Sample BJWest-Sandtrap-02 was also analyzed for corrosivity (pH).

~~Analysis of the liquid and sludge for TCLP VOCs, TCLP SVOCs, and TCLP metals did not detect any constituents at concentrations above TC regulatory levels (Attachment D). Analysis of liquid sample BJWest-Sandtrap-02 for total VOCs detected 19 mg/kg of toluene, 20 mg/kg of ethylbenzene, and 150 mg/kg of xylene (Attachment D). Analysis of sludge sample BJWest-Sandtrap-05 (duplicate of BJWest-Sandtrap-04) for total VOCs detected 8.7 mg/kg of toluene, 21 mg/kg of ethylbenzene, and 140 mg/kg of xylene (Attachment D). The pH of the liquid was determined to be 2.25. Specific gravity was determined to be 0.883 for the liquid and 1.97 for the sludge (Attachment D).~~

### 3.1.3 Tank A

Tank A has a diameter of 12.25 feet and a depth of 16 feet. Based on PRC's visual inspection, this tank contained distinct liquid and sludge phases. The measured depth of the liquids was 8.0 feet, and the measured depth of the sludge was 4.0 feet. This provides quantities of 26,249 kilograms for the liquid and 13,297 kilograms for the sludge (Appendix H, Table H-1).

As directed by EPA, PRC collected grab samples of the liquid (designated BJWest-TankA-06) and of the sludge (BJWest-TankA-07) for analyses for TCLP VOCs, TCLP SVOCs, TCLP metals, total VOCs, pH, and specific gravity. Sample BJWest-TankA-06 was also analyzed for ignitability (flash point).

~~Analysis of the liquid and sludge for TCLP VOCs, TCLP SVOCs, and TCLP metals did not detect any constituents at concentrations above TC regulatory levels (Attachment D). Analysis of the liquid (BJWest-TankA-06) for total VOCs detected 33 mg/kg of ethylbenzene and 350 mg/kg of xylene (Attachment D). Analysis of the sludge (BJWest-TankA-07) for total VOCs detected 7.6 mg/kg of toluene, 17 mg/kg of ethylbenzene, and 95 mg/kg of xylene (Attachment D). The pH was determined to be 2.26 for the liquid and 2.90 for the sludge. The flash point of the liquid was reported by the~~

~~laboratory as greater than 200°F.~~ Specific gravity was determined to be 0.986 for the liquid and 0.999 for the sludge (Attachment D).

#### 3.1.4 Tank B

Tank B has a diameter of 12.25 feet and a depth of 16 feet. Based on PRC's visual inspection, this tank contained distinct liquid and sludge phases. The measured depth of the liquids was 0.25 foot, and the measured depth of the sludge was 6.75 feet. This provides quantities of 714 kilograms for the liquids and 20,148 kilograms for the sludge (Appendix H, Table H-1).

As directed by EPA, PRC collected grab samples of the liquid (designated BJWest-TankB-08) and of the sludge (BJWest-TankB-09) for analyses for TCLP VOCs, TCLP SVOCs, TCLP metals, total VOCs, and specific gravity. Sample BJWest-TankB-08 was also analyzed for flash point.

~~Analysis of the liquid and sludge for TCLP VOCs, TCLP SVOCs, and TCLP metals did not detect any constituents at concentrations above TC regulatory levels (Attachment D). Analysis of the liquid (BJWest-TankB-08) for total VOCs detected 65 mg/kg of ethylbenzene, 270 mg/kg of styrene, and 310 mg/kg of xylene (Attachment D). Analysis of the sludge (BJWest-TankB-09) for total VOCs detected 63 mg/kg of toluene, 80 mg/kg of ethylbenzene, and 380 mg/kg of xylene (Attachment E). The flash point of the liquid was reported by the laboratory as greater than 200°F. Specific gravity was determined to be 0.859 for the liquid and 0.897 for the sludge (Attachment D).~~

#### 3.1.5 Tank C

Tank C has a diameter of 12.25 feet and a depth of 16 feet. Based on PRC's visual inspection, this tank contained distinct liquid and sludge phases. The measured depth of the liquids was 0.5 foot, and the measured depth of the sludge was 11.25 feet. This provides quantities of 1,431 kilograms for the liquids and 34,779 kilograms for the sludge (Appendix H, Table H-1).

As directed by EPA, PRC collected grab samples of the liquid (designated BJWest-TankC-10) and of the sludge (BJWest-TankC-11) for analyses for TCLP VOCs, TCLP SVOCs, TCLP metals, total VOCs, and specific gravity. Sample BJWest-TankC-10 was also analyzed for flash point.

~~Analysis of the liquid and sludge for TCLP VOCs, TCLP SVOCs, and TCLP metals did not detect any constituents at concentrations above TC regulatory levels (Attachment D).~~ Analysis of the liquid (BJWest-TankC-10) for total VOCs detected 48 mg/kg of toluene, 240 mg/kg of styrene, and 63 mg/kg of xylene (Attachment D). Analysis of the sludge (BJWest-TankC-11) for total VOCs detected 1,100 mg/kg of toluene and 230 mg/kg of xylene (Attachment D). ~~The flash point of the liquid was greater than 200°F.~~ Specific gravity was determined to be 0.860 for the liquid and 0.929 for the sludge (Attachment D).

### 3.2 EMPTY DRUM STORAGE AREA

According to facility representatives, BJ Western stores empty drums, and drums of off-specification or unusable product, behind a metal fence located at the northeast corner of the facility (Appendix B, Figure B-1). BJ Western ships all empty drums to West Texas Drum for reconditioning. BJ Western representatives did not know how long any of the drums had been stored on site. During the inspection, about 100 drums were identified in this storage area. Facility representatives identified most of these drums as being empty or containing unusable product. PRC inventoried several of these drums to document drum markings, contents, and volume (Appendix D). As directed by EPA, seven of the inventoried drums were also sampled and analyzed for specific gravity and either (1) flash point (BJWest-Drum02-12, BJWest-Drum03-13, BJWest-Drum11-15, BJWest-Drum15-16, BJWest-Drum17-17, and BJWest-Drum27-18), or (2) pH (BJWest-Drum05-14).

~~The analytical results indicate that the sample from Drum 27 (BJWest-Drum27-18) had a flash point of less than 75°F (Attachment D).~~ Drum 27 contained 45 gallons, which is converted to 145 kilograms by using the specific gravity of the material of 0.847, as determined by the laboratory (Attachment D). Analysis of sample BJWest-Drum05-14 indicated a pH of 11.52 (Attachment D).

### 3.3 USED OIL STORAGE TANK

Used oil generated at the facility is stored in a 750-gallon aboveground storage tank located on the south side of the truck maintenance shop (Appendix B, Figure B-1). During the inspection, facility representatives stated that the contents of the tank were last picked up on January 31, 1995, for off-site recycling by a vendor.

### 3.4 SOLVENT RAGS

The facility accumulates used rags containing solvent in a trash can located outside the chemical storage warehouse (Appendix B, Figure B-1). These rags are placed in the same container with miscellaneous trash and debris; the container is then placed in a large trash bin behind the bulk storage warehouse. The trash bin is periodically emptied by a waste management vendor and disposed of off site as nonhazardous.

### 3.5 SOLVENT RECYCLING BY SAFETY-KLEEN CORPORATION

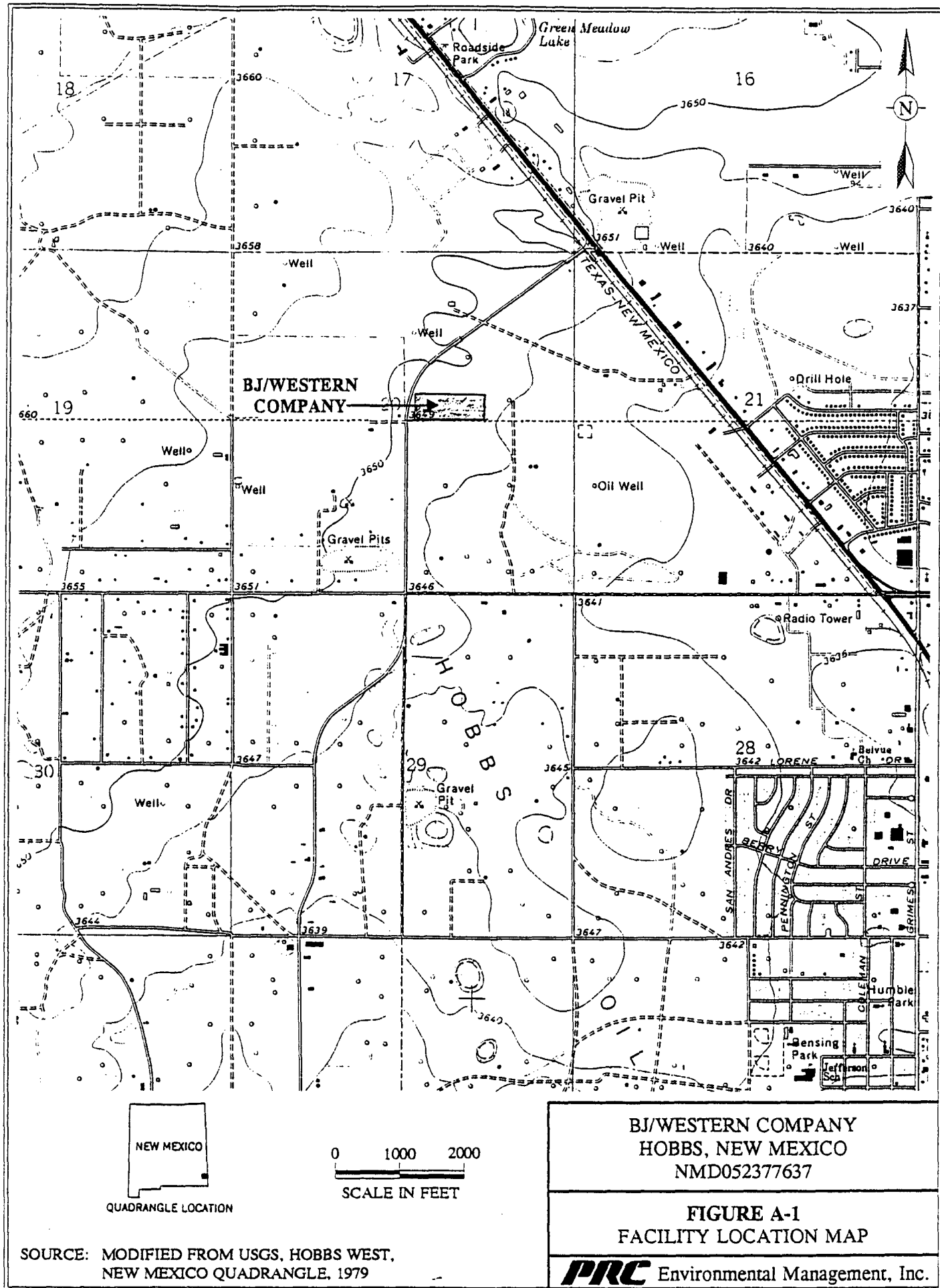
Safety-Kleen Corporation (Safety-Kleen) provides the facility with solvent wash bins located in the truck maintenance shop (Appendix B, Figure B-1). BJ Western uses the solvent wash bins for various cleaning activities. About once every 2 weeks, Safety-Kleen replaces spent solvents in the wash bins with new solvents. According to facility representatives, Safety-Kleen handles the manifesting, transporting, and recycling of the spent solvents. The waste manifests identify the spent solvents as RCRA hazardous waste codes D001, D006, D008, D018, D035, D039, and D040 (Attachment C). Based on the manifests, Safety-Kleen accepts about 60 gallons of spent solvents each month (Attachment C). Safety-Kleen transports the spent solvents to its Midland, Texas, facility.

## 4.0 SUMMARY

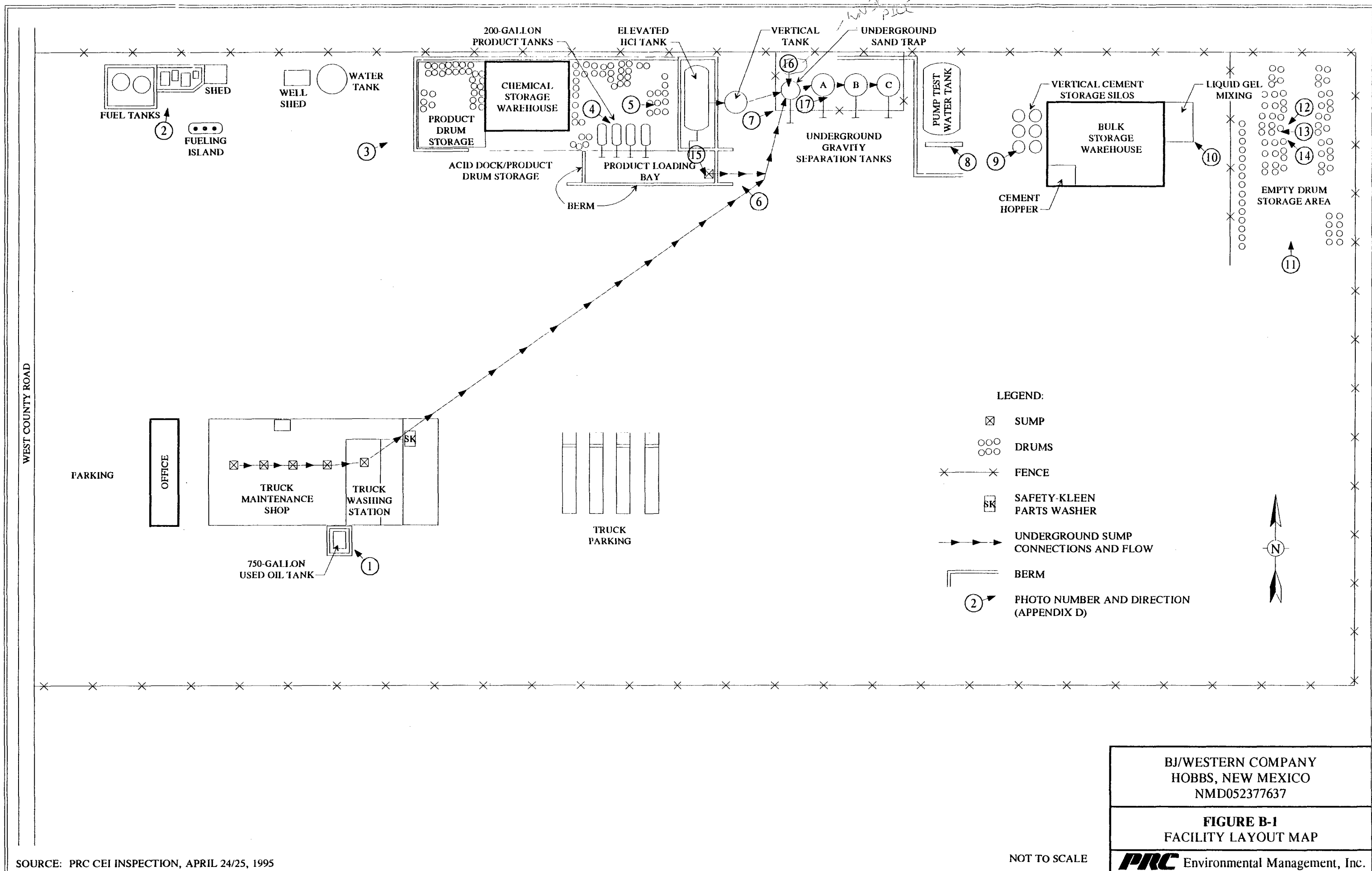
PRC provided technical assistance to EPA Region 6 in conducting a CEI of BJ Western in Hobbs, New Mexico. The facility has EPA identification number NMD052377637, and has provided notification of status as a small-quantity generator. ~~Analyses of the contents of the facility's four wastewater tanks did not detect concentrations of TCLP constituents that are above RCRA regulatory levels. However, based on the analyses for total VOCs, the tanks contained one of the following constituents: toluene, ethylbenzene, styrene, and xylene. Contents of the Sand Trap Tank—which is one of the wastewater treatment tanks—are disposed of off site as nonhazardous wastes. The aqueous phase of Tank B is trucked to the City of Hobbs POTW. Numerous drums in the empty drum storage area contained liquids. Several of these drums were sampled, and Drum 27 contained a material with a flash point of less than 75°F.~~ Solvent rags used in the chemical storage warehouse

are disposed of off site as nonhazardous. Each month, the facility generates about 60 gallons of spent solvents, which are serviced by Safety-Kleen.

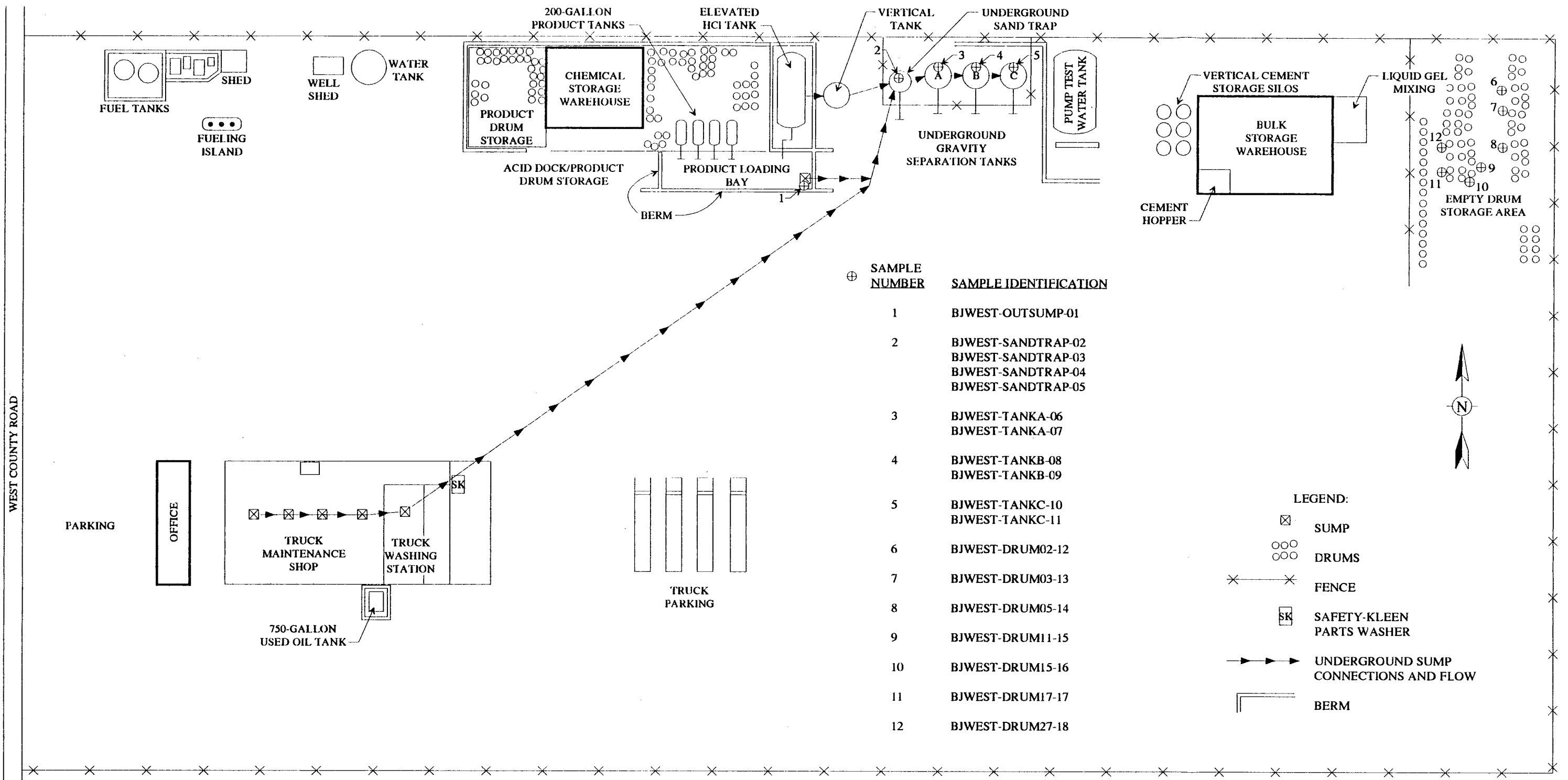
**APPENDIX A**  
**FACILITY LOCATION MAP**  
**(One Sheet)**



**APPENDIX B**  
**FACILITY LAYOUT MAP**  
**(One Sheet)**



**APPENDIX C**  
**SAMPLE LOCATION MAP**  
**(One Sheet)**



⊕ SAMPLE NUMBER	SAMPLE IDENTIFICATION
1	BJWEST-OUTSUMP-01
2	BJWEST-SANDTRAP-02 BJWEST-SANDTRAP-03 BJWEST-SANDTRAP-04 BJWEST-SANDTRAP-05
3	BJWEST-TANKA-06 BJWEST-TANKA-07
4	BJWEST-TANKB-08 BJWEST-TANKB-09
5	BJWEST-TANKC-10 BJWEST-TANKC-11
6	BJWEST-DRUM02-12
7	BJWEST-DRUM03-13
8	BJWEST-DRUM05-14
9	BJWEST-DRUM11-15
10	BJWEST-DRUM15-16
11	BJWEST-DRUM17-17
12	BJWEST-DRUM27-18

- LEGEND:
- ⊗ SUMP
  - DRUMS
  - ×-× FENCE
  - SK SAFETY-KLEEN PARTS WASHER
  - UNDERGROUND SUMP CONNECTIONS AND FLOW
  - └┐ BERM

BJ/WESTERN COMPANY  
HOBBS, NEW MEXICO  
NMD052377637

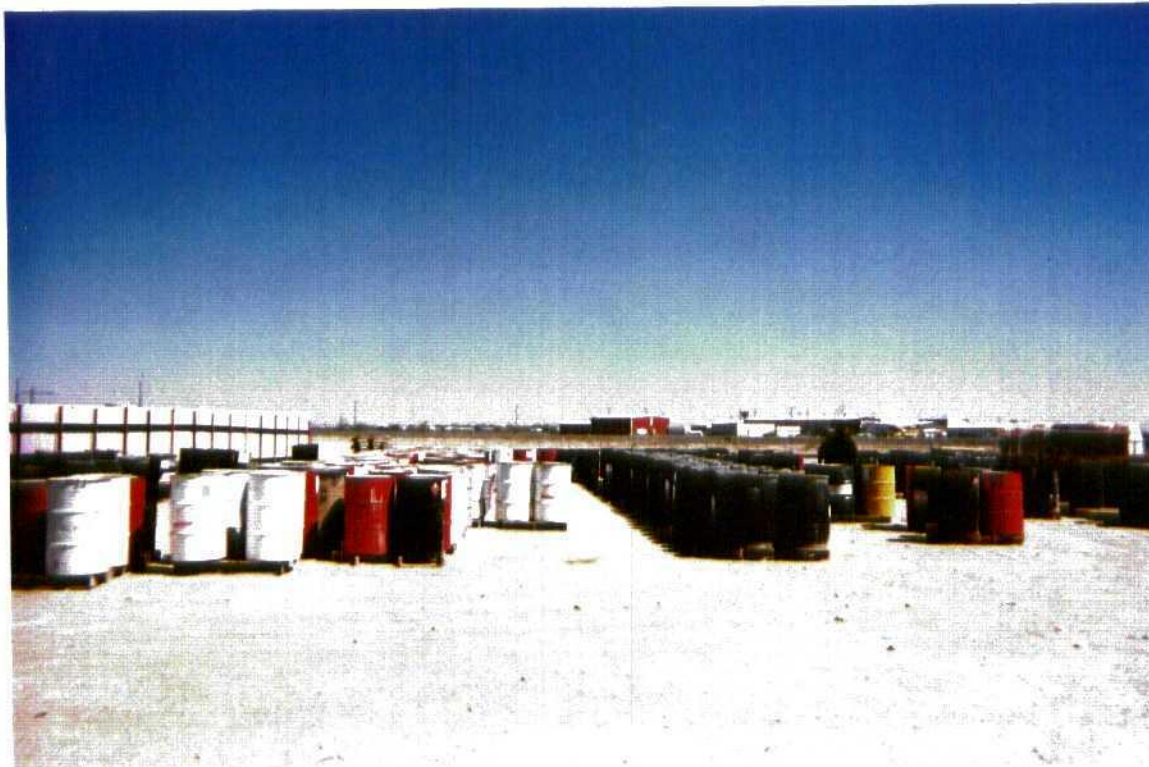
**FIGURE C-1**  
SAMPLE LOCATION MAP

**PRC** Environmental Management, Inc.

SOURCE: PRC CEI INSPECTION, APRIL 24/25, 1995

NOT TO SCALE

**APPENDIX D**  
**PHOTOGRAPHS**  
*(Nine Sheets)*



Date: 04/24/95 Picture Taken by: Jeffrey Ayers, PRC Direction Facing: N  
 Picture Description: Empty drum storage area, located at the northeast corner of the facility



Date: 04/25/95 Picture Taken by: Luis Vega, PRC Direction Facing: SW  
 Picture Description: PRC collecting sample BJWest-Drum27-18 from Drum 27, located in the empty drum storage area; note that the drum is marked "bad" and "do not use."



Date: 04/25/95 Picture Taken by: Luis Vega, PRC Direction Facing: W  
 Picture Description: PRC collecting sample BJWest-Drum11-15 from Drum 11, located in the empty drum storage area



Date: 04/25/95 Picture Taken by: Jeffrey Ayers, PRC Direction Facing: NW  
 Picture Description: PRC collecting sample BJWest-Drum02-12 from Drum 02, located in the empty drum storage area; note that the drum is marked "bad."

PHOTOGRAPH NO. 15



Date: 04/24/95 Picture Taken by: Luis Vega, PRC Direction Facing: SE  
Picture Description: PRC collecting sample BJWest-Outsump-01 from the product loading bay sump

PHOTOGRAPH NO. 16



Date: 04/24/95 Picture Taken by: Mark Butler, PRC Direction Facing: W  
Picture Description: PRC collecting sample BJWest-Sandtrap-02 from the Sand Trap Tank



Date: 04/24/95 Picture Taken by: Luis Vega, PRC Direction Facing: E  
Picture Description: PRC collecting samples from Tanks A, B, and C

**APPENDIX E**  
**INSPECTION NOTES**  
**(17 Sheets)**



4-24-95 Western  
M. Dethlefsen 12080603214

Four sumps in the area used to clean floors only. Sumps drain to a series of tanks outside tank contents hauled off to C&E (controlled recovery inc.). Neutralize the pH and transport the water to the city of Hobbs wastewater (WWT) treatment. Sludge is transported to C&E; shipments hauled off from sand trap every couple months (last shipment moving 4/18). Test run on sludge once per year. Wayne Price of OGD sees results, full spectrum analysis, except pesticides and herbicides.

- discuss drums in maintenance shop. Sort for floors has a high pH.
- Disposition of fixtures (vii)?
- Truck washing station - user to wash the outside of the trucks w/ pH degreaser sump ~~discharges~~ to tanks outside (sanitary tanks) no inside m.s. sumps.

WESTERN 4-24-95  
1700602214 M. Sadler

⑤

- USED OIL TANK: 750-GALLON CAPACITY.
- CHECKED OUT STORAGE ROOM. CONTAINS ALL OILS THAT ARE USED TO SERVICE THE TRUCKS. <sup>WASHING</sup>
- CHEMICALS FOR TRUCKS (DEGREASING) ARE STORED IN THE STORAGE ROOM.
- ~~PLEASE~~ REQUEST MSD SHEETS. ~~DO NOT~~ DO NOT STORE SOLVENTS ON SITE, OR HAVE A NEED FOR SOLVENTS. SOME DRUMS FOR "SUPER P SOLV" IN ADDITION TO A DEGREASER. DO NOT HAVE WASTE ANTIFREEZE. DO NOT HAVE WASTE ANTIFREEZE. JUST REFILL TANKS. ~~EMPTY DRUMS~~ ARE STORED IN BACK OF THE YARD.
- INSPECT GENERAL MAINTENANCE SHOP (G.M.S.). SAFETY KEEPER UNIT ALSO IN THIS SHOP "PARTS WAREHOUSE" ABOUT A 30 GALLON TANK. WILL CHECK THE MANIFEST FOR THIS. NO HAZARDOUS WASTE ASSOCIATED WITH THIS AREA.

④

~~WESTERN 4-24-95  
1700602214 M. Sadler~~

(6)

Madh Rutter

Western

4-24-95 17000603214

(7)

(DRESSA)

- WEST TEXAS OIL DRUM IS ALTHOUGH WESTERN SHIPS ITS EMPTY DRUMS. HAD BEEN OFF ABOUT 2 HOURS EMPTY DRUMS. LAST THURSDAY - EMPTY DRUMS SHIPPED TO WEST TEXAS DRUM, AND SOME EMPLOYEES ARE PICKED UP BY CHEMICAL VENDORS.
- DIESEL AND GAS TANKS (ASPHALT GRASS) ARE NOW EMPTY.
- PACKING OIL, CONCRETE (WATER), AND MOTOR OIL ABOUT OIL TANKS. PUT ARGONIST MATHIAS AND 7 SOAK UP THE OIL AND DISPOSE OF IN DRUMS (CRIE). WESTERN SHIPS TO CRIE.
- Benzene - contaminated fuel (ABOUT 80' KG). WESTERN HAS A WATER WELL TO ABOUT 150'. USE WELL WATER TO LOAN AND ACID TRANSPORTS CITY WATER WHEN EVERYWHERE ELSE.
- STATE PERSONNEL ARE HANDLING CLEANING OF THE OIL.
- FINE RETENTION.
- ACID (H-11) FROM (I-22) FLAMMABLE.
- H-31, CL-3, CL-30, AMUL-4, ASR-52

~~Handwritten notes, mostly crossed out with a large diagonal line.~~

Handwritten notes at the top left of the page.

METHANOL (may down wells), H<sub>2</sub>O, 1'-9  
 AS-2, ASD-185, D7  
 - INVENTORY SHEET once per month  
 - USEABLE MATERIAL STORED AROUND  
 FROM THE WASH SIDE, 47 DUMPS  
 IN BACK WAREHOUSE (CONTAMINATED)  
 AND ALSO USABLE. CURRENTLY  
 IN MID DOCK DUMP STORAGE  
 AREA.

- CHEMICAL WAREHOUSE: 300A ASH  
 FROM SEAL, FINE-SIDE 20,  
 ACETIC ACID (FREEZES -> SOLIDS)  
 GOING DOWN IN THE ALL WEATHER  
 DUMP. MATERIAL IN THIS ROOM  
 CONTAINS SODIUM MATERIAL AND DUMPS  
 THAT MUST BE PROTECTED  
 FROM THE WEATHER.

- MID DOCK CORRIDOR AREA. CONTAINS  
 SOME MATERIAL AT REPAIRS (WILL  
 GO TO WENTON). MORE DAY-TO-  
 DAY STOCKPILES  
 - NO REPACKING HERE,  
 - E-18 DUMP (MID-TYPE EMULSIFIED)  
 STORED (SAG SHAPE). LINER INSIDE.  
 - METHANOL WASH OUT DUMP - CONTAINS  
 AM RECEIVED & OR MIXED UP  
 NEW METHANOL AND SOLD.  
 DUMP OF 8 ON IT IS CALLED

Handwritten: 46-62-6

western

4-24-95

17020603214

4-24-73

①

500 ml of 10m-2w. not sure  
whether it is used for storing on  
the deck. Social <sup>(10)</sup> ~~media~~ <sup>usage</sup> material  
is no longer ~~usable~~ <sup>usable</sup>. RAGS  
w/ solvent are disposed in  
the dumpster.

- methanolic wash-out drum or the dock is used to prevent pump (diesel, etc) mix claims decontaminated then (approx) 10% of new methane. The fuel

- TWO 5-Gallon cans, FULL OF

MISC CIGARETTES. THIS IS NOT SUPPLY  
OF THE CONTRACTS. NOT SUPPLY HOW  
CANB THEY HAVE BEEN THERE.

- Some ALUMIN contents: PARASOL-D,  
GALVANALUM

I-28, LT-32, CLAY TREAT 22,  
 - JREF ENH. " "

- JCPP Films yellow drum

STAFF HOLDS TRASH DESIGNS FOR THE DUMPSTER

"Summa"-Lager für die  
Mittel- und Ostsee

- Pump - still out (FLUSH OUT PUMPS & SMOKE)
- SUMMER

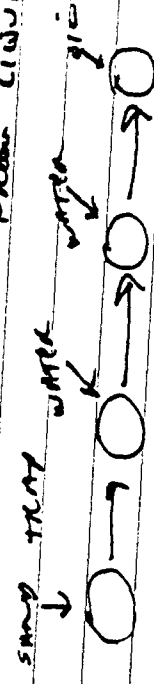
- SUPPLY MATING TO USE TREATMENT.
- TANKERS ARE NOT CLOSER TO APPLICATION.
- TRUCKS AND CEMENT TRUCKS.
- RESIDUES ARE USED. ~~STOCK~~

12

Western 170603214 Mulu Nukun 4-24-77

Separate Solids From Liquids

1066



\*

Get in touch w/ Angela Hardy  
Recomm. Env. Questions.  
- Gravity Flow. All Solids  
in the same trap. Oil float  
to the third tank.

→ Kerosinated Tank to Pass  
Pump. High Pressure  
Amphib. Service. Can be  
recirculating the water

→ Cement Storage. → Used to cement  
casing oil well after drilling.  
near API Specs

- Power Drums and Storage in this  
area. Ammonia Resuscitated in  
boxes, etc.

- Cleanup Gel Mixing System -  
Diesel-based - with w/ spray  
and pumped down the hole.  
Spec → Slurry Return Concentration

- As Wastes Generated.  
- Yellow Tanks in open area  
near SMD.

4-24-85 17X0603214

Mark Miller Western

15

PC DRUMS CONTAIN PARTIAL  
RESIDUES FROM CONDENSE  
LIKE MATERIALS IN OTHER  
EMPTY DRUMS. ~~THE~~ STUART  
TOLD US ABOUT THE  
"PC" DRUMS. JEFF COUNTRY  
ABOUT 7 DRUMS MARKED PC.  
ALL OTHER DRUMS ~~BE~~ TOWARD  
CENTER MARKED "BAD"  
WILL BE TESTED (JIM FINESTON)  
TO DETERMINE WHETHER THEY  
ARE BAD. IF BAD, JIM STATED  
THAT THEY WILL BE DISPOSED  
OF OFFSITE. JIM ESTIMATED  
THAT THERE ARE ABOUT 4 DRUMS  
MARKED BAD. JAC. WILL INVENTOR  
THE DRUMS. THIS AFTERNOON  
NO H.I.S. ISSUES SHOULD BE  
OF A CONCERN WHEN INVENTORING  
THE DRUMS.

→ FRESHWATER TANK (WHITE) USED  
TO TEST PUMPS MAY CONTAIN  
SLUDGES. WHITE TANKS MAY  
NEVER BEEN TESTED. WESTERN DOES  
NOT KNOW WHETHER ~~THE~~ TANK ~~IS~~ <sup>THE TANK DOES</sup> ~~CONTAIN~~ <sup>NOT</sup> ~~IT~~ <sup>IT</sup> HAS ACCUMULATED ANY  
SLUDGE. JAC. WILL CHECK.

1148  
 1200  
 1300  
 1315  
 1325  
 1355  
 1356  
 1400

Mark Huber  
 4-24-95  
 Western  
 170X0003214

PRE DISCUSSES A SAMPLING STRATEGY.  
 JTA AND CRC REMOVE GATE FROM  
 OUTSUMP, LOCATED IN REID DOCK STREET  
 AREA, COLLECT SAMPLE BTWEST-OUTSUMP-01.  
 ANALYSES INCLUDE TOTAL VOA, TELP VOA,  
 TELP NON, AND TELP METALS OF THE  
 SLUDGE MATERIAL. COLLECT SPIES  
 FOR BT/WESTERN.

1300 FIELD pH TEST NEUTRAL  
 1315 FINISHED COLLECTING BTWEST-OUTSUMP-01.  
 1325 STARTED COLLECTING LIQUID PORTION OF  
 SAND TRAP. SAMPLE ID IS BTWEST-SAND  
 TRAP-02. ON VOLUME ALSO COLLECTED  
 FOR MS/MSD. SAMPLE BTWEST-SANDTRAP-03  
 IS A DUPLICATE OF THE LIQUID PORTION.  
 ANALYSES INCLUDE TOTAL VOA, TELP VOA/  
 TELP NON, AND IDENTIFIABILITY. pH  
 OF LIQUIDS APPEARED TO BE AROUND  
 3-5.

1355 COMPLETED SAMPLES p2 AND p3 OF  
 SAND TRAP LIQUIDS. MLA  
 1356 DIAMETER OF SAND TRAP AROUND 7 FEET.  
 1400 STARTED COLLECTING SLUDGE FROM  
 SAND TRAP. A SAMPLE ID IS  
 BTWEST-SANDTRAP-04. ANALYSES INCLUDE  
 TOTAL VOA, TELP VOA/METALS. SAMPLE  
 BTWEST-SANDTRAP-05 IS A DUPLICATE OF 04.



Mr. Miller	western
4-24-98	17020602014

12

DEPTH OF LIQUIDS IS 2.0 feet. Diameter  
OF TANK @ 75 feet. <sup>SPD</sup> 2 A 1 2  
- ~~DEPTH~~ OF NOTT TANK 1 2 A 1 2  
(TANK #) 12 feet. TANK 1 is

A CYCLONIC TANK (VERTICAL)  
mostly buried below ground.  
Approx 1 inch to 1 1/2 feet from

the top of the tank. ~~deflection~~

THICKNESS OF LIGANDS IS AROUND  
8<sup>(m)</sup> Å. THICKNESS OF SLUDGE

Bottoms is unknown. pH of

bottoms material is ~~not~~ <sup>not</sup> in

close on AT,  $\phi$ . LIGHT IMPASSIBLE

DIFFUSE ON TOP: pH OF ACIDUS

effort is around \$ 700. ~~The effort~~

~~House of this Mike is new 1000000~~

not mixed to (16) to (20) to (21) to (22)

1000

begin sampling tank A. sample

151 West - TANKA - 06 (CIGU101)

analyse for total iron, TLI cost

and AMN. IGNITIBILITY, AND

\_\_\_\_\_

Mr : 99 minutes 54/10/11

44-38861-1000

07. TANK - WEST TANK - 07.

**Figure 10**

(20)

Cont.

(23)

Mark Butler WESTERN  
4-24-91 1702000214

TECP UOA, TECP ABN, AND TECP ANALYSIS.  
COMPLETED SAMPLING TANK A - 07.

START SAMPLING LIQUIDS FROM

TANK A DATA TO LIQUIDS 9 FEET.  
THICKNESS OF LIQUIDS <sup>ABOUT 0.25 FT.</sup>

DIMETER OF TANK B SAME AS

TANK A (12 FEET). PH OF LIQUIDS  
IS NEUTRAL (AROUND 7). ~~END~~

COLOR OF LIQUID IS BROWN. SAMPLE ID

IS B5 WEST-TANK B-08. ANALYSIS

INCLUDE TOTAL UOI, TECP UOA, TECP ABN, &  
IGNITIBILITY.

FINISHED LIQUID SAMPLE OR START

SAMPLE 09. SAMPLE ID IS B5 WEST-

TANK B-09. ANALYSIS OF TANKS BORDERS

WILL NOT TOTAL UOA, TECP UOA,

TECP ABN, & TECP IGNITIBILITY.

FINISHED SAMPLING 09.

START SAMPLING 10, WHICH IS FROM

TANK C. LIQUID PHASE. DEPTH TO

LIQUID IS 4 FT, 3 INCHES. THICKNESS

OF LIQUID IS 6 INCHES. ANALYSIS

INCLUDE TOTAL UOA, TECP UOA,

TECP ABN, AND IGNITIBILITY. LIQUID

COLOR IS DARK BROWN PH OF LIQUID

IS NEUTRAL. 10.

FINISHED SAMPLE ~~END~~

1710

(22)

1665

1670

\*

1640

1645

1700

(25)

170X0600214

Mad. Butler

4-24-95

Western

START SAMPLE 11 TANK C SOLIDS.

SAMPLE 10 IS BS WEST - TANK C - 11.

ANALYSES INCLUDE TELP LWA,

TELP ABN, TELP METALS, TO THE VOT

FINISHED SAMPLING SAMPLE 11.

INTERVIEWED JIM FARRER REGARDING

THE WASTEWATER TREATMENT PROCESS.

AS INDICATED BEFORE, INFILTRANT TO

SAND TRAP IS M.S. FLOOD WASH, TRUCK

WASH AND PRODUCT LOADING SUMP.

OIL FROM SAND TRAP IS A SOURCE OF

INFILTRANT TO TANK A. TANK A OIL

IS ONLY SOURCE OF INFILTRANT TO

TANK B, BUT NO OIL SKIMMER IS

LOCATED IN TANK A. ONLY SOURCE

OF INFILTRANT TO TANK C IS SKIMMER

OIL FROM TANK B, BUT NO OIL

SKIMMER IS LOCATED IN TANK B.

NEUTRALIZATION OF AQUEOUS PORTION

OF TANK B OCCURS IN TRUCK W/

ADDITION OF SODA ASH BEFORE SHIPMENT

TO HADDS (CITY OF) W/ TREATMENT

BEFORE TO CHARACTERIZE THE FULL

FINISHED IDENTIFYING THE DRAWS. ALL

IDENTIFIED DRAWS AND MANY

OTHER PATTERNS SEVERAL FULL DRAWS NOT

WERE NOT COUNTED IF CONTENTS WERE

DEEMED HETEROGENEOUS.

1710

1720

1725

1800

1930

WESTERN  
M. Smith

6175090205

27

4-24-95

REPORT THE SITE.

1945

~~Mr. Nettles~~  
~~9-24-95~~

(28)

1300-2000

1300-2000

1300-2000

WESTERN

Tues

4-25-95

(29)

1710003214 M. NUBBS

(28)

1710003214 M. NUBBS

(28)

ARRIVE AT THE FACILITY. ~~RECEIVE~~

PERMIT ~~FOR~~ TO SAMPLE DRUMS

IN THE BACK (EMPTY DRUM STORAGE AREA).

WESTERN'S SAMPLING CONTAINERS DIN

NOT HAVE TEFLOW LINERS, HAD CONDENSATION

INSIDE THE CONTAINERS, AND WERE DIRTY

ON THE OUTSIDE OF THE CONTAINERS.

~~THREE~~ MEN WENT TO THE OFFICE

TO COMPLETE THE GENERATOR'S

CHECKLIST.

~~FOR~~ COMPLETED THE GENERATOR'S CHECKLIST (MS)

~~AND~~ APPROX THE THERMIST. WILL DO (MS)

~~TO~~ GET THE DIMENSIONS OF THE (MS)

~~LOW~~ THERMIST (MS)

West Nubbs  
1710003214

1710003214

(30)

17420603214 WESTERN (31)  
4/25/95

*Handwritten signature*

0920 SAMPLE BEGIN SAMPLING @ DRUM 02;  
COLLECT SAMPLE NO. BSWEST-  
DRUM 02-12; ANALYZE FOR  
IGNITABILITY ONLY. SPLIT WITH  
B1/WESTERN - 16 OUNCE GLASS  
VOLUME

0925 END SAMPLING BSWEST-DRUM 02-12.  
COLLECTED BY J. AVERS & L. COLLINS.

0927 BEGIN SAMPLING @ DRUM 03;  
LC & JA COLLECTING BSWEST-  
DRUM 03-13 FOR IGNITABILITY ONLY  
SPLIT W/ WESTERN, USING 16MM  
GLASS DRUM THIEF TO COLLECT ALL  
DRUM SAMPLES TODAY.

SAMPLE

0930 END SAMPLING @ DRUM 03  
0935 BEGIN SAMPLING @ DRUM 05;  
SAMPLE LC & JA COLLECTING BSWEST-  
DRUM 05-14 FOR CORROSIVITY.

COLLECTING SPLIT FOR WESTERN,  
1-LITER POLYETHYLENE BOTTLE  
16MM GLASS DRUM THIEF

0940

0943

END SAMPLING AT DRUM 05  
BEGIN SAMPLING DRUM 11 FOR  
IGNITABILITY; COLLECT BSWEST-DRUM 11-  
15 USING 16MM GLASS DRUM THIEF.  
16 OZ. GLASS JAR FOR VOLUME.

WESTERN  
170R0603214

(33)  
4/25/95

END SAMPLING AT DRUM 11.  
BEGIN SAMPLING DRUM 15 TO  
COLLECT IGNITABILITY SAMPLE  
NO. BJWEST-DRUM15-16.  
JA & LC USE GLASS DRUM THIEF  
END SAMPLING DRUM 15  
JA & LC BEGIN SAMPLING DRUM 17  
TO COLLECT IGNITABILITY  
SAMPLE NO. BJWEST-DRUM17-17,  
USING GLASS DRUM THIEF  
END SAMPLING DRUM 17  
BEGIN SAMPLING DRUM 27 FOR  
IGNITABILITY SAMPLE NO.  
BJWEST-DRUM 27-18; USING  
GLASS DRUM THIEF; SPLIT  
ALL SAMPLES WITH WESTERN/  
BJ; LC & JA-SAMPLE COLLECTORS  
END SAMPLING DRUM 27.  
JA & LC CONTINUE DRUM  
INVENTORY TO DETERMINE  
HAZARDOUS WASTE VOLUME.

Mr. ~~Swales~~ complete generate checklist.  
MEMS DEPARTED THE FACILITY. MC WILL  
NEED TO GET THE DIMENSIONS  
OF THE WW TANKS.

0950

0952

0955

0958

1000

1003

1005

1010

1015

1020

1050

**APPENDIX F**  
**COMPLIANCE EVALUATION INSPECTION CHECKLIST**  
**(Eight Sheets)**

CL-30 IGN.  
 PAC-FOAM-3 Methanol 12%  
 E-18 Methanol 15%  
 EL COMPLEXOR T.I.C. IGN.



B-31 Don't Sample  
 CL-2L Methanol 60-80%  
 (55 Steel Drum = 33" 55 gal pail = 33")

Facility: BJ WESTERN  
 Date: 4/24/95  
 Page: 1 of 2  
 + Fuel, MS CL for 11.18 - 11.22  
 + Fuel, Don't Sample

NUMBER	COLOR	TYPE	MARKINGS	CONTENTS	VOLUME	REMARKS
01	RED	STEEL	CL-30, GEL COMPLEXER, COMBUSTIBLE LIQUID	Amber liquid top phase White viscous bottom phase	3"	275
02	BLACK	POLY	BAD, 7/13, FULL, T.I.C.	AMBER LIQUID	33"	1011 pH 2 Ignit. 0920 *
03	RED	STEEL	CL-30, GEL COMPLEXER, COMBUSTIBLE LIQUID	same description as 01	26"	3. Ignit. *
04	BLACK	POLY	FRAC-FOAM-2, No Good, FLAMABLE LIQUID, 11/25,	WHITE VISCOUS	19"	125 7
05	BLACK	POLY	BUFFER 5L, No Good, 12/20/94	AMBER LIQUID/ CLEAR LIQUID	21"	278 13 Corr. 265
06	BLACK	POLY	BUFFER 5L, No Good, 12/20/94	CLEAR LIQUID	10"	363 13
07	BLACK	POLY	BUFFER 5L, No Good,	MULTIPHASE AMBER LIQUID AMBER LIQUID SOLIDS IN THE BOTTOM	21"	413 5
08	BLACK	POLY	FLAMABLE, DO NOT, T.I.C., WEAK, CONTAINS ISO PROPANOL		33"	232 -
09	RED	STEEL	HOBBES, 3/31/91	SAME DESC. AS 01	3"	362 -
10	RED	STEEL	CL-30, GEL COMPLEXER	SAME DESC. AS 01	7"	464 7
11	RED	STEEL	CL-30, GEL COMPLEXER	CLEAR LIQUID, SOLIDS BOT.	25"	Ignit. 246 10 *
12	BLACK	STEEL	E-DOIS	CLEAR	5"	240 7
13	GRAY	STEEL	AQUA FLOW	Amber liquid, Solids bot	19"	96 7
14	BLACK	POLY	WASTE, No Good, No Good, LIQUID KCL SUBSTITUTE, WASTE	CLEAR LIQUID TOP WHITE SOLIDS BOTTOM	23"	371 7 Ignit. *
15	GRAY	STEEL	NINE-40, FLAMMABLE LIQUID, CONTAINS METHANOL, ISO PROPANOL	CLEAR/AMBER LIQUID TOP WHITE SOLIDS BOTTOM	23"	
16	GRAY	STEEL	NINE-40, FLAMMABLE LIQUID, CONTAINS METHANOL, ISO PROPANOL			
17	BLACK	POLY	CLAY MASTER 5, No Good, FLAMMABLE LIQUID, METHANOL	CLEAR LIQUID AMBER SOLIDS (AMBER SOLIDS)	32"	306 7 Ignit. *
18	BLACK	POLY	BUFF, No Good, BUFFER 5L, No Good			
19	BLACK	POLY	DON'T USE, NOT B-31, B-31, DON'T USE, NOT B-31	MULTIPHASE AMBER LIQUID CLEAR LIQUID	14"	312 2

quality wins

NUMBER	COLOR	TYPE	MARKINGS	CONTENTS	VOLUME	REMARKS
20	BLACK/GOLD	STEEL		CLEAR LIQUID	12"	4 7
21	RED	STEEL	CL-30	SAME AS #1	12"	
22	RED	STEEL	CL-30	SAME AS #1	23"	
23	RED	STEEL	BAD, CL-30 J-22LP,	SAME AS #1	4"	
24	GRAY	STEEL	NINE-40, FLAMMABLE LIQUID J-22LP,	CLEAR LIQUID, WHITE SOLIDS BOTTOM	33"	
25	GRAY	STEEL	NINE-40, FLAMMABLE LIQUID	CLEAR LIQUID, SOLIDS (MAGNETIC)	33"	2 7
26	GRAY	STEEL	NINE-40, 29-93, FLAMMABLE LIQUID, J-22LP	CLEAR LIQUID, WHITE SOLIDS BOTTOM	33"	
27	BLACK	POLY	DO NOT USE, BAD, 4-23-94, CL-2L, FLAMMABLE LIQUID, CONTAINS METHANE, BAD	CLEAR LIQUID	27"	207 7 Ignit. *
28	RED	STEEL	CL-30	GREEN/AMBER/CLEAR		
29	BLACK	POLY	DIFFER-5L, NO GOOD	LIQUID UNIDENTIFIED	5"	8
30	BLACK	STEEL	NINE-40, FLAMMABLE LIQUID	SAME AS 15	20"	
31	GRAY	STEEL	NINE-40,	SAME AS 15	8"	
32	BLACK	POLY	13-31, 5-13-94,			
33	BLACK	POLY	FRAC-FORM-3, FLAMMABLE LIQUID	CLEAR TO AMBER LIQUID	7"	
34	RED	STEEL	CL-30	SAME DESC AS #1	2.5"	207 7
35	RED	STEEL	CL-30, GEL COMPLEXER	SAME DESC AS #1	2.0"	345 7
36	RED	STEEL	CL-30	SAME DESC AS #1	4"	
37	RED	STEEL	CL-30	SAME DESC AS #1	4.5"	

- DURING THE INSPECTION, PRC  
INSPECTED THE TANKS (FIELD  
WASTE STATION) AND EMPTY  
DECONTAMINATION AREA.  
DRAWINGS FOR THE  
TANKS ARE NOT AVAILABLE

FACILITY NAME: WESTERN

EPA ID NUMBER: NMD 52377637

**RCRA COMPLIANCE INSPECTION REPORT  
GENERATORS CHECKLIST**

NOTE: On multiple part questions, circle those not in compliance.

EPA Identification NO. (262.12)

Does the Generator have an EPA I.D. No.?  
A. If yes, what is that number?

☒ Yes ☐ No

NMD 52377637

Hazardous Waste Determination (262.11)

1. Does the generator generate hazardous waste(s)  
listed in Subpart D? (261.30 - 261.33 - List of  
Hazardous Waste)

☒ Yes ☒ No NO LISTED  
WASTES

a. If yes, list wastes and quantities on  
attachment (Include EPA Hazardous Waste  
Number, waste name and description).

2. Does the generator generate solid waste(s) that  
exhibit hazardous characteristics? (circle those  
applicable - corrosivity, ignitability,  
reactivity, EP toxicity) (261.20 - 261.24 -  
Characteristics of Hazardous Waste)

☒ Yes ☐ No SAFETY KLEEN

a. If yes, list wastes and quantities on  
attachment (Include EPA Hazardous Waste  
Number, Waste Name and Description.)

~ 65 gallons per manifest (65.75  
(31.25 kg/mv)

b. Does the generator determine  
characteristics by testing or by applying  
knowledge of processes?

SAFETY KLEEN DETERMINES HAZ WASTE NUMBERS.

WESTERN HAS NOT SEEN AN  
WASTE ANALYSIS FROM SAFETY  
KLEEN.

i. If determined by testing, did the  
generator use test methods in Part  
261, Subpart C (or Equivalent)?

☐ Yes ☒ No HANDLED BY  
SAFETY KLEEN

ii. If equivalent test were methods used,  
attach copy of equivalent methods used.

3. Are there any other solid wastes deemed non-  
hazardous generated by the generator? (i.e.  
process waste streams, collected matter from air  
pollution control equipment, water treatment  
sludge, etc.)

☒ Yes ☐ No

a. If yes, did the generator determine non-  
hazardous characteristics by testing or  
knowledge of process?

- SAND TRAP  
- GENERAL TRASH - WASTE  
MANAGEMENT  
- AQUEOUS PORTION  
OF TANK D

TRUCK B: 12' diameter  
16 ft deep.

SAND TRAP: 76 ft deep  
7 ft diameter

FACILITY NAME: \_\_\_\_\_

EPA ID NUMBER: \_\_\_\_\_

when emptied,  
MUST CONTAIN  
CONTENTS AND  
CHIPPED OFFSITE.

SONNY'S VACUUM  
TRUCK VACUUM  
MATERIAL  
IN TO TRUCK  
AND HANDS  
OFFSITE 4/0

TRUCK TREATMENT

TO C&D.

TRUCKS OR  
TRUCKS IS  
TYPICALLY  
CLEAR  
4/0  
oil  
etc.

1. If determined by testing, did the generator use test methods in Part 261, Subpart C (or Equivalent)?

ii. If equivalent test methods were used, attach copy of equivalent methods used.

List wastes and quantities deemed non-hazardous or processes from which non-hazardous wastes were produced. (Use narrative explanations sheet)

4. Are any wastes recycled, reused or reclaimed on-site?

If yes, use narrative sheet to describe the type and quantity of the waste and the method used for reclamation.

5. Are any wastes shipped off-site for reclamation?

If yes, use narrative to describe the type and quantity of the waste and its destination. Also give a description of storage prior to shipment.

6. Is the total quantity of hazardous wastes generated?

a. Less than 100 kg/month?

b. More than 1000 kg/month?

c. More than 100 but less than 1000 kg/month?

$$75 \text{ gal} \times \frac{7.5 \text{ lb (wt)}}{\text{gal}} \times \frac{1 \text{ kg}}{2.205 \text{ lb}} = 255 \text{ kg.}$$

#### Manifest

1. Does the generator ship hazardous waste off-site?

a. If no, do not fill out Section C and D.

b. If yes, identify primary off-site facility(s). (Use narrative explanations sheet)

2. Has the generator shipped hazardous waste off-site since November 19, 1980?

3. Is the generator exempted from regulation because of:

Small quantity generator (261.5 - special requirements)

OR

GENERATORS  
2

Yes - SAND TRAP (TECP)

Yes No - ABOVE (DO TEST PH) (TYPICALLY 2-3)

NO - General tank

SAND TRAP -> ABOUT 50 42-gallon  
BARRIS TWO MONTHS.

ABOVE -> 5,000 gallons/hour  
every 2 weeks. (TYPICALLY  
Yes No 1 clean material)

Yes No

Yes No

Yes No

Yes No

Yes No

Yes No

Yes No

SAFETY KLEEN

REVISION--MAY 1992

FACILITY NAME: \_\_\_\_\_

EPA ID NUMBER: \_\_\_\_\_

Produces only non-hazardous solid waste at this time (261.4 - Exclusions)

\_\_\_ Yes ☒ No

4. If the generator is exempted as a small quantity generator are the following requirements met? *N/A*

a. The waste is reclaimed under a contractual agreement in which:

i. The type of waste and frequency of shipments specified in the agreement? \_\_\_ Yes \_\_\_ No

ii. The vehicles used to transport the waste to the recycling facility and to deliver regenerated material back to the generator is owned and operated by the reclaimer of the waste? \_\_\_ Yes \_\_\_ No

b. The generator maintains a copy of the reclamation agreement in his files for a period of at least three years after termination or expiration of the agreement? \_\_\_ Yes \_\_\_ No

Required Information (262.21)

5. If not exempted does the generator use manifest? ☒ Yes \_\_\_ No

a. If yes, does manifest include the following information (262.21 - Required information) ☒ Yes \_\_\_ No

(Circle those not on manifest)

- i. Manifest Document No.
- ii. Generators Name, Mailing Address, Tele. No.
- iii. Generator EPA I.D. No.
- iv. Transporter(s) Name and EPA I.D. No.
- v. Facility Name, Address and EPA I.D. No.
- vi. DOT description of the waste
- vii. a. Quantity (weight or volume)  
b. Containers (type and number)
- viii. Emergency Information (optional) (Special handling instructions, Phone No.)

FACILITY NAME: \_\_\_\_\_

EPA ID NUMBER: \_\_\_\_\_

ix. Waste minimization certification

x. Is the following certification on each manifest form?

☒ Yes ☐ No

This is to certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation and the EPA.

Uses of the Manifest (263.23)

6. Does the generator retain copies of manifests?

☒ Yes ☐ No

(Check completed manifests at random. Indicate how many manifests were inspected, how many violations were noted and the type of violation.)

→ 24 MANIFEST INSPECTED  
→ SOME LOR ATTACHMENT MISSING (11)

If yes, complete a through e. If questions contain more than one item, circle those not in compliance.

a. i. Did the generator sign and date all manifests inspected?

☒ Yes ☐ No

ii. Who signed for the generator?

Name: LARRY BROWER

Title: MAINTENANCE SUPERVISOR

I.D. Number: \_\_\_\_\_

b. i. Did the generator obtain handwritten signature and date of acceptance from initial transporter?

☒ Yes ☐ No

ii. Who signed for the transporter?

Name: ISABEL FUENTEZ

Title: None

I.D. Number: \_\_\_\_\_

c. Does the generator retain one copy of manifest signed by generator and transporter?

☒ Yes ☐ No

d. Do returned copies of manifest include facility owner/operator signature and date of acceptance?

☒ Yes ☐ No

e. If copy of manifest from facility was not returned within 45 days, did the generator file an exception report?  
(262.42 - Exception reporting)

N/A ☐ Yes ☐ No

FACILITY NAME: \_\_\_\_\_

EPA ID NUMBER: \_\_\_\_\_

1. If yes, did it contain the following information:

Legible copy of manifest

N/A

\_\_\_Yes\_\_\_No

AND

Cover letter explaining generators efforts to locate waste.

\_\_\_Yes\_\_\_No

- f. Does (will) the generator retain copies for 3 years?

✓ \_\_\_Yes\_\_\_No

Pre-Transport Requirements

1. Does the generator package waste?

\_\_\_Yes\_\_\_✓No

If no, skip to question 9.

If yes, complete the following questions.

Inspect containers ready for immediate shipment.

If there are no such containers, skip to question 8.

2. Does the generator package waste in accordance with 49 CFR 173, 178, and 179? (DOT requirements) (262.30 - Packaging)

N/A

\_\_\_Yes\_\_\_No

3. Are containers to be shipped leaking, corroding or bulging?

N/A

\_\_\_Yes\_\_\_No

Use narrative explanations sheet to describe containers and condition.

4. Does the generator use DOT labeling requirements in accordance with 49 CFR 172 when containers are offered for shipment? (262.31 - Labeling)

N/A

\_\_\_Yes\_\_\_No

5. Does the generator mark each package in accordance with 49 CFR 172 when containers are offered for shipment? (262.32 - Marking)

N/A

\_\_\_Yes\_\_\_No

6. a. Is each container of 110 gallons or less marked with the following label when containers are offered for shipment?

N/A

\_\_\_Yes\_\_\_No

SAFETY  
KUCW  
PLACARDS  
WASTE  
SHIPMENTS

HAZARDOUS WASTE - Federal Law Prohibits Improper Disposal. If found, contact the nearest police or public safety authority or the U.S. Environmental Protection Agency.

Generator's Name and Address \_\_\_\_\_

Manifest Document Number \_\_\_\_\_

- b. If other labels exist, list in narrative.

GENERATORS

5

REVISION--MAY 1992

FACILITY NAME: \_\_\_\_\_

EPA ID NUMBER: \_\_\_\_\_

7. If there are any vehicles present on site loading or unloading hazardous waste, inspect for presence of placards. Note this instance on narrative explanation sheet. *N/A*

8. Satellite Accumulation (effective June 20, 1985)

- a. Does the generator accumulate waste in containers at or near "Satellite" generation points?

☒ Yes ☐ No

*SAFETY  
CLEAN  
MAINTAINED*

If no, skip to question 9.  
If yes, complete the following.

- b. Are containers in good condition?

☒ Yes ☐ No

- c. Is the waste compatible with the containers?

☒ Yes ☐ No

- d. Is waste transferred from leaking containers or otherwise managed to control leakage?

*N/A*  
☐ Yes ☐ No

*NO LEAKAGE*

- e. Are containers closed?

☒ Yes ☐ No

- f. Are containers marked with the words "hazardous waste" or identification of the contents?

☒ Yes ☐ No

*WESTERN IS  
NOT SURE  
WHETHER THE  
DRUMS ARE  
MARKED WITH  
WASTE WHEN  
SHIPPED OFF*

- g. Has waste accumulation exceeded one (1) quart of acutely hazardous waste (261.33 e.) or 55 gallons of other hazardous waste?

☐ Yes ☒ No

If yes,

- i. Has the container holding the excess amount been marked with the date the excess began accumulating?

☐ Yes ☐ No

- ii. Have excess amounts remained in the satellite accumulation area longer than three (3) days?

☐ Yes ☐ No

9. Accumulation Time (262.34 - Accumulation Time for Small Quantity Generators)

- a. Is waste generated > 100 kg/month, but < 1000 kg/month?

☒ Yes ☐ No

If yes, answer rest of question #9.  
If no, skip to question #10.

- b. Is hazardous waste shipped offsite within 180 days?

☒ Yes ☐ No

*SITING  
ONCE PER MONTH*

- c. Has the quantity of waste accumulated on-site exceeded 6000 kilograms?

☐ Yes ☒ No

FACILITY NAME: \_\_\_\_\_

EPA ID NUMBER: \_\_\_\_\_

- d. Does the generator comply with the requirements of Part 265 Subpart C, Preparedness and Prevention? ☒ Yes ☐ No

10. Accumulation Time (262.34 - Accumulation Time)

- a. Is the site a permitted/interim status storage facility? ☐ Yes ☒ No

If yes, skip to Section E, and complete and attach the TSD checklist and appropriate supplemental checklists. If no, answer rest of question #8.

- b. Is hazardous waste shipped offsite within 90 days? ☒ Yes ☐ No

- c. Is waste stored in containers or tanks? ☒ Yes ☐ No

- d. Is the beginning date of accumulation time clearly indicated on each container? N/A ☐ Yes ☐ No

- e. Is each container or tank marked with the words "Hazardous Waste"? N/A ☐ Yes ☐ No → NOT MARKED UNTIL SHIPPED OFFSITE

- f. Complete and attach the containers/tanks supplemental checklists as appropriate. N/A

- g. If the generator accumulates waste on-site for less than 90 days, complete RCRA Generators Checklist Supplement. N/A

Recordkeeping and Report

1. Is the generator keeping the following reports for a minimum of three (3) years? (262.40 - Recordkeeping):

- a. Manifests and signed copies from designated facilities? ☒ Yes ☐ No

- b. Biennial reports (or reports as required by state agencies) N/A ☐ Yes ☐ No

- c. Exception Reports none → N/A ☐ Yes ☐ No

- d. Test results, where applicable. ☒ Yes ☐ No

2. Where are records kept (at facility or elsewhere)?

ON-SITE (FACILITY MANAGER'S OFFICE)

FACILITY NAME: \_\_\_\_\_

EPA ID NUMBER: \_\_\_\_\_

3. Who is in charge of keeping the records?

Name: TIM FRAZIER

Title: FACILITY SUPERVISOR

Special Condition

1. Has the generator received from or transported to a foreign source any hazardous waste?  
(262.50 - International Shipments)

*N/A*

\_\_\_Yes\_\_\_No

If yes,

a. Has a note been filed with the R.A.?

\_\_\_Yes\_\_\_No

b. Is this waste manifested and signed by Foreign Consignee?

\_\_\_Yes\_\_\_No

c. If the generator transported wastes out of the country has he received confirmation of delivered shipment?

\_\_\_Yes\_\_\_No

d. Has the generator filed an annual report (by March 1 of each year) giving the type, quantity, frequency and destination of all exported hazardous waste? (Per HSWA 1984)

\_\_\_Yes\_\_\_No

**APPENDIX G**  
**CHAIN-OF-CUSTODY FORMS**  
**(Two Sheets)**

Client Name / Address: <b>PRC ENVIRONMENTAL MGT. INC.</b> <b>350 N. ST. PAUL ST., SUITE 2600</b> <b>DALLAS, TX 75201</b>										Send Report to: <b>MARK BUTLER</b> <b>C/O PRC</b>											
Project Number: <b>170R603214LA</b>										Project Name: <b>BJ/WESTERN COMPANY</b> <b>HOBBS, NEW MEXICO</b>											
Samplers (Signature) <i>Amber Collins</i>										P.O. Number											
Sta. No.	Date	Time	Comp	Grab	Station Location					Number of Containers		Matrix	TOTAL VOA	TCLP VOA	TCLP ABN	IGNITABILITY	CORROSIVITY	SPECIFIC GRAVITY	Remarks		
01	4/24/95	1250		X	BJWEST-OUTSUMP-01					6		WASTE SLUDGE	X	X	X	X	X	X			
02		1325		X	BJWEST-SANDTRAP-02					12		WASTE LIQUID	X	X	X	X	X	X		MS/MSD	
03		1355		X	BJWEST-SANDTRAP-03					5		WASTE LIQUID	X	X	X	X	X	X			
04		1400		X	BJWEST-SANDTRAP-04					12		WASTE SLUDGE	X	X	X	X	X	X		MS/MSD	
05		1500		X	BJWEST-SANDTRAP-05					6		WASTE SLUDGE	X	X	X	X	X	X			
06		1555		X	BJWEST-TANK A-06					7		WASTE LIQUID	X	X	X	X	X	X			
07		1610		X	BJWEST-TANK A-07					7		WASTE SLUDGE	X	X	X	X	X	X			
08		1630		X	BJWEST-TANK B-08					6		WASTE LIQUID	X	X	X	X	X	X			
09		1640		X	BJWEST-TANK B-09					6		WASTE SLUDGE	X	X	X	X	X	X			
10		1700		X	BJWEST-TANK C-10					6		WASTE LIQUID	X	X	X	X	X	X			
11		1710		X	BJWEST-TANK C-11					6		WASTE SLUDGE	X	X	X	X	X	X			
Relinquished by (Signature) <i>CKV</i>										Date / Time 4/25/95 1700		Received by (Signature) <b>FEDEX</b>									
Relinquished by (Signature)										Date / Time		Received by (Signature)									
Relinquished by (Signature)										Date / Time		Received for Laboratory by (Signature)									
Method of Shipment:																					



1680 Lake Front Circle, Suite B • The Woodlands, Texas 77380 • Phone (713) 363-2233 • Fax (713) 298-5784

Client Name / Address: PRC ENVIRONMENTAL MANAGEMENT, INC. 350 N. ST. PAUL ST., SUITE 2600 DALLAS, TX 75201 (214) 754-8765				Send Report to: MARK BUTLER 96 PRC						
Project Number: 170R0603214LA		Project Name: BJ/WESTERN COMPANY HOBBBS, NEW MEXICO		TOTAL VOL						
Samplers (Signature): <i>Kenneth Cogline</i>		P.O. Number		SPECIFIC GRAVITY						
Sta. No.		Date	Time	Comp.	Grab	Station Location	Matrix	IGNITABILITY	CORROSION	REMARKS
12	4/25/95	0920		X		BJWEST-DRUM02-12	LIQUID WASTE	X	X	
13		0930		X		BJWEST-DRUM03-13		X	X	
14		0935		X		BJWEST-DRUM05-14		X	X	
15		0945		X		BJWEST-DRUM11-15		X	X	
16		0955		X		BJWEST-DRUM15-16		X	X	
17		1000		X		BJWEST-DRUM17-17		X	X	
18		1005		X		BJWEST-DRUM27-18		X	X	
BJWEST-TR04-19							WATER			TRAP BLANK
Relinquished by (Signature): <i>KVee</i>							Date / Time: 4/25/95 1700	Received by (Signature): <i>FED-EX</i>		
Relinquished by (Signature):							Date / Time:	Received by (Signature):		
Relinquished by (Signature):							Date / Time:	Received for Laboratory by (Signature):		
Method of Shipment:										

Remarks: FED-EX AIRBILL NO. 3911763122  
COOLERS 1 AND 2 OF 3  
PDP Quote Number:

**APPENDIX H**  
**WEIGHT CALCULATIONS**  
**(One Sheet)**

TABLE H-1

## WEIGHT CALCULATIONS

Management Unit	Dimensions (ft)		Volume (ft <sup>3</sup> )	Volume Conversion Factor (m <sup>3</sup> /ft <sup>3</sup> )	Density of Water at 25°C (kg/m <sup>3</sup> )	Specific Gravity of Waste (Attachment C)	Quantity (kg)
	Diameter	Depth					
Sand Trap Tank (Liquid)	7.5	2.0	88.36	0.02832	997	0.883	2,203
Sand Trap Tank (Sludge)	7.5	2.2	97.19			1.97	5,406
Tank A (Liquid)	12.25	8.0	942.87			0.986	26,249
Tank A (Sludge)	12.25	4.0	471.44			0.999	13,297
Tank B (Liquid)	12.25	0.25	29.46			0.859	714
Tank B (Sludge)	12.25	6.75	795.55			0.897	20,148
Tank C (Liquid)	12.25	0.5	58.93			0.860	1,431
Tank C (Sludge)	12.25	11.25	1,325.91			0.929	34,779

Notes:

ft = feet

ft<sup>3</sup> = cubic feet

kg = kilograms

m<sup>3</sup> = cubic metersQuantity (kg) = Volume (ft<sup>3</sup>) x Volume Conversion Factor (m<sup>3</sup>/ft<sup>3</sup>) x Density of Water (kg/m<sup>3</sup>) x Specific GravityVolume (ft<sup>3</sup>) = ([3.14159 x Diameter<sup>2</sup>]/4) x Depth

**ATTACHMENT A**

**MATERIAL SAFETY DATA SHEETS (MSDSs) OF CHEMICAL PRODUCTS HANDLED BY BJ WESTERN**

**(85 Sheets)**



Jo Ann Cobb REM  
Manager, Environmental  
Tel. 713/363-7528  
Fax 713/363-7595

June 28, 1995

Mr Mark Butler  
PRC  
Suite 2600  
350 North St Paul St  
Dallas TX 75201

RE: BJ Services Company USA  
Hobbs NM District

Dear Mr Butler:

Enclosed are photocopies of MSDSs for chemicals stored at the acid dock on the Hobbs NM facility.

If additional information is required, please let me know.

Sincerely,

A handwritten signature in cursive script, reading 'Jo Ann Cobb'. The signature is written in black ink on a white background.

Jo Ann Cobb

Enclosures

ah

# Material Safety Data Sheet

Product SUPERSET O

## Section I

Manufacturer's Name  
Control Products, Inc.  
57 Katy Frwy, #1260  
Houston, TX 77079

Emergency Telephone Number  
(713) 556-5212

Date 4/15/90

## Section II - Hazardous Ingredients

Hazardous components	CAS #	OSHA PEL	ACGIH TLV	OTHER
Xylene	1330-20-7		100 PPM	
Trimethylbenzenes	2551-13-7		25 PPM	
Oxirane (Ethylene Oxide)	75-21-8		1 PPM	

See Section .07-OCCUPATIONAL CONTROL PROCEDURES. NOT SUBJECT TO REPORTING UNDER SARA SECTION 313 AT THIS CONCENTRATION.

Hazard Rating	Scale:	Product:
	0-Minimal	HEALTH: 2
	1-Slight	FIRE: 2
	2-Moderate	REACTIVITY: 1
	3-Serious	SPECIAL:
	4-Severe	

## Section 313 Supplier Notification

This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40 CFR 372:

Chemical Name	Percent by Weight
---------------	-------------------

## Section III - Physical/Chemical Characteristics

Boiling Point: °F N/A	Specific Gravity (H <sub>2</sub> O=1): 0.92
Vapor Pressure (mmHg): N/A	Melting Point:
Vapor Density (Air=1): N/A	Evaporation Rate (Butyl Acetate=1):
Solubility in Water: N/A	
Appearance and Odor: Straw to dark brown, aromatic odor	

## Section IV - Fire and Explosion Hazard Data

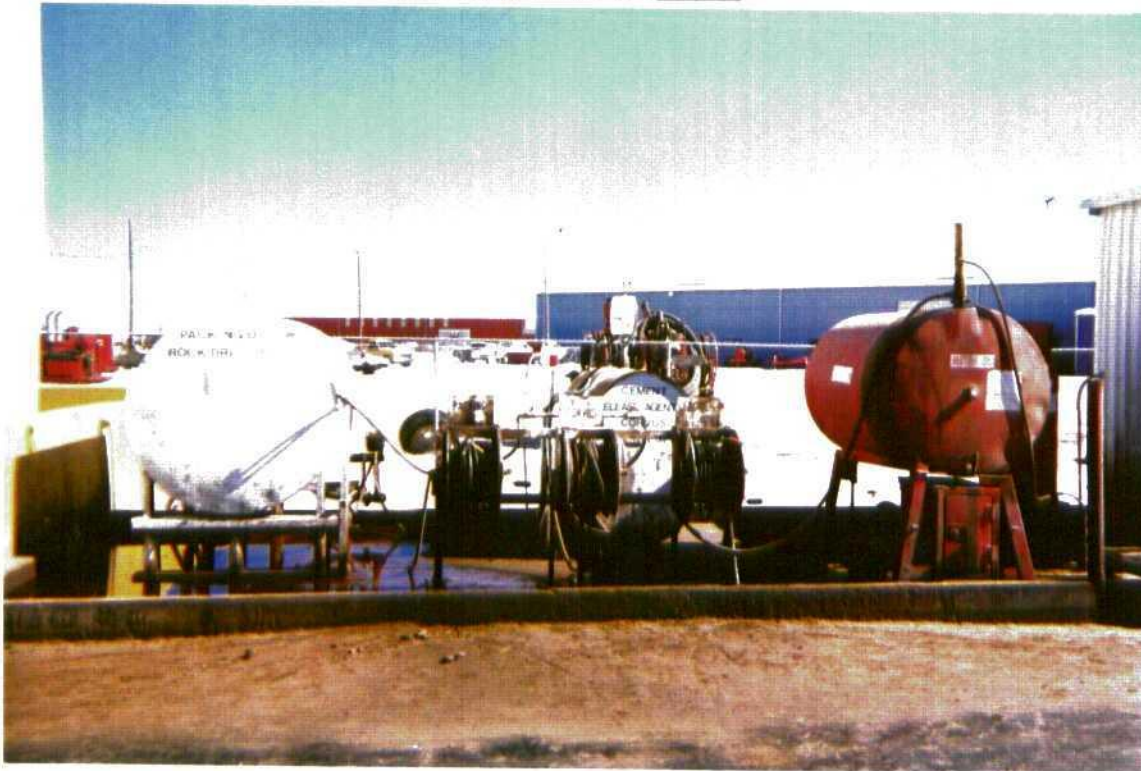
Flash Point: °F 100	Flammable Limits in air, % : Lower: Upper:
---------------------	--

PHOTOGRAPH NO. 1



Date: 04/24/95 Picture Taken by: Jeffrey Ayers, PRC Direction Facing: NW  
Picture Description: Used oil storage tank, located on the south side of the truck maintenance shop

PHOTOGRAPH NO. 2



Date: 04/24/95 Picture Taken by: Jeffrey Ayers, PRC Direction Facing: N  
Picture Description: Facility fuel and oil tanks



Date: 04/24/95 Picture Taken by: Jeffrey Ayers, PRC Direction Facing: NE  
Picture Description: Product drum storage area, located on the west side of the chemical storage warehouse



Date: 04/24/95 Picture Taken by: Lynette Collins, PRC Direction Facing: SE  
Picture Description: Product drum storage, located next to the product loading bay and elevated hydrochloric acid tank



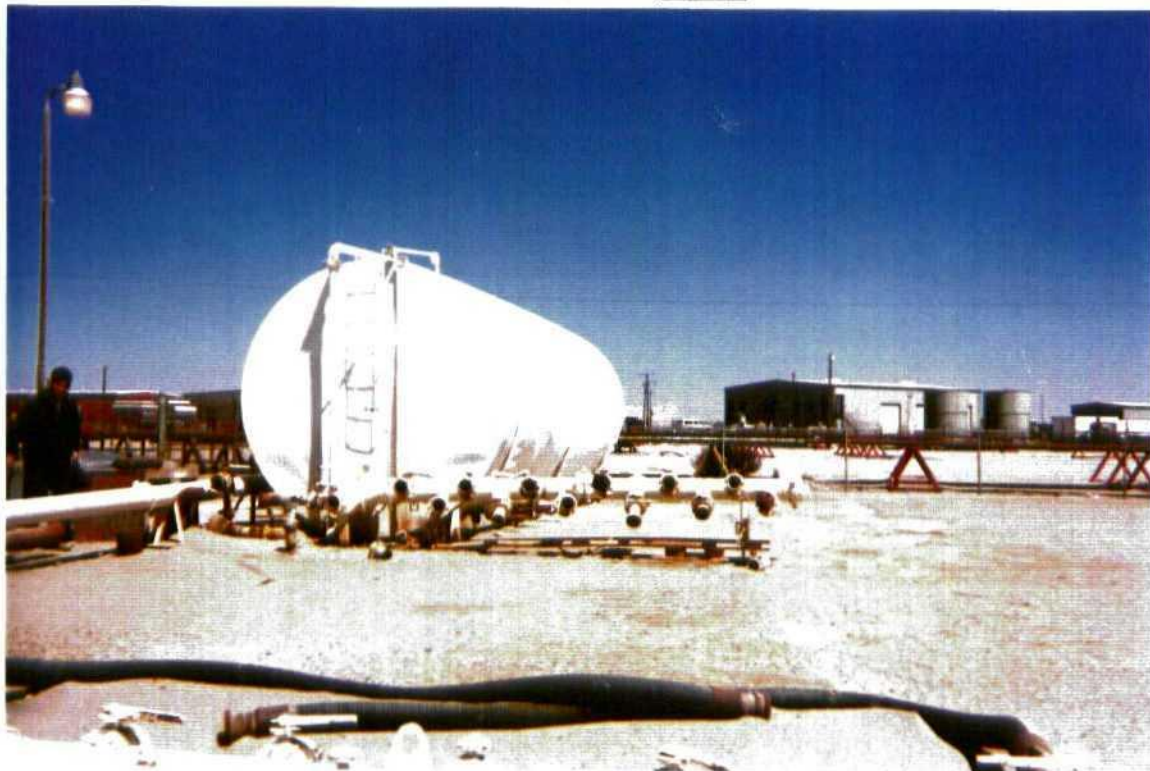
Date: 04/24/95 Picture Taken by: Lynette Collins, PRC Direction Facing: E  
 Picture Description: Drummed pump washout, located next to the product loading bay



Date: 04/24/95 Picture Taken by: Jeffrey Ayers, PRC Direction Facing: NW  
 Picture Description: Product loading bay in foreground, and drummed product and chemical storage in the warehouse background



Date: 04/24/95 Picture Taken by: Lynette Collins, PRC Direction Facing: E  
Picture Description: Underground gravity separation Tanks A, B, and C, located east of the Sand Trap Tank



Date: 04/24/95 Picture Taken by: Lynette Collins, PRC Direction Facing: NW  
Picture Description: Water tank used during pump testing

PHOTOGRAPH NO. 9



Date: 04/24/95 Picture Taken by: Jeffrey Ayers, PRC Direction Facing: E  
Picture Description: Vertical cement storage silos

PHOTOGRAPH NO. 10



Date: 04/24/95 Picture Taken by: Jeffrey Ayers, PRC Direction Facing: NW  
Picture Description: Liquid gel mixing facility



# MATERIAL SAFETY DATA SHEET

DATE: 28MAY86

## SECTION I

Supplier's Name The Western Company of North America		EMERGENCY TELEPHONE NO. (817) 731-5100
ADDRESS (Number, Street, City, State, and ZIP Code) P. O. Box 186, Ft. Worth, TX 76101		
CHEMICAL NAME AND SYNONYMS Proprietary blend		TRADE NAME AND SYNONYMS GEL COMPLEXER, water, T.I.C.
CHEMICAL FAMILY metal chelate	FORMULA W.I.N. 100151	

## SECTION IA HAZARDOUS MATERIAL CLASSIFICATION

D.O.T. PROPER SHIPPING NAME	Flammable liquid, n.o.s.
NAME OF HAZARDOUS COMPONENT	isopropanol
HAZARD CLASS	Flammable liquid
IDENTIFICATION NUMBER	UN 1993
D.O.T. LABEL(S) REQUIRED	Flammable liquid
PRECAUTIONARY LABEL	attached

## SECTION II - HAZARDOUS INGREDIENTS

	%	TLV (Units)
isopropanol	80	400ppm

## SECTION III - PHYSICAL DATA

BOILING POINT (°F.)		SPECIFIC GRAVITY (H <sub>2</sub> O=1) @ 25°C	0.842
VAPOR PRESSURE (mm Hg.)		PERCENT VOLATILE BY VOLUME (%)	80%
VAPOR DENSITY (AIR=1)		EVAPORATION RATE (_____=1)	364
SOLUBILITY IN WATER	insoluble		
APPEARANCE AND ODOR	Clear red liquid, acetyl acetone odor		

## SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used) 54°F (PMCC)	FLAMMABLE LIMITS	Lel	Uel
EXTINGUISHING MEDIA Any type CO <sub>2</sub> , dry chemical or water			
SPECIAL FIRE FIGHTING PROCEDURES None			
UNUSUAL FIRE AND EXPLOSION HAZARDS None			

TRADE NAME: W.I.N.100151,GEL COMPLEXER,water,T.I.C.

### SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

Unknown, isopropanol component, 400 ppm

EFFECTS OF OVEREXPOSURE

See attached

Is this material a sensitizer? No report of sensitization during 10 years of com

EMERGENCY AND FIRST AID PROCEDURES

Wash spills from skin with soap and water. If contact with eyes occurs, flush the thoroughly with plenty of water and consult a physician if irritation persists.

If the product is ingested, consult a physician.

### SECTION VI - REACTIVITY DATA

STABILITY

UNSTABLE

CONDITIONS TO AVOID

STABLE

XXX

Hydrolyzed slowly by water.

INCOMPATIBILITY (Materials to avoid)

May cause rapid corrosion of ferrous metals

HAZARDOUS DECOMPOSITION PRODUCTS

None

HAZARDOUS  
POLYMERIZATION

MAY OCCUR

CONDITIONS TO AVOID

WILL NOT OCCUR

XXX

### SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Collect large spills with sawdust or other absorbent solid. Small spills and residues may be flushed to the drain with water.

WASTE DISPOSAL METHOD

Pour waste on the ground in a protected dumping area. Bury or burn in accordance with local ordinances.

### SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type)

VENTILATION

LOCAL EXHAUST

SPECIAL

MECHANICAL (General)

OTHER

PROTECTIVE GLOVES  
Elbow length

EYE PROTECTION  
Goggles or face shield

OTHER PROTECTIVE EQUIPMENT

### SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

See attached

OTHER PRECAUTIONS

See attached



U.S. DEPARTMENT OF LABOR  
Occupational Safety and Health Administration

# MATERIAL SAFETY DATA SHEET

DATE: 15 Mar 78

## SECTION I

Supplier's Name	EMERGENCY TELEPHONE NO.
The Western Company of North America	(817) 731-5100
ADDRESS (Number, Street, City, State, and ZIP Code) P. O. Box 186, Ft. Worth, TX 76107	
CHEMICAL NAME AND SYNONYMS Acetic Acid & Acetic Anhydride	TRADE NAME AND SYNONYMS AC-2
CHEMICAL FAMILY Acid	FORMULA 40% acetic acid, 60% acetic anhydride

## SECTION IA HAZARDOUS MATERIAL CLASSIFICATION

D.O.T. PROPER SHIPPING NAME	Corrosive liquid, N.O.S.
NAME OF HAZARDOUS COMPONENT	Acetic Anhydride *
HAZARD CLASS	Corrosive material
IDENTIFICATION NUMBER	UN1760
D.O.T. LABEL(S) REQUIRED	Corrosive
PRECAUTIONARY LABEL	

## SECTION II - HAZARDOUS INGREDIENTS

	%	TLV (Units)
*		

## SECTION III - PHYSICAL DATA

BOILING POINT (°F.)	SPECIFIC GRAVITY (H <sub>2</sub> O=1)
VAPOR PRESSURE (mm Hg.)	PERCENT VOLATILE BY VOLUME (%)
VAPOR DENSITY (AIR=1)	EVAPORATION RATE (_____=1)
SOLUBILITY IN WATER	
APPEARANCE AND ODOR clear, colorless liquid - sharp acrid odor	

## SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used) 112°F, Tag Open cup; 109°F, Tag Closed Cup	FLAMMABLE LIMITS Lel 2.9% Uel 10.3%
EXTINGUISHING MEDIA Water spray, dry chemical, and alcohol foam are effective extinguishing agents for acetic anhydride fires.	
SPECIAL FIRE FIGHTING PROCEDURES Addition of water will reduce intensity of flames. If a leak or spill has not ignited, use water spray to disperse the vapor and to protect the personnel trying to stop the leak. Fire fighters should wear self-contained breathing apparatus and full protective clothing.	
UNUSUAL FIRE AND EXPLOSION HAZARDS Water and foam react with chemical, but the heat liberated is not enough to create a hazard. Dry chemical forced below surface can cause foaming and boiling.	

**EXXON****MATERIAL SAFETY DATA SHEET**

PAGE 1

**CHEMICALS**EXXON CHEMICAL AMERICAS P.O. BOX 3272, HOUSTON, TEXAS 77001  
A Division of EXXON CHEMICAL COMPANY, A Division of EXXON CORPORATION

08/01/89

NO. 78745C

**SECTION I PRODUCT IDENTIFICATION & EMERGENCY INFORMATION****PRODUCT NAME**

WCNA WZ 499589

7-8745

**CHEMICAL NAME**

Not applicable: Blend

**CHEMICAL FAMILY**

Blend

**PRODUCT APPEARANCE**

Clear Amber Liquid

Slight Pungent Odor

AS-3  
Correct 8592**EMERGENCY TELEPHONE NUMBERS:**EXXON CHEMICAL AMERICAS  
CHEMTREC713-870-8000  
800-424-9300**SECTION II HAZARDOUS INGREDIENT INFORMATION**

The composition of this mixture may be proprietary information. In the event of a medical emergency, compositional information will be provided to a physician or nurse. This product is hazardous as defined in 29 CFR 1910.1200, based on the following compositional information:

COMPONENT

Organic Acid Amine Salt  
Methanol/Water  
Methanol: via Ingestion and Inhalation  
Methanol

OSHA HAZARD

Eye & Skin Corrosive  
Combustible  
Toxic  
PEL/TLV

For additional information see Section 3.

**SECTION 3 HEALTH INFORMATION & PROTECTION****NATURE OF HAZARD****EYE CONTACT:**

Corrosive. Will cause eye burns and permanent tissue damage.

**SKIN CONTACT:**

Corrosive; causes permanent skin damage.

Methyl alcohol may be absorbed through the skin which can contribute to damage of the optic nerve resulting in permanent visual changes, loss of vision or total blindness.

May cause skin sensitization, an allergic reaction which becomes evident on reexposure to this material.

**INHALATION:**

High vapor concentrations are irritating to the eyes and the respiratory tract, may cause headaches and dizziness, are anesthetic and may have other central nervous system effects.

This product contains methyl alcohol. Vapor inhalation and/or skin absorption can cause central nervous system effects and blindness.

**INGESTION:**

Corrosive to mouth, esophagus and stomach.

The principle hazard of methyl alcohol arises from its ingestion as a substitute for ethyl alcohol. As little as 15 ml (1/2 oz.) of 40% methyl alcohol has caused death.

The most significant systemic effect caused by sublethal doses of methyl alcohol is the damage to the optic nerve which can result in permanent visual changes, loss of vision or total blindness.

**FIRST AID****EYE CONTACT:**

Immediately flush eyes with large amounts of water for at least 15 minutes. Get prompt medical attention.

**SKIN CONTACT:**

Immediately flush with large amounts of water; use soap if available. Remove contaminated clothing, including shoes, after flushing has begun. Get prompt medical attention.

**INHALATION:**

Using proper respiratory protection, immediately remove the affected victim from exposure. Administer artificial respiration if breathing is stopped. Keep at rest. Call for prompt medical attention.

**INGESTION:**

DO NOT induce vomiting. If individual is conscious, give milk or water to dilute stomach contents. Keep warm and quiet. Get prompt medical attention. DO NOT attempt to give anything by mouth to an unconscious person.

**WORKPLACE EXPOSURE LIMITS****SHA REGULATION 29CFR1910.1000 REQUIRES THE FOLLOWING PERMISSIBLE EXPOSURE LIMITS:**

A TWA of 200 ppm (260 mg/m<sup>3</sup>) and a STEL of 250 ppm (310 mg/m<sup>3</sup>) for Methyl Alcohol (skin).

**THE ACGIH RECOMMENDS THE FOLLOWING THRESHOLD LIMIT VALUES:**

a TWA of 200 ppm (260 mg/m<sup>3</sup>), and a STEL of 250 ppm (310 mg/m<sup>3</sup>) for Methyl Alcohol (skin).

**PRECAUTIONS****PERSONAL PROTECTION**

For open systems where contact is likely, wear chemical resistant gloves, a chemical suit, rubber boots, and chemical safety goggles plus a face shield.

Where contact may occur, wear long sleeves, chemical resistant gloves, chemical goggles, and a face shield.

Where concentrations in air may exceed the limits given in this Section and engineering, work practice or other means of exposure reduction are not adequate, NIOSH/MSHA approved respirators may be necessary to prevent overexposure by inhalation.

All contact should be avoided by persons with known hypersensitivity to AMINES

**VENTILATION**

The use of mechanical dilution ventilation is recommended whenever this product is used in a confined space, is heated above ambient temperatures, or is agitated.

**SECTION 4 FIRE & EXPLOSION HAZARD**

FLASHPOINT: 103 Deg F. METHOD: Seta CC

FLAMMABLE LIMITS: LEL: 6.7 UEL: 36.0

IGNITION TEMPERATURE: NOTE: Not available

**GENERAL HAZARD**

Combustible Liquid, can form combustible mixtures at temperatures at or above the flashpoint.

Toxic gases will form upon combustion.

"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

SHAW-KIT - 1001

Activator, W.I.N. # 499737

**ACME****MATERIAL SAFETY DATA SHEET**Emergency Telephone  
(614) 431-6800**ACME RESIN CORPORATION**BORDEN PACKAGING and INDUSTRIAL PRODUCTS DOMESTIC AND INTERNATIONAL DIVISION OF BORDEN, INC.  
10330 W. ROOSEVELT ROAD, WESTCHESTER, ILLINOIS 60154-2564

THE OSHA HAZARD COMMUNICATION STANDARD 29 CFR 1910.1200 REQUIRES THAT  
THE INFORMATION CONTAINED ON THESE SHEETS BE MADE AVAILABLE TO YOUR WORKERS.  
INSTRUCT YOUR WORKERS TO HANDLE THIS PRODUCT PROPERLY.  
FOR INDUSTRIAL USE ONLY

THE WESTERN COMPANY  
ATTN: MS BETH PRASEK  
8701 NEW TRAILS DRIVE  
THE WOODLANDS, TX 77381

NON-EMERGENCY TELEPHONE  
(708) 524-3176  
ATTN: KENNETH C. PYLES

DESCRIPTION: Activator  
PRODUCT TYPE: ISOPROPYL ALCOHOL SOLUTION  
APPLICATION: CONSOLIDATION AGENT FOR OIL WELL PROPPANTS

PAGE 1  
CUR ISS 04-MAY-92**SIGNAL WORD****WARNING!**

This material is a "health hazard" and/or a "physical hazard" as determined when reviewed according to the requirements of the Occupational Safety and Health Administration 29 CFR Part 1910.1200 "Hazard Communication" Standard.

**CHEMICAL HAZARD RATING**

HEALTH=2(moderate)

FIRE=3(high)

REACTIVITY=0(least)

CHRONIC=\*

**29CFR1910.1200 HAZARDOUS INGREDIENTS/REPORTED HEALTH EFFECTS**

CAS/REGISTRY NO. MATERIAL DESCRIPTION % RANGE

The ingredients listed below have been associated with one or more of the listed immediate and/or delayed(\*) health hazards. Risk of damage and effects depends upon duration and level of exposure. BEFORE USING OR HANDLING, READ AND UNDERSTAND THE MSDS.

67-63-0 \*ISOPROPANOL  
NOTE REVISED OSHA PEL

30-50

Suspect reproductive hazard. May cause reproductive disorders based on animal data.

May cause liver damage based on animal data.

May cause kidney damage based on animal data.

Can cause central nervous system depression. Signs and symptoms may include headache, dizziness, nausea, vomiting, unconsciousness and even asphyxiation.

-- See Footnote C.

ACGIH TLV: 400 PPM (983 MG/M<sup>3</sup>) TWA; 500 PPM (1230 MG/M<sup>3</sup>) STEL

OSHA PEL: 400 PPM (980 MG/M<sup>3</sup>) TWA; 500 PPM (1225 MG/M<sup>3</sup>) STEL

NIOSH DOCUMENT NUMBER: 76-142

READ NEXT PAGE

**ACME**



# MATERIAL SAFETY DATA SHEET

Emergency Telephone  
(614) 431-6600

**ACME RESIN CORPORATION**

BORDEN PACKAGING and INDUSTRIAL PRODUCTS DOMESTIC AND INTERNATIONAL DIVISION OF BORDEN, INC.  
10330 W. ROOSEVELT ROAD, WESTCHESTER, ILLINOIS 60154-2564

DESCRIPTION: Activator  
PRODUCT TYPE: ISOPROPYL ALCOHOL SOLUTION  
APPLICATION: CONSOLIDATION AGENT FOR OIL WELL PROPPANTS

PAGE 2  
CUR ISS 04-MAY-92

29CFR1910.1200 HAZARDOUS INGREDIENTS/REPORTED HEALTH EFFECTS  
CAS/REGISTRY NO. MATERIAL DESCRIPTION

% RANGE

68131-40-8 \*ALCOHOLS, C11-15-SECONDARY, ETHOXYLATED

50-70

May cause allergic skin reaction.

-- See Footnote C.

ACGIH TLV: NONE ESTABLISHED

OSHA PEL: NONE ESTABLISHED

Footnote C: As of the date of issuance of this document, this material has not been listed by NTP, IARC or OSHA as a carcinogen.

## PHYSICAL DATA

APPEARANCE	CLEAR LIQUID
FLASH POINT	53 F. (T.C.C.)
FREEZING POINT	15 F.
ODOR	ISOPROPYL ALCOHOL ODOR
SPECIFIC GRAVITY	0.907
SOLUBILITY IN WATER	SOLUBLE

## IMMEDIATE HEALTH HAZARD DATA

SKIN ABSORPTION: No hazards known to Borden.

INGESTION: Not expected to be harmful under normal conditions of use.

INHALATION: Not expected to be harmful under normal conditions of use. However, if allowed to become airborne, may cause irritation of nose, throat and lungs.

Can cause central nervous system depression.

SKIN: May cause irritation on prolonged or repeated contact.

EYES: Causes irritation.

## HANDLING PRECAUTIONS

INHALATION: Avoid prolonged or repeated breathing of vapor.

SKIN: Avoid prolonged or repeated contact with skin.

EYES: Avoid contact with eyes.

Handle in accordance with good industrial hygiene and safety practices. These practices include avoiding unnecessary exposure and removal of the material from eyes, skin and clothing.

Wash thoroughly after handling.

READ NEXT PAGE



U.S. DEPARTMENT OF LABOR  
Occupational Safety and Health Administration

# MATERIAL SAFETY DATA SHEET

DATE: 15JUL85

## SECTION I

Supplier's Name The Western Company of North America		EMERGENCY TELEPHONE NO. (817) 731-5100
ADDRESS (Number, Street, City, State, and ZIP Code) P. O. Box 186, Ft. Worth, TX 76101		
CHEMICAL NAME AND SYNONYMS Proprietary Blend		TRADE NAME AND SYNONYMS Gelling Agent, Acigel
CHEMICAL FAMILY Acrylamide Copolymer	FORMULA	W I N 499520

## SECTION IA HAZARDOUS MATERIAL CLASSIFICATION

D.O.T. PROPER SHIPPING NAME	Not Regulated
NAME OF HAZARDOUS COMPONENT	N/A
HAZARD CLASS	N/A
IDENTIFICATION NUMBER	N/A
D.O.T. LABEL(S) REQUIRED	N/A
PRECAUTIONARY LABEL	Attached

## SECTION II - HAZARDOUS INGREDIENTS

	%	TLV (Units)
paraffin oil	CAS: 8012-95-1	

## SECTION III - PHYSICAL DATA

BOILING POINT (°F.)	212°F	SPECIFIC GRAVITY (H <sub>2</sub> O=1) @ 60°F	1.08
VAPOR PRESSURE (mm Hg.)	No Data	PERCENT VOLATILE BYWEIGHT % @ 75°F	44
VAPOR DENSITY (AIR=1)	No Data	EVAPORATION RATE (_____ =1)	-----
SOLUBILITY IN WATER	Polymer Soluble in Water at pH < 7		
APPEARANCE AND ODOR	Milky white liquid, Sweet odor		

## SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used) None, flames out @ 52°C (125°F) PMCC	FLAMMABLE LIMITS	Lel	Uel
EXTINGUISHING MEDIA carbon dioxide, dry chemical, alcohol foam			
SPECIAL FIRE FIGHTING PROCEDURES none			
UNUSUAL FIRE AND EXPLOSION HAZARDS none			

8.99

TRADE NAME: W.I.N. 499520, Gelling Agent, acid, Acigel

### SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	None established for the product
EFFECTS OF OVEREXPOSURE	May cause irritation with prolonged contact
EMERGENCY AND FIRST AID PROCEDURES	Eyes: Flush with water for 15 minutes. Call a physician.
	Skin: Wash thoroughly with soap and water.
	Ingestion: Do not induce vomiting. Give water. Call a physician.

### SECTION VI - REACTIVITY DATA

STABILITY	UNSTABLE		CONDITIONS TO AVOID	none
	STABLE	X		
INCOMPATIBILITY (Materials to avoid)				
HAZARDOUS DECOMPOSITION PRODUCTS				
oxides of nitrogen				
HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID	
	WILL NOT OCCUR	X		

### SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED
Contain with absorbent material.
WASTE DISPOSAL METHOD
No special method. Consult local, state, and federal regulations for appropriate disposal methods. This product is not regulated under RCRA.

### SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type)		
None normally required.		
VENTILATION	LOCAL EXHAUST	SPECIAL
	MECHANICAL (General)	OTHER
PROTECTIVE GLOVES	synthetic	EYE PROTECTION
OTHER PROTECTIVE EQUIPMENT		chemical goggles

### SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING
none
OTHER PRECAUTIONS
Do not take internally. Avoid eye and prolonged skin contact.



U.S. DEPARTMENT OF LABOR  
Occupational Safety and Health Administration

# MATERIAL SAFETY DATA SHEET

DATE: 10/1/85

## SECTION I

Supplier's Name The Western Company of North America		EMERGENCY TELEPHONE NO. (817) 731-5100
ADDRESS (Number, Street, City, State, and ZIP Code) P. O. Box 186, Ft. Worth, TX 76101		
CHEMICAL NAME AND SYNONYMS Proprietary	TRADE NAME AND SYNONYMS Gelling Agent, Acid, Acigel IT	
CHEMICAL FAMILY	FORMULA	W.I.N. 499518

## SECTION IA HAZARDOUS MATERIAL CLASSIFICATION

D.O.T. PROPER SHIPPING NAME	Flammable Liquid, n.o.s.
NAME OF HAZARDOUS COMPONENT	Methanol
HAZARD CLASS	Flammable Liquid
IDENTIFICATION NUMBER	UN 1993
D.O.T. LABEL(S) REQUIRED	Flammable.
PRECAUTIONARY LABEL	

## SECTION II - HAZARDOUS INGREDIENTS

	%	TLV (Units)
Methanol		200ppm
Acetic Acid		10ppm

## SECTION III - PHYSICAL DATA

BOILING POINT (°F.)	147	SPECIFIC GRAVITY (H <sub>2</sub> O=1)	0.914
VAPOR PRESSURE (mm Hg.) @ 20°C	96	PERCENT. VOLATILE BY VOLUME (%)	37
VAPOR DENSITY (AIR=1)	1.11	EVAPORATION RATE (_____=1)	3.5
SOLUBILITY IN WATER	soluble		
APPEARANCE AND ODOR Amber Liquid; Alcohol odor			

## SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	56°F ASTM D3828	FLAMMABLE LIMITS	Lel	Uel
			N/A	N/A
EXTINGUISHING MEDIA	CO <sub>2</sub> , dry powder or foam			
SPECIAL FIRE FIGHTING PROCEDURES				
Self-contained breathing apparatus required				
UNUSUAL FIRE AND EXPLOSION HAZARDS				
None known				

TRADE NAME: Gelling Agent, Acid. Acigel LT W.I.N. 499518

### SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	Not established
EFFECTS OF OVEREXPOSURE	See attached
EMERGENCY AND FIRST AID PROCEDURES	See attached

### SECTION VI - REACTIVITY DATA

STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	X	
INCOMPATIBILITY (Materials to avoid)			
Strong oxidizers			
HAZARDOUS DECOMPOSITION PRODUCTS			
Oxides of Nitrogen			
HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID
	WILL NOT OCCUR	X	

### SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Absorb on sand, dirt or suitable absorbant.

WASTE DISPOSAL METHOD

Dispose of in an appropriate waste disposal site in accordance with applicable waste management regulations.

### SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type)		
Use self-contained breathing apparatus in enclosed areas.		
VENTILATION	LOCAL EXHAUST	SPECIAL
	Equivalent to outdoors	
	MECHANICAL (General)	OTHER
PROTECTIVE GLOVES		EYE PROTECTION
Synthetic		Chemical goggles
OTHER PROTECTIVE EQUIPMENT		

### SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING	Flammable liquid, avoid heat, sparks or open flames. Avoid contact with vapor or liquid.
OTHER PRECAUTIONS	Do not cut empty drums.

Trade Name ADOFOAM (BF-1) Formula No. 100181  
 Synonyms An aqueous mixture of alcohol ether sulfates and alkyl  
sulfonates and alcohol. Chemical Family Organic

## SECTION 2 - HAZARDOUS INGREDIENTS

MATERIAL OR COMPONENT	%
Isopropanol	5.
Methanol	3.

## SECTION 3 - PHYSICAL PROPERTIES

Boiling Point, 760 MM HG	Melting Point
Specific Gravity (H <sub>2</sub> O=1) 1.02	Vapor Pressure
Vapor Density (Air=1)	Solubility in H <sub>2</sub> O, % By Wt. Completely
% Volatiles By Vol.	Evaporation Rate (Butyl Acetate=1)
Appearance and Odor Clear liquid with an alcohol odor	

## SECTION 4 - FLAMMABILITY AND EXPLOSIVE PROPERTIES

Flash Point (Test Method) 103°F. TCC			
Flammable Limits in Air, % By Vol.	Lower	Upper	
Extinguishing Media Water, foam, CO <sub>2</sub> , or dry chemicals			
Special Fire Fighting Procedures Wear air supplied breathing apparatus in confined area			
Unusual Fire and Explosion Hazard May evolve fumes of SO <sub>2</sub> and NO <sub>2</sub> .			

## SECTION 5 - HEALTH HAZARD DATA

Threshold Limit Value None for product. Isopropanol - skin: 400ppm
Effects of Overexposure May cause eye, skin and mucosal irritation. May be absorbed through the skin.
EMERGENCY AND FIRST AID PROCEDURES Eyes Flush with water for at least 15 minutes. Call a physician. Skin Wash thoroughly with soap and water. Ingestion Induce vomiting, call a physician. Inhalation Remove to fresh air.

## SECTION 6 - REACTIVITY DATA

Stability: Stable ☒ Unstable ☐ Conditions to Avoid

Materials to Avoid None

Hazardous Decomposition Products fumes of SO<sub>2</sub> and NO<sub>2</sub>

Hazardous Polymerization: Will Not Occur ☒ May Occur ☐ Conditions to Avoid

## SECTION 7 - SPILL OR LEAK PROCEDURES

Steps to Take in Case Material is Released or Spilled Wash with large amounts of water.

Waste Disposal Method No special method

## SECTION 8 - SPECIAL PROTECTION INFORMATION

Type of Respiratory Protection Required None

Ventilation: Local Exhaust ☒; Mechanical (General) ☐; Special (Specify) Other (Specify)

Protective Gloves Rubber Eye Protection Safety goggles

Other Protective Equipment Impervious apron

## SECTION 9 - SPECIAL PRECAUTIONS

Handling and Storage Precaution Keep away from sparks, heat or flames. Use in well ventilated area.

Other Precautions Do not take internally. Avoid eye or skin contact. Do not breathe vapor or mist.

Prepared By [Signature]

Title Corporate Toxicologist

Date 4/6/76

Trade Name Nalco Adomall

100098

Formula No.

Synonyms Aqueous Fracturing AdditiveChemical Family Organic

## SECTION 2 - HAZARDOUS INGREDIENTS

MATERIAL OR COMPONENT	%
Alkyl (C <sub>8</sub> -C <sub>18</sub> )*bis(2-hydroxyethyl) benzyl ammonium chloride	23.6
N-polyethylene polyamine (18-mole) N-oleylamine hydrochloride	2.7
Isopropanol	
* as in fatty acids of coconut oil	

## SECTION 3 - PHYSICAL PROPERTIES

Boiling Point, 760 MM HG	Melting Point approx -40°F
Specific Gravity (H <sub>2</sub> O=1) 0.93 @ 60°F.	Vapor Pressure 91.44 @ 100°F (Reid)
Vapor Density (Air=1)	Solubility in H <sub>2</sub> O, % By Wt. Soluble
% Volatiles By Vol. 18.8 @ 75°F	Evaporation Rate (Butyl Acetate=1)
Appearance and Odor Clear yellow liquid - alcohol odor.	

## SECTION 4 - FLAMMABILITY AND EXPLOSIVE PROPERTIES

Flash Point (Test Method) 78°F. (TCC)			
Flammable Limits in Air, % By Vol.	Lower	Upper	
Extinguishing Media CO <sub>2</sub> , Alcohol foam, water fog, dry chemical			
Special Fire Fighting Procedures None			
Unusual Fire and Explosion Hazard None			

## SECTION 5 - HEALTH HAZARD DATA

Threshold Limit Value None established for the product. Isopropanol (skin) = 400 ppm
Effects of Overexposure Causes severe skin and eye damage. Harmful or fatal if swallowed.
EMERGENCY AND FIRST AID PROCEDURES
Eyes Immediately flush with water for at least 15 minutes. Call a physician.
Skin Immediately flush with water for at least 15 minutes.
Ingestion Do not induce vomiting, drink large quantities of fluid, call a physician.
Inhalation Remove to fresh air. Treat symptoms. Immediately!

(Continued on Reverse Side)

Product Nalco Adomall

LINCOLN 60521

NALCO CHEMICAL  
2901 BUTTERFIELD ROAD, OAK B.

## SECTION 6 - REACTIVITY DATA

Stability: Stable ☒  
Unstable ☐ Conditions to Avoid

Materials to Avoid Strong oxidizers

Hazardous Decomposition Products CO, CO<sub>2</sub>, NOx

Hazardous Polymerization: Will Not Occur ☒  
May Occur ☐ Conditions to Avoid

## SECTION 7 - SPILL OR LEAK PROCEDURES

Steps to Take in Case Material is Released or Spilled Contain on absorbent material.

Waste Disposal Method Complete incineration.

## SECTION 8 - SPECIAL PROTECTION INFORMATION

Type of Respiratory Protection Required NIOSH approved respirator if TLV is exceeded.

Ventilation: Local Exhaust ☐; Mechanical (General) ☐; Special (Specify) \_\_\_\_\_ Other (Specify) \_\_\_\_\_

Protective Gloves Rubber Eye Protection Goggles or face shield

Other Protective Equipment Rubber apron

## SECTION 9 - SPECIAL PRECAUTIONS

Handling and Storage Precaution Do not get in eyes, on skin or on clothing.

Do not take internally. Avoid prolonged inhalation of vapors.

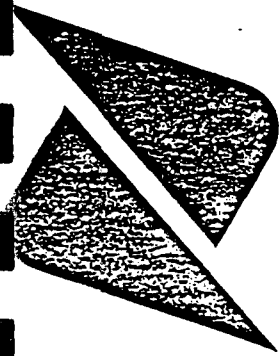
Other Precautions Do not use, pour, spill or store near heat or open flame.

Use with adequate ventilation.

Prepared By

Title Corporate Toxicologist

Date 6-16-80



# NALCO® ADOMALL®

AQUEOUS FRACTURING ADDITIVE

## ACTIVE INGREDIENTS:

Alkyl (C <sub>8</sub> -C <sub>18</sub> )* bis (2-hydroxyethyl) benzyl ammonium chloride	23.6%
N-polyethylene polyamine (18-mole) N-oleylamine hydrochloride	2.7%
Isopropanol	30.0%
INERT INGREDIENTS:	43.7%
Total	100.0%

\*As in fatty acids of coconut oil.

(C<sub>8</sub> = 1%, C<sub>10</sub> = 57%, C<sub>12</sub> = 20%, C<sub>14</sub> = 11%,  
C<sub>16</sub> = 2%, C<sub>18</sub> = 9%)

EPA Registration No. 10349-1

## DIRECTIONS:

For control of bacteria in fracturing fluids: add 0.1 to 1.0 gallons Adomall per 1000 gallons of fracturing fluid (100-1000 ppm). Assistance of individual site problems obtainable from your Nalco Representative. Refer to Adomite Bulletin #50 for additional information on Adomall.

For surface tension reduction and emulsion prevention use 1 to 2 gallons Adomall per 1000 gallons of fracturing fluid or acid (1000-2000 ppm).

Adomall may be added and premixed prior to the fracturing operation or may be added directly from the drum by means of a proportioning pump to the blender during the operation.

NOTE: Adomall is intended for use in aqueous oil or gas well stimulation treatments only. Do not use in potable water supplies or domestic operations. Do not contaminate water by cleaning container. Do not reuse this container. Destroy when empty.

## DANGER:

KEEP OUT OF THE REACH OF CHILDREN. CAUSES SEVERE SKIN AND EYE DAMAGE. HARMFUL OR FATAL IF SWALLOWED. Do not get in eyes, on skin, or on clothing. Wear goggles or face shield and rubber gloves when handling. Do not use, pour, spill or store near heat or open flame. Avoid contamination of food.

FIRST AID: In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes. For eyes call a physician. Remove and wash contaminated clothes before reuse. If swallowed, do not induce vomiting, drink large quantities of fluid and call a physician immediately.

# NALCO CHEMICAL COMPANY

P. O. BOX 87 • SUGAR LAND, TEXAS 77478

EPA Est. No. 1706-TX-1

NET CONTENTS 55 GALLONS

100280

Y OF NORTH AMERICA  
TA SHEET - 100280

12/16/92

PAGE 1

SECTION I

: 100280

: ANTI-FOAM AGENT;

: Western Company of North America

: 001070; 954916

: 1-800-732-9876

: (713) 629-2600

: 515 POST OAK BLVD., SUITE 1200

: HOUSTON

STATE ...TX ZIP ...77027

: 06/03/91

SECTION II - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

: AF-11L

CAS	OSHA PEL	ACGIH TLV	OTHER	%
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ATION

SECTION 313 CHEMICALS

CAS	OSHA PEL	ACGIH TLV	OTHER	%
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111-76-2	25 PPM	25PPM	DFG MAK 20 PPM	*
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SECTION 313 SUPPLIER NOTIFICATION

ED ABOVE WITH PERCENTAGES ARE SUBJECT TO THE REPORTING  
TION 313 OF THE EMERGENCY PLANNING AND RIGHT-TO-KNOW  
D CFR 372.

SECTION III - CHEMICAL CHARACTERISTICS

BOILING POINT	MELTING POINT	FREEZING POINT	SPECIFIC GRAVITY (H2O = 1)
168.4-170.2		-74.8	0.911
PERCENT VOLATILE by VOLUME	THEORETICAL VOC CONTENT (percent of WEIGHT)		WEIGHT PER GALLON
50%	55.5		7.6 lbs.
pH:			
Conc:			
VAPOR PRESSURE (mm of Hg)	VAPOR DENSITY (Air = 1)	DENSITY	EVAPORATION RATE Basis (BUTYL ACET)=1
.6 mm. @ 20 C degrees	4.07	.9012	Rate .06
SOLUBILITY IN WATER DISPERSIBLE		REACTIVITY IN WATER Stable.	
APPEARANCE AND ODOR: Pale yellow liquid, ether-like odor.			

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT	METHOD	FLAMMABLE LIMITS IN AIR (%)	AUTOIGNITION TEMPERATURE
141 F	PMCC	UPPER = 221. LOWER = 2.2 2	N/D
NFPA CODES: HEALTH .....: 2			
FLAMMABILITY ....: 2			
REACTIVITY .....: 1			
OTHER .....: -			
HMIS CODES: HEALTH .....: 2			
FLAMMABILITY ....: 2			
REACTIVITY .....: 1			
PROTECTION .....: H			
EXTINGUISHER MEDIA: Carbon dioxide, dry chemical or water-fog; alcohol foam should be used for large fires. Use a water spray to cool fire-exposed metal containers.			



U.S. DEPARTMENT OF LABOR  
Occupational Safety and Health Administration

# MATERIAL SAFETY DATA SHEET

DATE: 19 SEP 84

## SECTION I

Supplier's Name	EMERGENCY TELEPHONE NO.
The Western Company of North America	(817) 731-5100
ADDRESS (Number, Street, City, State, and ZIP Code) P. O. Box 186, Ft. Worth, TX 76101	
CHEMICAL NAME AND SYNONYMS Proprietary Blend	TRADE NAME AND SYNONYMS De-emulsifier, Aqua Flow
CHEMICAL FAMILY resin	FORMULA W.I.N.100146

## SECTION IA HAZARDOUS MATERIAL CLASSIFICATION

D.O.T. PROPER SHIPPING NAME	Flammable liquid, n.s.s.
NAME OF HAZARDOUS COMPONENT	Isopropanol
HAZARD CLASS	Flammable liquid
IDENTIFICATION NUMBER	UN 1993
D.O.T. LABEL(S) REQUIRED	Flammable liquid
PRECAUTIONARY LABEL	attached

## SECTION II - HAZARDOUS INGREDIENTS

	%	TLV (Units)
Heavy aromatic petroleum solvent, mostly alkylbenzenes except toluene and naphthalenes B.P. 350-750°F	7-15	200ppm
Methylisobutylcarbinol (skin)	2	25ppm
Isopropanol	75	400ppm

## SECTION III - PHYSICAL DATA

BOILING POINT (°F.)	84.4°C	SPECIFIC GRAVITY (H <sub>2</sub> O=1) @ 21.1°C	0.848
VAPOR PRESSURE (mm Hg.)		PERCENT VOLATILE BY VOLUME (%)	
VAPOR DENSITY (AIR=1)		EVAPORATION RATE (_____=1)	
SOLUBILITY IN WATER	Dispersible		
APPEARANCE AND ODOR	Dark liquid - alcoholic odor		

## SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used) 11.6°C (PMCC)	FLAMMABLE LIMITS	Let	Uet
EXTINGUISHING MEDIA Water, foam, dry chemical			
SPECIAL FIRE FIGHTING PROCEDURES Wear self-contained breathing apparatus			
UNUSUAL FIRE AND EXPLOSION HAZARDS Produces toxic fumes when burned			

TRADE NAME: W.I.N. 100146, Aqua flow, DE-EMULSIFIER

#### SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

Not available

EFFECTS OF OVEREXPOSURE

Liquid is irritating to the eyes. May be harmful if swallowed or absorbed through the skin.

EMERGENCY AND FIRST AID PROCEDURES

Eyes: flush with water for 15 min. and get medical attention. Skin: wash skin thoroughly with soap and water. Launder clothing before re-use. Internal: drink large volumes of water, induce vomiting, call a physician.

#### SECTION VI - REACTIVITY DATA

STABILITY

UNSTABLE

CONDITIONS TO AVOID  
Keep away from heat and open flames.

STABLE

XXX

INCOMPATIBILITY (Materials to avoid)

Avoid contact with strong oxidizing agents

HAZARDOUS DECOMPOSITION PRODUCTS

None

HAZARDOUS  
POLYMERIZATION

MAY OCCUR

CONDITIONS TO AVOID

WILL NOT OCCUR

XXX

#### SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Extinguish all sources of ignition. Soak up on sand and dispose of in an approved industrial landfill.

WASTE DISPOSAL METHOD

Incinerate in an incinerator equipped with an afterburner and scrubber or bury in an approved industrial landfill.

#### SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type)

None required in normal use

VENTILATION

LOCAL EXHAUST

SPECIAL

MECHANICAL (General)

OTHER

PROTECTIVE GLOVES

rubber

EYE PROTECTION

Face shield or goggles

OTHER PROTECTIVE EQUIPMENT

rubber boots and apron

#### SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Avoid contact with eyes, skin and clothing. Avoid breathing vapors, store away from heat, sparks and open flames.

OTHER PRECAUTIONS

Do not transfer to improperly marked containers. Keep container closed when not in use.

499509



**U.S. DEPARTMENT OF LABOR**  
Occupational Safety and Health Administration

## MATERIAL SAFETY DATA SHEET

Date: April 28, 1992

### SECTION I

SUPPLIER'S NAME The Western Company	EMERGENCY TELEPHONE NO. 1-800-732-9876
ADDRESS (Number, Street, City, State and ZIP Code) 515 Post Oak Blvd., Houston, Texas 77027	
CHEMICAL NAME AND SYNONYMS Proprietary	TRADE NAME AND SYNONYMS Aquaseal L
CHEMICAL FAMILY nonionic surfactant	FORMULA W.I.N. 499509

### SECTION IA - HAZARDOUS MATERIAL CLASSIFICATION

D.O.T. PROPER SHIPPING NAME Combustible liquid, n.o.s.	(RQ / )
NAME OF HAZARDOUS COMPONENT straight run Middle Distillate	
HAZARD CLASS Combustible liquid	
IDENTIFICATION NUMBER NA 1993	
D.O.T. LABEL(S) REQUIRED in 110 gallon containers or larger - 49CFR 173.118	
PRECAUTIONARY LABEL Combustible	

### SECTION II - HAZARDOUS INGREDIENTS

	%	TLV (Units)
EGMBE (111-76-2)	10 - 20	25 ppm
straight run Middle Distillate (6471-44-2)	50 - 80	400 ppm

### SECTION III - PHYSICAL DATA

BOILING POINT (°F)	No Data	SPECIFIC GRAVITY (H <sub>2</sub> O=1)	1.01
VAPOR PRESSURE (mm Hg)	No Data	PERCENT, VOLATILE BY VOLUME (%)	approx. 18
VAPOR DENSITY (AIR=1)	No Data	EVAPORATION RATE (_____ =1)	No Data
SOLUBILITY IN WATER	Dispersible		

APPEARANCE AND ODOR Blue to amber colored liquid, diesel odor

### SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used) 178°F (PMCC)	FLAMMABLE LIMITS based on EGMBE	1.1	LeI	10.6	UeI
EXTINGUISHING MEDIA water spray, "alcohol" foam, dry chemical or CO <sub>2</sub>					
SPECIAL FIRE FIGHTING PROCEDURES Do not enter fire area without proper protection. Hazardous decomposition products possible.					
Fight fire from a safe distance/protected location. Heat may build pressure and rupture closed containers, spreading the fire and increasing the risk of burns and injuries. Use water to cool fire-exposed containers.					
UNUSUAL FIRE AND EXPLOSION HAZARDS Combustible liquid.					

TRADE NAME: W.I.N. 499509

### SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE Not Established

EFFECTS OF OVEREXPOSURE Ingestion may cause blindness or be fatal. Inhalation can cause CNS depression. Eye and skin irritant.

Eye Contact: Causes moderate to severe irritation. If not removed promptly permanent eye injury may result. Skin Contact:

Intermittent, brief contact may result in mild irritation. Frequent or prolonged contact can cause severe irritation and dermatitis.

Inhalation: Exposure may result in nose and respiratory irritation. Can produce nausea, headache, dizziness. Prolonged exposure may cause weakness and CNS depression. Ingestion: May be fatal or cause blindness.

EMERGENCY AND FIRST AID PROCEDURES In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get

medical attention. In case of contact, immediately wash skin with soap and plenty of water. Remove contaminated clothing and

laundry before reuse. If irritation occurs consult a physician. If inhaled, remove to fresh air. If not breathing, give artificial

respiration, preferably mouth-to-mouth. If breathing is difficult, give oxygen. Get medical attention. If swallowed, induce vomiting

immediately by giving two glasses of water and sticking finger down throat. Never give anything by mouth to an unconscious

person. May be fatal or cause blindness if swallowed. Cannot be made nonpoisonous.

### SECTION VI - REACTIVITY DATA

STABILITY	UNSTABLE		CONDITIONS TO AVOID Heat, sparks, open flame
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) strong oxidizers

HAZARDOUS DECOMPOSITION PRODUCTS  $\text{CO}_2$  in a fire

HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID
	WILL NOT OCCUR	X	

### SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED Stop the flow of chemical. Eliminate all ignition sources. Dike and contain to prevent spreading. Soak up spill with an inert absorbent and place in appropriate containers. Neutralize residue and wash away with water.

WASTE DISPOSAL METHOD Dispose of waste in accordance with local, state and federal regulations.

### SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) Wear an appropriate, properly fitted respirator (NIOSH/MSHA approved) during and after application unless air monitoring demonstrates vapor/mist levels are below applicable limits.

VENTILATION Use only in area well ventilated by moving air	LOCAL EXHAUST	SPECIAL
	MECHANICAL (General)	OTHER

PROTECTIVE GLOVES rubber or neoprene

EYE PROTECTION chemical splash goggles and face shield

OTHER PROTECTIVE EQUIPMENT Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.



U.S. DEPARTMENT OF LABOR  
Occupational Safety and Health Administration

# MATERIAL SAFETY DATA SHEET

DATE: 7 SEP 84

## SECTION I

Supplier's Name The Western Company of North America		EMERGENCY TELEPHONE NO. (817) 731-5100
ADDRESS (Number, Street, City, State, and ZIP Code) P. O. Box 186, Ft. Worth, TX 76101		
CHEMICAL NAME AND SYNONYMS alkylarylsulfonic acids in alcohol and H <sub>2</sub> O		TRADE NAME AND SYNONYMS ANTI-SLUDGE AGENT, AS-2
CHEMICAL FAMILY acid	FORMULA	W.I.N. 100200

## SECTION IA HAZARDOUS MATERIAL CLASSIFICATION

D.O.T. PROPER SHIPPING NAME	Corrosive liquid, n.o.s. RQ 1000/454
NAME OF HAZARDOUS COMPONENT	alkylarylsulfonic acid
HAZARD CLASS	corrosive material
IDENTIFICATION NUMBER	UN 1760
D.O.T. LABEL(S) REQUIRED	corrosive liquid
PRECAUTIONARY LABEL	attached

## SECTION II - HAZARDOUS INGREDIENTS

	%	TLV (Units)
isopropanol (skin)	11	400ppm
isobutanol	6	50ppm

## SECTION III - PHYSICAL DATA

BOILING POINT (°F.)		SPECIFIC GRAVITY (H <sub>2</sub> O=1) @ 60° F	1.1
VAPOR PRESSURE (mm Hg.)		PERCENT VOLATILE BY VOLUME (%)	17
VAPOR DENSITY (AIR=1)		EVAPORATION RATE (_____=1)(butyl acetate=1)	
SOLUBILITY IN WATER	dispersible	pH	< 1
APPEARANCE AND ODOR dark color, alcoholic odor			

## SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used) 1050 PACC	FLAMMABLE LIMITS	Let	Uet
EXTINGUISHING MEDIA CO <sub>2</sub> , dry chemical, foam			
SPECIAL FIRE FIGHTING PROCEDURES None			
UNUSUAL FIRE AND EXPLOSION HAZARDS May evolve oxides of sulfur			

TRADE NAME: W.I.N. 100200, ANTI-SLUDGE AGENT, AS-2

### SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE Isobutanol 50 ppm  
None for product Isopropanol (skin) 400 ppm

#### EFFECTS OF OVEREXPOSURE

May cause eye or skin irritation. Inhalation may cause nausea or vomiting

#### EMERGENCY AND FIRST AID PROCEDURES

Eyes - Flush with water for 15 minutes. Call a physician. Skin-wash thoroughly with soap and water. Ingestion - do not induce vomiting. Give milk or water. Call a physician. Inhalation - remove to fresh air. Treat symptoms.

### SECTION VI - REACTIVITY DATA

STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	X	

INCOMPATIBILITY (Materials to avoid)  
Strong bases, oxidizers

HAZARDOUS DECOMPOSITION PRODUCTS  
CO<sub>2</sub>, oxides of sulfur

HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID
	WILL NOT OCCUR	X	

### SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Contain on absorbent material.

WASTE DISPOSAL METHOD  
Complete incineration.

### SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type)  
None normally required

VENTILATION	LOCAL EXHAUST	SPECIAL
	MECHANICAL (General)	OTHER

PROTECTIVE GLOVES rubber	EYE PROTECTION goggles
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OTHER PROTECTIVE EQUIPMENT  
none

### SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Keep container closed. Use with proper ventilation. Keep away from heat, sparks, or flames.

OTHER PRECAUTIONS  
Do not take internally. Avoid eye and skin contact. Do not breathe vapors.

Trade Name	ASP-539-D	Formula No.	100126
Synonyms	Blend of organophosphates, quaternary ammonium compounds and ammonium bisulfite		
Chemical Family	Organic		

## SECTION 2 - HAZARDOUS INGREDIENTS

MATERIAL OR COMPONENT	%
Isopropanol	9

## SECTION 3 - PHYSICAL PROPERTIES

Boiling Point, 760 MM HG	Melting Point
Specific Gravity (H <sub>2</sub> O=1)	Vapor Pressure
1.13 @ 60°F	
Vapor Density (Air=1)	Solubility in H <sub>2</sub> O, % By Wt.
	Soluble
% Volatiles By Vol.	Evaporation Rate (Butyl Acetate=1)
Appearance and Odor	
Red liquid with a pungent odor. pH 4.8	

## SECTION 4 - FLAMMABILITY AND EXPLOSIVE PROPERTIES

Flash Point (Test Method)			
79°F (PMCC)			
Flammable Limits in Air, % By Vol.		Lower	Upper
Extinguishing Media			
Foam, CO <sub>2</sub> , dry chemical			
Special Fire Fighting Procedures			
None			
Unusual Fire and Explosion Hazard			
May evolve toxic NOx and SOx fumes.			

## SECTION 5 - HEALTH HAZARD DATA

Threshold Limit Value	
None established for the product. Isopropanol (skin) 400 ppm	
Effects of Overexposure	
May cause eye or skin irritation.	
EMERGENCY AND FIRST AID PROCEDURES	
Eyes	Flush with water for 15 minutes. Call a physician.
Skin	Flush thoroughly with large amounts of water.
Ingestion	Do not induce vomiting. Give water or milk. Call a physician.
Inhalation	Remove to fresh air. Treat symptoms.

Product ASP-539-D

NALCO CHEMICAL COMPANY  
2901 BUTTERFIELD ROAD, OAK BROOK, ILLINOIS 60521

ASP-539-D

Product

# SECTION 6 - REACTIVITY DATA

Stability: Stable ☒ Unstable ☐ Conditions to Avoid

Materials to Avoid Strong oxidizers

Hazardous Decomposition Products SOx and NOx

Hazardous Polymerization: Will Not Occur ☒ May Occur ☐ Conditions to Avoid

# SECTION 7 - SPILL OR LEAK PROCEDURES

Steps to Take in Case Material is Released or Spilled Contain with absorbent material.

Waste Disposal Method Complete incineration

# SECTION 8 - SPECIAL PROTECTION INFORMATION

Type of Respiratory Protection Required None normally required

Ventilation: Local Exhaust ☐ Mechanical (General) ☐ Special (Specify)

Protective Gloves Rubber Eye Protection Goggles

Other Protective Equipment None

# SECTION 9 - SPECIAL PRECAUTIONS

Handling and Storage Precaution Keep container away from heat, sparks or flames.

Use in properly ventilated area. Keep container closed when not in use.

Other Precautions Do not take internally. Avoid eye and skin contact.

Do not breathe vapors.

Prepared By [Signature] Title of Corporate [Signature] Date of [Signature] 5/2/78



U.S. DEPARTMENT OF LABOR  
Occupational Safety and Health Administration

# MATERIAL SAFETY DATA SHEET

DATE: June 18, 1990

## SECTION I

Supplier's Name The Western Company of North America		EMERGENCY TELEPHONE NO. (713) 363-7500
ADDRESS (Number, Street, City, State, and ZIP Code) 8701 New Trails Drive, The Woodlands, Texas 77380		
CHEMICAL NAME AND SYNONYMS Proprietary Blend		TRADE NAME AND SYNONYMS Gel Breaker, B-31
CHEMICAL FAMILY Alkanolamines	FORMULA W.I.N. 499650	

## SECTION IA HAZARDOUS MATERIAL CLASSIFICATION

D.O.T. PROPER SHIPPING NAME	N/A	(RQ / )
NAME OF HAZARDOUS COMPONENT	N/A	
HAZARD CLASS	N/A	
IDENTIFICATION NUMBER	N/A	
D.O.T. LABEL(S) REQUIRED	N/A	
PRECAUTIONARY LABEL	Attached	

## SECTION II - HAZARDOUS INGREDIENTS

	%	TLV (Units)
Diethanolamine Cas Number 00011-42-2	50	3 ppm

## SECTION III - PHYSICAL DATA

BOILING POINT (°F.)	> 212 F	SPECIFIC GRAVITY (H <sub>2</sub> O=1)	1.060
VAPOR PRESSURE (mm Hg.)	0.01	PERCENT VOLATILE BY VOLUME (%)	N/A
VAPOR DENSITY (AIR=1)	3.6	EVAPORATION RATE (BURY 1 = 1)	< 0.01
SOLUBILITY IN WATER	95.4%	acetate	
APPEARANCE AND ODOR Colorless liquid - slight ammoniacal odor			

## SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	336 F PHCC	FLAMMABLE LIMITS	Let	Uel
EXTINGUISHING MEDIA	Water fog, alcohol foam, CO <sub>2</sub> , dry chemical			
SPECIAL FIRE FIGHTING PROCEDURES	Wear self-contained, positive pressure breathing apparatus.			
UNUSUAL FIRE AND EXPLOSION HAZARDS				

TRADE NAME: W.I.N.499650, B-31- Gel Breaker

### SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

3 ppm

EFFECTS OF OVEREXPOSURE

Eyes - causes irritation or burns. Skin - irritation or burns from prolonged contact. Breathing - excessive inhalation causes nasal irritation.

Respiration swallowing - G.I. irritation.

EMERGENCY AND FIRST AID PROCEDURES

Eyes - irrigate with flowing water. Skin - wash in flowing water.

Ingestion - induce vomiting if large amount. Inhalation - remove to fresh air.

### SECTION VI - REACTIVITY DATA

STABILITY

UNSTABLE

STABLE

CONDITIONS TO AVOID

Strong oxidizers, strong acids

X

INCOMPATIBILITY (Materials to avoid)

May react with halogenated organic solvents.

HAZARDOUS DECOMPOSITION PRODUCTS

Nitrogen oxides possible.

HAZARDOUS  
POLYMERIZATION

MAY OCCUR

WILL NOT OCCUR

CONDITIONS TO AVOID

X

### SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Small - absorb on paper, vermiculite, floor absorbent or other absorbent

material, and transfer to hood. Large - eliminate all ignition sources, dike up area, pump to salvage tank.

WASTE DISPOSAL METHOD

Dispose of in accordance with all local, state and federal regulations.

### SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type)

Exceeds exposure limits NIOSH/MSMA respirator.

VENTILATION

LOCAL EXHAUST

Maintain below TLV

MECHANICAL (General)

SPECIAL

OTHER

PROTECTIVE GLOVES

Neoprene or PVC

EYE PROTECTION

Chemical Splash Goggles

OTHER PROTECTIVE EQUIPMENT

Wear impervious clothing and boots

### SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Empty containers may be hazardous due to residues (vapor, liquid and/or solid).

OTHER PRECAUTIONS



U.S. DEPARTMENT OF LABOR  
Occupational Safety and Health Administration

MATERIAL SAFETY DATA SHEET

Date: November 30, 1990

SECTION I

SUPPLIER'S NAME The Western Company

EMERGENCY TELEPHONE NO. (817) 731-5100

ADDRESS (Number, Street, City, State and ZIP Code) P. O. Box 186, Ft. Worth, TX 76101

CHEMICAL NAME AND SYNONYMS Liquid Buffer

TRADE NAME AND SYNONYMS Buffer 5L

CHEMICAL FAMILY Inorganic Basic Salt

FORMULA W.I.N. 499654

SECTION IA - HAZARDOUS MATERIAL CLASSIFICATION

D.Q.T. PROPER SHIPPING NAME

(RQ / )

NAME OF HAZARDOUS COMPONENT Liquid potassium carbonate

HAZARD CLASS Alkaline, moderately toxic and irritating

IDENTIFICATION NUMBER C.A.S. 548-08-7

D.Q.T. LABEL(S) REQUIRED

PRECAUTIONARY LABEL

SECTION II - HAZARDOUS INGREDIENTS

%

TLV (Units)

Liquid - potassium carbonate

35

Not established

SECTION III - PHYSICAL DATA

BOILING POINT (°F.)

241

SPECIFIC GRAVITY (H<sub>2</sub>O=1)

1.39 @ 20°C

VAPOR PRESSURE (mm Hg.)

< 15

PERCENT. VOLATILE BY VOLUME (%)

VAPOR DENSITY (AIR=1)

N/A

EVAPORATION RATE (\_\_\_\_\_=1)

SOLUBILITY IN WATER

Complete

APPEARANCE AND ODOR Clear, water-white solution, no distinct odor

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used) Non-combustible

FLAMMABLE LIMITS N/A

Let

Uel

EXTINGUISHING MEDIA Water, dry chemical or carbon dioxide

SPECIAL FIRE FIGHTING PROCEDURES Avoid inhalation, skin, eye contact. Use a pressure demand, self-contained breathing

apparatus if large concentrations are present.

UNUSUAL FIRE AND EXPLOSION HAZARDS None known.

TRADE NAME: W.I.N. 499654

### SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

EFFECTS OF OVEREXPOSURE

EMERGENCY AND FIRST AID PROCEDURES Inhalation - Dust, mist or spray may cause damage to lungs. Skin - May cause first, second, or third degree burns. Eyes - Causes conjunctivitis and corneal destruction.

### SECTION VI - REACTIVITY DATA

STABILITY

UNSTABLE

No

CONDITIONS TO AVOID None known

STABLE

Yes

INCOMPATIBILITY (Materials to avoid) Contact with acids will release CO<sub>2</sub>.

HAZARDOUS DECOMPOSITION PRODUCTS Carbon dioxide at temperatures > 900°C

HAZARDOUS  
POLYMERIZATION

MAY OCCUR

No

CONDITIONS TO AVOID None known

WILL NOT OCCUR

Yes

### SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED Avoid contact of irritating mists or liquid with skin, eyes and respiratory system. Spills must be stopped and cleaned up immediately with a vacuum truck.

WASTE DISPOSAL METHOD: Large amounts will have a negative impact on water systems. Dispose in accordance with local, state and federal regulations.

### SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type)

VENTILATION

LOCAL EXHAUST Yes

SPECIAL N/A

MECHANICAL (General) N/A

OTHER N/A

PROTECTIVE GLOVES Rubber gloves

EYE PROTECTION Chemical goggles

OTHER PROTECTIVE EQUIPMENT Full cover clothing, eyewash and safety shower

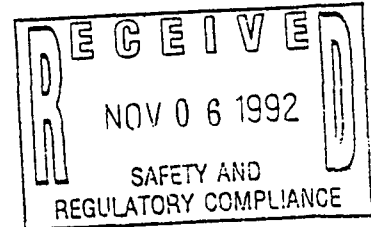
### SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING Do not store with incompatible substances. Liquid must not be stored below its freezing point.

OTHER PRECAUTIONS None

R-6 (01/86)

INTEROFFICE CORRESPONDENCE



TO: Mike Moseley AT: Houston - Safety & Reg. Compliance  
FROM: Barry T. Hlidek AT: The Woodlands - CTD  
APPROVAL: [Signature] DATE: 6 Nov 1992  
RE: Safety Information Update

This is to inform you of revisions, additions, deletions or replacement of products or chemicals and the relevant safety data.

Western Trade Name: Buffer 7L

W.I.N.: 499750

Chemical Name (if not trade named):

Addition ☒ Revision ☐ Replacement ☐ Deletion ☐ to product line  
Western Product ☒ Western System ☐  
Cementing ☐ Stimulation ☒

DOT Proper Shipping Name & I.D. Number (SPM-04-02):  
DOT Hazardous Material Class:  
DOT Hazardous Material Label:

Buffer 7L, Not Regulated  
None  
Not Regulated

Chemical Storage Class (SPM-04-01):

II.1

EPA Hazardous Waste Classification:  
Reportable Quantity:  
Material Safety Data Sheet:

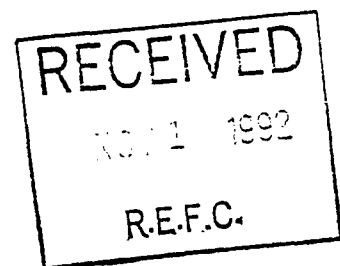
None  
None

Attached ☒ Not Available ☐  
On File at Research ☒

cc: Legal Services  
Product Specification File (original)

Attachments: MSDS  
Label  
Precautionary Statement

Note: If deletion, attach copy of page(s) to be deleted, write deleted across the page(s) attached.



Confidential Proprietary Information  
The Western Company of North America

499 750



**U.S. DEPARTMENT OF LABOR**  
Occupational Safety and Health Administration

## MATERIAL SAFETY DATA SHEET

Date: November 3, 1992

### SECTION I

SUPPLIER'S NAME The Western Company	EMERGENCY TELEPHONE NO. 1-800-732-9876
ADDRESS (Number, Street, City, State and ZIP Code) 515 Post Oak Blvd., Houston, Texas 77027	
CHEMICAL NAME AND SYNONYMS Proprietary Blend	TRADE NAME AND SYNONYMS Buffer 7L
CHEMICAL FAMILY	FORMULA W.I.N. 499750

### SECTION IA - HAZARDOUS MATERIAL CLASSIFICATION

D.O.T. PROPER SHIPPING NAME Buffer 7L, Not Regulated	(RQ / )
NAME OF HAZARDOUS COMPONENT N/A	
HAZARD CLASS N/A	
IDENTIFICATION NUMBER N/A	
D.O.T. LABEL(S) REQUIRED Not Required	
PRECAUTIONARY LABEL N/A	

### SECTION II - HAZARDOUS INGREDIENTS

	%	TLV (Units)
Sodium Diacetate (CAS #126-96-5)		Not Established

### SECTION III - PHYSICAL DATA

BOILING POINT (°F)	ND	SPECIFIC GRAVITY (H <sub>2</sub> O=1)	1.12
VAPOR PRESSURE (mm Hg)	ND	PERCENT, VOLATILE BY VOLUME (%)	ND
VAPOR DENSITY (AIR=1)	ND	EVAPORATION RATE (_____ =1)	ND
SOLUBILITY IN WATER	ND	pH	4.9 - 5.2
APPEARANCE AND ODOR Clear, colorless solution with a vinegar odor			

### SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used) None	FLAMMABLE LIMITS	N/A	Lel	N/A	Uel
EXTINGUISHING MEDIA Not Flammable					
SPECIAL FIRE FIGHTING PROCEDURES Use media suitable for surrounding fire .					
UNUSUAL FIRE AND EXPLOSION HAZARDS None known.					

TRADE NAME: W.I.N. 499750

SECTION V - HEALTH HAZARD DATA			
THRESHOLD LIMIT VALUE ND			
EFFECTS OF OVEREXPOSURE ACUTE: Irritating to eyes, skin and throat. CHRONIC: None known.			
EMERGENCY AND FIRST AID PROCEDURES EYES: Flush with water for 15 minutes. Consult a physician immediately. SKIN: Wash			
affected area with soap and water. Contact a physician if irritation persists. INGESTION: DO NOT induce vomiting. Drink			
several glasses of milk and use antacids to reduce acidity. Contact physician. INHALATION: Remove to fresh air. If			
breathing has stopped administer artificial respiration, oxygen or CPR, if needed. Contact a physician.			
SECTION VI - REACTIVITY DATA			
STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	X	
INCOMPATIBILITY (Materials to avoid) Strong oxidizing agents and strong alkali.			
HAZARDOUS DECOMPOSITION PRODUCTS Upon decomposition: produces oxides of carbon.			
HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID
	WILL NOT OCCUR	X	
SECTION VII - SPILL OR LEAK PROCEDURES			
STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED Confine spill or leak. Prevent material from entering storm			
sewers or open waterway. Use absorbent to dry spill.			
WASTE DISPOSAL METHOD Dispose in accordance to local, state and federal regulations.			
SECTION VIII - SPECIAL PROTECTION INFORMATION			
RESPIRATORY PROTECTION (Specify type) NIOSH approved organic vapor/acid gas respirator			
VENTILATION	LOCAL EXHAUST	X	SPECIAL
	MECHANICAL (General)	X	OTHER
PROTECTIVE GLOVES Rubber or neoprene gloves			
EYE PROTECTION Chemical splash goggles			
OTHER PROTECTIVE EQUIPMENT Rubber or neoprene apron			
SECTION IX - SPECIAL PRECAUTIONS			
PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING			
OTHER PRECAUTIONS Avoid contact with skin, eyes and clothing.			

R-6 (01/86)

499630  
RECEIVED  
NOV 23 1994

INTEROFFICE CORRESPONDENCE

TO: Mike Moseley  
FROM: Marek Pakulski  
APPROVAL: B. Hall  
RE: Safety Information Update

AT: Houston - Safety & Reg. Compliance  
AT: The Woodlands - CTD  
DATE: 3/24/94

This is to inform you of revisions, additions, deletions or replacement of products or chemicals and the relevant safety data.

Western Trade Name: CL-2L

W.I.N.: 499630

Chemical Name (if not trade named): Boric Acid Anhydride in Methanol

Addition ☐ Revision ☒ Replacement ☐ Deletion ☐ to product line  
Western Product ☒ Western System ☐  
Cementing ☐ Stimulation ☒

DOT Proper Shipping Name & I.D. Number (SPM-04-02):

Flammable Liquid, Poisonous, n.o.s.,  
(Methyl Alcohol) UN 1992  
Flammable Material, Class 3  
Flammable Liquid  
Crosslinker  
II.1

DOT Hazardous Material Class:

DOT Hazardous Material Label:

SARA Title III Category

Chemical Storage Class (SPM-04-01):

Chemical First Aid Guide Class (SPM-04-04):

Eyes ☒ Lungs ☒ Skin ☒ Mouth ☐

EPA Hazardous Waste Classification:

Ignitable waste D001  
5800 lbs.

Reportable Quantity:

Material Safety Data Sheet:

Attached ☒ Not Available ☐

On File at Research ☒

cc: Product Specification File (original)  
Angela Hardy  
James Box

Attachments: MSDS  
Label  
Precautionary Statement

Note: If deletion, attach copy of page(s) to be deleted, write deleted across the page(s) attached.

Confidential Proprietary Information  
The Western Company of North America



The Western Company of North America  
Phone: 713-363-7500  
8701 New Trails Drive  
The Woodlands, Texas 77381  
MATERIAL SAFETY DATA SHEET

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## SECTION I GENERAL INFORMATION

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PRODUCT NAME: CL-2L CONTAINER: 55 gal. drum  
CHEMICAL NAME: Borate Solution  
CHEMICAL FORMULA: Alcohol-boron blend  
SUPPLIER: The Western Company of North America  
ADDRESS: 8701 New Trails Drive The Woodlands, Texas 77381  
FOR INFORMATION ON HEALTH HAZARDS CALL: 713-363-7500  
INFORMATION EFFECTIVE AS OF: 28 JULY 89

---

## SECTION II TOXICITY HAZARD DATA

---

PRINCIPAL HAZARDOUS COMPONENT(S)		TLV (UNITS)
1. Methanol		
CAS RN: 67561	80-85	Air: 200 ppm
NIOSH #: PC 1400000		(skin)

TOXICITY DATA: THR: A skin, eye irr. A hmn inh IRR. A hmn eye  
irr. HIGH hmn oral; HIGH ipr, ivn; MOD ihl,  
orl, skn; LOW skn, orl, ihl, ipr, scu.

2. Boric Acid		
CAS RN: 10043353	15-20	Orl-hmnLDLo: 214mg/kg
NIOSH #: ED4550000		

TOXICITY DATA: THR: An exper TER, GIT. MUT data. HIGH scu,  
unk, orl. MOD orl inf, skn chd, scu, ivn, orl,  
mus.

---

## SECTION III PHYSICAL DATA

---

FREEZING POINT (F):	unk
BOILING POINT (F):	unk
VAPOR PRESSURE (mmHg):	unk
VAPOR DENSITY (AIR=1):	unk
SOLUBILITY IN WATER:	Infinite
SPECIFIC GRAVITY (H2O=1):	0.875 - 0.89
PERCENT VOLATILE BY VOLUME:	unk
EVAPORATION RATE:	unk
APPEARANCE AND ODOR:	Clear, alcohol odor

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499630

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#### SECTION IV FIRE AND EXPLOSION HAZARD

---

FLASH POINT: <100F  
EXTINGUISHING MEDIA: Alcohol foam, CO2, dry chemical.  
SPECIAL FIRE FIGHTING PROCEDURES: Wear SCBA and complete personal protective equip.  
UNUSUAL FIRE/EXPLOSION HAZARDS: Mod, when exposed to heat flame, or powerful oxidizer.  
Can react violently with acetic anhydride, (aniline + nitrobenzene).

---

#### SECTION V HEALTH HAZARD DATA

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THRESHOLD LIMIT VALUE: Not available for blend. See Section II for hazards of principle components.

EFFECTS OF OVEREXPOSURE: Not known. See Section II for hazards of principle components.

EMERGENCY AND FIRST AID PROCEDURES: For eye contact, rinse thoroughly for 15 minutes with water. Contact physician if irritation persists. Wash with soap and water for skin contact. Contaminated clothing may be washed and reused. For ingestion, contact poison control center for proper procedures for borax (sodium borate decahydrate), and/or boric acid and methanol ingestion.

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#### SECTION VI REACTIVITY DATA

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STABILITY: Stable  
CONDITIONS TO AVOID: Material is saturated with borates. Addition of brines, etc. may result in precipitation of borate compounds.  
INCOMPATIBILITY:  
HAZARDOUS DECOMPOSITION PRODUCTS: When heated to decomposition it emits toxic fumes.  
HAZARDOUS POLYMERIZATION: Does not occur.

---

#### SECTION VII SPILL AND LEAK PROCEDURES

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In case of spill, eliminate ignition sources, contain immediately with absorbent, sweep up and place in sealable disposal containers. Do not allow entry into waterways or sewers. Dispose through hazardous waste handler according to local, state, and federal regulations.

---

The Western Company of North America  
Phone: 713-363-7500  
8701 New Trails Drive  
The Woodlands, Texas 77381  
MATERIAL SAFETY DATA SHEET



499630

---

## SECTION I GENERAL INFORMATION

---

PRODUCT NAME: CL-2L . 125 CONTAINER: 55 gal. drum  
CHEMICAL NAME: Borate Solution  
CHEMICAL FORMULA: Alcohol-boron blend  
SUPPLIER: The Western Company of North America  
ADDRESS: 8701 New Trails Drive The Woodlands, Texas 77381  
FOR INFORMATION ON HEALTH HAZARDS CALL: 713-363-7500  
INFORMATION EFFECTIVE AS OF: 28 JULY 89

---

## SECTION II TOXICITY HAZARD DATA

---

PRINCIPAL HAZARDOUS COMPONENT(S)	%	TLV (UNITS)
1. Methanol CAS RN: 67561 NIOSH #: PC 1400000	80-85	Air: 200 ppm (skin)
TOXICITY DATA: THR: A skin, eye irr. A hmn inh IRR. A hmn eye irr. HIGH hmn oral; HIGH ipr, ivn; MOD ihl, orl, skn; LOW skn, orl, ihl, ipr, scu.		
2. Boric Acid CAS RN: 10043353 NIOSH #: ED4550000	15-20	Orl-hmnLDLo: 214mg/kg
TOXICITY DATA: THR: An exper TER, GIT. MUT data. HIGH scu, unk, orl. MOD orl inf, skn chd, scu, ivn, orl, mus.		

---

## SECTION III PHYSICAL DATA

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FREEZING POINT (F):	unk
BOILING POINT (F):	unk
VAPOR PRESSURE (mmHg):	unk
VAPOR DENSITY (AIR=1):	unk
SOLUBILITY IN WATER:	Infinite
SPECIFIC GRAVITY (H2O=1):	0.875 - 0.89
PERCENT VOLATILE BY VOLUME:	unk
EVAPORATION RATE:	unk
APPEARANCE AND ODOR:	Clear, alcohol odor

---

# Material Safety Data Sheet

from Genium's Reference Collection  
Genium Publishing Corporation  
1145 Catalyn Street  
Schenectady, NY 12303-1836 USA  
(518) 377-8855



GENIUM PUBLISHING CORP.

No. 1A

AMMONIUM HYDROXIDE  
(28-30%)

(Revision A)

Issued: April 1980

Revised: November 1988

## SECTION 1. MATERIAL IDENTIFICATION

Material Name: AMMONIUM HYDROXIDE (28-30%)

Description (Origin/Uses): Used in bleaching, fabric printing, as a detergent, and in manufacturing ammonium salts and aniline dyes.

Other Designations: Ammonium Solution; Ammonium Hydroxide; Strong Ammonia Water; Spirit of Hartshorn;  $\text{NH}_4\text{OH}$ ; Aqueous  $\text{NH}_4\text{OH}$ ; CAS No. 1336-21-6

Manufacturers: Contact your supplier or distributor. Consult the latest edition of the *Chemicalweek Buyers' Guide* (Genium ref. 73) for a list of suppliers.



Genium

HMIS

H 2 R 1

F 1 I 3

R 0 S 3

PPG\* K 1

\*See sect. 8

## SECTION 2. INGREDIENTS AND HAZARDS

Anhydrous Ammonia,\* CAS No. 7664-41-7

Water, CAS No. 7732-18-5

%

28-30

70-72

## EXPOSURE LIMITS

OSHA PEL

STEL: 35 ppm, 27 mg/m<sup>3</sup>

ACGIH TLVs, 1988-89\*\*

TLV-TWA: 25 ppm, 18 mg/m<sup>3</sup>

TLV-STEL: 35 ppm, 27 mg/m<sup>3</sup>

Toxicity Data\*\*\*

Human, Oral, LD<sub>50</sub>: 43 mg/kg

Human, Inhalation, LC<sub>50</sub>: 5000 ppm

Human, Inhalation, TC<sub>50</sub>: 408 ppm

\*See Genium Industrial MSDS 1.

\*\*Set to protect against irritation to the eyes and respiratory tract.

\*\*\*See NIOSH, RTECS (BQ9625000), for additional data with references to irritative and mutagenic effects.

## SECTION 3. PHYSICAL DATA

Boiling Point: Ca 82°F (28°C)

Melting Point: Ca -98°F (-72°C)

Vapor Density (Air = 1): 0.6 (as  $\text{NH}_3$ )

pH: >13 (Very Basic)

% Volatile by Volume: 28 to 30

Molecular Weight: 35 Grams/Mole ( $\text{NH}_4\text{OH}$ )

Solubility in Water (%): Complete

Specific Gravity ( $\text{H}_2\text{O} = 1$ ): 0.9

Appearance and Odor: A clear, colorless liquid; strong, pungent, suffocating, characteristic ammonia odor (like dried urine). The odor is detectable at 5 ppm, irritating at 25 to 50 ppm, and provides a warning of hazardous concentration in the air.

Comments: The temperature at which the solution is saturated with the dissolved ammonia is approximately 80 to 85°F (27 to 29°C) at standard pressure (1 atmosphere). Above these temperatures the excess ammonia gas will bubble out of solution.

## SECTION 4. FIRE AND EXPLOSION DATA

Flash Point and Method

Not Applicable

Autoignition Temperature

1204°F (651°C) (as  $\text{NH}_3$ )

LEL: 15% v/v (as  $\text{NH}_3$ )

UEL: 28% v/v (as  $\text{NH}_3$ )

Extinguishing Media: Ammonium hydroxide solutions are not likely to burn. Although the ammonia gas can burn, it is hard to ignite. Use extinguishing agents that will put out the surrounding fire. Use a cold water spray to cool fire-exposed containers and to control, disperse, or knock down the ammonia vapor. Unusual Fire or Explosion Hazards: When ammonium hydroxide solutions are heated, they evolve substantial quantities of  $\text{NH}_3$  vapor. This ammonia gas is dangerously irritating. Special Fire-fighting Procedures: Wear a self-contained breathing apparatus (SCBA) with a full facepiece operated in the pressure-demand or positive-pressure mode. Fire fighters must also wear a complete set of protective clothing designed to prevent any contact with ammonia gas.

## SECTION 5. REACTIVITY DATA

Stability/Polymerizations: Ammonium hydroxide is stable in closed containers during routine work operations. Hazardous polymerization cannot occur. Chemical Incompatibilities: Avoid hazardous reactions brought about by accidental exposure of ammonium hydroxide solutions and ammonia gas to copper, tin, zinc, aluminum, galvanized surfaces, acrolein, iodine, dimethyl sulfate, fluorine, gold, aqua regia, propylene oxide,  $\beta$ -propiolactone, silver nitrate, silver oxide, silver permanganate, and strong mineral acids such as hydrofluoric acid, hydrochloric acid, nitric acid, and oleum (a mixture of sulfuric acid [ $\text{H}_2\text{SO}_4$ ] and its anhydride [ $\text{SO}_3$ ]). Conditions to Avoid: Avoid direct contact with incompatible chemicals. Always establish compatibility between ammonium hydroxide solutions and other materials by testing small quantities of materials to replicate the expected conditions of bulk operations. Do not heat ammonium hydroxide solutions.

Hazardous Products of Decomposition: Ammonia gas ( $\text{NH}_3$ ) will be given off from ammonium hydroxide solutions if they are heated or if sodium hydroxide ( $\text{NaOH}$ ) is added to them. Comments: Ammonia gas is likely to be present in work areas where ammonium hydroxide solutions are used. If gases that react violently with ammonia are also found there, establish appropriate engineering controls to minimize any potential hazard associated with mixing them.

No. 1A AMMONIUM HYDROXIDE 11/83

SECTION 6. HEALTH HAZARD INFORMATION

**Carcinogenicity:** Ammonium hydroxide is not listed as a carcinogen by the NTP, IARC, or OSHA.

**Summary of Risks:** Ammonium hydroxide is very irritating and corrosive to all body tissue. Accidental ingestion of ammonium hydroxide solutions damages the gastrointestinal tract. Permanent blindness can result from accidentally splashing these solutions into the eyes. Excessive inhalation of ammonia vapor causes severe irritation to the respiratory system, coughing, difficulty in breathing, severe lung congestion, and possibly fatal pulmonary edema (lungs filled with fluid). Tolerance to higher concentrations may develop. Medical Conditions Aggravated by Long-Term Exposure: None reported. Target Organs: Skin, eyes, and respiratory system. Primary Entry: Inhalation, skin or eye contact. Acute Effects: Severe irritation of all exposed tissue (eyes, skin, and respiratory system). Swelling and sloughing of the lining of the air passages may occur; opening them may require emergency measures. First- and second-degree burns may also occur. Chronic Effects: Asthma and chronic hyperactivity of air passages may occur after massive exposure. **FIRST AID:** Eyes. Immediately flush eyes, including under the eyelids, gently but thoroughly with flooding amounts of running water for at least 15 minutes. Speed and thoroughness in rinsing the eyes is vital to preventing permanent eye injury. Skin. Immediately rinse the area with flooding amounts of water while removing grossly contaminated clothing and shoes, then wash with soap and water. Inhalation. Remove the exposed person to fresh air; restore and/or support his or her breathing as needed. Qualified medical personnel should administer oxygen as required. Ingestion (applicable only to accidental ingestion of ammonium hydroxide solutions; not applicable to ammonia gas). Never give anything by mouth to someone who is unconscious or convulsing. If the exposed person is responsive, promptly give him or her plenty of water, dilute vinegar, or citrus juice to drink, followed by milk. Do not induce vomiting. Get medical help (in plant, paramedic, community) for all exposures. Seek prompt medical assistance for further treatment, observation, and support after first aid. Note to physician: Immediate hospitalization and observation for 72 hours to detect delayed pulmonary edema is advised in cases of severe exposure.

SECTION 7. SPILL, LEAK, AND DISPOSAL PROCEDURES

**Spill/Leak:** Preplan emergency response to spills or leaks of ammonium hydroxide solutions. Evacuate all nonessential personnel, notify safety personnel, eliminate all sources of ignition, and provide adequate ventilation. Cleanup personnel need protection against skin and eye contact with the liquid as well as inhalation of its vapor (see sect. 8). Contain large spills and absorb waste with sand, earth, or vermiculite. Neutralize the spilled ammonium hydroxide with dilute hydrochloric acid (HCl) or dilute sulfuric acid (H<sub>2</sub>SO<sub>4</sub>). The neutralized ammonium hydroxide solutions must be extensively diluted with water before discharge. Prevent runoff from directly entering streams, surface waters, waterways, watersheds, and sewers. **Waste Disposal:** Consider reclamation, recycling, or destruction rather than disposal in a landfill. Suitable scrap ammonium hydroxide recovered from spills or leaks may be useful in neutralizing acidic wastes. Monitor effluents for pH, ammonia, and salt content because these properties can be subject to specific regulations. Follow Federal, state, and local regulations.

**OSHA Designations**

Listed as an Air Contaminant (29 CFR 1910.1000 Subpart Z, for NH<sub>3</sub>)

EF designations (40 CFR 302.4)

**CL** A Hazardous Substance, Reportable Quantity: 1000 lbs (454 kg), per the Clean Water Act (CWA), §311 (b) (4). If this waste ammonium hydroxide satisfies the characteristic of corrosivity detailed in 40 CFR 261.22, it is assigned the RCRA hazardous waste number D002.

SECTION 8. SPECIAL PROTECTION INFORMATION

**Goggles:** Always wear protective eyeglasses or chemical safety goggles. Where splashing of ammonium hydroxide solutions is possible, wear a full face shield. Follow OSHA eye- and face-protection regulations (29 CFR 1910.133). **Respirator:** Wear a NIOSH-approved respirator per Genium reference 88 for the maximum-use concentrations and/or the exposure limits cited in section 2 as applied to ammonia gas. Follow OSHA respirator regulations (29 CFR 1910.134). For emergency or nonroutine operations (spills or cleaning reactor vessels and storage tanks), wear an SCBA. **Warning:** Air-purifying respirators will not protect workers in oxygen-deficient atmospheres. **Other:** Wear impervious rubber gloves, boots, aprons, and gauntlets, etc., to prevent excessive or prolonged skin contact. **Ventilation:** Install and operate general and local exhaust-ventilation systems powerful enough to maintain airborne concentrations of ammonia gas below the OSHA PEL standard cited in section 2. **Safety Stations:** Make emergency eyewash stations, safety/quick-drench showers, and washing facilities available in work areas. A large amount of clean water must be available for emergency response to accidental ammonium hydroxide spills. **Contaminated Equipment:** Contact lenses pose a special hazard; soft lenses may absorb irritants and all lenses concentrate them. Do not wear contact lenses in any work area. Remove contaminated clothing and launder it before wearing it again; clean this material from your shoes and equipment. **Comments:** Practice good personal hygiene; always wash thoroughly after using this material. Keep it off your clothing and equipment. Avoid transferring it from your hands to your mouth while eating, drinking, or smoking. Do not eat, drink, or smoke in any work area.

SECTION 9. SPECIAL PRECAUTIONS AND COMMENTS

**Storage/Segregation:** Store ammonium hydroxide solutions in insulated, closed containers in a cool, dry, well-ventilated area separate from incompatible chemicals (see sect. 5) and direct sunlight. **Special Handling/Storage:** Protect containers from physical damage and handle them carefully. Use caution when opening sealed containers to relieve pressure. Drain empty containers well and flush them with water before discarding them. **Engineering Controls:** Follow established safety procedures during transfers of ammonium hydroxide solutions. The ammonia vapor produced by an ammonium hydroxide spill can be a serious hazard at temperatures above 50°F. Monitor the amount of ammonia gas present in pipelines, storage tanks, reactor vessels, etc., with appropriate equipment, especially before entering or inspecting these areas. **Comments:** Train personnel who work with ammonium hydroxide solutions in their safe use and in proper emergency response. Maintain accurate medical records of employee exposure to ammonia gas from ammonium hydroxide solutions. Severe exposure requires a medical exam to assess any damage and to make recommendations concerning possible future restrictions on job assignments.

**Transportation Data** (49 CFR 172.101-2)

**Shipping Name:** Ammonium Hydroxide\*

**Hazard Class:** Corrosive Material

**ID No.** NA2672

**DOT Label:** Corrosive

**IMO Hazard Class:** 8

**IMO Label:** Corrosive

Limited to solutions containing at least 12% and not more than 44% ammonia.

**References:** 1, 26, 38, 84, 86-94, 100, 116, 117.

Judgments as to the suitability of information herein for purchaser's purposes are necessarily purchaser's responsibility. Therefore, although reasonable care has been taken in the preparation of such information, Ochsman Publishing Corp. extends no warranty, makes no representations and assumes no responsibility

Prepared by PJ Igoe, BS

Industrial Hygiene Review: DJ Wilson, CIH

100150



U.S. DEPARTMENT OF LABOR  
Occupational Safety and Health Administration

# MATERIAL SAFETY DATA SHEET

RECEIVED

JAN 23 1989

R.E.F.C.

DATE: 17JUL86

## SECTION I

Supplier's Name The Western Company of North America		EMERGENCY TELEPHONE NO. (817) 731-5100
ADDRESS (Number, Street, City, State, and ZIP Code) P. O. Box 186, Ft. Worth, TX 76101		
CHEMICAL NAME AND SYNONYMS Proprietary Blend	TRADE NAME AND SYNONYMS GEL COMPLEXER, water, CL-9	
CHEMICAL FAMILY metal chelate	FORMULA W.I.N. 100150	

## SECTION IA HAZARDOUS MATERIAL CLASSIFICATION

D.O.T. PROPER SHIPPING NAME	Flammable liquid, n.o.s.
NAME OF HAZARDOUS COMPONENT	isopropanol
HAZARD CLASS	Flammable liquid
IDENTIFICATION NUMBER	Un 1993
D.O.T. LABEL(S) REQUIRED	Flammable liquid
PRECAUTIONARY LABEL	attached

## SECTION II - HAZARDOUS INGREDIENTS

	%	TLV (Unit)
isopropanol	80	400ppm

## SECTION III - PHYSICAL DATA

BOILING POINT (°F.)		SPECIFIC GRAVITY (H <sub>2</sub> O=1) @ 25°C	0.857
VAPOR PRESSURE (mm Hg.)		PERCENT VOLATILE BY VOLUME (%)	80%
VAPOR DENSITY (AIR=1)		EVAPORATION RATE (_____*1)	
SOLUBILITY IN WATER	Solubule		
APPEARANCE AND ODOR	Clear amber, isopropyl alcohol odor		

## SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used) 54°F (PMCC)	FLAMMABLE LIMITS % by volume (IPA)	LeI 2%	UeI 12%
EXTINGUISHING MEDIA any type CO <sub>2</sub> , dry chemical or water			
SPECIAL FIRE FIGHTING PROCEDURES none			
UNUSUAL FIRE AND EXPLOSION HAZARDS none			

TRADE NAME: W.I.N. 100150, GEL COMPLEXER, water, CL-9

### SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

See attached

EFFECTS OF OVEREXPOSURE

IPA damages eye tissue and may cause skin irritation upon prolonged or repeated skin contact. Prolonged or repeated breathing of IPA causes eye, nose and throat

EMERGENCY AND FIRST AID PROCEDURES

Irritation, depression of the nervous system and narcosis. Wash skin thoroughly with soap and water. Flush eyes with water for at least 15 minutes. Call a physician. If vapors are inhaled, move to fresh air and call a physician.

### SECTION VI - REACTIVITY DATA

STABILITY

UNSTABLE

CONDITIONS TO AVOID

STABLE

XXX

Hydrolyzed slowly by water

COMPATIBILITY (Materials to avoid)

May cause rapid corrosion of ferrous metals.

HAZARDOUS DECOMPOSITION PRODUCTS

HAZARDOUS  
POLYMERIZATION

MAY OCCUR

CONDITIONS TO AVOID

WILL NOT OCCUR

XXX

### SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Collect large spills with sawdust or other absorbent solid. Small spills and residues may be flushed to the drain with water.

WASTE DISPOSAL METHOD

Pour waste on the ground in a protected dumping area, bury or burn in accordance with local ordinances.

### SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type)

VENTILATION

LOCAL EXHAUST

SPECIAL

MECHANICAL (General)

OTHER

PROTECTIVE GLOVES

Elbow length rubber gloves

EYE PROTECTION

OTHER PROTECTIVE EQUIPMENT

Goggles or face shield

### SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

See attached sheet.

OTHER PRECAUTIONS

499626



U.S. DEPARTMENT OF LABOR  
Occupational Safety and Health Administration

# MATERIAL SAFETY DATA SHEET

DATE: 29 JAN1991

## SECTION I

Supplier's Name The Western Company of North America		EMERGENCY TELEPHONE NO. (817) 731-5100
ADDRESS (Number, Street, City, State, and ZIP Code) P. O. Box 186, Ft. Worth, TX 76101		
CHEMICAL NAME AND SYNONYMS PROPRIETARY		TRADE NAME AND SYNONYMS CL-17 499626
CHEMICAL FAMILY ALUMINUM SOLUTION	FORMULA PROPRIETARY W.I.N. 100000	

## SECTION II TOXICITY HAZARD DATA

PRINCIPAL HAZARDOUS COMPONENT(S)		TLV (UNITS)
1. Methanol		
CAS RN: 67561	30-50	Air: 200 ppm
NIOSH #: PC 1400000		(skin)

TOXICITY DATA: THR: A skin, eye irr. A hmn inh IRR. A hmn eye irr. HIGH hmn oral; HIGH ipr, ivn; MOD ihl, orl skn; LOW skn, orl, ihl, ipr, scu.

## SECTION III PHYSICAL DATA

FREEZING POINT (F):	Not known
BOILING POINT (F):	Not known
pH:	4.6
VAPOR PRESSURE (mmHg):	Not known (contains methanol)
VAPOR DENSITY (AIR=1):	Not known
SOLUBILITY IN WATER:	Infinite
SPECIFIC GRAVITY (H2O=1):	1.045
EVAPORATION RATE:	Not known
APPEARANCE AND ODOR:	Milky white solution, alcohol odor.

## SECTION IV FIRE AND EXPLOSION HAZARD

FLASH POINT:	< 100F
EXTINGUISHING MEDIA:	Alcohol foam, CO2, dry chemical.
SPECIAL FIRE FIGHTING PROCEDURES:	Wear SCBA and complete personal protective equipment.
UNUSUAL FIRE/EXPLOSION HAZARDS:	Mod, when exposed to heat, flame, or powerful oxidizer.

499626

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**SECTION V HEALTH HAZARD DATA**

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**THRESHOLD LIMIT VALUE:** Not available for blend. See Section II for hazards of principle hazardous components.

**EFFECTS OF OVEREXPOSURE:** Not known. See Section II for hazards of principle hazardous components.

**EMERGENCY AND FIRST AID PROCEDURES:** For eye contact, rinse thoroughly with water for 15 minutes. Contact physician if irritation persists. Wash with soap and water for skin contact. Contaminated clothing may be washed thoroughly and reused. For ingestion, contact poison control center for proper procedures for methanol ingestion.

---

**SECTION VI REACTIVITY DATA**

---

**STABILITY:** Stable

**CONDITIONS TO AVOID:** Material is saturated with aluminum compounds. Addition of brines, etc. may result in precipitation of aluminum salts.

**HAZARDOUS DECOMPOSITION PRODUCTS:** When heated to decomposition it emits toxic fumes.

**HAZARDOUS POLYMERIZATION:** Does not occur.

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**SECTION VII SPILL AND LEAK PROCEDURES**

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In case of spill, eliminate ignition sources, contain immediately with absorbant, sweep up and place in sealable disposal containers. Do not allow entry into waterways or sewers. Dispose through hazardous waste handler according to local, state, and federal regulations.

---

**SECTION VIII SPECIAL PROTECTION INFORMATION**

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<b>RESPIRATORY PROTECTION:</b>	Niosh approved respirator
<b>VENTILATION:</b>	Local exhaust
<b>PROTECTIVE GLOVES:</b>	Rubber or plastic
<b>EYE PROTECTION:</b>	Chemical goggles or face shield
<b>OTHER PROTECTIVE EQUIPMENT:</b>	Full body-covering clothing; eyewash stations.

---

**SECTION IX SPECIAL PRECAUTIONS**

---

**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:** Store away from heat and/or open flame.

<b>OTHER PRECAUTIONS:</b>	<b>DOT NAME:</b>	FLAMMABLE LIQUID, N.O.S.
	<b>LABEL REQUIRED:</b>	UN 1993

---

499710

R-8 (01/86)

INTEROFFICE CORRESPONDENCE

TO: Mike Moseley AT: Houston - Safety & Reg. Compliance  
FROM: Barry T. Hlidek AT: The Woodlands - CTD  
APPROVAL: [Signature] DATE: 6 Nov '92  
RE: Safety Information Update

This is to inform you of revisions, additions, deletions or replacement of products or chemicals and the relevant safety data.

Western Trade Name: CL-22

W.I.N.: 499710

Chemical Name (if not trade named):

Addition X Revision      Replacement      Deletion      to product line  
Western Product X Western System       
Cementing      Stimulation X

DOT Proper Shipping Name & I.D. Number (SPM-04-02):

CL-22, Not Regulated

DOT Hazardous Material Class:

N/A

DOT Hazardous Material Label:

Not Required

Chemical Storage Class (SPM-04-01):

II.1

EPA Hazardous Waste Classification:

Not Listed

Reportable Quantity:

Not Listed

Material Safety Data Sheet:

Attached X Not Available     

On File at Research X

cc: Legal Services  
Product Specification File (original)

Attachments: MSDS  
Label  
Precautionary Statement

Note: If deletion, attach copy of page(s) to be deleted, write deleted across the page(s) attached.

Confidential Proprietary Information  
The Western Company of North America

TO: HOUSTON HUMAN RESOURCES

NOV-19-'92 THU 14:46 ID:WCNA WPS R&amp;E

TEL NO: 713-363-7598

499710  
#871 P02U.S. DEPARTMENT OF LABOR  
Occupational Safety and Health Administration

## MATERIAL SAFETY DATA SHEET

Date: 3 Nov. 1992

## SECTION I

SUPPLIER'S NAME The Western Company	EMERGENCY TELEPHONE NO. 1-800-732-8876
ADDRESS (Number, Street, City, State and ZIP Code) 515 Post Oak Blvd., Houston, Texas 77027	
CHEMICAL NAME AND SYNONYMS Proprietary Blend	TRADE NAME AND SYNONYMS CL-22
CHEMICAL FAMILY	FORMULA W.I.N. 499710

## SECTION IA - HAZARDOUS MATERIAL CLASSIFICATION

D.O.T. PROPER SHIPPING NAME CL-22, Not Regulated	(RQ / )
NAME OF HAZARDOUS COMPONENT N/A	
HAZARD CLASS N/A	
IDENTIFICATION NUMBER N/A	
D.O.T. LABEL(S) REQUIRED Not Required	
PRECAUTIONARY LABEL Attached	

## SECTION II - HAZARDOUS INGREDIENTS

%

TLV (Units)


## SECTION III - PHYSICAL DATA

BOILING POINT (°F)	> 212	SPECIFIC GRAVITY (H <sub>2</sub> O=1)	1.08
VAPOR PRESSURE (mm Hg)	ND	PERCENT. VOLATILE BY VOLUME (%)	ND
VAPOR DENSITY (AIR=1)	ND	EVAPORATION RATE (_____ =1)	ND
SOLUBILITY IN WATER	Soluble		

APPEARANCE AND ODOR Colorless to light brown liquid with slight acid odor.

## SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used) None	FLAMMABLE LIMITS	ND	LEL	ND	UEL
EXTINGUISHING MEDIA Not a flammable or combustible material.					
SPECIAL FIRE FIGHTING PROCEDURES Use extinguishing media appropriate for surrounding conditions.					
UNUSUAL FIRE AND EXPLOSION HAZARDS					

499710

TRADE NAME: W.I.N. 499710

<b>SECTION V - HEALTH HAZARD DATA</b>			
THRESHOLD LIMIT VALUE ND			
EFFECTS OF OVEREXPOSURE Skin irritation develops slowly after contact. Eye irritation develops immediately upon contact.			
Vapors may be irritating to the respiratory tract without proper ventilation.			
EMERGENCY AND FIRST AID PROCEDURES EYES: Flush with water for 15 minutes, call physician. SKIN: Flush with soap and water for 15 minutes. See physician if symptoms develop and persist. INGESTION: If swallowed, induce vomiting, seek medical attention. INHALATION: Remove victim to fresh air. Seek medical attention. Begin artificial respiration if needed, or oxygen if breathing is labored.			
<b>SECTION VI - REACTIVITY DATA</b>			
STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	X	
INCOMPATIBILITY (Materials to avoid) Strong acids, alkaline materials and oxidizing materials			
HAZARDOUS DECOMPOSITION PRODUCTS From Fire: smoke, carbon dioxide, carbon monoxide, possible oxides of sodium			
HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID
	WILL NOT OCCUR	X	
<b>SECTION VII - SPILL OR LEAK PROCEDURES</b>			
STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED Small Spills: Pick up with absorbent media. Store as hazardous waste. Large Spills: Contain with dikes, pick up with vacuum truck. Handle as hazardous waste.			
WASTE DISPOSAL METHOD EPA approved, hazardous waste disposal site. Follow applicable local, state and federal regulations.			
<b>SECTION VIII - SPECIAL PROTECTION INFORMATION</b>			
RESPIRATORY PROTECTION (Specify type) Not normally needed with proper use and storage.			
VENTILATION	LOCAL EXHAUST	X	SPECIAL
	MECHANICAL (General)	X	OTHER
PROTECTIVE GLOVES Chemical resistant gauntlet type gloves.			
EYE PROTECTION Chemical goggles or full face shield.			
OTHER PROTECTIVE EQUIPMENT Boots, aprons, drench showers, eye wash			
<b>SECTION IX - SPECIAL PRECAUTIONS</b>			
PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING Store away from acids, alkaline materials, and oxidizers or materials bearing a yellow D.O.T. label.			
OTHER PRECAUTIONS Clean up leaks immediately to prevent soil or water contamination.			

499644

U.S. DEPARTMENT OF LABOR  
Occupational Safety and Health Administration



MATERIAL SAFETY DATA SHEET

Date: February 3, 1992

SECTION I

SUPPLIER'S NAME The Western Company	EMERGENCY TELEPHONE NO. (817) 731-5433
ADDRESS (Number, Street, City, State and ZIP Code) 515 Post Oak Blvd., Houston, Texas 77027	
CHEMICAL NAME AND SYNONYMS Proprietary Blend	TRADE NAME AND SYNONYMS CL-30
CHEMICAL FAMILY Crosslink Additive	FORMULA Proprietary Blend W.J.N. 499644

SECTION IA - HAZARDOUS MATERIAL CLASSIFICATION

D.O.T. PROPER SHIPPING NAME Combustible Liquid, N.O.S.	(RQ / )
NAME OF HAZARDOUS COMPONENT Hydrocarbon Distillate	
HAZARD CLASS Combustible Liquid	
IDENTIFICATION NUMBER NA 1993	
D.O.T. LABEL(S) REQUIRED In 110 gallon containers or larger - 49CFR 173.118	
PRECAUTIONARY LABEL Combustible	

SECTION II - HAZARDOUS INGREDIENTS

	%	TLV (Units)
Hydrocarbon Distillate	45	200 ppm
Complex Hydrocarbon Solvent	4	200 ppm
Methyl Alcohol	2	200 ppm

SECTION III - PHYSICAL DATA

BOILING POINT (°F)		SPECIFIC GRAVITY (H <sub>2</sub> O=1)	1.16
VAPOR PRESSURE (mm Hg)	N/D	PERCENT. VOLATILE BY VOLUME (%)	48
VAPOR DENSITY (AIR=1)	1	EVAPORATION RATE (_____ -1)	N/D
SOLUBILITY IN WATER	Soluble		

APPEARANCE AND ODOR Tan color/ hydrocarbon odor

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used) 146°F (PMCC)	FLAMMABLE LIMITS N/D	Lel	Uel
EXTINGUISHING MEDIA Water spray, foam, dry chemical or carbon dioxide.			
SPECIAL FIRE FIGHTING PROCEDURES Self-contained breathing apparatus. Cool exposed containers with water. Avoid breathing vapors or fumes.			
UNUSUAL FIRE AND EXPLOSION HAZARDS			

Keep heat, sparks and flame away. Produces toxic combustion products. Vapor is heavier than air and may travel considerable distance to source of ignition.

TRADE NAME: W.I.N. 499644

<b>SECTION V - HEALTH HAZARD DATA</b>			
THRESHOLD LIMIT VALUE			
EFFECTS OF OVEREXPOSURE			
See Attachment.			
EMERGENCY AND FIRST AID PROCEDURES			
<b>SECTION VI - REACTIVITY DATA</b>			
STABILITY	UNSTABLE		CONDITIONS TO AVOID Keep away from heat, sparks & open flame.
	STABLE	X	
INCOMPATIBILITY (Materials to avoid) Avoid contact with strong oxidizing agents.			
HAZARDOUS DECOMPOSITION PRODUCTS Carbon monoxide, oxides of nitrogen.			
HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID
	WILL NOT OCCUR	X	
<b>SECTION VII - SPILL OR LEAK PROCEDURES</b>			
STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED			
Remove all ignition sources. Recover free liquid. Add absorbent (sand, earth, sawdust) to spill area. Advise authorities if product has entered or may enter sewers, water courses or extensive land area.			
WASTE DISPOSAL METHOD			
Incinerate free liquid. Bury contaminated absorbent in industrial landfill in accordance with local, state and federal regulations.			
<b>SECTION VIII - SPECIAL PROTECTION INFORMATION</b>			
RESPIRATORY PROTECTION (Specify type) Normally not needed. Use supplied air respirator in closed areas.			
VENTILATION	LOCAL EXHAUST As needed to prevent exceeding recommended exposure limit.		SPECIAL
	MECHANICAL (General)		OTHER
PROTECTIVE GLOVES Chemical resistant gloves			
EYE PROTECTION Splash goggles.			
OTHER PROTECTIVE EQUIPMENT Chemical boots and apron as appropriate during use.			
<b>SECTION IX - SPECIAL PRECAUTIONS</b>			
PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING			
Keep away from strong oxidizing agents. Avoid contact with eyes, skin or clothing. Keep away from heat, sparks and open flame. never use cutting torch on or near container (even empty)- explosion may result. Do not reuse empty container. Launder clothes before reuse. Avoid breathing vapors or aerosols.			
OTHER PRECAUTIONS			

499808

SERIAL SAFETY DATA SHEET - 499808

11/09/94

PAGE 1

NAME: CLAY MASTER 5C

## SECTION I

OS NUMBER .....: 499808  
I.N. NUMBER.....: 499808  
N N Y M S .....:  
N FACTURER .....:  
NDOR .....: THE WESTERN COMPANY OF NORTH AMERICA  
ERGENCY PHONE ...: 1-800-732-9876  
R CALLS .....: (713) 629-2600  
ESS .....: 515 POST OAK BLVD., SUITE 1200  
Y .....: HOUSTON STATE TX: ZIP 77027:  
S PREPARED BY ..: RESEARCH AND ENGINEERING  
PREPARED .....: 11/9/94

## SECTION II - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

NAME: CLAY MASTER 5C

REDIENT NAME	CAS	OSHA	ACGIH	OTHER	%
NONE		PEL	TLV		

## SECTION 313 CHEMICALS

REDIENT NAME	CAS	OSHA	ACGIH	OTHER	%
NONE		PEL	TLV		

## SECTION 313 SUPPLIER NOTIFICATION

CHEMICALS LISTED ABOVE WITH PERCENTAGES ARE SUBJECT TO THE REPORTING  
REMENTS OF SECTION 313 OF THE EMERGENCY PLANNING AND RIGHT-TO-KNOW  
F 1986 AND OF 40 CFR 372.

11/09/94

PAGE 2

SECTION III - CHEMICAL CHARACTERISTICS

BOILING POINT	MELTING POINT	FREEZING POINT	SPECIFIC GRAVITY (H2O = 1)
ND	<0°F	<0°F	1.144
PERCENT VOLATILE by VOLUME	THEORETICAL VOC CONTENT (percent of WEIGHT)	WEIGHT PER GALLON	
ND	ND	9.53	
pH: Conc:			
VAPOR PRESSURE (mm of Hg)	VAPOR DENSITY (Air = 1)	DENSITY	EVAPORATION RATE Basis ( )=1 Rate
ND	ND	ND	ND
SOLUBILITY IN WATER SOLUBLE	REACTIVITY IN WATER NONE		
APPEARANCE AND ODOR:		CLEAR AMBER LIQUID	

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT	METHOD	FLAMMABLE LIMITS IN AIR (%)	AUTOIGNITION TEMPERATURE
>200°F	PMCC	UPPER = ND LOWER = ND	
NFPA CODES:	HEALTH .....	1	
	FLAMMABILITY ...	1	
	REACTIVITY .....	0	
	OTHER .....		
HMIS CODES:	HEALTH .....		
	FLAMMABILITY ...		
	REACTIVITY .....		
	PROTECTION .....		

EXTINGUISHER MEDIA: Dry chemical, CO<sub>2</sub>, water spray or regular foam.

SPECIAL FIRE FIGHTING PROCEDURES: Move container from fire area if it can be done without risk. Apply cool water to sides of containers that are exposed to flames until well after fire is out.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Stay away from ends of containers.

499 702



U.S. DEPARTMENT OF LABOR  
Occupational Safety and Health Administration

MATERIAL SAFETY DATA SHEET

Date: January 20, 1992

SECTION I

SUPPLIER'S NAME The Western Company	EMERGENCY TELEPHONE NO. (817) 731-5433
ADDRESS (Number, Street, City, State and ZIP Code) 515 Post Oak Blvd., Houston, Texas 77027	
CHEMICAL NAME AND SYNONYMS	TRADE NAME AND SYNONYMS Clay Treat 2C
CHEMICAL FAMILY Quaternary Ammonium Chloride	FORMULA Proprietary W.I.N. 499702

SECTION IA - HAZARDOUS MATERIAL CLASSIFICATION

D.O.T. PROPER SHIPPING NAME Clay Treat 2C	(RQ / )
NAME OF HAZARDOUS COMPONENT N/A	
HAZARD CLASS N/A	
IDENTIFICATION NUMBER N/A	
D.O.T. LABEL(S) REQUIRED N/A	
PRECAUTIONARY LABEL N/A	

SECTION II - HAZARDOUS INGREDIENTS

	%	TLV (Units)
N/A	0	N/A

SECTION III - PHYSICAL DATA

BOILING POINT (°F)	> 200	SPECIFIC GRAVITY (H <sub>2</sub> O=1)	1.0153
VAPOR PRESSURE (mm Hg)	ND	PERCENT, VOLATILE BY VOLUME (%)	ND
VAPOR DENSITY (AIR=1)	ND	EVAPORATION RATE (_____-1)	
SOLUBILITY IN WATER	Soluble		
APPEARANCE AND ODOR Clear Liquid			

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used) > 200 PMCC	FLAMMABLE LIMITS N/A	N/A	Cal	N/A	Uel
EXTINGUISHING MEDIA Carbon Dioxide, water spray					
SPECIAL FIRE FIGHTING PROCEDURES Use self contained breathing apparatus when entering smoke or fumes.					
UNUSUAL FIRE AND EXPLOSION HAZARDS N/A					

TRADE NAME: W.I.N. 499702

## SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

EFFECTS OVEREXPOSURE Inhalation: Prolonged inhalation may cause dizziness and irritation of the throat. Skin: prolonged contact: cause dryness and irritation.

EMERGENCY AND FIRST AID PROCEDURES Inhalation: Remove to fresh air, use oxygen if breathing becomes difficult. Skin: Wash contaminated areas with large amounts of clean water and soap. If conditions persist seek medical attention.

## SECTION VI - REACTIVITY DATA

STABILITY

UNSTABLE

CONDITIONS TO AVOID N/A

STABLE

X

INCOMPATIBILITY (Materials to avoid) Strong oxidizers

HAZARDOUS DECOMPOSITION PRODUCTS Oxides of carbon, nitrogen and chlorine

HAZARDOUS  
POLYMERIZATION

MAY OCCUR

CONDITIONS TO AVOID None Known

WILL NOT OCCUR

X

## SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED Contain spill, vacuum up, absorb or scrape up contaminated soil and place in containers for later disposal.

WASTE DISPOSAL METHOD Contact an EPA or State approved disposal facility.

## SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) Organic vapor

VENTILATION

LOCAL EXHAUST

Recommended

SPECIAL Use self contained breathing apparatus when entering tanks.

MECHANICAL (General) Recommended

OTHER N/A

PROTECTIVE GLOVES Neoprene

EYE PROTECTION Goggles

OTHER PROTECTIVE EQUIPMENT Coveralls, splash aprons

## SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE Avoid contact with skin, if spilled on clothing wash off immediately.

OTHER PRECAUTIONS Clean up spills promptly.



U.S. DEPARTMENT OF LABOR  
Occupational Safety and Health Administration

# MATERIAL SAFETY DATA SHEET

DATE: 8 July 78

## SECTION I

Supplier's Name The Western Company of North America		EMERGENCY TELEPHONE NO. (817) 731-5100
ADDRESS (Number, Street, City, State, and ZIP Code) P. O. Box 186, Ft. Worth, TX 76101		
CHEMICAL NAME AND SYNONYMS		TRADE NAME AND SYNONYMS EE-100
CHEMICAL FAMILY	FORMULA	Proprietary blend

## SECTION IA HAZARDOUS MATERIAL CLASSIFICATION

D.O.T. PROPER SHIPPING NAME	Flammable liquid, n.o.s.
NAME OF HAZARDOUS COMPONENT	
HAZARD CLASS	Flammable liquid
IDENTIFICATION NUMBER	UN 1993
D.O.T. LABEL(S) REQUIRED	Flammable liquid
PRECAUTIONARY LABEL	

## SECTION II - HAZARDOUS INGREDIENTS

	%	TLV (Units)
This product contains minor portions of organic solvents which are		
flammable by Department of Labor definitions.		

## SECTION III - PHYSICAL DATA

BOILING POINT (°F.)		SPECIFIC GRAVITY (H <sub>2</sub> O=1)	
VAPOR PRESSURE (mm Hg.)		PERCENT VOLATILE BY VOLUME (%)	
VAPOR DENSITY (AIR=1)		EVAPORATION RATE (_____ =1)	
SOLUBILITY IN WATER			
APPEARANCE AND ODOR			

## SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used) 85°F (PMCC)	FLAMMABLE LIMITS	LeI	Uel
EXTINGUISHING MEDIA CO <sub>2</sub> , foam, dry chemical			
SPECIAL FIRE FIGHTING PROCEDURES			
UNUSUAL FIRE AND EXPLOSION HAZARDS			

## SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

EFFECTS OF OVEREXPOSURE

EMERGENCY AND FIRST AID PROCEDURES

Skin: wash with soap and water.

Eyes: flush with water for 15 minutes.

## SECTION VI - REACTIVITY DATA

STABILITY

UNSTABLE

CONDITIONS TO AVOID

STABLE

X

INCOMPATIBILITY (Materials to avoid)

HAZARDOUS DECOMPOSITION PRODUCTS

HAZARDOUS  
POLYMERIZATION

MAY OCCUR

CONDITIONS TO AVOID

WILL NOT OCCUR

X

## SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

WASTE DISPOSAL METHOD

Any method for disposal of chemical wastes subject to local regulations.

## SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type)

VENTILATION

LOCAL EXHAUST

SPECIAL

MECHANICAL (General)

OTHER

PROTECTIVE GLOVES

Plastic coated or rubber

EYE PROTECTION

Face shield or goggles.

OTHER PROTECTIVE EQUIPMENT

## SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

OTHER PRECAUTIONS



U.S. DEPARTMENT OF LABOR  
Occupational Safety and Health Administration

MATERIAL SAFETY DATA SHEET

Date: March 11, 1992

SECTION I

SUPPLIER'S NAME The Western Company	EMERGENCY TELEPHONE NO. (817) 731-5433
ADDRESS (Number, Street, City, State and ZIP Code) 515 Post Oak Blvd., Houston, Texas 77027	
CHEMICAL NAME AND SYNONYMS Alkylpolyether Sulfate	TRADE NAME AND SYNONYMS E-18
CHEMICAL FAMILY Surfactant	FORMULA Blend W.I.N. 499687

SECTION IA - HAZARDOUS MATERIAL CLASSIFICATION

D.O.T. PROPER SHIPPING NAME	Flammable Liquid, n.o.s.	(RQ 25,000 lbs)
NAME OF HAZARDOUS COMPONENT	Methanol	
HAZARD CLASS	Flammable Liquid	
IDENTIFICATION NUMBER	UN 1993	
D.O.T. LABEL(S) REQUIRED	Flammable Liquid	
PRECAUTIONARY LABEL	Flammable	

SECTION II - HAZARDOUS INGREDIENTS

	%	TLV (Units)
Methanol	15	200 ppm
Alkylpolyether Sulfates	10-30	Not Established

SECTION III - PHYSICAL DATA

BOILING POINT (°F)	186	SPECIFIC GRAVITY (H <sub>2</sub> O=1)	1.03
VAPOR PRESSURE (mm Hg)	Not Available	PERCENT. VOLATILE BY VOLUME (%)	Not Available
VAPOR DENSITY (AIR=1)	Not Available	EVAPORATION RATE (_____ =1)	Not Available
SOLUBILITY IN WATER	Soluble		
APPEARANCE AND ODOR	Amber color, alcohol odor		

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	86°F SFCC	FLAMMABLE LIMITS	6.7 Lel	36.0 Uel
EXTINGUISHING MEDIA	Foam, dry chemical, CO <sub>2</sub> , and water spray			
SPECIAL FIRE FIGHTING PROCEDURES	Use a self-contained breathing apparatus with full facepiece operated in pressure-demand or other positive pressure mode. Flammable. Cool fire-exposed containers using water spray.			
UNUSUAL FIRE AND EXPLOSION HAZARDS	Flammable liquid, vapors of which can form an ignitable mixture with air. Vapors can flow along surfaces to distant ignition sources and flash back.			

TRADE NAME: W.I.N. 499687

SECTION V - HEALTH HAZARD DATA			
THRESHOLD LIMIT VALUE 200 ppm (methanol)			
<p><b>EFFECTS OF OVEREXPOSURE</b> Inhalation: Prolonged exposure may cause mild irritation of mucous membranes, headache and tiredness. At elevated concentrations, symptoms may include nausea, shortness of breath, and a sense of drunkenness. In extreme cases, visual disturbances and ocular damage may occur. Skin and Eye Contact: Repeated and prolonged contact may cause dermatitis, drying or cracking of the skin due to defatting solvent properties. Contact with eyes will cause moderate irritation. Ingestion: May be harmful if swallowed. May cause gastrointestinal disturbances. Ingestion of methanol may result in a feeling of intoxication and can cause visual disturbances and, in extreme cases, ocular damage.</p>			
<p><b>EMERGENCY AND FIRST AID PROCEDURES</b> Wash skin thoroughly with soap and water. Launder clothing before reuse. If in eyes, irrigate with flowing water immediately and continuously for fifteen minutes. Consult a physician. If inhaled, remove to fresh air and administer oxygen if necessary. If ingested, induce vomiting. Consult a physician if symptoms persist or exposure was severe. Never give anything by mouth to an unconscious person.</p>			
SECTION VI - REACTIVITY DATA			
STABILITY	UNSTABLE		CONDITIONS TO AVOID Open flames
	STABLE	X	
INCOMPATIBILITY (Materials to avoid) Strong oxidizer			
HAZARDOUS DECOMPOSITION PRODUCTS			
HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID None known
	WILL NOT OCCUR	X	
SECTION VII - SPILL OR LEAK PROCEDURES			
<p><b>STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED</b> Small spill - Absorb on paper, cloth or other material. Large spill - Dike to prevent entering any sewer or waterway. Transfer liquid to a holding container. Cover residue with dirt or suitable chemical adsorbent. Use personal protective equipment as necessary.</p>			
<p><b>WASTE DISPOSAL METHOD</b> Place chemical residues and contaminated adsorbent materials into a suitable waste container and take to an approved hazardous waste disposal site. Dispose of all residue in accordance with applicable waste management regulations.</p>			
SECTION VIII - SPECIAL PROTECTION INFORMATION			
<p><b>RESPIRATORY PROTECTION</b> (Specify type) NIOSH approved/supplied air respirators when concentrations exceed the exposure limits specified.</p>			
VENTILATION	<p><b>LOCAL EXHAUST</b> To maintain concentrations below recommended limits</p>		SPECIAL
	<p><b>MECHANICAL (General)</b> To maintain concentrations below nuisance limits</p>		OTHER
<p><b>PROTECTIVE GLOVES</b> Chemical resistant</p>			
<p><b>EYE PROTECTION</b> Chemical goggles</p>			
<p><b>OTHER PROTECTIVE EQUIPMENT</b> Chemical apron</p>			
SECTION IX - SPECIAL PRECAUTIONS			
<p><b>PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING</b> Ground containers and lines during transfer to eliminate static electricity.</p>			
<p><b>OTHER PRECAUTIONS</b> Do not drink, eat or smoke in storage area.</p>			

499687

## ATTACHMENT TO AND CONTINUATION OF



## MATERIAL SAFETY DATA SHEET

Date: March 11, 1992

## SECTION I

SUPPLIER'S NAME The Western Company

EMERGENCY TELEPHONE NO. (817) 731-5433

ADDRESS (Number, Street, City, State and ZIP Code) 515 Post Oak Blvd., Houston, Texas 77027

CHEMICAL NAME AND SYNONYMS Alkylpolyether Sulfate

TRADE NAME AND SYNONYMS E-18

CHEMICAL FAMILY Surfactant

FORMULA Blend

W.I.N. 499687

## SECTION IXA - SPECIAL PRECAUTIONS

Flammable liquid. Avoid heat, sparks and open flames. Avoid breathing of vapors and contact with eyes, skin or clothing. Keep container closed when not in use. Hazardous product residue may remain in emptied container. Do not reuse empty containers without commercial cleaning or reconditioning.

This product contains a toxic chemical or chemicals subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR 372 as follows:

CHEMICAL	CAS NUMBER	WEIGHT PERCENT
Methanol	000067-56-1	15.0%

499687



## MATERIAL SAFETY DATA SHEET

Date: March 11, 1992

## SECTION I

SUPPLIER'S NAME The Western Company

EMERGENCY TELEPHONE NO. (817) 731-5433

ADDRESS (Number, Street, City, State and ZIP Code) 515 Post Oak Blvd., Houston, Texas 77027

CHEMICAL NAME AND SYNONYMS Alkylpolyether Sulfate

TRADE NAME AND SYNONYMS E-18

CHEMICAL FAMILY Surfactant

FORMULA Blend

W.I.N. 499687

## SECTION X - LABEL COPY

FOR INDUSTRIAL USE ONLY

FLAMMABLE LIQUID

## FIRST AID:

FOR EYES: In case of contact, immediately flush copiously with water for 15-20 minutes.

FOR SKIN: In case of contact, wash with soap and water. Remove contaminated clothing and wash skin with soap and water. Launder clothing before reuse.

FOR INGESTION: If swallowed, if victim is conscious, give 2 glasses of water and induce vomiting. Call a physician.

FOR INHALATION: If breathed in, remove to fresh air. Give oxygen if breathing is labored. Call a physician.

FOR HANDLING: Employees must wear neoprene gloves and safety goggles.

ATTENTION!! After this container has been emptied, it may contain flammable and toxic liquid or vapor; observe all warnings and precautions listed for this product. Do not cut, puncture, or weld on or near this container. Refer to MSDS and SPM-04-04 for other safety requirements.



WIN 499687

E-18

SURFACTANT

Flash Point: 86°F (30°C)  
Net Content: 470 lb (213 kg)  
55 gal (208 L)

Manufactured for:

**THE WESTERN COMPANY OF NORTH AMERICA**

515 Post Oak Blvd., Houston, Texas 77027

Emergency Telephone: 817-731-5100, 817-731-5433

R-3G3 (02/92)

**DIRECTIONS:**

For Proper Use, Refer to Service

Bulletin No.(s): 90.0 WG, 410.0WG

**FOR INDUSTRIAL USE ONLY**

**CAUTION!**

AVOID HEAT, SPARKS AND OPEN FLAMES. AVOID BREATHING OF VAPORS AND CONTACT WITH EYES, SKIN OR CLOTHING. KEEP CONTAINER CLOSED WHEN NOT IN USE.

**HANDLING:** Employees MUST WEAR chemical goggles, rubber apron, rubber gloves and OSHA regulated respirator protection.

**FIRE:**

Use water spray, foam, dry chemical or carbon dioxide to extinguish fire. Full protective clothing and NIOSH/MSHA approved self-contained breathing apparatus required for fire fighting personnel. May produce toxic gases in fire.

**SPILL OR LEAK ACTION:**

Use required protective equipment. Contain and absorb spill with an inert material. Scoop up and remove. Get approval prior to shipping absorbed material to a landfill.

**CONTAINER DISPOSITION:**

Empty containers retain 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. Dispose in environmentally safe manner.

**FIRST AID:**

**FOR EYES:** Immediately flush with plenty of water for at least 15 minutes, lifting upper and lower lids occasionally.

**FOR SKIN:** May cause skin irritation. Wash exposed area with soap and water. Remove contaminated clothing, and launder before reuse.

**FOR INGESTION:** If conscious, immediately give two to four glasses of water and induce vomiting by touching finger to back of throat. Call physician. Give hot coffee or tea.

**FOR INHALATION:** May cause respiratory irritation. Remove to fresh air. IF NOT BREATHING, give artificial respiration. If breathing is difficult, give oxygen. Keep person warm and quiet. Seek prompt medical attention.

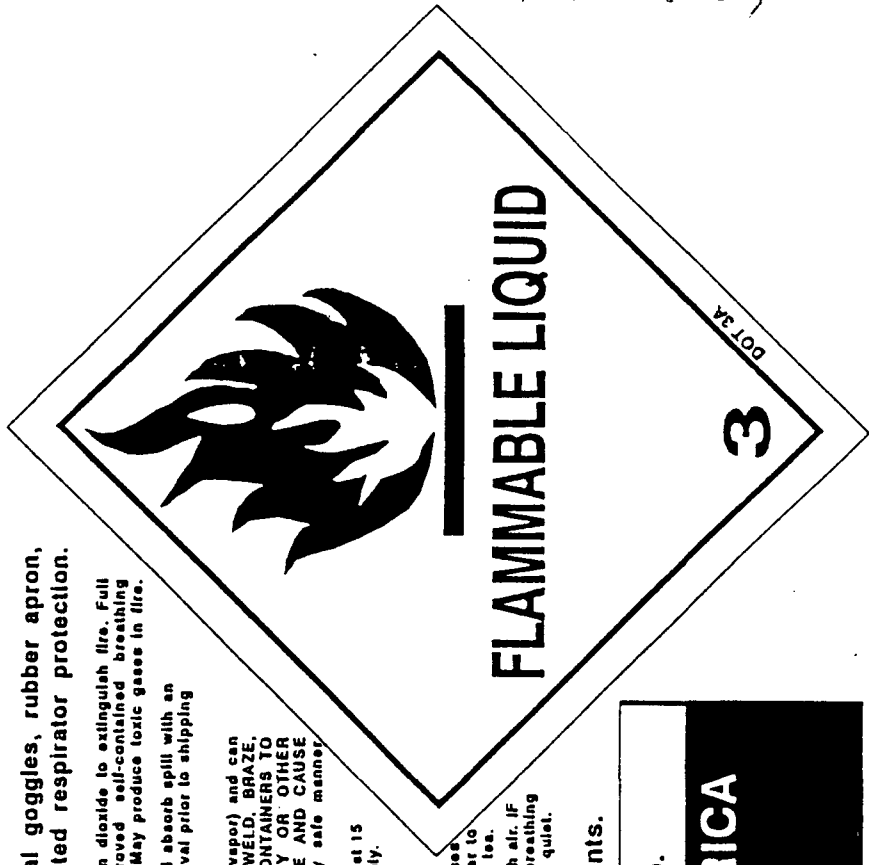
Refer to MSDS for Safety Requirements.

Batch no.

Flammable Liquid, n.o.s.  
(CONTAINS METHANOL)

**UN 1993**

DOT LABEL: FLAMMABLE LIQUID



499687

499778

R-6 (01/86)

## INTEROFFICE CORRESPONDENCE

TO: Mike Moseley  
FROM: Barry Hlidek  
APPROVAL: [Signature]  
RE: Safety Information Update

AT: Houston - Safety & Reg. Compliance  
AT: The Woodlands - CTD  
DATE: 10/12/93

This is to inform you of revisions, additions, deletions or replacement of products or chemicals and the relevant safety data.

Western Trade Name: Flo-Back 20

W.I.N.: 499778

Chemical Name (if not trade named):

Addition ☒ Revision ☐ Replacement ☐ Deletion ☐ to product line  
Western Product ☒ Western System ☐  
Cementing ☐ Stimulation ☒

DOT Proper Shipping Name &amp; I.D. Number (SPM-04-02):

Not Regulated

DOT Hazardous Material Class:

N/A

DOT Hazardous Material Label:

N/A

Chemical Storage Class (SPM-04-01):

Chemical First Aid Guide Class (SPM-04-04):

Eyes ☒ Lungs ☒ Skin ☒ Mouth ☐

EPA Hazardous Waste Classification:

Non Hazardous

Reportable Quantity:

Material Safety Data Sheet:

Attached ☒ Not Available ☐On File at Research ☐

cc: Legal Services  
Product Specification File (original)

Attachments: MSDS  
Label

Note: If deletion, attach copy of page(s) to be deleted, write deleted across the page(s) attached.

Confidential Proprietary Information  
The Western Company of North America

499778



**U.S. DEPARTMENT OF LABOR**  
Occupational Safety and Health Administration

**MATERIAL SAFETY DATA SHEET**

Date: 20 Sept. 1993

**SECTION I**

SUPPLIER'S NAME The Western Company	EMERGENCY TELEPHONE NO. 1-800-732-9876
ADDRESS (Number, Street, City, State and ZIP Code) 515 Post Oak Blvd., Houston, Texas 77027	
CHEMICAL NAME AND SYNONYMS Proprietary Blend	TRADE NAME AND SYNONYMS Flo-Back 20
CHEMICAL FAMILY Nonionic Surfactant	FORMULA W.I.N. 499778

**SECTION IA - HAZARDOUS MATERIAL CLASSIFICATION**

D.O.T. PROPER SHIPPING NAME Flo-Back 20 Not Regulated
NAME OF HAZARDOUS COMPONENT N/A
HAZARD CLASS Non Hazardous
IDENTIFICATION NUMBER N/A
D.O.T. LABEL(S) REQUIRED Not Required
PRECAUTIONARY LABEL

**SECTION II - HAZARDOUS INGREDIENTS**

%

TLV (Units)

Non Hazardous

**SECTION III - PHYSICAL DATA**

BOILING POINT (°F)	193	SPECIFIC GRAVITY (H <sub>2</sub> O=1)	1.005
VAPOR PRESSURE (psia) @ 108°F	0.8	PERCENT. VOLATILE BY VOLUME (%)	65%
VAPOR DENSITY (AIR=1)	2.693	EVAPORATION RATE (_____ =1)	ND
SOLUBILITY IN WATER	miscible	pH	3.0
APPEARANCE AND ODOR colorless solution, slight alcohol odor			

**SECTION IV - FIRE AND EXPLOSION HAZARD DATA**

FLASH POINT (Method used) 130°F	FLAMMABLE LIMITS	Lel	Uel
EXTINGUISHING MEDIA As for surrounding fire conditions.			
SPECIAL FIRE FIGHTING PROCEDURES Use water spray to cool fire exposed surfaces and to disperse vapors.			
UNUSUAL FIRE AND EXPLOSION HAZARDS None			

*Surfactant - Flammable*

499778

TRADE NAME: W.I.N. Flo-Back 20, 499778

## SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE ND

EFFECTS OF OVEREXPOSURE May cause irritation to eyes, mucus membranes and upper respiratory tract.

EMERGENCY AND FIRST AID PROCEDURES GENERAL: Immediately flush with copious amounts of water. Remove contaminated clothing and wash before re-use. SKIN: Wash affected area with abundant amounts of cool soapy water. EYES: Irrigate thoroughly with water. LUNGS: Remove victim to fresh air. INGESTION: Consult physician.

## SECTION VI - REACTIVITY DATA

STABILITY

UNSTABLE

CONDITIONS TO AVOID

STABLE

X

INCOMPATIBILITY (Materials to avoid) Strong oxidizing agents

HAZARDOUS DECOMPOSITION PRODUCTS CO<sub>2</sub>HAZARDOUS  
POLYMERIZATION

MAY OCCUR

CONDITIONS TO AVOID

WILL NOT OCCUR

X

## SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED Absorb with an inert material such as sand, soil or vermiculite.

WASTE DISPOSAL METHOD Sweep up and dispose of in accordance with federal, state and local regulations.

## SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) None

VENTILATION

General good ventilation

LOCAL EXHAUST

SPECIAL

MECHANICAL (General)

X

OTHER

PROTECTIVE GLOVES Chemical resistant rubber

EYE PROTECTION Chemical goggles

OTHER PROTECTIVE EQUIPMENT Use good handling procedures

## SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING Store in cool, dry place. Store in tightly sealed drums.

OTHER PRECAUTIONS Avoid contact with food items.



# MATERIAL SAFETY DATA SHEET

ORIGINAL

EXXON CHEMICAL AMERICAS, P.O. BOX 3272, HOUSTON, TEXAS 77001  
A Division of EXXON CHEMICAL COMPANY, A Division of EXXON CORPORATION

WCNA FR-30

PAGE: 1  
DATE PREPARED: JUL 8, 1991  
MSDS NO.: 78779000

## SECTION 1 PRODUCT IDENTIFICATION & EMERGENCY INFORMATION

PRODUCT NAME: WCNA FR-30

CHEMICAL NAME:

Not applicable: Blend

CHEMICAL FAMILY:

Polymer Emulsion

PRODUCT DESCRIPTION:

Clear to Opaque Emulsion  
Bland Odor

499693

EMERGENCY TELEPHONE NUMBERS: EXXON CHEMICAL AMERICAS  
CHEMTREC

713-870-6000  
800-424-9300

## SECTION 2 HAZARDOUS INGREDIENT INFORMATION

The composition of this mixture may be proprietary information. In the event of a medical emergency, compositional information will be provided to a physician or nurse. This product is hazardous as defined in 29 CFR 1910.1200, based on the following compositional information:

### COMPONENT

Aryl Polyether, Polyacrylamide  
Ethylene Glycol  
  
Ethylene Glycol  
  
Ethylene Glycol  
Ethylene Glycol, Ammonium Chloride

### OSHA HAZARD

Eye & Skin Irritant  
Vapors Irritant to Eyes  
and Respiratory Tract  
Systemic Toxicity via In-  
gestion, Inhalation  
Animal Teratogen  
PEL/TLV

For additional information see Section 3.

## SECTION 3 HEALTH INFORMATION & PROTECTION

### NATURE OF HAZARD

#### EYE CONTACT:

Irritating, and will injure eye tissue if not removed promptly.

#### SKIN CONTACT:

Low order of toxicity.

Irritating.

Frequent or prolonged contact may irritate and cause dermatitis.

#### INHALATION:

Vapors and/or aerosols which may be formed at elevated temperatures may be irritating to eyes and respiratory tract.

#### INGESTION:

Small amounts of the liquid aspirated into the respiratory system during ingestion, or from vomiting, may cause bronchiopneumonia or pulmonary edema.

WCNA FR-30

PAGE: 2  
DATE PREPARED: JUL 8, 1991  
MSDS NO.: 78779000**FIRST AID****EYE CONTACT:**

Immediately flush eyes with large amounts of water for at least 15 minutes. Get prompt medical attention.

**SKIN CONTACT:**

Flush with large amounts of water; use soap if available.

Remove grossly contaminated clothing, including shoes, and launder before reuse.

If irritation persists, seek medical attention.

**INHALATION:**

Using proper respiratory protection, immediately remove the affected victim from exposure. Administer artificial respiration if breathing is stopped. Keep at rest. Call for prompt medical attention.

**INGESTION:**

If swallowed, DO NOT induce vomiting. Keep at rest. Get prompt medical attention.

**WORKPLACE EXPOSURE LIMITS****OSHA REGULATION 29CFR1910.1000 REQUIRES THE FOLLOWING PERMISSIBLE EXPOSURE LIMITS:**

A ceiling value of 50 ppm (125 mg/m<sup>3</sup>) for Ethylene Glycol.

A TWA of 10 mg/m<sup>3</sup> and a STEL of 20 mg/m<sup>3</sup> for Ammonium Chloride fume.

**THE ACGIH RECOMMENDS THE FOLLOWING THRESHOLD LIMIT VALUES:**

a ceiling value of 50 ppm (127 mg/m<sup>3</sup>) for Ethylene Glycol vapor.

a TWA of 10 mg/m<sup>3</sup> and a STEL of 20 mg/m<sup>3</sup> for Ammonium Chloride, fume.

**EXXON RECOMMENDS THE FOLLOWING OCCUPATIONAL EXPOSURE LIMITS:**

200 ppm total hydrocarbon for LOPS (Low odor Paraffin Solvents).

**PRECAUTIONS****PERSONAL PROTECTION:**

For open systems where contact is likely, wear long sleeves, chemical resistant gloves, and chemical goggles.

Where contact may occur, wear long sleeves and safety glasses with side shields.

Where concentrations in air may exceed the limits given in this Section and engineering, work practice or other means of exposure reduction are not adequate, NIOSH/MSHA approved respirators may be necessary to prevent overexposure by inhalation.

**VENTILATION:**

The use of local exhaust ventilation is recommended to control process emissions near the source. Laboratory samples should be stored and handled in a lab hood. Provide mechanical ventilation of confined spaces. See respiratory protection recommendations.

**CHRONIC EFFECTS:**

This product contains ethylene glycol (EG). Repeated high dose exposure to ethylene glycol by ingestion has caused kidney damage, brain damage, degeneration of the liver, and changes in blood chemistry and circulating blood cells in laboratory animals. Repeated overexposure to ethylene glycol has the potential to cause similar toxic effects in humans.

Ethylene glycol has been shown to cause developmental and reproductive

**EXXON**  
**CHEMICAL****MATERIAL SAFETY DATA SHEET**EXXON CHEMICAL AMERICAS, P.O. BOX 3272, HOUSTON, TEXAS 77001  
A Division of EXXON CHEMICAL COMPANY, A Division of EXXON CORPORATION

499693

WCNA FR-30

PAGE: 5  
DATE PREPARED: JUL 8, 1991  
MSDS NO.: 78778000**SARA TITLE III:**

Under the provisions of Title III, Sections 311/312 of the Superfund Amendments and Reauthorization Act, this product is classified into the following hazard categories:

Immediate health, Delayed Health.

This product contains the following Section 313 Reportable Ingredients:

COMPONENT	CAS NO.	MAXIMUM %
Ethylene Glycol	107-21-1	5.0

**SECTION 8 TYPICAL PHYSICAL & CHEMICAL PROPERTIES****SPECIFIC GRAVITY:**

1.04 at 60

Density: 8.7 lbs/gal at 60

**SOLUBILITY IN WATER, WT. % AT °F:**

Dispersible

**SP. GRAV. OF VAPOR, at 1 atm (Air=1):**

1.29

**EVAPORATION RATE, n-Bu Acetate=1:**

1.4 Calculated

**VAPOR PRESSURE, mmHg at °F:**

52 at 100 Calculated

**VISCOSITY OF LIQUID, CST AT °F:**

480 at 81 Brookfield

**FREEZING/MELTING POINT, °F:**

-31 Pour Point

**BOILING POINT, °F:**

221 Calculated IBP

**SECTION 9 REACTIVITY DATA****STABILITY:**

Stable

**CONDITIONS TO AVOID INSTABILITY:**

None

**HAZARDOUS POLYMERIZATION:**

Will not occur

**MATERIALS AND CONDITIONS TO AVOID INCOMPATIBILITY:**

Strong Oxidizing Agents

**HAZARDOUS DECOMPOSITION PRODUCTS:**

None

**SECTION 10 STORAGE AND HANDLING****ELECTROSTATIC ACCUMULATION HAZARD:**

Unknown, use proper grounding procedure



# MATERIAL SAFETY DATA SHEET

EXXON CHEMICAL AMERICAS, P.O. BOX 1272, HOUSTON, TEXAS 77001  
A Division of EXXON CHEMICAL COMPANY, A Division of EXXON CORPORATION

499693

WCNA FR-30

PAGE: 6  
DATE PREPARED: JUL 8, 1991  
MSDS NO.: 78779000

STORAGE TEMPERATURE, °F:

Ambient

STORAGE/TRANSPORT PRESSURE, mmHg:

Atmospheric

LOADING/UNLOADING TEMPERATURE, °F:

Ambient

VISC. AT LOADING/UNLOADING TEMP., cSt:

Not available

## REVISION SUMMARY:

Since JUNE 30, 1991 this MSDS has been revised in Section(s):  
1, 2, 3, 7, 8

REFERENCE NUMBER:  
HDHA-A-11290

DATE PREPARED:  
July 8, 1991

SUPERSEDES ISSUE DATE:  
June 30, 1991

FOR ADDITIONAL PRODUCT INFORMATION, CONTACT YOUR TECHNICAL SALES REPRESENTATIVE  
FOR ADDITIONAL HEALTH/SAFETY INFORMATION, CALL 713-870-6885

THIS INFORMATION RELATES TO THE SPECIFIC MATERIAL DESIGNATED AND MAY NOT BE VALID FOR SUCH MATERIAL USED IN COMBINATION WITH ANY OTHER MATERIALS OR IN ANY PROCESS. SUCH INFORMATION IS TO THE BEST OF OUR KNOWLEDGE AND BELIEF, ACCURATE AND RELIABLE AS OF THE DATE COMPILED. HOWEVER, NO REPRESENTATION, WARRANTY OR GUARANTEE IS MADE AS TO ITS ACCURACY, RELIABILITY OR COMPLETENESS. IT IS THE USER'S RESPONSIBILITY TO SATISFY HIMSELF AS TO THE SUITABILITY AND COMPLETENESS OF SUCH INFORMATION FOR HIS OWN PARTICULAR USE. WE DO NOT ACCEPT LIABILITY FOR ANY LOSS OR DAMAGE THAT MAY OCCUR FROM THE USE OF THIS INFORMATION NOR DO WE OFFER WARRANTY AGAINST PATENT INFRINGEMENT.

100362



**U.S. DEPARTMENT OF LABOR**  
Occupational Safety and Health Administration

WFS

**MATERIAL SAFETY DATA SHEET**

MAY 10 1991

Human Resources

Date: May 8, 1991

**SECTION I**

SUPPLIER'S NAME The Western Company	EMERGENCY TELEPHONE NO. 1-800-424-9300
ADDRESS (Number, Street, City, State and ZIP Code) 515 Post Oak Blvd., Houston, Texas 77027	
CHEMICAL NAME AND SYNONYMS Proprietary Blend	TRADE NAME AND SYNONYMS Foamer, Frac Foam 1
CHEMICAL FAMILY Amphoteric Surfactant	FORMULA W.I.N. 100362

**SECTION IA - HAZARDOUS MATERIAL CLASSIFICATION**

D.O.T. PROPER SHIPPING NAME	Combustible Liquid	(PG 41,000 lbs)
NAME OF HAZARDOUS COMPONENT	Methanol, CAS # [67-56-1]	
HAZARD CLASS	Combustible Liquid	
IDENTIFICATION NUMBER	NA 1993	
D.O.T. LABEL(S) REQUIRED	If material in containers 110 gallons or larger	
PRECAUTIONARY LABEL	Attached	

**SECTION II - HAZARDOUS INGREDIENTS**

	%	TLV (Units)
Methanol	12.5	200 ppm

**SECTION III - PHYSICAL DATA**

BOILING POINT (°F)	174	SPECIFIC GRAVITY (H <sub>2</sub> O=1) at 60°F	1.03
VAPOR PRESSURE (mm Hg)	141	PERCENT VOLATILE BY VOLUME (%)	70
VAPOR DENSITY (AIR=1)	3.38	EVAPORATION RATE (n-Bu Acetate=1)	1.8
SOLUBILITY IN WATER	Soluble	VISCOSITY at 100 (Cannon-Fenske)	10

APPEARANCE AND ODOR Transparent yellow liquid with a slight sweet odor

**SECTION IV - FIRE AND EXPLOSION HAZARD DATA**

FLASH POINT (Method used) 116 (Seta CC)	FLAMMABLE LIMITS	6.7 Lel	36.0 Uel
EXTINGUISHING MEDIA	Carbon dioxide, dry chemical, foam, water spray		
SPECIAL FIRE FIGHTING PROCEDURES	Water spray may be used to cool fire-exposed metal containers to prevent reignition from hot surfaces. Do not breathe smoke or hot fumes.		
UNUSUAL FIRE AND EXPLOSION HAZARDS	None known.		

TRADE NAME: W.I.N. 100362, Foamer, Frac Foam 1

SECTION V - HEALTH HAZARD DATA			
THRESHOLD LIMIT VALUE		None established for product.	
EFFECTS OF OVEREXPOSURE		Eyes: Irritation, itching, excessive tearing, swelling, pain. Skin Contact: Irritation, redness, dry skin.	
Sensitized skin may show dermatitis. Inhalation: Nausea, dizziness, pneumonia if aspirated. If Swallowed: Nausea, vomiting, other symptoms of methanol poisoning.			
EMERGENCY AND FIRST AID PROCEDURES		Eyes: Flush eyes with clear water immediately for 15 minutes and see an eye doctor.	
Skin: Wash skin with soap and water. Remove and launder clothing before wearing. If skin irritation persists, see a physician. If			
Inhaled: Remove to fresh air and give artificial respiration if needed. If Ingested: Give milk or water to dilute. Induce vomiting. Get emergency medical treatment for methanol ingestion.			
SECTION VI - REACTIVITY DATA			
STABILITY	UNSTABLE		CONDITIONS TO AVOID Sources of ignition
	STABLE	X	
INCOMPATIBILITY (Materials to avoid)		Caustic, oxidizers such as chromates or chlorine.	
HAZARDOUS DECOMPOSITION PRODUCTS		Smoke, fumes, carbon monoxide, carbon dioxide, oxides of nitrogen.	
HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID
	WILL NOT OCCUR	X	
SECTION VII - SPILL OR LEAK PROCEDURES			
STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED		Contain spill and soak up waste. Flush area with water.	
WASTE DISPOSAL METHOD		Chemical incineration or land disposal according to federal, state, and local statutes.	
SECTION VIII - SPECIAL PROTECTION INFORMATION			
RESPIRATORY PROTECTION (Specify type)		None required in normal use.	
VENTILATION	LOCAL EXHAUST Recommended		SPECIAL Entering tanks or cleaning spills: Air supply recommended.
	MECHANICAL (General)		
OTHER			
PROTECTIVE GLOVES Neoprene or latex rubber			
EYE PROTECTION Chemical safety goggles			
OTHER PROTECTIVE EQUIPMENT Eye bath stations or water supply; showers.			
SECTION IX - SPECIAL PRECAUTIONS			
PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING Spills that drain into waterways will generate foam and probably kill fish. This should be avoided. Keep containers closed. Keep away from sparks and excessive heat. Avoid contact.			
OTHER PRECAUTIONS Know and be able to use first aid and fire fighting procedures.			

499669

U.S. DEPARTMENT OF LABOR  
Occupational Safety and Health Administration

WPS

MAY 10 1991

Human Resources



# MATERIAL SAFETY DATA SHEET

Date: May 8, 1991

## SECTION I

SUPPLIER'S NAME The Western Company	EMERGENCY TELEPHONE NO. 1-800-424-8300
ADDRESS (Number, Street, City, State and ZIP Code) 515 Post Oak Blvd., Houston, Texas 77027	
CHEMICAL NAME AND SYNONYMS Mixture	TRADE NAME AND SYNONYMS Frac Foam 2
CHEMICAL FAMILY Surfactants	FORMULA W.I.N. 499669

## SECTION IA - HAZARDOUS MATERIAL CLASSIFICATION

D.O.T. PROPER SHIPPING NAME	Combustible Liquid n.o.s.	(RQ 41,000 lbs)
NAME OF HAZARDOUS COMPONENT	Methanol, CAS # [67-56-1] ✓	
HAZARD CLASS	Combustible Liquid	
IDENTIFICATION NUMBER	NA 1993	
D.O.T. LABEL(S) REQUIRED	If material in containers 110 gallons or larger	
PRECAUTIONARY LABEL	Attached	

## SECTION II - HAZARDOUS INGREDIENTS

	%	TLV (Units)
Methanol	12	200 ppm

## SECTION III - PHYSICAL DATA

BOILING POINT (°F)	180	SPECIFIC GRAVITY (H <sub>2</sub> O=1)	1.026
VAPOR PRESSURE (mm Hg)	96	PERCENT. VOLATILE BY VOLUME (%)	67-69
VAPOR DENSITY (AIR=1)	> 1.1	pH	8.0-9.0
SOLUBILITY IN WATER	Soluble at 25%	VISCOSITY, BROOKFIELD @ 21°C (70°F)	30-38 cps
APPEARANCE AND ODOR	Light yellow color; alcoholic odor		

## SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	109°F (TCC)	FLAMMABLE LIMITS	6.7 Lel	36 Uel
EXTINGUISHING MEDIA	Dry chemical or waterfog or CO <sub>2</sub> or foam or sand.			
SPECIAL FIRE FIGHTING PROCEDURES	Firefighters must be equipped to prevent breathing of vapors or products of combustion.			
Wear an approved self-contained breathing apparatus and protective clothing.				
UNUSUAL FIRE AND EXPLOSION HAZARDS	Vapors may ignite explosively.			

TRADE NAME: W.I.N. 499669

### SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE 200 ppm TLV based on methanol

EFFECTS OF OVEREXPOSURE Eyes: Irritation, burning, itching and pain. Skin: Irritation, redness, sensitized skin may show signs of dermatitis. Inhalation: Nausea, dizziness, pneumonia if aspirated. If swallowed: Nausea, vomiting, light headedness, and other symptoms of methanol poisoning.

EMERGENCY AND FIRST AID PROCEDURES Eyes: Immediately flush with large quantities of water for 15 minutes and call physician. Skin: Flush with large amounts of water for 15 minutes. Launder clothing before reweaving. Inhalation: Remove to fresh air. If breathing is difficult, give oxygen. If breathing stops, give artificial respiration. If swallowed: Drink water to dilute. Induce vomiting. Get emergency medical treatment for ingestion of methanol.

### SECTION VI - REACTIVITY DATA

STABILITY	UNSTABLE		CONDITIONS TO AVOID Open flames and ignition sources
	STABLE	X	

INCOMPATIBILITY (Materials to avoid) Strong oxidizers such as hydrogen peroxide bromine, chromic acid

HAZARDOUS DECOMPOSITION PRODUCTS Carbon dioxide and probably carbon monoxide and sulfur oxides

HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID N/A
	WILL NOT OCCUR	X	

### SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED Eliminate source of ignition. Absorb with an inert material such as sand, soil or vermiculite; sweep up and dispose of in accordance with federal, state and local regulations.

WASTE DISPOSAL METHOD Disposal by incineration under controlled conditions or in chemical landfill. Dispose of in accordance with all applicable federal, state and local regulations.

### SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) In closed areas, use NIOSH approved organic vapor respirator.

VENTILATION	LOCAL EXHAUST X	SPECIAL Entering tanks or cleaning up spills, air supply recommended.
	MECHANICAL (General) Adequate to maintain TLV	

PROTECTIVE GLOVES Rubber or plastic, solvent resistant

EYE PROTECTION Chemical safety goggles

OTHER PROTECTIVE EQUIPMENT Neoprene protective type apron, eyewash station, showers

### SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING Store between 30°F and 120°F. Clean up any spills promptly. Protect exposed skin.

OTHER PRECAUTIONS Do not ingest.



U.S. DEPARTMENT OF LABOR  
Occupational Safety and Health Administration

# MATERIAL SAFETY DATA SHEET

DATE: 26 SEP 84

## SECTION I

Supplier's Name The Western Company of North America		EMERGENCY TELEPHONE NO. (817) 731-5100
ADDRESS (Number, Street, City, State, and ZIP Code) P. O. Box 186, Ft. Worth, TX 76101		
CHEMICAL NAME AND SYNONYMS Proprietary blend		TRADE NAME AND SYNONYMS SURFACTANT, FS-2
CHEMICAL FAMILY Surfactant	FORMULA W.I.N. 100167	

## SECTION IA HAZARDOUS MATERIAL CLASSIFICATION

D.O.T. PROPER SHIPPING NAME	Flammable liquid, n.o.s.
NAME OF HAZARDOUS COMPONENT	methanol
HAZARD CLASS	Flammable liquid
IDENTIFICATION NUMBER	UN 1993
D.O.T. LABEL(S) REQUIRED	Flammable liquid
PRECAUTIONARY LABEL	attached

## SECTION II - HAZARDOUS INGREDIENTS

	%	TLV (Units)
methanol: Rat oral LD <sub>50</sub> 12.88 g/kg, LC <sub>50</sub> 64,000 ppm 4 hours	30-35	300ppm
isopropanol	0-3	400ppm

## SECTION III - PHYSICAL DATA

BOILING POINT (°F.)	150°F	SPECIFIC GRAVITY (H <sub>2</sub> O=1) @ 60°F	0.960
VAPOR PRESSURE (mm Hg.)		PERCENT VOLATILE BY VOLUME (%)	35-40%
VAPOR DENSITY (AIR=1)		EVAPORATION RATE (_____ =1)	
SOLUBILITY IN WATER			
APPEARANCE AND ODOR Clear to amber, alcoholic odor			

## SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used) 62°F PMCC	FLAMMABLE LIMITS	LeI	UeI
EXTINGUISHING MEDIA CO <sub>2</sub> , dry chemicals, alcohol type foams			
SPECIAL FIRE FIGHTING PROCEDURES Dilution of burning liquid with 22 to 25 volumes of water will effect extinguish- ment. Wear self-contained breathing apparatus.			
UNUSUAL FIRE AND EXPLOSION HAZARDS Combustion products may contain hydrofluoric acid and must not be breathed.			

TRADE NAME: W.I.N. 100167, SURFACTANT, FS-2

### SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE
400 ppm (skin) - ACCIH (1975)
EFFECTS OF OVEREXPOSURE
None expected except for giddiness. Low toxicity. Approximately lethal dose = 17,000 mg/kg (rats).
EMERGENCY AND FIRST AID PROCEDURES
Skin: Wash with soap and water. Eyes: Flush with water for at least 15 min and call a physician. Inhalation: Move to fresh air. Ingestion: Induce vomiting and call a physician.

### SECTION VI - REACTIVITY DATA

STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	XXXX	Excessive heat, sparks and open flames.
INCOMPATIBILITY (Materials to avoid)			
Anhydride, isocyanate, monomer, and organometallic contamination.			
HAZARDOUS DECOMPOSITION PRODUCTS			
Carbon monoxide, carbon dioxide, hydrofluoric acid.			
HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID
	WILL NOT OCCUR	XXX	

### SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED
Eliminate all sources of ignition. Flush small spills to the sewer with water.
Large spills should be collected for disposal.
WASTE DISPOSAL METHOD
Dispose of in a sanitary landfill according to local, state and federal regulations

### SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type)		
Air supplied masks in closed area.		
VENTILATION	LOCAL EXHAUST	SPECIAL
	MECHANICAL (General)	OTHER
PROTECTIVE GLOVES	EYE PROTECTION	
Rubber	goggles	
OTHER PROTECTIVE EQUIPMENT		
Eye bath and safety shower		

### SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING
Keep away from heat, sparks and open flames. Keep container closed
OTHER PRECAUTIONS
Use with adequate ventilation. Do not take internally.

100137



**U.S. DEPARTMENT OF LABOR**  
Occupational Safety and Health Administration

## MATERIAL SAFETY DATA SHEET

Date: January 28, 1992

### SECTION I

SUPPLIER'S NAME The Western Company	EMERGENCY TELEPHONE NO. (817) 731-5433
ADDRESS (Number, Street, City, State and ZIP Code) 515 Post Oak Blvd., Houston, Texas 77027	
CHEMICAL NAME AND SYNONYMS Proprietary Blend	TRADE NAME AND SYNONYMS De-Emulsifier, I-5
CHEMICAL FAMILY	FORMULA W.I.N. 100137

### SECTION IA - HAZARDOUS MATERIAL CLASSIFICATION

D.O.T. PROPER SHIPPING NAME Flammable Liquid, Corrosive, N.O.S.	(RQ /1780 gallons)
NAME OF HAZARDOUS COMPONENT Methanol, Dehydroabietylamine	
HAZARD CLASS Flammable Liquid, Corrosive	
IDENTIFICATION NUMBER UN 2924	
D.O.T. LABEL(S) REQUIRED Flammable Liquid, Corrosive	
PRECAUTIONARY LABEL	

### SECTION II - HAZARDOUS INGREDIENTS

	%	TLV (Units)
Methanol (Skin) 67-56-1	< 35	200 ppm
Dehydroabietylamine	< 15	None established

### SECTION III - PHYSICAL DATA

BOILING POINT (°F)		SPECIFIC GRAVITY (H <sub>2</sub> O=1)	0.958
VAPOR PRESSURE (mm Hg) Estimated	< 5	PERCENT, VOLATILE BY VOLUME (%)	
VAPOR DENSITY (AIR=1)	> 1	EVAPORATION RATE (_____ -1)	
SOLUBILITY IN WATER	Dispersible	pH: 5% of product	12.7 - 13.7
APPEARANCE AND ODOR Amber to brown liquid with alcoholic odor			

### SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
EXTINGUISHING MEDIA Foam dry chemical, CO <sub>2</sub> , water fog or spray			
SPECIAL FIRE FIGHTING PROCEDURES Do not enter a fire area without proper protective equipment, including NIOSH/MSHA approved, self-contained breathing apparatus. Cool exposed containers with water spray.			
UNUSUAL FIRE AND EXPLOSION HAZARDS Material is flammable. Vapors are heavier than air and may travel along ground to ignition source and flash back. Never use welding or cutting torch on or near drums, even when empty. Explosion may result.			

TRADE NAME: W.I.N. 100137

### SECTION V - HEALTH HAZARD DATA

**THRESHOLD LIMIT VALUE**

**EFFECT:** = OVEREXPOSURE Inhalation: Material is corrosive. Inhalation of vapor may cause severe irritation of respiratory system. Eye

**Contact:** Eye contact may cause corneal damage resulting in permanently impaired vision. Skin Contact: Material is absorbed through skin and may cause systemic poisoning. Ingestion: May be harmful if ingested. See Attachment IXA.

**EMERGENCY AND FIRST AID PROCEDURES** Eye Contact: Flush eyes immediately with large amounts of water for at least 15 minutes.

Call a physician if irritation persists. Inhalation: Remove immediately to fresh air. Call a physician. If breathing is irregular or stopped, administer artificial respiration, and call a physician. Skin Contact: Immediately wash skin with large amounts of water while removing contaminated clothing and shoes. Contact a physician. Discard clothing and shoes. Ingestion: DO NOT induce vomiting. If conscious, drink large amounts of water and contact a physician.

### SECTION VI - REACTIVITY DATA

**STABILITY**

UNSTABLE

**CONDITIONS TO AVOID**

STABLE

X

Oxidizers, heat sparks or open flame

**INCOMPATIBILITY (Materials to avoid)** Oxidizers

**HAZARDOUS DECOMPOSITION PRODUCTS** Carbon Monoxide

**HAZARDOUS  
POLYMERIZATION**

MAY OCCUR

**CONDITIONS TO AVOID**

WILL NOT OCCUR

X

### SECTION VII - SPILL OR LEAK PROCEDURES

**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED** See Section IX

**WASTE DISPOSAL METHOD** See Section IX

### SECTION VIII - SPECIAL PROTECTION INFORMATION

**RESPIRATORY PROTECTION (Specify type)** As needed. If excursions above recommended level occur, half face organic vapor cartridge with dust/mist prefilter.

**VENTILATION**

LOCAL EXHAUST

SPECIAL

MECHANICAL (General)

X

OTHER

**PROTECTIVE GLOVES** Chemical resistant gloves

**EYE PROTECTION** Goggles

**OTHER PROTECTIVE EQUIPMENT**

499617

U.S. DEPARTMENT OF LABOR  
Occupational Safety and Health Administration



MATERIAL SAFETY DATA SHEET

Date: July 25, 1991

SECTION I

SUPPLIER'S NAME The Western Company	EMERGENCY TELEPHONE NO. (817) 731-5433
ADDRESS (Number, Street, City, State and ZIP Code) 515 Post Oak Blvd., Houston, Texas 77027	
CHEMICAL NAME AND SYNONYMS	TRADE NAME AND SYNONYMS I-8A
CHEMICAL FAMILY	FORMULA W.I.N. 499617

SECTION IA - HAZARDOUS MATERIAL CLASSIFICATION

D.O.T. PROPER SHIPPING NAME	Corrosive Liquid, n.o.s.	(RQ 200 lbs)	Thiourea
NAME OF HAZARDOUS COMPONENT	Hydrochloric Acid		
HAZARD CLASS	Corrosive		
IDENTIFICATION NUMBER	UN 1760		
D.O.T. LABEL(S) REQUIRED	Corrosive		
PRECAUTIONARY LABEL			

SECTION II - HAZARDOUS INGREDIENTS

	%	TLV (Units)	
Thiourea	62-56-6	1-5	None
Formaldehyde	50-00-0	< 1	1 ppm*
Orthotoluidine		< 1	2 ppm (skin)
Substituted Triazine		40-50	None
Hydrochloric Acid		> 15	C-5 ppm

SECTION III - PHYSICAL DATA

BOILING POINT (°F)	> 212°F	SPECIFIC GRAVITY (H <sub>2</sub> O=1)	1.06-1.08
VAPOR PRESSURE (mm Hg)		PERCENT. VOLATILE BY VOLUME (%)	
VAPOR DENSITY (AIR=1)		EVAPORATION RATE (_____ = 1)	
SOLUBILITY IN WATER	Complete		
APPEARANCE AND ODOR	Aromatic odor		

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS	Lel	Uel
EXTINGUISHING MEDIA	Carbon dioxide, water, foam or dry chemical			
SPECIAL FIRE FIGHTING PROCEDURES	Wear positive pressure self-contained breathing apparatus and full protective clothing.			
UNUSUAL FIRE AND EXPLOSION HAZARDS				
None				

## SECTION V - HEALTH HAZARD DATA

## THRESHOLD LIMIT VALUE

EFFECTS OF OVEREXPOSURE Inhalation: Inhalation of mist can cause injury (burns) to the respiratory tract. Ingestion: Toxic. Can cause shock and loss of consciousness. May be fatal if swallowed. Eyes: Contact with eyes can cause burns and eye damage. Skin: Contact with skin can cause burns. May cause allergic skin reaction/dermatitis. Chronic: Contains O-Toluidine - may cause cyanosis, abnormal blood forming system function with anemia or red blood cell destruction. CARCINOGENICITY: Formaldehyde: Listed by the International Agency for Research of Cancer as a probable carcinogen to humans on the basis of animal evidence, but human data is inadequate (IARC Group 2B). Listed by the National Toxicology Program as reasonably anticipated to be carcinogenic. Listed by ACGIH as an A2 Industrial Substance Suspect of Carcinogenic Potential for Man. O-Toluidine: Listed by the International Agency for Research on Cancer (IARC Group 2A) as a probable carcinogen to humans on the basis of at least limited human data. Listed by the National Toxicology Program as reasonably anticipated to be carcinogenic. Listed by the ACGIH as an Industrial Substance of Carcinogenic Potential for Man. Thiourea: Listed by the International Agency for Research on Cancer (IARC Group 2B). Listed by the National Toxicology Program (NTP) as an anticipated human carcinogen.

EMERGENCY AND FIRST AID PROCEDURES Eyes: Immediately flush eyes in a directed stream of water for at least 15 minutes while forcibly holding eyelids apart to ensure complete irrigation of all eye and lid tissue. GET MEDICAL ATTENTION. Skin: Immediately remove contaminated clothing and shoes. Flush skin thoroughly with water for at least 15 minutes. Rinse clothing. If irritation persists, GET MEDICAL ATTENTION. Ingestion: DO NOT INDUCE VOMITING. GET MEDICAL ATTENTION. (Medical personnel - use cautious lavage to avoid aspiration.) Inhalation: Remove to fresh air and remove contaminated clothing. If breathing is difficult, administer oxygen. If respiration stops, give mouth to mouth resuscitation. GET MEDICAL ATTENTION.

## SECTION VI - REACTIVITY DATA

STABILITY	UNSTABLE		CONDITIONS TO AVOID    Keep from freezing.
	STABLE	X	
INCOMPATIBILITY (Materials to avoid)            Alkalies, strong oxidizing agents			
HAZARDOUS DECOMPOSITION PRODUCTS			
HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID    None known.
	WILL NOT OCCUR	X	

## SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED	Wear protective clothing. Dike to contain spill. Absorb or otherwise collect spill and place in suitable drum for disposal.
WASTE DISPOSAL METHOD	Either incinerate or put in a landfill with approval of regulatory agency.

## SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type)		
VENTILATION	LOCAL EXHAUST X	SPECIAL
	MECHANICAL (General)	OTHER
PROTECTIVE GLOVES	Neoprene or polyvinyl gloves and appropriate protective clothing	
EYE PROTECTION	Chemical goggles or face shield	
OTHER PROTECTIVE EQUIPMENT	NIOSH approved respirator where TLV/PEL may be exceeded. Eye wash station should be in close proximity.	

## SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING	Protect from freezing. Do not get in eyes, on skin or clothing. Material is toxic.
Use with adequate ventilation. Avoid breathing vapors.	
OTHER PRECAUTIONS	Wash thoroughly after handling. For industrial use only.

499 618



U.S. DEPARTMENT OF LABOR  
Occupational Safety and Health Administration

# MATERIAL SAFETY DATA SHEET

DATE: 17FEB86

## SECTION I

Supplier's Name The Western Company of North America		EMERGENCY TELEPHONE NO. (817) 731-5100
ADDRESS (Number, Street, City, State, and ZIP Code) P. O. Box 186, Ft. Worth, TX 76101		
CHEMICAL NAME AND SYNONYMS Acetylenic alcohols, amine quats, methanol	TRADE NAME AND SYNONYMS INHIBITOR, acid, I-10D	
CHEMICAL FAMILY amines and acetylenic alcohols	FORMULA	W.I.N. 499618

## SECTION IA - HAZARDOUS MATERIAL CLASSIFICATION

D.O.T. PROPER SHIPPING NAME	flammable liquid, corrosive, n.o.s.
NAME OF HAZARDOUS COMPONENT	methanol, acetylenic alcohols, organic amines
HAZARD CLASS	Flammable Liquid, Corrosive
IDENTIFICATION NUMBER	UN2924
D.O.T. LABEL(S) REQUIRED	Flammable liquid and corrosive
PRECAUTIONARY LABEL	Attached

## SECTION II - HAZARDOUS INGREDIENTS

	%	TLV (Units)
methanol	65	ppm 200
propargyl alcohol		1
formamide		20
heavy aromatic naptha - 100 ppm; ethyl octynol - 1 ppm; isopropanol		400

## SECTION III - PHYSICAL DATA

BOILING POINT (°F.)	192	SPECIFIC GRAVITY (H <sub>2</sub> O=1) (@ 25°C)	0.800
VAPOR PRESSURE (mm Hg.) (MeOH @ 21.2°C)	100	PERCENT. VOLATILE BY VOLUME (%)	80
VAPOR DENSITY (AIR=1)	1.20	EVAPORATION RATE (n-octylac = 1)	2.07
SOLUBILITY IN WATER	dispersible		
APPEARANCE AND ODOR	dark brown liquid, pine odor		

## SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used) 52°F PMCC, ASTM D93-73	FLAMMABLE LIMITS	Lim	Ulm
EXTINGUISHING MEDIA CO <sub>2</sub> , alcohol foam, dry chemical			
SPECIAL FIRE FIGHTING PROCEDURES Use water spray to cool fire-exposed surfaces and to protect personnel.			
UNUSUAL FIRE AND EXPLOSION HAZARDS Respiratory protection required. Full body protection needed if fumes, mist or liquid may be contacted.			

TRADE NAME: W.I.N. 499618 INHIBITOR, acid, I-10D

499618

### SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE ethyl octynol - 1 ppm -  
 propargyl alcohol, formamide, methanol, naphtha, isopropanol (1,20,200,100,400 ppm)  
 EFFECTS OF OVEREXPOSURE  
 anesthesia, nausea, headache, dizziness, blindness, convulsions, death - may be fatal if  
 eye contact - permanent blindness -  
 inhaled/absorbed via skin - severe irritant to skin - chronic: liver, lung, kidney  
 EMERGENCY AND FIRST AID PROCEDURES  
 flush skin and eyes with water for 15 min and remove to fresh air - call a doctor;  
 artificial respiration: if swallowed, induce vomiting if victim is conscious -  
 100-200 ml usually fatal; no known antidote - treat symptoms

### SECTION VI - REACTIVITY DATA

STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	X	Conditions - open flames, sparks, heat
INCOMPATIBILITY (Materials to avoid)			
strong oxidizers, mineral acids, olefins, esters, alkylene oxides, cyanohydrides			
HAZARDOUS DECOMPOSITION PRODUCTS Does not decompose unless burned, but vapors are very toxic.			
Decomposes, when burned, into HCl acid and toxic smoke and fumes			
HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID
	WILL NOT OCCUR	X	

### SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED  
 eliminate ignition sources; keep public away - vapors can be fatal; avoid contact  
 and evacuate occupants from downwind areas; prevent from entering sewers, water sources, low  
 areas - advise authorities of contact with sewer, water, soil, vegetation  
 WASTE DISPOSAL METHOD DANGER!  
 contain liquid with sand/earth; recover by pumping or with suitable absorbent -  
 consult expert on disposal

### SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type)		
Use NIOSH/MSHA approved self-contained or respirator with amine cartridges.		
VENTILATION	LOCAL EXHAUST	SPECIAL
	greater than 60 fpm hood/face velocity	explosion proof
	MECHANICAL (General)	OTHER
	equal to outdoors	N/A
PROTECTIVE GLOVES	rubber	EYE PROTECTION
		splash goggles
OTHER PROTECTIVE EQUIPMENT		
chemical-resistant suit and boots		

### SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING  
 close container when not in use - containers hazardous when empty - observe all  
 precautions given in this sheet - wear protective equipment  
 OTHER PRECAUTIONS  
 keep away from heat, sparks, flames - contains acetylenic alcohols, no known  
 antidote - permanent blindness

RECEIVED  
APR 07 1995

R-6 (01/86)

INTEROFFICE CORRESPONDENCE

RESEARCH AND  
FACILITIES CONSTRUCTION

TO: Jim Johnson AT: Houston - Safety & Reg. Compliance  
FROM: Marek Pakulski AT: The Woodlands - CTD  
APPROVAL: B. Hall DATE: 3/24/95  
RE: Safety Information Update

This is to inform you of revisions, additions, deletions or replacement of products or chemicals and the relevant safety data.

Western Trade Name: CL-31

W.I.N.: 499647

Chemical Name (if not trade named): Crosslinker, boron compound

Addition X Revision      Replacement      Deletion      to product line  
Western Product X Western System       
Cementing      Stimulation X

DOT Proper Shipping Name & I.D. Number (SPM-04-02): Not regulated  
DOT Hazardous Material Class: Not regulated  
DOT Hazardous Material Label: Not regulated

Chemical Storage Class (SPM-04-01): II.1

EPA Hazardous Waste Classification: Ignitable waste  
Reportable Quantity: N/A  
Material Safety Data Sheet: Attached Date: March 21, 1995  
On File at Research X

cc: REFC (Angela Hardy)  
Product Specification File (original)  
Fort Worth Warehouse (James Box)

Attachments: MSDS  
Label  
Precautionary Statement

Note: If deletion, attach copy of page(s) to be deleted, write deleted across the page(s) attached.

Confidential Proprietary Information  
The Western Company of North America

# MATERIAL SAFETY DATA SHEET

Page 1

MSDS NUMBER : 499647  
PRODUCT NAME: CL-31

MSDS ID CODE : N/D  
PART NUMBER(S) : N/D

## Section I General Information

PRODUCT NAME .....: CL-31  
SYNONYMS .....: CROSSLINKER, AQUEOUS  
ADDRESS .....: 515 POST OAK BLVD., SUITE 1200  
CITY .....: HOUSTON STATE ...:TX ZIP ...:77027  
EMERGENCY PHONE ...: I-800-732-9876  
OTHER CALLS .....: (713) 629-2600  
VENDOR .....: THE WESTERN COMPANY OF NORTH AMERICA  
MSDS PREPARED BY ..  
DATE PREPARED .....: 09/08/93

## Section II Hazardous Ingredients/Identity Information

INGREDIENT NAME CAS NUMBER	PERCENTAGE	EXPOSURE LIMITS
PARAFFINIC HYDROCARBONS 64742-46-7	66-76	OSHA PEL : NOT EST ACGIH TLV: NOT EST OTHER : N/D

## Section III Physical/Chemical Characteristics

BOILING POINT 430-550 °F.	MELTING POINT N/A	FREEZING POINT <0 °F.
EVAPORATION RATE BASIS (N/D) )=1 RATE: N/D	VAPOR DENSITY (AIR=1) 6.2	SPECIFIC GRAVITY (WATER=1) 0.91
PERCENT VOLATILE BY VOLUME N/D	THEORETICAL VOC CONTENT PERCENT BY WEIGHT N/D	WEIGHT PER GALLON N/D
pH INFORMATION pH VALUE: N/D CONCENTRATION: N/D	PHYSICAL STATE STATE: N/D	VAPOR PRESSURE VALUE: 0.4 MM Hg



WIN 499647

# CL-31

**DELAYED  
BORATE  
CROSSLINKER**

Flash Point: >200°F (>95°C)  
Net Content: 470 pounds (213 kg)  
55 gallons (208 L)

Manufactured for:

## THE WESTERN COMPANY OF NORTH AMERICA

515 Post Oak Blvd., Houston, Texas 77027

Emergency Telephone: 1-800-732-9876

D.O.T. SHIPPING NAME:

**NOT REGULATED**  
**(CONTAINS PARAFFINIC HYDROCARBONS)**  
**DOT LABEL: NOT REQUIRED**

### DIRECTIONS:

For Proper Use, Refer to Service Bulletin No.(s): 366.5 and 373.5 WG  
**FOR INDUSTRIAL USE ONLY**

### CAUTION!

EYE AND SKIN IRRITANT. INHALATION OF VAPORS MAY BE IRRITATING. AVOID CONTACT WITH STRONG OXIDIZERS. DO NOT GET IN EYES, ON SKIN OR CLOTHING. AVOID BREATHING VAPORS. USE WITH ADEQUATE VENTILATION. DO NOT TAKE INTERNALLY.

**DO NOT ALLOW MOISTURE INTO THE PRODUCT  
MIX THOROUGHLY BEFORE USE**

**HANDLING: Employees MUST WEAR chemical goggles, rubber apron, and rubber or neoprene gloves**

#### FIRE:

Use water spray, foam, dry chemical or carbon dioxide to extinguish fire. Full protective clothing and NIOSH/MSHA approved self-contained breathing apparatus required for fire fighting personnel. May produce toxic gases in fire.

#### SPILL OR LEAK ACTION:

Use required protective equipment. Contain and absorb spill with an inert material. Scoop up and remove. Get approval prior to shipping absorbed material to a landfill.

#### CONTAINER DISPOSITION:

If container retains product residues, all label precautions must be observed. Store container with closures in place. Offer empty container for reconditioning or disposal. Ensure reconditioner or recycler is aware of the properties of the contents.

#### FIRST AID:

**FOR EYES:** Immediately flush with plenty of water for at least 15 minutes while holding eyelids open. Get medical attention.

#### FOR SKIN:

Flush with plenty of water and soap for at least 15 minutes. Remove contaminated clothing and shoes. Consult a physician if chemical causes burns or irritation.

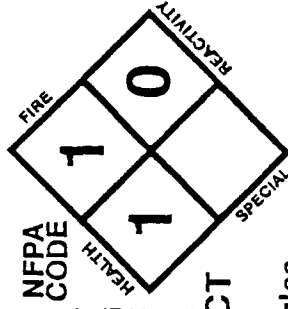
#### INHALATION:

Remove to fresh air. IF NOT BREATHING, give artificial respiration, preferably mouth-to-mouth. If breathing is difficult, give oxygen. Seek prompt medical attention.

#### FOR INGESTION:

DO NOT induce vomiting. Immediately give two glasses of water. Seek prompt medical attention.

Refer to MSDS for Safety Requirements.



499655



**U.S. DEPARTMENT OF LABOR**  
Occupational Safety and Health Administration

# MATERIAL SAFETY DATA SHEET

DATE: August 17, 1990

## SECTION I

Supplier's Name The Western Company of North America		EMERGENCY TELEPHONE NO. (817) 731-5100
ADDRESS (Number, Street, City, State, and ZIP Code) P. O. Box 186, Ft. Worth, TX 76101		
CHEMICAL NAME AND SYNONYMS		TRADE NAME AND SYNONYMS I-22
CHEMICAL FAMILY Surfactant Blend	FORMULA Proprietary	W.I.N. 499655

## SECTION IA HAZARDOUS MATERIAL CLASSIFICATION

D.O.T. PROPER SHIPPING NAME	Flammable liquid (n.o.s.)	(RQ / )
NAME OF HAZARDOUS COMPONENT	Methanol	
HAZARD CLASS	Flammable liquid	
IDENTIFICATION NUMBER	UN 1993	
D.O.T. LABEL(S) REQUIRED	Flammable	
PRECAUTIONARY LABEL	Flammable	

## SECTION II - HAZARDOUS INGREDIENTS

	%	TLV (Units)
Methanol (67561)	15-25	200 ppm
Heavy Aromatic Naptha (64742945)	3-6	100 ppm

## SECTION III - PHYSICAL DATA

BOILING POINT (°F.)	ND	SPECIFIC GRAVITY (H <sub>2</sub> O=1)	0.94
VAPOR PRESSURE (mm Hg.)	ND	PERCENT VOLATILE BY VOLUME (%)	25
VAPOR DENSITY (AIR=1)	ND	EVAPORATION RATE (_____ =1)	ND
SOLUBILITY IN WATER	Dispersible		
APPEARANCE AND ODOR	Dark liquid with methanol/alkyl amine odor		

## SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used) 62°F (PMCC)	FLAMMABLE LIMITS	Lel 6.7	Uel 20.0
EXTINGUISHING MEDIA Foam, dry chemical, CO <sub>2</sub> , water spray.			
SPECIAL FIRE FIGHTING PROCEDURES Water spray may be used to cool fire exposed metal containers to prevent re-ignition from hot surfaces. Do not breathe smoke or hot fumes.			
UNUSUAL FIRE AND EXPLOSION HAZARDS None known			

## SECTION V - HEALTH HAZARD DATA

## THRESHOLD LIMIT VALUE

## EFFECTS OF OVEREXPOSURE

Eyes - irritation, burning, itching and pain. Skin contact - irritation, redness.

Inhalation - may cause nausea, vomiting. Ingestion - nausea, vomiting, light headedness.

## EMERGENCY AND FIRST AID PROCEDURES

Eyes - flush copiously with water immediately for 15-20 min. Get medical treatment.

Skin contact - wash with soap and water. Remove clothing and launder before reuse.

Inhalation - remove from exposure. Control delirium, avoid respiratory delirium.

Ingestion - drink water to dilute. Induce vomiting. Get emergency medical treatment for ingestion of methanol.

## SECTION VI - REACTIVITY DATA

## STABILITY

UNSTABLE

## CONDITIONS TO AVOID

Open flames

STABLE

X

## INCOMPATIBILITY (Materials to avoid)

Strong oxidizers, mineral acids.

## HAZARDOUS DECOMPOSITION PRODUCTS

Oxides of carbon and nitrogen.

HAZARDOUS  
POLYMERIZATION

MAY OCCUR

## CONDITIONS TO AVOID

N/A

WILL NOT OCCUR

X

## SECTION VII - SPILL OR LEAK PROCEDURES

## STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Stop the flow of liquid, eliminate sources of ignition. Dike or prevent spreading

of liquid. Vacuum up. Absorb or scrape up contaminated soil and place into container for later disposal.

## WASTE DISPOSAL METHOD

Dispose waste by incineration under controlled conditions or put in chemical landfill.

## SECTION VIII - SPECIAL PROTECTION INFORMATION

## RESPIRATORY PROTECTION (Specify type)

In closed areas, use NIOSH approved organic vapor respirator.

## VENTILATION

## LOCAL EXHAUST

Recommended

## SPECIAL

## MECHANICAL (General)

With explosion proof circuits

## OTHER

## PROTECTIVE GLOVES

Neoprene

## EYE PROTECTION

Safety goggles

## OTHER PROTECTIVE EQUIPMENT

Eye wash stations, ample water supply, showers, protective clothing.

## SECTION IX - SPECIAL PRECAUTIONS

## PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Store in cool, dry area. Ground containers and lines during transfer to eliminate static electricity.

## OTHER PRECAUTIONS

Do not ingest.

100193



U.S. DEPARTMENT OF LABOR  
Occupational Safety and Health Administration

# MATERIAL SAFETY DATA SHEET

DATE: 26 SEP 84

## SECTION I

Supplier's Name The Western Company of North America		EMERGENCY TELEPHONE NO. (817) 731-5100
ADDRESS (Number, Street, City, State, and ZIP Code) P. O. Box 186, Ft. Worth, TX 76101		
CHEMICAL NAME AND SYNONYMS Proprietary blend		TRADE NAME AND SYNONYMS SURFACTANT, LT-5
CHEMICAL FAMILY Surfactant	FORMULA W.I.N. 100193	

## SECTION IA HAZARDOUS MATERIAL CLASSIFICATION

D.O.T. PROPER SHIPPING NAME	Flammable liquid, n.o.s.
NAME OF HAZARDOUS COMPONENT	Isopropanol
HAZARD CLASS	Flammable liquid
IDENTIFICATION NUMBER	UN1993
D.O.T. LABEL(S) REQUIRED	Flammable liquid
PRECAUTIONARY LABEL	Attached

## SECTION II - HAZARDOUS INGREDIENTS

	%	TLV (Units)
Isopropanol	16-18	400 ppm

## SECTION III - PHYSICAL DATA

BOILING POINT (°F.)	163	SPECIFIC GRAVITY (H <sub>2</sub> O=1)	0.996
VAPOR PRESSURE (mm Hg.)	IPA & H <sub>2</sub> O	PERCENT VOLATILE BY VOLUME (%)	46.50
VAPOR DENSITY (AIR=1)	IPA & H <sub>2</sub> O	EVAPORATION RATE	(=1)
SOLUBILITY IN WATER	soluble		
APPEARANCE AND ODOR	light yellow to white, clear liquid; mild alcoholic odor		

## SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used) 79°F (PMCC)	FLAMMABLE LIMITS	LeI	Uel
		Not determined	
EXTINGUISHING MEDIA Water spray, dry chemical carb on dioxide, alcohol foam			
SPECIAL FIRE FIGHTING PROCEDURES Dilute rapidly with large quantities of water.			
UNUSUAL FIRE AND EXPLOSION HAZARDS No unusual hazards.			

TRADE NAME: W.I.N. 100193, SURFACTATN, LT-5

### SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

Not determined

EFFECTS OF OVEREXPOSURE

Liquid is irritating to eyes. May be harmful if swallowed or absorbed through skin.

EMERGENCY AND FIRST AID PROCEDURES

Flush eyes for 15 min. and get medical attention. Wash skin thoroughly with soap and water and get medical attention if irritation or redness develops. Launder clothes before reuse. If ingested, vomiting may be induced.

### SECTION VI - REACTIVITY DATA

STABILITY

UNSTABLE

CONDITIONS TO AVOID

Keep away from heat, sparks, and open flames.

STABLE

X

INCOMPATIBILITY (Materials to avoid)

Acidic conditions, quaternary ammonium compounds.

HAZARDOUS DECOMPOSITION PRODUCTS

None

HAZARDOUS  
POLYMERIZATION

MAY OCCUR

CONDITIONS TO AVOID

Keep away from heat, sparks, and open

WILL NOT OCCUR

X

flames.

### SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Extinguish all sources of ignition. Wash down with water or soak up on sand and dispose of in an approved industrial waste landfill. Do not wash down with water where runoff will contaminate important water sources.

WASTE DISPOSAL METHOD

Incinerate in an incinerator equipped with an afterburner and scrubber or bury in an approved industrial landfill.

### SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type)

None required in normal use.

VENTILATION

LOCAL EXHAUST

SPECIAL

If used at high temperatures

MECHANICAL (General)

OTHER

Satisfactory

PROTECTIVE GLOVES

Rubber

EYE PROTECTION

Face shield or goggles

OTHER PROTECTIVE EQUIPMENT

Rubber boots and apron, if possibility of contact during use exists.

### SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Avoid contact with eyes, skin and clothing. Avoid breathing vapors. Store away from heat, sparks, and open flames. Do not use at extremely low or high pH for best product quality.

OTHER PRECAUTIONS

Do not transfer to improperly marked containers. Keep container closed when not in use.



**Western Petroleum Services**

W.I.N. 100193

**LT-5**

**SPECIAL WETTING AGENT**

**DE-EMULSIFIER**

Flash Point: 79°F PHCC  
Net Content: 457 lb(208 kg)  
55 gal(208 L) @ 77°F

**DIRECTIONS:**

For Proper Use, Refer to Service Bulletin No.(s) 547.0MG

**SPECIFIC USAGE:**

Use at the rate of 1 to 5 gallons per 1000 gallons of hydrochloric acid, fresh water or brine.

NOTE: LT-5 is anionic.

**When Handling This Product Employees MUST WEAR:**

Chemical goggles, plastic apron and rubber gloves

**FOR INDUSTRIAL USE ONLY**

**DANGER!**

**FLAMMABLE LIQUID!** Do not use near heat, sparks or open flame.  
**MAY CAUSE IRRITATION OF THE SKIN AND EYES.** Avoid contact with eyes  
Avoid prolonged or repeated contact with skin. Avoid prolonged inhalation of vapors.

**ATTENTION:** After this container has been emptied, it may contain flammable and toxic liquid or vapor; observe all warnings and precautions listed for this product. Do not cut, puncture or weld on or near this container.

Refer to MSDS and SPM-04-04 for Safety Requirements.

**The Western Company of North America**

Batch no.

**P.O. BOX 186 • FORT WORTH, TEXAS 76101**



U.S. DEPARTMENT OF LABOR  
Occupational Safety and Health Administration

# MATERIAL SAFETY DATA SHEET

DATE: 14JUN85

## SECTION I

Supplier's Name The Western Company of North America		EMERGENCY TELEPHONE NO. (817) 731-5100
ADDRESS (Number, Street, City, State, and ZIP Code) P. O. Box 186, Ft. Worth, TX 76101		
CHEMICAL NAME AND SYNONYMS Proprietary blend		TRADE NAME AND SYNONYMS SUSPENDING AGENT, LT-21
CHEMICAL FAMILY ethoxylated fatty compounds	FORMULA W.I.N.100138	

## SECTION IA HAZARDOUS MATERIAL CLASSIFICATION

D.O.T. PROPER SHIPPING NAME	Flammable liquid, n.o.s.
NAME OF HAZARDOUS COMPONENT	methanol
HAZARD CLASS	Flammable liquid
IDENTIFICATION NUMBER	UN 1993
D.O.T. LABEL(S) REQUIRED	Flammable liquid
PRECAUTIONARY LABEL	attached

## SECTION II - HAZARDOUS INGREDIENTS

	%	TLV (Units)
methanol 4154	20	200ppm

## SECTION III - PHYSICAL DATA

BOILING POINT (°F.)	162°F	SPECIFIC GRAVITY (H <sub>2</sub> O=1) @ 60°F	1.06
VAPOR PRESSURE (mm Hg.)		PERCENT VOLATILE BY VOLUME (%)	30
VAPOR DENSITY (AIR=1)		EVAPORATION RATE (_____ =1)	
SOLUBILITY IN WATER	soluble		
APPEARANCE AND ODOR Clear amber liquid; odor of varnish			

## SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used) 54°F (PMCC)	FLAMMABLE LIMITS	LeI	UeI
EXTINGUISHING MEDIA Dry chemical, carbon dioxide, alcohol foam			
SPECIAL FIRE FIGHTING PROCEDURES Addition of water will reduce the intensity of the flame.			
UNUSUAL FIRE AND EXPLOSION HAZARDS			

TRADE NAME: W.I.N.100138,SUSPENDING AGENT, LT-21

### SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE  
200 ppm for methanol

EFFECTS OF OVEREXPOSURE  
Swallowing the liquid causes inebriation, headache, nausea, and vomiting leading to severe illness, blindness or perhaps death.

#### EMERGENCY AND FIRST AID PROCEDURES

Skin: flush with plenty of water. Eyes: flush with water and get medical attention

Inhalation: remove to fresh air and give artificial respiration. If breathing has stopped, call a physician. If swallowed, induce vomiting at once. Then give 2 tablespoons of baking soda in a glass of water. Call a physician.

### SECTION VI - REACTIVITY DATA

#### STABILITY

UNSTABLE

#### CONDITIONS TO AVOID

Sparks, heat and fires.

STABLE

XXX

#### INCOMPATIBILITY (Materials to avoid)

#### HAZARDOUS DECOMPOSITION PRODUCTS

#### HAZARDOUS POLYMERIZATION

MAY OCCUR

#### CONDITIONS TO AVOID

WILL NOT OCCUR

XXX

### SECTION VII - SPILL OR LEAK PROCEDURES

#### STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Eliminate all sources of ignition. Flush spilled material with large volumes of water. Dike large spills and dump to salvage tank.

#### WASTE DISPOSAL METHOD

Incinerator.

### SECTION VIII - SPECIAL PROTECTION INFORMATION

#### RESPIRATORY PROTECTION (Specify type)

Self-contained breathing apparatus

#### VENTILATION

LOCAL EXHAUST

Preferred

SPECIAL

MECHANICAL (General)

Acceptable

OTHER

#### PROTECTIVE GLOVES

Impervious gloves

#### EYE PROTECTION

Chemical safety goggles or face shield

#### OTHER PROTECTIVE EQUIPMENT

Impervious apron and boots; eye bath and safety shower

### SECTION IX - SPECIAL PRECAUTIONS

#### PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

May be fatal or cause blindness if swallowed. Keep away from heat, sparks and fires. Do not leave container open.

#### OTHER PRECAUTIONS



## DIRECTIONS:

For Proper Use, Refer to Service Bulletin No.(s) 85.0, 721.0

**SPECIFIC USAGE:** Use at a concentration of 1 to 10 gallons per 1000 gallons of acid.

**When Handling This Product Employees MUST WEAR:** Chemical safety goggles or face shield, impervious gloves, impervious boots and apron.

## FOR INDUSTRIAL USE ONLY WARNING

**MAY BE FATAL OR CAUSE BLINDNESS IF SWALLOWED.**

Keep away from heat, sparks and open flames.

**FIRST AID:** Swallowing the liquid causes inebriation, headache, nausea and vomiting, leading to severe illness, blindness or even death. Skin: flush with plenty of water. Eyes: flush with water and get medical attention. Inhalation: remove to fresh air and give artificial respiration. If breathing has stopped call a physician. If swallowed, induce vomiting at once. Then give 2 tablespoons of baking soda in a glass of water. Call a physician.

**SPILL OR LEAK:** Eliminate all sources of ignition. Flush spilled material with large volumes of water. Dike large spills and dump to salvage tank. Incinerate.

**FIRE FIGHTING:** Self-contained breathing apparatus and protective clothing. Dry chemical, carbon dioxide, alcohol foam.

Refer to MSDS and SPM-04-04 for Safety Requirements.

W.I.N. 100138

LT-21

## SILT SUSPENDING AGENT

Flash Point: 54°F(12°C) PMCC

Net Content: 466 lb(212 kg)

54 gal(204 L) @ 77°F

Manufactured for:

# The Western Company of North America

P.O. BOX 186 • FORT WORTH, TEXAS 76101

Emergency Telephone: (817) 731-5100  
(817) 731-5433

batch no.

\*\*\*\*\*D.O.T. PROPER SHIPPING NAME: Flammable liquid, n.o.s., contains methanol (UN1993) \*\*\*\*\*

100144



**U.S. DEPARTMENT OF LABOR**  
Occupational Safety and Health Administration

**MATERIAL SAFETY DATA SHEET**

✓

Date: 12/2/92

**SECTION I**

SUPPLIER'S NAME The Western Company

EMERGENCY TELEPHONE NO. 1-800-732-9876

ADDRESS (Number, Street, City, State and ZIP Code) 515 Post Oak Blvd., Houston, Texas 77027

CHEMICAL NAME AND SYNONYMS Proprietary Blend

TRADE NAME AND SYNONYMS LT-25

CHEMICAL FAMILY Surfactant

FORMULA N/A

W.I.N. 100144

**SECTION 1A - HAZARDOUS MATERIAL CLASSIFICATION**

D.O.T. PROPER SHIPPING NAME Combustible liquid, n.o.s.

(RQ N/A / )

NAME OF HAZARDOUS COMPONENT Isopropanol

HAZARD CLASS Combustible liquid

IDENTIFICATION NUMBER NA 1993 PGIII

D.O.T. LABEL(S) REQUIRED None

PRECAUTIONARY LABEL Attached

**SECTION II - HAZARDOUS INGREDIENTS**

	%	TLV (Units)
Isopropanol [67-63-07]	5 - 15	400 ppm

**SECTION III - PHYSICAL DATA**

BOILING POINT (°F)	182	SPECIFIC GRAVITY (H <sub>2</sub> O=1)	1.01
VAPOR PRESSURE (mm Hg)	No data	PERCENT. VOLATILE BY VOLUME (%)	77 - 78
VAPOR DENSITY (AIR=1)	No data	EVAPORATION RATE (_____ -1)	N/A
SOLUBILITY IN WATER at 25°C	Soluble		

APPEARANCE AND ODOR Amber liquid, alcoholic odor

**SECTION IV - FIRE AND EXPLOSION HAZARD DATA**

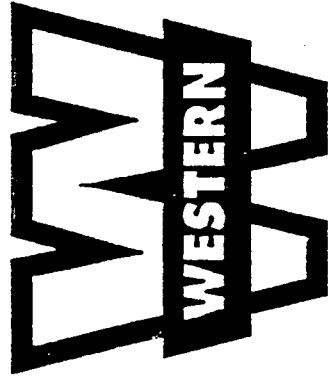
FLASH POINT (Method used) 98°F PMCC	FLAMMABLE LIMITS	N/A	Lel	N/A	Uel
EXTINGUISHING MEDIA Dry chemical or water spray or water fog or CO <sub>2</sub> , or Foam, or Sand/Earth.					
SPECIAL FIRE FIGHTING PROCEDURES Fire fighters must be equipped to prevent breathing of vapors or products of combustion. Wear an approved self-contained breathing apparatus and protective clothing.					
UNUSUAL FIRE AND EXPLOSION HAZARDS None					

Isopropanol - Flammable

100144

TRADE NAME: W.I.N. 100144

SECTION V - HEALTH HAZARD DATA			
THRESHOLD LIMIT VALUE Isopropyl alcohol, 400 ppm, 980 mg/m <sup>3</sup> /OSHA/ACGIH - STEL 500 ppm 1225 mg/m <sup>3</sup> /OSHA/ACGIH)			
EFFECTS OF OVEREXPOSURE Irritation of eyes, nose, throat, headache, nausea and dizziness. The liquid can defat the skin, producing a dermatitis characterized by drying and fissuring.			
EMERGENCY AND FIRST AID PROCEDURES EYES: Immediately flush with large quantities of water for at least 15 minutes and call a physician. SKIN: Flush with large amounts of water for 15 minutes. INHALATION: Remove to fresh air and if victim is not breathing, give artificial respiration. Call a physician. IF SWALLOWED: Contact a physician immediately.			
SECTION VI - REACTIVITY DATA			
STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	X	
INCOMPATIBILITY (Materials to avoid) Strong oxidizers such as hydrogen, peroxide bromine and chromic acid			
HAZARDOUS DECOMPOSITION PRODUCTS carbon monoxide, carbon dioxide, oxides of sulfur			
HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID
	WILL NOT OCCUR	X	
SECTION VII - SPILL OR LEAK PROCEDURES			
STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED Absorb with an inert material such as sand, soil or vermiculite; sweep up and dispose of in accordance with federal, state and local regulations.			
WASTE DISPOSAL METHOD Dispose of in accordance with all applicable federal, state and local regulations.			
SECTION VIII - SPECIAL PROTECTION INFORMATION			
RESPIRATORY PROTECTION (Specify type) NIOSH/MSHA certified respirator - with organic cartridge.			
VENTILATION	LOCAL EXHAUST		SPECIAL
	MECHANICAL (General) X		OTHER
PROTECTIVE GLOVES Rubber or plastic, solvent resistant			
EYE PROTECTION Chemical safety goggles			
OTHER PROTECTIVE EQUIPMENT Neoprene protective type apron			
SECTION IX - SPECIAL PRECAUTIONS			
PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING Store between 30°F and 100°F. Keep container closed, do not store near a source of ignition.			
OTHER PRECAUTIONS Use NIOSH/MSHA certified respirator with organic vapor cartridge if vapor concentration exceeds permissible exposure limit.			



WIN 100144

LT-25

ACID  
RETARDER

Flash Point: 98°F (37°C)  
Net Content: 451 pounds (204.5 kg)  
53.5 gallons (202.5 L)

Manufactured for:

**THE WESTERN COMPANY OF NORTH AMERICA**

515 Post Oak Blvd., Houston, Texas 77027

Emergency Telephone: 1-800-732-9876

D.O.T. SHIPPING NAME:

**Combustible Liquid, n.o.s.  
(CONTAINS ISOPROPANOL)**

**NA 1993**

DOT LABEL: NOT REQUIRED

## DIRECTIONS:

For Proper Use, Refer to Service Bulletin No.(s): 170.0WG, 537.0WG

**FOR INDUSTRIAL USE ONLY**

## CAUTION!

COMBUSTIBLE. MAY CAUSE IRRITATION TO SKIN AND EYES. DO NOT USE, STORE SPILL OR POUR NEAR HEAT, SPARKS OR OPEN FLAME. AVOID PROLONGED OR REPEATED BREATHING OF VAPORS. USE WITH ADEQUATE VENTILATION. DO NOT TAKE INTERNALLY.

HANDLING: Employees MUST WEAR chemical goggles, rubber apron, and rubber gloves

### FIRE:

Use water spray, foam, dry chemical or carbon dioxide to extinguish fire. Full protective clothing and NIOSH/MSHA approved self-contained breathing apparatus required for fire fighting personnel. May produce toxic gases in fire.

### SPILL OR

LEAK ACTION: Use required protective equipment. Contain and absorb spill with an inert material. Scoop up and remove. Get approval prior to shipping absorbed material to a landfill.

### CONTAINER

DISPOSITION: If container retains product residues, all label precautions must be observed. Store container with closures in place. Offer empty container for reconditioning or disposal. Ensure reconditioner or recycler is aware of the properties of the contents.

### FIRST AID:

FOR EYES: Immediately flush with plenty of water for at least 15 minutes and get medical attention.

### FOR SKIN:

Flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Consult a physician if chemical causes burns or irritation.

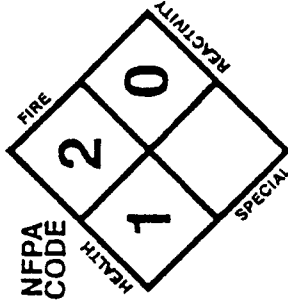
### FOR

INHALATION: Remove to fresh air. IF NOT BREATHING, give artificial respiration, preferably mouth-to-mouth. If breathing is difficult, give oxygen. Seek prompt medical attention.

### FOR

INGESTION: Seek prompt medical attention.

Refer to MSDS for Safety Requirements.



100144

Batch no.

499684



U.S. DEPARTMENT OF LABOR  
Occupational Safety and Health Administration

MATERIAL SAFETY DATA SHEET

Date: February 28, 1991

SECTION I

SUPPLIER'S NAME The Western Company	EMERGENCY TELEPHONE NO. (817) 731-5100
ADDRESS (Number, Street, City, State and ZIP Code) P. O. Box 186, Ft. Worth, TX 76101	
CHEMICAL NAME AND SYNONYMS Blend	TRADE NAME AND SYNONYMS LT-32
CHEMICAL FAMILY Nonionic Surfactant	FORMULA Proprietary Blend W.I.N. 499684

SECTION IA - HAZARDOUS MATERIAL CLASSIFICATION

D.O.T. PROPER SHIPPING NAME	Flammable liquid	(RQ / )
NAME OF HAZARDOUS COMPONENT	Isopropanol	
HAZARD CLASS	Flammable liquid	
IDENTIFICATION NUMBER	UN 1993	
D.O.T. LABEL(S) REQUIRED	Flammable liquid	
PRECAUTIONARY LABEL	Flammable liquid	

SECTION II - HAZARDOUS INGREDIENTS

	%	TLV (Units)
Isopropyl Alcohol	67-63-0	
Oxyalkylated Alcohol		

SECTION III - PHYSICAL DATA

BOILING POINT (°F)	157	SPECIFIC GRAVITY (H <sub>2</sub> O=1)	0.9
VAPOR PRESSURE (mm Hg)		PERCENT. VOLATILE BY VOLUME (%)	N/A
DENSITY (lbs/gal) 60°F	7.5	EVAPORATION RATE (_____ =1)	N/A
SOLUBILITY IN WATER	emulsifiable, slightly soluble		
APPEARANCE AND ODOR	Clear, colorless liquid; strong		

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	155°F (68°C) Seta CC	FLAMMABLE LIMITS	Not available	Let	Uel
EXTINGUISHING MEDIA	Use water spray, alcohol foam, dry chemical or carbon dioxide.				
SPECIAL FIRE FIGHTING PROCEDURES	Use water spray to cool fire exposed surfaces and water spray to disperse the vapors. Full protective clothing and full piece positive pressure self-contained breathing apparatus for fire fighters.				
UNUSUAL FIRE AND EXPLOSION HAZARDS	Flammable liquid can release vapors that form flammable mixtures at temperatures at or above the flashpoint. Toxic gases will form upon combustion.				

TRADE NAME: W.I.N. 499684, LT-32

SECTION V - HEALTH HAZARD DATA			
THRESHOLD LIMIT VALUE			
EFFECTS OF OVEREXPOSURE    Eye Contact: Causes noticeable pain, moderate irritation, and transient cornea injury. Skin Contact: Causes slight irritation; readily absorbs through skin in toxic amounts. Inhalation: Causes respiratory tract irritation, liver & kidney damage, and central nervous system effects. Ingestion: May cause headache, dizziness, nausea, vomiting, liver and kidney injury.			
EMERGENCY AND FIRST AID PROCEDURES    Eyes: Immediately flush with large amounts of water for at least 15 minutes. Get prompt medical attention. Skin: Flush with large amounts of water. Use soap if available. Remove grossly contaminated clothing and launder before reuse. Inhalation: Immediately remove affected victim from exposure. Administer artificial respiration if breathing is stopped. Keep at rest. Seek medical attention. Ingestion: If conscious, give 1 or 2 glasses of water to drink and induce vomiting by sticking finger down throat. Take immediately to hospital. If vomiting cannot be induced, take immediately to hospital.			
SECTION VI - REACTIVITY DATA			
STABILITY	UNSTABLE		CONDITIONS TO AVOID    Heat or flame
	STABLE	X	
INCOMPATIBILITY (Materials to avoid)    Avoid chlorine, fluorine, and other strong base oxidizing agents.			
HAZARDOUS DECOMPOSITION PRODUCTS    Acrid smoke and irritating fumes when heated to decomposition. Products of combustion include carbon monoxide and carbon dioxide.			
HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID
	WILL NOT OCCUR	X	
SECTION VII - SPILL OR LEAK PROCEDURES			
STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED    Eliminate sources of ignition. Prevent additional discharge of material. Prevent liquid from entering sewers, water courses, or low areas. Contain spilled liquid with sand or earth. Do not use combustible materials such as sawdust. Recover by pumping (use an explosion proof pump or hand pump) or with a suitable absorbent.			
WASTE DISPOSAL METHOD    Consult an expert on disposal of recovered materials and ensure conformity to local disposal regulations.			
SECTION VIII - SPECIAL PROTECTION INFORMATION			
RESPIRATORY PROTECTION (Specify type)    NIOSH/OSHA approved respirators may be necessary to prevent overexposure by inhalation.			
VENTILATION	LOCAL EXHAUST		SPECIAL
	MECHANICAL (General)    Recommended		OTHER
PROTECTIVE GLOVES    Chemical resistant gloves			
EYE PROTECTION    Chemical goggles			
OTHER PROTECTIVE EQUIPMENT    Eyewash fountains and safety showers should be easily accessible.			
SECTION IX - SPECIAL PRECAUTIONS			
PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING			
OTHER PRECAUTIONS    Empty product containers may contain product residue. Do not pressurize, cut, heat, weld, or expose containers to flame or other sources of ignition.			

499684

ATTACHMENT TO AND CONTINUATION OF



MATERIAL SAFETY DATA SHEET

Date: February 28, 1991

SECTION I

SUPPLIER'S NAME The Western Company		EMERGENCY TELEPHONE NO. (817) 731-5100	
ADDRESS (Number, Street, City, State and ZIP Code) P. O. Box 186, Ft. Worth, TX 76101			
CHEMICAL NAME AND SYNONYMS Blend		TRADE NAME AND SYNONYMS LT-32	
CHEMICAL FAMILY Nonionic Surfactant		FORMULA Proprietary Blend	W.I.N. 499684

SECTION X - LABEL COPY

FOR INDUSTRIAL USE ONLY

FIRST AID:

- FOR EYES: In case of contact, immediately flush eyes with large amounts of water for at least 15 minutes. Get prompt medical attention.
- FOR SKIN: In case of contact, flush with large amounts of water; use soap if available. Remove grossly contaminated clothing and launder before reuse.
- FOR INGESTION: If swallowed and conscious, give 1 or 2 glasses of water to drink and induce vomiting by sticking finger down throat. Seek medical attention. Do not attempt to induce vomiting or give anything by mouth to an unconscious person.
- FOR INHALATION: If breathed in, immediately remove affected victim from exposure. Administer artificial respiration if breathing is stopped. Keep at rest. Seek medical attention.
- FOR HANDLING: Employees must wear long sleeves, chemical resistant gloves, and chemical goggles.

**ATTENTION!!** After this container has been emptied, it may contain flammable and toxic liquid or vapor; observe all warnings and precautions listed for this product. Do not cut, puncture, or weld on or near this container. Refer to MSDS and SPM-04-04 for other safety requirements.

W.I.N. 100102, ALCOHOL, Methanol, absolute

# MATERIAL SAFETY DATA SHEET

CORPORATE RESEARCH & DEVELOPMENT

SCHENECTADY, N. Y.



No. 354

METHYL ALCOHOL

Revision A

Date November 1977

## SECTION I. MATERIAL IDENTIFICATION

MATERIAL NAME: METHYL ALCOHOL

OTHER DESIGNATION: Methanol, Wood alcohol, GE Material D5B51, ASTM D1152, CH<sub>3</sub>OH, CAS# 000 067 561

MANUFACTURER: Available from many suppliers.

## SECTION II. INGREDIENTS AND HAZARDS

Methyl Alcohol

ca 100

### HAZARD DATA

TLV 200 ppm\*(Skin)  
or 260 mg/m<sup>3</sup>

\*Current OSHA TLV; ACGIH (1977) TLV adds (skin) notation which indicates a potential contribution to overall exposure via absorption through the skin.

NIOSH has recommended a 10-hr TWA of 200 ppm with a ceiling of 800 ppm (15 minute sample).

Human, oral LDLo  
340.mg/kg

## SECTION III. PHYSICAL DATA

Boiling point at 1 atm, deg C --- 64.5

Specific gravity (20°/4°) --- 0.791

Vapor density (Air=1) --- 1.1

Volatiles, % --- ca 100

Vapor pressure @ 21.2°C, mm Hg - 100

Evaporation rate (CCl<sub>4</sub>=1) --- 1

Water solubility --- Totally miscible

Molecular weight --- 32.04

Appearance & Odor: A clear, colorless liquid with a characteristic alcohol odor which is detectable at 50 to 100 ppm and above in air.

## SECTION IV. FIRE AND EXPLOSION DATA

Flash Point and Method

Autoignition Temp.

Flammability Limits In Air

LOWER

UPPER

52°F (11 C) (closed cup)

867°F (465°C)

% by Volume

6

36.5

Extinguishing media: CO<sub>2</sub>, dry chemical, alcohol foam, and water mist or fog.

Methyl alcohol fires are Class B fires, use a blanketing effect to smother fire. It is a moderate explosion hazard and dangerous fire hazard when exposed to heat, sparks or flames and can react vigorously with oxidizing agents.

Firefighters should use self-contained breathing apparatus with full facepiece and full protective clothing where this material is involved in a fire in an enclosed place.

## SECTION V. REACTIVITY DATA

Methyl alcohol is a flammable material, but it is stable under normal storage and use conditions. It does not undergo hazardous polymerization.

Avoid contact with strong oxidizing agents such as nitrates, perchlorates or sulfuric acid.

Oxidation products in air include oxides of carbon and nitrogen.

## SECTION VI. HEALTH HAZARD INFORMATION

TLV 200 ppm (Skin) or 260 mg/m<sup>3</sup>

Methanol is a poisonous, narcotic chemical that may exert its effects through inhalation, skin absorption or ingestion. Body elimination of methanol is slow, and the toxic effects can be compounded by repeated excessive exposures over several days. Toxic effects are exerted upon the nervous system, especially the optic nerve. Ingestion can produce blindness. Symptoms of overexposure include dizziness, blurring of vision, nausea, cardiac depression, muscular incoordination and narcosis. Solvent action can dry the skin and cause dermatitis.

FIRST AID:

Inhalation: Remove victim to fresh air and prevent further exposure for 7 days.

Obtain medical assistance if victim is not fully normal within 10 minutes.

Skin Contact: Wash affected area with soap and water; apply skin lotions.

Eye Contact: Irrigate with running water for 15 minutes. Get medical help.

Ingestion: Drink 3 glasses milk, water or 4% sodium bicarbonate. Obtain immediate medical aid for gastric lavage. (NIOSH recommends inducing vomiting if victim is conscious).

## SECTION VII. SPILL, LEAK, AND DISPOSAL PROCEDURES

Notify safety personnel. Remove all sources of ignition; provide adequate ventilation. Absorb on vermiculite, paper or other absorbent. Burn in an approved incinerator or open pit away from buildings and people. Dispose of large quantities of waste via a licensed waste solvent disposal company, or reclaim via filtration and distillation procedures. It can be incinerated. Spills in sensitive areas may be diluted and flushed to ground with a water spray. Do not flush to sewer. Follow Federal, State and local regulations.

## SECTION VIII. SPECIAL PROTECTION INFORMATION

Provide adequate ventilation to meet TLV requirements. Exhaust ventilation with 100 lfm minimum should be used where vapor exposure is likely. Prevent skin contact by wearing rubber gloves. Protective aprons, boots and face shields should be used where splashing may occur. Use safety glasses in other areas of use. Remove methanol contaminated clothing promptly. Eye wash stations and safety showers should be available in areas of use. Exhaust fans should be explosion proof. No smoking in areas of use. Respirator protection for emergency: Use air-supplied or self-contained respirators above TLV. A full facepiece is required above 2000 ppm.

## SECTION IX. SPECIAL PRECAUTIONS AND COMMENTS

Prevent skin contact! Do not breathe vapors! This material is poisonous when introduced into the body metabolism. Do not ingest! Store in a well-ventilated, fire proof area. Ground and electrically interconnect containers for transfer. Use spark-proof tools. Keep away from heat and ignition sources. No smoking in areas of storage or use. NIOSH recommends preplacement medical exams for industrially exposed workers, periodic medical surveillance, and prompt eye examinations for eye contact with methanol or for any overexposure.

Judgments as to the suitability of information herein for purchaser's purposes are necessarily purchaser's responsibility. Therefore, although reasonable care has been taken in the preparation of such information, General Electric Company extends no warranties, makes no representations and assumes no responsibility as to the accuracy or suitability of such information for application to purchaser's intended purposes or for consequences of its use.

APPROVALS: MIS, CRD *J. M. Nielsen*Industrial Hygiene  
and Safety *OK*

MEDICAL REVIEW:



U.S. DEPARTMENT OF LABOR  
Occupational Safety and Health Administration

# MATERIAL SAFETY DATA SHEET

DATE: September, 1984

## SECTION I

Supplier's Name		EMERGENCY TELEPHONE NO.
The Western Company of North America		(817) 731-5100
ADDRESS (Number, Street, City, State, and ZIP Code) P. O. Box 186, Ft. Worth, TX 76101		
CHEMICAL NAME AND SYNONYMS Proprietary blend		TRADE NAME AND SYNONYMS De-emulsifier Nine-40
CHEMICAL FAMILY Surfactant	FORMULA W.I.N. 100472	

## SECTION IA HAZARDOUS MATERIAL CLASSIFICATION

D.O.T. PROPER SHIPPING NAME	Flammable Liquid, n.o.s.
NAME OF HAZARDOUS COMPONENT	Methanol
HAZARD CLASS	Flammable Liquid
IDENTIFICATION NUMBER	UN1993
D.O.T. LABEL(S) REQUIRED	Flammable Liquid
PRECAUTIONARY LABEL	Attached

## SECTION II - HAZARDOUS INGREDIENTS

	%	TLV (Units)
Xylene	2	100ppm
Methanol		200ppm
Isopropanol		400ppm
Heavy Aromatic Naphtha		100ppm

## SECTION III - PHYSICAL DATA

BOILING POINT (°F.)	162	SPECIFIC GRAVITY (H <sub>2</sub> O=1)	0.881
VAPOR PRESSURE (mm Hg.)	200	PERCENT VOLATILE BY VOLUME (%)	62
VAPOR DENSITY (AIR=1) @ 100°F	>5	EVAPORATION RATE (n-Butyl Acetate=1)	2.03
SOLUBILITY IN WATER	Dispersible		
APPEARANCE AND ODOR light yellow liquid, hydrocarbon odor			

## SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	52°F Seta CC-ASTM	FLAMMABLE LIMITS	Lel 0.3	Uel 36.0
EXTINGUISHING MEDIA Dry chemical, foam, water spray or water fog				
SPECIAL FIRE FIGHTING PROCEDURES Use water spray to cool fire exposed surfaces and to protect personnel.				
UNUSUAL FIRE AND EXPLOSION HAZARDS Respiratory protection required for fire-fighting personnel.				

TRADE NAME: W.I.N. 100472, De-emulsifier, Nine-40

### SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE
Isopropanol, Methanol, Xylene, heavy aromatic naphtha (400, 200, 100, 100 ppm)
EFFECTS OF OVEREXPOSURE
Acute: Liquid is irritating to skin and eyes
Chronic: Prolonged or repeated skin contact may cause dermatitis
EMERGENCY AND FIRST AID PROCEDURES
Remove to fresh air. If not breathing, apply artificial respiration and call a physician. Immediately flush eyes with plenty of water for at least 15 minutes. Call a physician. If skin contact occurs, wash with soap and water.

### SECTION VI - REACTIVITY DATA

STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	X	None
INCOMPATIBILITY (Materials to avoid)			
strong oxidizing agents			
HAZARDOUS DECOMPOSITION PRODUCTS			
burning will emit smoke, fumes, CO and CO <sub>2</sub>			
HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID
	WILL NOT OCCUR	X	

### SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED
Keep public away. Eliminate source of ignition. Shut off source, if possible to do so safely. Prevent liquid from entering sewers, watercourses, or low areas. Advise authorities if material has entered a watercourse, or sewer or has contaminated soil or vegetation.
WASTE DISPOSAL METHOD
Contain spilled liquid with sand or earth. Recover by pumping or with suitable absorbent. Consult an expert on disposal of recovered material.

### SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) Use NIOSH/MSHA approved respiratory protection such as air-supplied mask if used in confined spaces or other poorly ventilated areas.			
VENTILATION	LOCAL EXHAUST	Provide >60 fpm hood or face velocity for confined spaces.	SPECIAL Explosion-proof ventilation equipment.
	MECHANICAL (General)	To provide ventilation equal to outdoors.	OTHER Not Applicable
PROTECTIVE GLOVES		Chemical resistant gloves	EYE PROTECTION
			Chemical splash goggles
OTHER PROTECTIVE EQUIPMENT			
Usually not needed.			

### SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING
Keep container closed when not in use. Containers used for this material may be hazardous when emptied. Observe all hazard precautions outlined in this sheet. Emptied containers retain product residues (vapor, liquid, etc.).
OTHER PRECAUTIONS
Keep away from heat, sparks and open flames.

WESTERN PETROLEUM SERVICES

M.I.N. 100472

**NINE-40**

De-emulsifier

FLASH POINT: 52°F(11°C) SETAFLASH

**DANGER!**

EXTREMELY FLAMMABLE

MAY CAUSE FLASH FIRE

MAY CAUSE EYE BURNS

CAUSES SKIN IRRITATION ON PROLONGED CONTACT

MAY BE A SKIN SENSITIZER

MANUFACTURED FOR:

THE WESTERN COMPANY OF NORTH AMERICA

P.O. BOX 186

FORT WORTH, TEXAS 76101

BATCH NO.

MADE IN U.S.A.

**PRECAUTIONS:**

KEEP AWAY FROM HEAT, SPARKS, AND OPEN FLAME. DO NOT GET IN EYES. IF CHEMICAL SAFETY GOGGLES. AVOID CONTACT WITH SKIN OR CLOTHING. AVOID BREATHING VAPORS. USE WITH VENTILATION EQUAL TO UNDESIGNATED OUTGAS IN MODERATE BREEZE. KEEP CONTAINER CLOSED. WASH THOROUGHLY AFTER HANDLING.

**FIRST AID:**

IMMEDIATELY FLUSH EYES WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES. CALL A PHYSICIAN. WASH SKIN WITH SOAP AND WATER.

\*\*\* D.O.T. PROPER SHIPPING NAME\*\*\*

FLAMMABLE N.O.S.

**FIRE FIGHTING:**

USE WATER/SPRAY TO COOL FIRE EXPOSED SURFACES AND PROTECT PERSONNEL. EXTINGUISH WITH DRY CHEMICAL OR ALCOHOL-TYPE FOAM. WATER-SPRAY MAY BE INEFFECTIVE AS AN EXTINGUISHING AGENT.

**USE INSTRUCTIONS:**

FOR PROPER USE, REFER TO SERVICE BULLETIN NUMBER 552.010

\*\*\*SPECIFIC USAGE\*\*\*

0.5-10.0 GAL/1000 GAL HCL, HCL/HF BLENDS, AND HCL/ACETIC ACID BLENDS.

**SPILL CONTROL:**

KEEP PUBLIC AWAY. ELIMINATE SOURCES OF IGNITION. IF NEAR OCCUPANTS OF BUILDING AREN'T OF FIRE AND EXPLOSION HAZARD. SHUT OFF SOURCE IF POSSIBLE TO DO SO SAFELY. PREVENT LIQUID FROM ENTERING SEWERS, INTERCOMFES, OR LOW AREAS. ADVISE AUTHORITIES IF MATERIAL HAS ENTERED A WATERCOURSE OR SEWER OR HAS CONTAMINATED SOIL OR VEGETATION. CONTAIN SPILLED LIQUID WITH SAND OR EARTH, AND DILUTE WITH WATER. RECOVER BY PUMPING OR WITH SUITABLE ABSORBENT. CONSULT AN EXPERT ON DISPOSAL OF RECOVERED MATERIAL AND ENSURE COMPLIANCE WITH LOCAL DISPOSAL REGULATIONS.

WARNING: EMPTY CONTAINER HAZARDOUS

OBSERVE ALL PRECAUTIONARY MEASURES ON THIS LABEL. CONTAINER MAY BE HAZARDOUS WHEN EMPTY. STORE EMPTY CONTAINERS AWAY FROM HEAT AND FLAME WITH DRAIN PLUGS CLOSED. DO NOT CUT OR HOLE. ENSURE COMPLIANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS IN DISPOSING OF THIS CONTAINER. RESIDUAL CONTENTS, OR RINSING, TRIPLE RINSE CONTAINER AND OFFER FOR RECYCLING, RECONDITIONING, OR DISPOSAL IN AN APPROVED MANNER. ENSURE RECONDITIONING, RECYCLERS, OR DISPOSAL ARE AWARE OF HAZARDS ASSOCIATED WITH CONTENTS.



NET CONTENTS: 55 U.S. GALLONS 208.2 LITERS

7-8537

499688

U.S. DEPARTMENT OF LABOR  
Occupational Safety and Health Administration



# MATERIAL SAFETY DATA SHEET

Date: March 6, 1991

## SECTION I

SUPPLIER'S NAME The Western Company		EMERGENCY TELEPHONE NO. (817) 731-5100	
ADDRESS (Number, Street, City, State and ZIP Code) P. O. Box 186, Ft. Worth, TX 76101			
CHEMICAL NAME AND SYNONYMS Trisodium Nitroacetate, Water Solution		TRADE NAME AND SYNONYMS Liquid NTA	
CHEMICAL FAMILY Sodium Salt of Organic Acid		FORMULA NTA Na,	W.I.N. 499688

## SECTION IA - HAZARDOUS MATERIAL CLASSIFICATION

D.O.T. PROPER SHIPPING NAME	Trisodium Nitroacetate	(RQ / )
NAME OF HAZARDOUS COMPONENT	None	
HAZARD CLASS	Corrosive Liquid	
IDENTIFICATION NUMBER	CAS #5064-31-3	
D.O.T. LABEL(S) REQUIRED	None	
PRECAUTIONARY LABEL	Corrosive Liquid	

## SECTION II - HAZARDOUS INGREDIENTS

	%	TLV (Units)
None		

## SECTION III - PHYSICAL DATA

BOILING POINT (°F)	N/A	SPECIFIC GRAVITY (H <sub>2</sub> O=1)	1.3
VAPOR PRESSURE (mm Hg)	Water	PERCENT VOLATILE BY VOLUME (%) (WATER)	60%
VAPOR DENSITY (AIR=1)	Water	EVAPORATION RATE (_____) (same as water)	
SOLUBILITY IN WATER	Miscible		
APPEARANCE AND ODOR	Pale yellow liquid with slight ammonia odor		

## SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	N/A	FLAMMABLE LIMITS	N/A	Let	Let
EXTINGUISHING MEDIA	N/A				
SPECIAL FIRE FIGHTING PROCEDURES	If product is present in fire and threat of decomposition exists, wear self-contained breathing apparatus with full face piece.				
UNUSUAL FIRE AND EXPLOSION HAZARDS	Readily generates hydrogen gas in contact with aluminum. May slowly generate hydrogen gas in contact with zinc.				

TRADE NAME: W.I.N. 499688

SECTION V - HEALTH HAZARD DATA			
THRESHOLD LIMIT VALUE	None		
EFFECTS OF OVEREXPOSURE	Eyes: Tearing, stinging, redness. Skin: Stinging, redness, some swelling possible. Coughing, soreness in respiratory tract, chest tightness, difficulty breathing.		
EMERGENCY AND FIRST AID PROCEDURES	See page (4) of (4).		
SECTION VI - REACTIVITY DATA			
STABILITY	UNSTABLE		CONDITIONS TO AVOID N/A
	STABLE	X	
INCOMPATIBILITY (Materials to avoid)		Aluminum, zinc, corrosive to metals.	
HAZARDOUS DECOMPOSITION PRODUCTS			
HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID N/A
	WILL NOT OCCUR	X	
SECTION VII - SPILL OR LEAK PROCEDURES			
STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED Evacuate area of nonessential personnel. Ventilate area. Use protective equipment and respiratory protection. Contain liquid spills using a barrier of inert material such as sand or by diking the area.			
Absorb spilled liquids using an inert material. Scoop or shovel absorbed material or spilled solids into containers. Avoid creating a dust during transfer of solids. Prevent spilled product or contaminated wash water from entering drinking water supplies or streams.			
WASTE DISPOSAL METHOD This product is not a federal hazardous waste according to U.S. EPA Regulation 40 CFR 261. Dispose of waste product in accordance with local and state regulations.			
SECTION VIII - SPECIAL PROTECTION INFORMATION			
RESPIRATORY PROTECTION (Specify type)		If a mist is present, use an organic vapor respirator with a prefilter for mist.	
VENTILATION	Typical	LOCAL EXHAUST	SPECIAL None
		MECHANICAL (General) Typical	OTHER None
PROTECTIVE GLOVES		Rubber gloves	
EYE PROTECTION		Goggles and faceshield	
OTHER PROTECTIVE EQUIPMENT		Slicker suit and rubber boots	
SECTION IX - SPECIAL PRECAUTIONS			
PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING Store in cool, dry, and well ventilated area. Do not enter storage area unless storage area is well ventilated. Use only stainless steel, polyethylene, or plastic lined containers for handling and storage.			
OTHER PRECAUTIONS Wear protective clothing, gloves, goggles, and faceshield when mixing with water and acid as considerable heat is generated. Add NTA solution to other fluids slowly.			

## ATTACHMENT TO AND CONTINUATION OF

MATERIAL SAFETY DATA SHEET

Date: March 6, 1991

## SECTION I

OWNER'S NAME The Western Company

EMERGENCY TELEPHONE NO. (817) 731-5100

ADDRESS (Number, Street, City, State and ZIP Code) P. O. Box 186, Ft. Worth, TX 76101

CHEMICAL NAME AND SYNONYMS Trisodium Nitroacetate,  
Water Solution

TRADE NAME AND SYNONYMS Liquid NTA

CHEMICAL FAMILY Sodium Salt of Organic Acid

FORMULA NTA Na<sub>3</sub>

W.I.N. 499888

## SECTION IXA - SPECIAL PRECAUTIONS

## WORK/HYGIENIC PRACTICES:

Wash thoroughly after handling. Wash contaminated clothes before reuse. Launder work clothes separately from family clothes. Check protective clothing, particularly impervious gloves, for leaks before use.

## HANDLING AND STORAGE PRECAUTIONS:

Store in cool, dry, and well ventilated area. Keep containers closed. Do not enter storage area unless area is adequately ventilated. Use only stainless steel, polyethylene, or plastic lined containers for handling and storage.



# ATTACHMENT TO AND CONTINUATION OF MATERIAL SAFETY DATA SHEET

Date: March 6, 1991

**SECTION I**

SUPPLIER'S NAME The Western Company		EMERGENCY TELEPHONE NO. (817) 731-5100
ADDRESS (Number, Street, City, State and ZIP Code) P. O. Box 186, Ft. Worth, TX 76101		
CHEMICAL NAME AND SYNONYMS	Trisodium Nitroacetate, Water Solution	TRADE NAME AND SYNONYMS Liquid NTA
CHEMICAL FAMILY	Sodium Salt of Organic Acid	FORMULA NTA Na <sub>3</sub> W.I.N. 499688

**SECTION X - LABEL COPY**

PRODUCT CAS NUMBER: 5064-31-3  
GENERAL PRODUCT USE: Chelating Agent

<u>CHEMICAL NAME</u>	<u>CAS NUMBER</u>	<u>PERCENT PRESENT (W/W)</u>
Water		- 60
Trisodium Nitrotriacetate	5064-31-3	40
Sodium Hydroxide	1310-73-2	- 1

APPEARANCE AND ODOR:	Pale yellow liquid with slight ammonia odor
BOILING POINT:	About same as water
MELTING POINT:	N/A
VAPOR PRESSURE:	About same as water
VAPOR DENSITY:	About same as water
WATER SOLUBILITY:	Miscible
OCTANOL/WATER PARTITION COEFFICIENT:	N.D.
SPECIFIC GRAVITY:	1.3
% VOLATILE BY WEIGHT:	About 60% as water
EVAPORATION RATE:	About same as water
PH OF 1% SOLUTION:	10.5 - 11.2

**FIRST AID:**

FOR EYES:	In case of contact, flush thoroughly with water for at least 15 minutes while holding eyelids open. Contact a physician immediately.
FOR SKIN:	In case of contact, immediately remove contaminated clothing and flush area thoroughly with water. Contact a physician if irritation develops.
FOR INGESTION:	If swallowed, if patient is conscious give several glasses of water and contact a physician. Do not induce vomiting. Do not give an unconscious person anything by mouth.
FOR INHALATION:	If breathed in, remove from contaminated atmosphere. If breathing has stopped, give artificial respiration and oxygen if needed. Contact a physician.
FOR HANDLING:	Employees must wear rubber gloves, goggles, and faceshield as well as rubber boots and slicker suit while mixing solutions.

**ATTENTION!!** After this container has been emptied, it may contain flammable and toxic liquid or vapor; observe all warnings and precautions listed for this product. Do not cut, puncture, or weld on or near this container. Refer to MSDS and SPM-04-04 for other safety requirements.



U.S. DEPARTMENT OF LABOR  
Occupational Safety and Health Administration

# MATERIAL SAFETY DATA SHEET

10012-9  
**RECEIVED**

MAY 13 1988

R.E.F.C.

DATE: 10MAR88

## SECTION I

Supplier's Name The Western Company of North America		EMERGENCY TELEPHONE NO. (817) 731-5100
ADDRESS (Number, Street, City, State, and ZIP Code) P. O. Box 186, Ft. Worth, TX 76101		
CHEMICAL NAME AND SYNONYMS blend		TRADE NAME AND SYNONYMS SCALE INHIBITOR, P-9
CHEMICAL FAMILY phosphate ester	FORMULA W.I.N. 100129	

## SECTION IA HAZARDOUS MATERIAL CLASSIFICATION

D.O.T. PROPER SHIPPING NAME	Flammable liquid, n.o.s. (RQ33000/15000)
NAME OF HAZARDOUS COMPONENT	methanol
HAZARD CLASS	Flammable material
IDENTIFICATION NUMBER	UN1993
D.O.T. LABEL(S) REQUIRED	Flammable liquid
PRECAUTIONARY LABEL	See Page 4

## SECTION II - HAZARDOUS INGREDIENTS

	%	TLV (Units)
ethylene glycol 107-21-1	15	
methanol 67-56-1 ✓	15	200 ppm

## SECTION III - PHYSICAL DATA

BOILING POINT (°F.)		SPECIFIC GRAVITY (H <sub>2</sub> O=1) @ 60°F	1.09
VAPOR PRESSURE (mm Hg.) @ 100°F	101	PERCENT VOLATILE BY VOLUME (%) @ 75°F	11
VAPOR DENSITY (AIR=1)		EVAPORATION RATE (_____=1)	
SOLUBILITY IN WATER	dispersible	pH neat	4.4
APPEARANCE AND ODOR clear colorless liquid, sweet odor			

## SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	98°F(TCC)	FLAMMABLE LIMITS	Lel	Uel
EXTINGUISHING MEDIA Dry chemical, alcohol foam, CO <sub>2</sub> or other suitable for class B fires.				
SPECIAL FIRE FIGHTING PROCEDURES Use water to cool containers exposed to fire.				
UNUSUAL FIRE AND EXPLOSION HAZARDS May evolve nitrogen oxides if burning				

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TRADE NAME: W.I.N. 100129, SCALE INHIBITOR, P-9

### SECTION V - HEALTH HAZARD DATA

**THRESHOLD LIMIT VALUE**

50 ppm for ethylene glycol, 200 ppm for methanol, see section IXA

**EFFECTS OF OVEREXPOSURE** May cause irritation with prolonged skin or eye contact. May cause blindness if ingested. Can cause depression of central nervous system, nausea, dizziness, vomiting if ingested.

**EMERGENCY AND FIRST AID PROCEDURES**

Prolonged inhalation of vapor may cause nausea, vomiting, dizziness or unconsciousness see Section X, Page 4

### SECTION VI - REACTIVITY DATA

**STABILITY**

UNSTABLE

**CONDITIONS TO AVOID**

STABLE

X

**INCOMPATIBILITY (Materials to avoid)**

strong oxidizing agents

**HAZARDOUS DECOMPOSITION PRODUCTS**

oxides of carbon and nitrogen if burning

**HAZARDOUS POLYMERIZATION**

MAY OCCUR

**CONDITIONS TO AVOID**

WILL NOT OCCUR

X

### SECTION VII - SPILL OR LEAK PROCEDURES

**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED**

Dike to prevent large spills from further movement and reclaim into salvage drums or tank truck for disposal. Absorb residue and small spills on clay, soil or commercial absorbant.

**WASTE DISPOSAL METHOD**

If this product becomes a waste it is hazardous waste and must be solidified before disposal in a land fill. It can be incenerated in accordance with local, state and federal regulations.

### SECTION VIII - SPECIAL PROTECTION INFORMATION

**RESPIRATORY PROTECTION (Specify type)**

not normally required due to low toxicity and volatility

**VENTILATION**

LOCAL EXHAUST

recommend

SPECIAL

MECHANICAL (General)

OTHER

**PROTECTIVE GLOVES**

impermeable

**EYE PROTECTION**

chemical goggles

**OTHER PROTECTIVE EQUIPMENT**

### SECTION IX - SPECIAL PRECAUTIONS

**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING**

**OTHER PRECAUTIONS**

100129

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MAY 13 1988

R.E.F.C.



Attachment to and continuation of

## MATERIAL SAFETY DATA SHEET

DATE: 10MAR88

## SECTION I

Supplier's Name		EMERGENCY TELEPHONE NO.
The Western Company of North America		(817) 731-5100
ADDRESS (Number, Street, City, State, and ZIP Code) P. O. Box 186, Ft. Worth, TX 76101		
CHEMICAL NAME AND SYNONYMS blend		TRADE NAME AND SYNONYMS SCALE INHIBITOR, P-9
CHEMICAL FAMILY phosphate ester	FORMULA W.I.N. 100129	

## SECTION IXA - - SPECIAL PRECAUTIONS

Toxicology Information:

ACUTE TOXICITY STUDIES: Acute toxicity studies have been conducted on this product along with acute toxicity studies on the hazardous ingredients in Section 2. The results are shown below.

## ACUTE ORAL TOXICITY (ALBINO RATS):

Ethylene glycol  $LD_{50}$  = 6,000 - 8,000 mg/kg

## ACUTE DERMAL TOXICITY (ALBINO RABBITS):

Ethylene glycol (estimated)  $LD_{50}$  = 1,000 - 3,000 mg/kg

## ACUTE INHALATION TOXICITY (ALBINO RATS):

Ethylene glycol = Saturated vapor atmosphere no deaths (8-hour exposure)

## PRIMARY SKIN IRRITATION TEST (ALBINO RABBITS):

SKIN IRRITATION INDEX DRAIZE RATING:

0.5/8.0 Ethylene glycol

## PRIMARY EYE IRRITATION TEST (ALBINO RABBITS):

EYE IRRITATION INDEX DRAIZE RATING:

0-15/110.0 Ethylene glycol

CHRONIC TOXICITY RESULTS: A 2-year feeding study in rats with 1 - 2% ethylene glycol, produced liver and kidney injury.

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882



Attachment to and continuation of

# MATERIAL SAFETY DATA SHEET

DATE: 10MAR88

## SECTION I

Supplier's Name		EMERGENCY TELEPHONE NO.
The Western Company of North America		(817) 731-5100
ADDRESS (Number, Street, City, State, and ZIP Code) P. O. Box 186, Ft. Worth, TX 76101		
CHEMICAL NAME AND SYNONYMS	blend	TRADE NAME AND SYNONYMS SCALE INHIBITOR, P-9
CHEMICAL FAMILY	phosphate ester	FORMULA W.I.N. 100129

## SECTION X - LABEL COPY

### FOR INDUSTRIAL USE ONLY **WARNING!**

Flammable. Contains methanol. May cause blindness if swallowed. May cause irritation to skin and eyes. Do not use, store, spill or pour near heat, sparks or open flames. Keep container closed when not in use. Use with adequate ventilation. Do not take internally. Avoid prolonged or repeated breathing of vapor. Avoid contact with skin, eyes and clothing.

#### FIRST AID:

FOR EYES: In case of contact, flush with water for 15 minutes. Call a physician.

FOR SKIN: In case of contact, wash thoroughly with soap & water. Call a physician.

FOR INGESTION: If swallowed, induce vomiting. Give water. Call a physician.

HANDLING: Employees must wear impermeable gloves and chemical goggles.

ATTENTION! After this container has been emptied, it may contain flammable and toxic liquid or vapor; observe all warnings and precautions listed for this product. Do not cut, puncture or weld on or near this container. Refer to MSDS and SPM-04-04 for other safety requirements.

063 (9/82) R-6 (03/84)

## INTER-OFFICE CORRESPONDENCE

To Bob SlaughterAt FW - Accident PreventionFrom Robert W. Anderson

RWA

At FW - Research & Development CenterDate 1JUL84RE: Safety Information Update

This is to inform you of revisions, additions, deletions or replacement of products or chemicals and the relevant safety data.

Western Trade Name: Paratrol LChemical Name (if not trade named): Resin solutionW.I.N.: 100463Addition ☐ Revision ☐ Replacement ☒ Deletion ☐ to product lineWestern Product ☒ Western System ☐Cementing ☐ Stimulation ☒ Used for Warehouse Blending Only ☐DOT Proper Shipping Name & I.D. Number (SPM-04-02): Combustible liquid, n.o.s.

NA1993

DOT Hazardous Material Class: Combustible materialLabel: CombustibleChemical Storage Class (SPM-04-01): II.1Chemical First Aid Guide Class (SPM-04-04):Eyes ☒ Lungs ☐ Skin ☐ Mouth ☐EPA Hazardous Waste Classification: Ignitable waste, D001Material Safety Data Sheet: Attached ☒ Not Available ☐On File at Research ☒

Replace all information on WZ-100463 with the attached.

cc: Product Specification File (original)  
Legal ServicesAttachments: MSDS  
Label  
Precautionary Statement



**Western Petroleum Services**

W.I.N. 100463

**PARATROL L**

Paraffin Inhibitor

batch #012345

Flash Point: 114° F (46° C) SFCC

Net Contents: 414 lb (187.8 kg)

55 gal (208.2 liter) @ 60° F

**DIRECTIONS:**

For Proper Use, Refer to Service Bulletin No. (s)

**SPECIFIC USAGE:** Use at the rate of 5-10 gal per 1000 gallon of water frac.

**FOR INDUSTRIAL USE ONLY**

**CAUTION!**

AVOID contact with eyes, skin and clothing. WASH thoroughly after handling. KEEP container closed.

AVOID breathing vapor. Use with adequate ventilation at elevated temperatures, this product may burn.

**Fire Fighting:** Use foam, dry chemical or CO<sub>2</sub>.

**FIRST AID:**

**For eyes:**

In case of contact, wash eyes with plenty of water for at least 15 minutes. Call physician.

**For skin:**

In case of contact, flush skin with water. Wash clothing before reuse.

**For ingestion:**

If swallowed, do not induce vomiting. Get immediate medical attention. Administer activated carbon and perform gastric lavage, if indicated.

**Handling:**

Employees must wear synthetic gloves and chemical goggles.

**ATTENTION:**

After this container has been emptied, it may contain flammable and toxic liquid or vapor; observe all warnings and precautions listed for this product. Do not cut, puncture or weld on or near this container.

Refer to MSDS and SPM-04-04 for Safety Requirements.

**The Western Company of North America**

P.O. BOX 186 • FORT WORTH, TEXAS 76101

batch no.



Attachment to MSDS

TRADE NAME: W.I.N. 100463, Paraffin Control, Paratrol L

#### Effects of overexposure

**Inhalation:** Vapor is a respiratory and mucous membrane irritant and may cause severe systemic injury. High concentrations cause nausea, headaches, dizziness, vertigo, narcosis and possible CNS depression. In extreme cases unconsciousness and pulmonary edema may result. Prolonged or repeated exposure of high vapor concentrations may cause kidney and liver damage.

**Skin and eye contact:** A primary skin irritant. On repeated or prolonged skin contact, may cause dermatitis owing to dehydrating and defatting properties. May be readily absorbed through the skin. Contact with eyes causes severe irritation and may lead to persistent corneal opacity.

**Ingestion:** May cause severe gastrointestinal distress. Aspiration into lungs may cause pulmonary edema and chemical pneumonitis.

#### Emergency and First Aid Procedures

**For Skin:** Wash skin with soap and water. If rash or irritation develops, seek first aid.

**For Eyes:** Flush eyes with plenty of water for 15 minutes. Consult a physician.

**For Inhalation:** Remove to fresh air. Administer oxygen if necessary. Get medical attention if symptoms persist or exposure was severe.

**For Ingestion:** Do not induce vomiting. Get medical attention immediately. Administer activated carbon and perform gastric lavage if indicated.



U.S. DEPARTMENT OF LABOR  
Occupational Safety and Health Administration

# MATERIAL SAFETY DATA SHEET

DATE: July 1, 1984

## SECTION I

Supplier's Name The Western Company of North America		EMERGENCY TELEPHONE NO. (817) 731-5100
ADDRESS (Number, Street, City, State, and ZIP Code) P. O. Box 186, Ft. Worth, TX 76101		
CHEMICAL NAME AND SYNONYMS Proprietary blend		TRADE NAME AND SYNONYMS Paraffin Control, Paratrol L
CHEMICAL FAMILY resin solution	FORMULA W.I.N. 100463	

## SECTION IA HAZARDOUS MATERIAL CLASSIFICATION

D.O.T. PROPER SHIPPING NAME	Combustible liquid, n.o.s.
NAME OF HAZARDOUS COMPONENT	Contains light aromatic naphtha
HAZARD CLASS	Combustible material
IDENTIFICATION NUMBER	NA 1993
D.O.T. LABEL(S) REQUIRED	Combustible material
PRECAUTIONARY LABEL	Attached

## SECTION II - HAZARDOUS INGREDIENTS

	%	TLV (Units)
light aromatic naphtha		25 ppm

## SECTION III - PHYSICAL DATA

BOILING POINT (°F.)		SPECIFIC GRAVITY (H <sub>2</sub> O=1) @ 60°F	0.90
VAPOR PRESSURE (mm Hg.)		PERCENT VOLATILE BY VOLUME (%)	65
VAPOR DENSITY (AIR=1)		EVAPORATION RATE (_____=1)	
SOLUBILITY IN WATER			
APPEARANCE AND ODOR			

## SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	114°F SFCC	FLAMMABLE LIMITS	LeI	Uel
EXTINGUISHING MEDIA	CO <sub>2</sub> or dry chemical			
SPECIAL FIRE FIGHTING PROCEDURES				
UNUSUAL FIRE AND EXPLOSION HAZARDS				

TRADE NAME: W.I.N. 100463, Paraffin Control, Paratrol L

### SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	not established
EFFECTS OF OVEREXPOSURE	See Attachment
EMERGENCY AND FIRST AID PROCEDURES	See Attachment

### SECTION VI - REACTIVITY DATA

STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	X	
INCOMPATIBILITY (Materials to avoid)			
HAZARDOUS DECOMPOSITION PRODUCTS			
HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID
	WILL NOT OCCUR	X	

### SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED
Dike to prevent entering any waterway. Cover with sand, dirt of suitable chemical adsorbent.
WASTE DISPOSAL METHOD
After material is adsorbed pick up sand, dirt or chemical adsorbent and take to an approved hazardous waste disposal site. Dispose of residue in accordance with applicable waste management regulations.

### SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type)		When exposure exceeds TLV, the use of a chemical respirator with organic cartridge is recommended.
VENTILATION	LOCAL EXHAUST	SPECIAL
	MECHANICAL (General)	OTHER
PROTECTIVE GLOVES	synthetic	EYE PROTECTION
OTHER PROTECTIVE EQUIPMENT		chemical goggles

### SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING
Avoid contact with skin and eyes. Avoid breathing vapor or spray mist. Keep container tightly closed when not in use.
OTHER PRECAUTIONS

110  
R-6 (01/86)

100222  
OCT 28 1993

INTEROFFICE CORRESPONDENCE

WPS HUMAN RESOURCES

TO: Mike Moseley  
FROM: Marek Pakulski  
APPROVAL: [Signature]  
RE: Safety Information Update  
AT: Houston - Safety & Reg. Compliance  
AT: The Woodlands - CTD  
DATE: 10/25/93

This is to inform you of revisions, additions, deletions or replacement of products or chemicals and the relevant safety data.

Western Trade Name: **Parasol D**

W.I.N.: 100222

Chemical Name (if not trade named):

Addition ☐ Revision ☒ Replacement ☐ Deletion ☐ to product line  
Western Product ☒ Western System ☐  
Cementing ☐ Stimulation ☒

DOT Proper Shipping Name & I.D. Number (SPM-04-02):

Flammable liquid, n.o.s.

DOT Hazardous Material Class:

Flammable material UN1993

DOT Hazardous Material Label:

Flammable liquid

Chemical Storage Class (SPM-04-01):

II.1

Chemical First Aid Guide Class (SPM-04-04):

Eyes ☒ Lungs ☒ Skin ☒ Mouth ☐

EPA Hazardous Waste Classification:

Ignitable Waste, D001

Reportable Quantity:

N/A

Material Safety Data Sheet:

Attached ☒ Not Available ☐

On File at Research ☒

cc: Legal Services  
Product Specification File (original)

Attachments: MSDS  
Label  
Precautionary Statement

Note: - If deletion, attach copy of page(s) to be deleted, write deleted across the page(s) attached.

Confidential Proprietary Information  
The Western Company of North America

100222

MATERIAL SAFETY DATA SHEET - 100222  
TRADE NAME: Parasol D

10/11/93

PAGE 1

## SECTION I

MSDS NUMBER .....: 100222  
PART NUMBER .....:  
MSDS CODE .....:  
MSDS OTHER CODE ...:  
SYNONYMS .....: Paraffin Control Surfactant  
  
MANUFACTURER .....: The Western Company  
DIVISION .....:  
MFG PART NUMBER ...:  
VENDOR .....: THE WESTERN COMPANY OF NORTH AMERICA  
EMERGENCY PHONE ...: 1-800-732-9876  
OTHER CALLS .....: (713) 629-2600  
ADDRESS .....: 515 POST OAK BLVD., SUITE 1200  
CITY .....: HOUSTON STATE : TX ZIP : 77027  
MSDS PREPARED BY ..: Research and Engineering  
DATE PREPARED .....: 10/11/93

## SECTION II - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

TRADE NAME .....: Parasol D

INGREDIENT NAME	CAS	OSHA PEL	ACGIH TLV	OTHER	%
Heavy aromatic naphtha	64742-94-5		100 ppm		80-90
Isopropanol	67-63-0		400 ppm		3-5

Sara Title III (Superfund Amendments & Reauthorization Act of 1986) - Sections 302, 311, 312 and 313:

Section 302 - Extremely Hazardous Substances (40CFR355): This product does not contain ingredients listed in Appendix A and B as an Extremely Hazardous Substance.

Sections 311 and 312 - Material Safety Data Sheet Requirements (40CFR370): Our hazard evaluation has found this product to be hazardous. The product should be reported under the following EPA hazard categories:

## Fire Hazard

Under Section 311, submittal of MSDS's or a list of product names to the local emergency planning commission, state emergency response commission and local fire department is required after October 17, 1989 for all hazardous substances.

Section 313 - List of Toxic Chemicals (40CFR372): This product contains the following ingredients, (with CAS# and % range) which appears on the List of Toxic Chemicals.

S. J. J. J.

100222

SECTION III - CHEMICAL CHARACTERISTICS

BOILING POINT	MELTING POINT	FREEZING POINT	SPECIFIC GRAVITY (H <sub>2</sub> O = 1)
380°F	< -50°F	< -50°F	0.8568
PERCENT VOLATILE by VOLUME	THEORETICAL VOC CONTENT (percent of WEIGHT)	WEIGHT PER GALLON	
80 - 90	90	7.15 lbs.	
pH: Conc:			
VAPOR PRESSURE (mm of Hg)	VAPOR DENSITY (Air = 1)	DENSITY	EVAPORATION RATE Basis ( )=1 Rate
N/A	5		N/A
SOLUBILITY IN WATER dispersible	REACTIVITY IN WATER None		
APPEARANCE AND ODOR: Liquid, light yellow, aromatic odor.			

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT	METHOD	FLAMMABLE LIMITS IN AIR (%)	AUTOIGNITION TEMPERATURE
64°F	PMCC	UPPER = N/A LOWER = 1.0	N/A
NFPA CODES: HEALTH .....: 1			
FLAMMABILITY ....: 1			
REACTIVITY .....: 0			
OTHER .....:			
HMIS CODES: HEALTH .....:			
FLAMMABILITY ....:			
REACTIVITY .....:			
PROTECTION .....:			

EXTINGUISHER MEDIA: NFPA Class B extinguishers (CO<sub>2</sub> or foam) for Class III B liquid fires.

SPECIAL FIRE FIGHTING PROCEDURES: Water spray may be ineffective on fire but can protect fire fighters and cool closed containers. Use fog nozzles if water is used. Do not enter confined fire-space without full bunker gear. (Helmet with face shield, bunker coats, gloves and rubber boots). Use NIOSH approved positive-pressure self-contained breathing apparatus.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Keep container tightly closed. Isolate from oxidizers, heat and open flame. Closed containers may explode if exposed to extreme heat. Applying to hot surfaces requires special precautions. Empty container very hazardous! Continue all label precautions!



WIN 100222

# PARASOL D PARAFFIN CONTROL SURFACTANT

Flash Point: 64°F (18°C)  
Net Content: 393 lb (178.3 kg)  
55 gal (208 L)

Manufactured for:

## THE WESTERN COMPANY OF NORTH AMERICA

515 Post Oak Blvd., Houston, Texas 77027

Emergency Telephone: 1-800-732-9876

R-3G3 (02/02)

### DIRECTIONS:

For Proper Use, Refer to Service  
Bulletin No.(s): 698.0 WG

### FOR INDUSTRIAL USE ONLY

### WARNING!

FLAMMABLE! AVOID HEAT, SPARKS AND OPEN  
FLAMES. CORROSIVE TO EYES AND SKIN.  
INHALATION IS NAUSEOUS AND CAN CAUSE  
ASPHYXIATION. HARMFUL OR FATAL IF SWALLOWED.  
KEEP CONTAINER CLOSED WHEN NOT IN USE.

HANDLING: Employees MUST WEAR chemical goggles, rubber apron,  
rubber gloves and OSHA regulated respiratory protection.

**FIRE:** Use water spray, foam, dry chemical or carbon dioxide to extinguish fire. Full  
protective clothing and NIOSH/MSHA approved self-contained breathing  
apparatus required for fire fighting personnel. May produce toxic gases in fire.

**SPILL OR  
LEAK ACTION:** Stop spill at source. Dike area and contain. Pump soiled liquid and  
put contaminated soil in DOT approved containers for disposal. Label  
immediately. Clean up remainder with absorbent materials.

**CONTAINER  
DISPOSITION:** Empty containers retain 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. Dispose  
in environmentally safe manner.

**FIRST AID:**  
**FOR EYES:** Immediately flush with plenty of water for at least 15  
minutes and get medical attention.

**FOR SKIN:** Wash exposed area with soap and plenty of  
water. Remove contaminated clothing, and  
laundry before reuse.

**FOR  
INGESTION:** If swallowed, CALL A PHYSICIAN IMMEDIATELY!  
**FOR  
INHALATION:** After high vapor exposure, remove to fresh air. If  
breathing is difficult give oxygen. If breathing has  
stopped give artificial respiration. Seek prompt medical  
attention.

Refer to MSDS for Safety Requirements.

Flammable Liquid, n.o.s.

(CONTAINS  
AROMATIC NAPHTHA, ISOPROPANOL)

## UN 1993

DOT LABEL: FLAMMABLE LIQUID





U.S. DEPARTMENT OF LABOR  
Occupational Safety and Health Administration

# MATERIAL SAFETY DATA SHEET

DATE: May 20, 1982

## SECTION I

Supplier's Name	EMERGENCY TELEPHONE NO.
The Western Company of North America	(817) 731-5100
ADDRESS (Number, Street, City, State, and ZIP Code) P. O. Box 186, Ft. Worth, TX 76101	
CHEMICAL NAME AND SYNONYMS	TRADE NAME AND SYNONYMS
ethylenediaminetetraacetic acid sodium salt	SC-100
CHEMICAL FAMILY	FORMULA
amino polycarboxylic acid	38%-40% Na <sub>4</sub> EDTA

## SECTION IA HAZARDOUS MATERIAL CLASSIFICATION

D.O.T. PROPER SHIPPING NAME	corrosive liquid, n.o.s.
NAME OF HAZARDOUS COMPONENT	ethylenediaminetetraacetic acid sodium salt
HAZARD CLASS	corrosive material
IDENTIFICATION NUMBER	UN1760
D.O.T. LABEL(S) REQUIRED	Corrosive
PRECAUTIONARY LABEL	see Section IX

## SECTION II - HAZARDOUS INGREDIENTS

	%	TLV (Units)
none		

## SECTION III - PHYSICAL DATA

BOILING POINT (°F.)	100°C	SPECIFIC GRAVITY (H <sub>2</sub> O=1)	1.25
VAPOR PRESSURE (mm Hg.)	—	PERCENT VOLATILE BY VOLUME (%)	N/A
VAPOR DENSITY (AIR=1)	N/A	EVAPORATION RATE (_____=1)	
SOLUBILITY IN WATER	miscible		
APPEARANCE AND ODOR	clear, light yellow liquid		

## SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	none	FLAMMABLE LIMITS	Lel	Uel
EXTINGUISHING MEDIA	N/A			
SPECIAL FIRE FIGHTING PROCEDURES	N/A			
UNUSUAL FIRE AND EXPLOSION HAZARDS	N/A			

## SECTION V - HEALTH HAZARD DATA

### THRESHOLD LIMIT VALUE

LD<sub>50</sub>: 700 mg/kg body weight (on 100% Na<sub>2</sub> EDTA basis)

### EFFECTS OF OVEREXPOSURE

local dermal irritation will occur if not thoroughly flushed with plain water

### EMERGENCY AND FIRST AID PROCEDURES

Dermal: flush with plenty of water

Eyes: flush with plenty of water

Ingestion: let drink plenty of acidified water (citric acid) and vomit

## SECTION VI - REACTIVITY DATA

### STABILITY

UNSTABLE

### CONDITIONS TO AVOID

none

STABLE

### INCOMPATIBILITY (Materials to avoid)

### HAZARDOUS DECOMPOSITION PRODUCTS

### HAZARDOUS POLYMERIZATION

MAY OCCUR

### CONDITIONS TO AVOID

none

WILL NOT OCCUR

## SECTION VII - SPILL OR LEAK PROCEDURES

### STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

flush away with plenty of water

### WASTE DISPOSAL METHOD

Can be disposed in normal liquid disposal systems after neutralization.

EPA Hazardous Waste Classification: D002 Corrosivity (C)

## SECTION VIII - SPECIAL PROTECTION INFORMATION

### RESPIRATORY PROTECTION (Specify type)

### VENTILATION

LOCAL EXHAUST

not necessary

SPECIAL

MECHANICAL (General)

not necessary

OTHER

### PROTECTIVE GLOVES

if necessary

### EYE PROTECTION

safety glasses

### OTHER PROTECTIVE EQUIPMENT

none

## SECTION IX - SPECIAL PRECAUTIONS

### PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

no special handling and storage precautions

### OTHER PRECAUTIONS

precautionary labeling: none

Activator W.I.N.# 499738, 499739  
✓ ✓

RECEIVED

JAN 25 1992

R.E.F.C.

## Material Safety Data Sheet

Product Superset W™ (Santrol)

## Section I

Manufacturer's Name  
Santrol Products, Inc.  
11757 Katy Frwy. #1260  
Houston, TX 77079Emergency Telephone Number  
(713) 558-5212

Date 3/5/90

## Section II - Hazardous Ingredients

Hazardous components	CAS #	OSHA PEL	ACGIH TLV	OTHER
Methanol	67-56-1	200 PPM	200 PPM	
Poly(oxyethylene)nonylphenol ether	9016-45-9	none	none	

Hazard Rating	Scale:	Product:
	0-Minimal	HEALTH:
	1-Slight	FIRE:
	2-Moderate	REACTIVITY:
	3-Serious	SPECIAL:
	4-Severe	

1
3
0
NONE

## Section 313 Supplier Notification

This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1988 and of 40 CFR 372:

CAS#	Chemical Name	Percent by Weight
67-56-1	Methanol	<60

## California "Safe Drinking Water and Toxic Enforcement Act of 1986"

This product may contain trace amounts (less than 10 ppm) of Ethylene Oxide (CAS # 75-21-8), and trace amounts (up to 125 ppm) of 1,4-Dioxane (CAS # 123-91-1).

## Section III - Physical/Chemical Characteristics

Boiling Point (48°F)	Specific Gravity (H <sub>2</sub> O=1): 0.910
Vapor Pressure (mmHg): 97 at 20°C	Melting Point: unknown
Vapor Density (Air=1): 1.1	Evaporation Rate (Butyl Acetate=1): >1
Solubility in Water: Complete	
Appearance and Odor: Colorless liquid, odor of methanol	

✓

## Material Safety Data Sheet

## SUPERSET W

Page 2

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**Section IV - Fire and Explosion Hazard Data**

---

Flash Point: 58°F (TCC)

Flammable Limits in air, % : Lower: 7(est.) Upper: 36

Extinguishing Media: Use water spray, alcohol foam, CO<sub>2</sub> or Dry Chemical. Do not use direct water stream.

## Special Fire Fighting Procedures:

Fire Fighters should wear self contained breathing apparatus. Use water spray to cool nearby containers and structures exposed to fire.

Unusual Fire and Explosion Hazards: Extinguish all nearby sources of ignition. This product may burn with a flame which is invisible in daylight.

---

**Section V - Reactivity Data**

---

Stability: Stable Polymerization will not occur.

Conditions to avoid: Heat, sparks and open flames.

Materials to avoid: Strong Oxidizers, aluminum, zinc. Any metal that displaces hydrogen; certain plastics and rubber.

Hazardous decomposition products: May liberate carbon monoxide, carbon dioxide, formaldehyde, and unidentified compounds in black smoke.

---

**Section VI - Health Hazard Data**

---

Primary Routes of exposure: Swallowing, skin or eye contact, inhalation.

## Signs and symptoms of exposure:

Inhalation: Prolonged or repeated exposure or breathing very high concentrations may cause headaches, nausea, vomiting, dizziness and visual disturbances.

Eye contact: Vapors may irritate the eyes. Liquid and mists may severely irritate or damage the eyes.

Skin contact: Contact with skin may cause severe irritation. Prolonged contact may cause dermatitis.

Swallowed: Swallowing large quantities causes headaches, nausea, vomiting, blindness, damage to pancreas and perhaps death.

Chronic effects of exposure: Prolonged or repeated exposure may result in CNS damage, blindness, damage to pancreas and perhaps death.

Medical conditions generally aggravated by exposure: None known.

## Emergency and First Aid Procedures:

Inhalation: Remove to fresh air. Give artificial respiration if not breathing. Get immediate medical attention.

Eye contact: Immediately flush eyes with running water for at least 15 minutes. Get immediate medical attention.

Skin contact: Immediately wash skin with lots of soap and water. Remove contaminated clothing and shoes and wash before reuse. Get Medical attention if irritation persists after washing.

Swallowed: If conscious, immediately induce vomiting by giving 2 glasses of warm water and sticking finger down the throat. Get immediate medical attention. After patient has vomited, give milk, water or solution of sodium bicarbonate (1tsp/qt). Do not give anything to an unconscious or convulsing person.

Product Name:    TECHN-STM 4603

411024

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Section: 01 PRODUCT IDENTIFICATION

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UNICHEM INTERNATIONAL INC.  
P.O. BOX 1499  
707 N. LEECH  
HOBBS, NM 88241-1499

Emergency Telephone    505-393-7751  
Previous Version Date    7/19/93  
Date Prepared    9/21/93  
Version: 0000003

Product Name: TECHN-STM 4603

Trade Name: Iron Control Activator

Chemical Description:  
Proprietary blend of inorganic additives.

---

Section: 02 HAZARDOUS INGREDIENTS

---

<u>Component Name</u>	<u>CAS#</u>	<u>% Range</u>
copper sulfate	07758-99-3	< 30%

---

Section: 03 PHYSICAL DATA

---

Freezing Point: - 40 Deg.F.  
Specific Gravity(H2O-1) :    1.180                      Solubility in water: Complete  
Appearance and Odor: Clear, blue liquid; no odor.

---

Section: 04 FIRE AND EXPLOSION HAZARD DATA

---

Flash Point (Test Method):            WILL NOT FLASH

Extinguishing Media

This material is non-combustible. If this material is involved in a fire, use an extinguishing agent appropriate to surrounding materials. Water spray may be used to cool containers of this material exposed to a fire. Fire extinguishing materials should be collected for determination of proper disposal.

Special Fire Fighting Procedures

Fire fighters should wear self-contained breathing apparatus with a full facepiece operated in the pressure-demand or positive-pressure mode.

Unusual Fire and Explosion Hazards

None

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Section: 05 HEALTH HAZARD DATA

---

Effects of Overexposure

Eye Contact: may cause irritation.

Section: 05 HEALTH HAZARD DATA

CONTINUED

Skin Contact: may cause irritation.

Inhalation: not expected to pose a hazard. Mists may cause irritation of upper respiratory tract and mucous membranes.

Ingestion: may cause nausea, vomiting, diarrhea and gastrointestinal pain.

Chronic Effects: can cause blood damage.

Target Organs: eyes, skin, blood.

Emergency and First Aid Procedures

SKIN

Wash with soap and water. Remove contaminated clothing and launder contaminated clothing before reuse. Get medical attention if redness or irritation develops.

EYES

Flush eyes immediately with large amounts of water for at least 15 minutes. Lift lower and upper lids occasionally. Get medical attention.

INHALATION

Call a physician immediately. Give victim a glass of water. Do NOT induce vomiting unless instructed by a physician or poison control center. Never give anything by mouth to an unconscious person.

INGESTION

Remove victim to fresh air. Give artificial respiration if not breathing. If breathing is difficult, administer oxygen. Keep person warm, quiet and get medical attention.

Section: 06 REACTIVITY DATA

Stable (Y=Yes/N=No): Y

Stability -- Conditions to Avoid

None known.

Incompatibility (Materials to Avoid)

Strong reducing agents, strong oxidizing agents, magnesium.

Hazardous Decomposition Products

Oxides of sulfur.

Hazardous Polymerization May Occur(Y=Yes/N=No): N

Hazardous Polymerization -- Conditions to Avoid

None

Section: 07 SPILL OR LEAK PROCEDURES

Steps to be Taken if Material is Released or Spilled

Persons not wearing suitable personal protective equipment

Product Name:    TECHNISTIM 4800    4/1025

## Section: 01 PRODUCT IDENTIFICATION

UNICHEM INTERNATIONAL INC.	Emergency Telephone	505-393-7751
P.O. BOX 1499	Previous Version Date	9/01/93
707 N. LEECH	Date Prepared	9/21/93
HOBBS, NM 88241-1499	Version: 0000002	

Product Name: TECHNISTIM 4800

Trade Name: Iron Control

Chemical Description:  
Proprietary blend of organic additives.

## Section: 02 HAZARDOUS INGREDIENTS

Component Name	CAS#	% Range
proprietary organic acid		< 60%
acetic acid, glacial	00064-19-7	< 10%

## Section: 03 PHYSICAL DATA

Specific Gravity(H<sub>2</sub>O=1) :    1.032    Solubility in water: Complete  
Appearance and Odor: Clear, yellow liquid; pungent odor.

## Section: 04 FIRE AND EXPLOSION HAZARD DATA

Flash Point (Test Method): 110 Deg.F TCC

Extinguishing Media

CO<sub>2</sub>, dry chemical, water spray or fog, or foam. Use water to keep containers cool. Isolate "fuel" supply from fire. Contain fire fighting liquids for proper disposal.

Special Fire Fighting Procedures

Do not enter confined fire space without proper personal protective equipment including NIOSH approved self-contained breathing apparatus with full facepiece operated in the positive pressure demand mode. Do not inject a solid stream of water or foam into hot, burning pools; this may cause splattering and increase fire intensity. Evacuate personnel to a safe area. Keep unnecessary people away.

Unusual Fire and Explosion Hazards

This material is combustible and under certain conditions may release vapors that pose a severe fire hazard. These vapors may travel along the ground or be moved by ventilation and ignited by pilot lights, other flames, sparks, heaters, smoking, electrical motors, static discharge, or other ignition sources at locations distant

Product Name:     TECHNI-STIM 4800

---

Section: 04 FIRE AND EXPLOSION HAZARD DATA    CONTINUED

---

from material handling print. Containers may explode from internal pressure if confined to a fire. Keep unnecessary people away.

---

Section: 05 HEALTH HAZARD DATA

---

Effects of Overexposure

Eye Contact: brief contact of the vapors are severely irritating. Brief contact with the liquid or mists will severely damage the eyes and prolonged contact will cause eye injury which may be followed by blindness.

Skin Contact: vapors, liquid and mists are extremely corrosive. Vapors will severely irritate the skin and liquid and mists will severely burn the skin. Prolonged liquid contact will burn or destroy surrounding tissue and death may accompany burns which extend over large portions of the body. May be absorbed through the skin which is toxic.

Inhalation: vapors and mists are extremely corrosive to the nose, throat and mucous membranes. Bronchitis, pulmonary edema and chemical pneumonia may occur. Irritation, coughing, weakness, chest pain and difficulty in breathing may occur with brief exposure while prolonged exposure may result in more severe irritation and tissue damage. May cause olfactory paralysis. Breathing high concentrations may result in convulsions or death.

Ingestion: vapors, mists, and liquid are extremely corrosive to the mouth and throat. Swallowing the liquid burns the tissues, causes severe abdominal pain, nausea, vomiting and collapse. Swallowing large quantities can cause death.

Chronic Effects of Exposure: may cause erosion of the teeth, lesions on the skin, bronchial irritation, coughing and pneumonia.

Medical Conditions Generally Aggravated by Exposure: persons with preexisting skin disorders, eye problems or respiratory problems may be more susceptible to the effects of this product.

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Emergency and First Aid Procedures

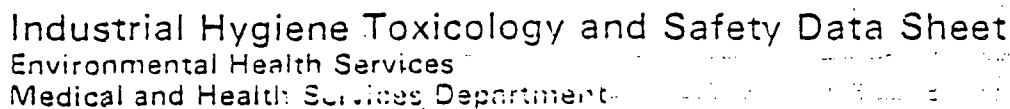
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SKIN

Wash with soap and water. Remove contaminated clothing and launder contaminated clothing before reuse. Get medical attention if redness or irritation develops.

EYES

Flush eyes immediately with large amounts of water for at least 15 minutes. Lift lower and upper lids occasionally. Get medical attention.



LI

## Section 1

Section II Physiological Properties

### Effects of Exposure

Answer:

**MAY CAUSE BURNS**

**MAY CAUSE BURNS**

Respirator: System **VAPOR HARMFUL**

**MAY BE FATAL OR CAUSE BLINDNESS IF SWALLOWED.**

Chronic: N/A

Sensitization Properties (Species): Skin: Yes \_\_\_\_\_ No \_\_\_\_\_ Unchanged ☒ Respiratory: Yes \_\_\_\_\_ No \_\_\_\_\_ Unchanged ☒

Median Lethal Dose (LD<sub>50</sub>, LC<sub>50</sub>):

<sup>1</sup> Imitation Index, Estimation of Imitation, Speech Act

• **ឥដ្ឋឆ្នាំ១៖**

N/A

N/A

**N/A**

N/A

N/A

22 May \_\_\_\_\_

U. No: \_\_\_\_\_

### Symptoms of Exposure

### Section III Chemical and Physical Properties

Revision No. 1  
May 31, 1977

## Section IV Control Procedures

### A. Occupational

#### Protective Equipment (Type)

Eyes CHEMICAL GOGGLES

Skin IMPERVIOUS CLOTHING AND GLOVES

Inhalation IF VENTILATION IS INADEQUATE, USE ORGANIC VAPOR RESPIRATOR APPROVED BY MESA-NIOSH.

Ventilation (Type Required) GENERAL AREA (EXHAUST VENTILATION IS USED IN CONFINED AREAS.)

Precautionary Label (may be attached) SEE SECTION VI

Permissible Concentrations: Air N/A Biological N/A

Monitoring Procedures: Air N/A Biological N/A

### First Aid

Eyes IMMEDIATELY FLUSH WITH WATER FOR AT LEAST 15 MINUTES. GET PROMPT MEDICAL ATTENTION.

Skin WASH WITH SOAP AND WATER. GET MEDICAL ATTENTION IF IRRITATION OCCURS.

Ingestion INDUCE VOMITING; GET PROMPT MEDICAL ATTENTION.

Respiration Remove to uncontaminated area; give artificial respiration if needed; get medical attention.

### B. Environmental

Product is a Pollutant: As compared to:

Product is Bioaccumulable: YES

Water: YES

Product is Persistent: YES

Air: YES

Waste Disposal Method CONTROLLED INCINERATION UNLESS DIRECTED OTHERWISE BY APPLICABLE ORDINANCES.

### C. Recommended Fire Extinguishing Agents and Spillout Procedures

DRY CHEMICAL (B-C), CARBON DIOXIDE, WATER FOG, FOAM

### D. Unusual Fire and Explosive Hazards

NONE

### E. Procedures in Case of Breakage or Leakage

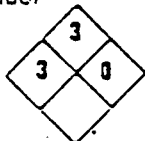
SHUT OFF ALL SOURCES OF IGNITION.

WATER SPRAY MAY BE USED TO DISPERSE VAPORS. CONTAIN ON AN ABSORBENT MATERIAL.

### F. Requirements for Transportation, Handling and Storage

STORE IN A FLAMMABLES STORAGE AREA AWAY FROM ALL SOURCES OF IGNITION.

### G. NFPA Symbol



## Section V U. S. Government and Other Regulatory Agency Controls

### A. Marking and use Regulated by (Specific Regulation)

DOT N/A USCA N/A EPA N/A Other: DOT FLAMMABLE

B. State or Local Regulations Affecting the use of this Material (Restriction on Amount, Release or Discharge, etc., or Water, Etc.) N/A

## Section VI Comments

**HAZARD: DANGER! POISON. CONTAINS METHANOL. VAPOR HARMFUL. MAY BE FATAL OR CAUSE BLINDNESS IF SWALLOWED. HARMFUL IF INHALED OR ABSORBED THROUGH THE SKIN. MAY CAUSE EYE AND SKIN BURNS. CANNOT BE MADE NON-POISONOUS. Avoid breathing vapor. Do not get in eyes, on skin or clothing. Use with adequate ventilation. Keep away from heat, sparks and open flame. Wash thoroughly after handling. FOR EYES: In case of contact, immediately flush with plenty of water for at least 15 minutes. Get prompt medical attention. FOR SKIN: In case of contact, wash exposed skin thoroughly with soap and water. If swallowed, induce vomiting and get prompt medical attention. HANDLING INSTRUCTIONS: Wear chemical goggles, impervious clothing and gloves. Contaminated clothing, including shoes should be removed immediately and thoroughly cleaned and dried before reuse.**

Information Supplied By: Paul D. Halley

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

Director Environmental Health Services

Date: May 31, 1977

N/A - Data not available.

SECTION I

MSDS NUMBER .....: 100388  
PART NUMBER .....:  
SYNONYMS .....: DE-EMULSIFIER-212  
MANUFACTURER .....: The Western Company of North America  
VENDOR .....: 000070  
EMERGENCY PHONE ...: 1-800-732-9876  
OTHER CALLS .....: (713) 629-2600  
ADDRESS .....: 515 POST OAK BLVD., SUITE 1200  
CITY .....: HOUSTON STATE ...:TX ZIP ...:77027  
MSDS PREPARED BY ..:  
DATE PREPARED .....: 02/03/92

SECTION II - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

TRADE NAME .....: Wellaid 212

INGREDIENT NAME	CAS	OSHA PEL	ACGIH TLV	OTHER	%
ISOPROPYL ALCOHOL	67-63-0	400 PPM	400 PPM	500 PPM	
QUATERNARY AMMONIUM SALT*		N/E	N/E	--	
WATER	7732-18-5	N/E	N/E	--	

\*\*\*\*\* ADDITIONAL INFORMATION \*\*\*\*\*

\* Trade Secret

SECTION III - CHEMICAL CHARACTERISTICS

BOILING POINT	MELTING POINT	FREEZING POINT	SPECIFIC GRAVITY (H2O = 1)
183 F (84 °C.)	N/A	20 °F. (Pour Pt.)	0.99

PERCENT VOLATILE by VOLUME	THEORETICAL VOC CONTENT (percent of WEIGHT)	WEIGHT PER GALLON
No data	No data	No data

pH: 3.3  
Conc: NEAT

VAPOR PRESSURE (mm of Hg)	VAPOR DENSITY (Air = 1)	DENSITY	EVAPORATION RATE Basis (NO DATA )=1
No data	No data	No data	Rate

SOLUBILITY IN WATER TOTALLY SOLUBLE	REACTIVITY IN WATER No data
--	--------------------------------

APPEARANCE AND ODOR:  
Yellow liquid. No data regarding odor.

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT	METHOD	FLAMMABLE LIMITS IN AIR (%)	AUTOIGNITION TEMPERATURE
85 °F. (29 °C.)	ASTM D-3278	UPPER = N/D    LOWER = NO DATA	NO DATA

NFPA CODES: HEALTH .....: 3  
                  FLAMMABILITY ....: 3  
                  REACTIVITY .....: 1  
                  OTHER .....: -

HMIS CODES: HEALTH .....: 3  
                  FLAMMABILITY ....: 3  
                  REACTIVITY .....: 1  
                  PROTECTION .....: J

EXTINGUISHER MEDIA: Agents approved for Class B hazards (eg., dry chemical, carbon dioxide, halogenated agents, foam, steam) or water fog.

SPECIAL FIRE FIGHTING PROCEDURES:  
Keep away from ignition sources (eg., heat, sparks, and open flames). Use with adequate ventilation. Keep container closed. If foam is used, alcohol foam is recommended.

UNUSUAL FIRE AND EXPLOSION HAZARDS:  
Flammable liquid. Vapor may explode if ignited in a closed area.

SECTION V - REACTIVITY DATA

IS THIS CHEMICAL STABLE UNDER NORMAL CONDITIONS OF HANDLING/STORAGE (Y/N)? N

CONDITIONS TO AVOID (REGARDING STABILITY):  
Avoid mixing with bases; may evolve heat and cause splattering.

INCOMPATIBILITY (MATERIALS TO AVOID):  
Avoid chlorine, fluorine, and other strong oxidizers.

HAZARDOUS DECOMPOSITION PRODUCTS:  
No data.



U.S. DEPARTMENT OF LABOR  
Occupational Safety and Health Administration

# MATERIAL SAFETY DATA SHEET

RECEIVED

JAN 23 1989

R.E.F.C.

DATE: November 10, 1983

## SECTION I

Supplier's Name The Western Company of North America		EMERGENCY TELEPHONE NO. (817) 731-5100
ADDRESS (Number, Street, City, State, and ZIP Code) P. O. Box 186, Ft. Worth, TX 76101		
CHEMICAL NAME AND SYNONYMS Proprietary Blend	TRADE NAME AND SYNONYMS WK-1	
CHEMICAL FAMILY Surfactant	FORMULA W.I.N. 100197	

## SECTION IA HAZARDOUS MATERIAL CLASSIFICATION

D.O.T. PROPER SHIPPING NAME	Flammable liquid, n.o.s.	RQ 5000/2270
NAME OF HAZARDOUS COMPONENT	methanol	
HAZARD CLASS	Flammable liquid	
IDENTIFICATION NUMBER	UN1993	
D.O.T. LABEL(S) REQUIRED	Flammable liquid	
PRECAUTIONARY LABEL	Attached	

## SECTION II - HAZARDOUS INGREDIENTS

	%	TLV (Units)
Isopropanol	1	400ppm
Methylisobutyl carbinal	1	250ppm
Methanol: rat, Oral LD <sub>50</sub> 12.88 ga/kg; rat, LC <sub>50</sub> 64,000 ppm 4 hrs	32-40	200ppm

## SECTION III - PHYSICAL DATA

BOILING POINT (°F.)	147°F	SPECIFIC GRAVITY (H <sub>2</sub> O=1)	0.945-0.955@73°F
VAPOR PRESSURE (mm Hg.)		PERCENT VOLATILE BY VOLUME (%)	
VAPOR DENSITY (AIR=1)		EVAPORATION RATE (_____ =1)	
SOLUBILITY IN WATER	soluble		
APPEARANCE AND ODOR	Cloudy, straw-colored liquid - ether odor		

## SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used) 74°F (PMCC)	FLAMMABLE LIMITS	LeI	UeI
EXTINGUISHING MEDIA Carbon dioxide, dry chemical, alcohol foam, water			
SPECIAL FIRE FIGHTING PROCEDURES Wear self-contained breathing apparatus. Dilute rapidly with large quantities of water.			
UNUSUAL FIRE AND EXPLOSION HAZARDS Produces toxic fumes when burned.			

TRADE NAME: W.I.N.100197, SURFACTANT, WK-1

### SECTION V - HEALTH HAZARD DATA

**THRESHOLD LIMIT VALUE**

Isopropanol - 400 ppm methanol - 200 ppm methyl isobutyl carbinol - 25 ppm

**EFFECTS OF OVEREXPOSURE**

Liquid is irritating to eyes. May be harmful if swallowed or absorbed through the skin.

**EMERGENCY AND FIRST AID PROCEDURES**

Flush from skin or induce vomiting if swallowed. For eyes, wash with water for at least 15 minutes.

### SECTION VI - REACTIVITY DATA

**STABILITY**

UNSTABLE

**CONDITIONS TO AVOID**

Keep away from heat, sparks and open flames.

STABLE

X

**INCOMPATIBILITY (Materials to avoid)**

Strong oxidizing agents, anhydride, isocyanate, monomer, organometallic

**HAZARDOUS DECOMPOSITION PRODUCTS**

Toxic oxides of nitrogen, HCl, CO, CO<sub>2</sub>. contamination.

**HAZARDOUS POLYMERIZATION**

MAY OCCUR

**CONDITIONS TO AVOID**

WILL NOT OCCUR

X

### SECTION VII - SPILL OR LEAK PROCEDURES

**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED**

Extinguish all sources of ignition. Wash down with water or soak up on sand and dispose of in an approved industrial waste landfill. Do not wash down with water where runoff will contaminate important water sources.

**WASTE DISPOSAL METHOD**

Incinerate in an incinerator equipped with an afterburner and scrubber or bury in an approved industrial landfill.

### SECTION VIII - SPECIAL PROTECTION INFORMATION

**RESPIRATORY PROTECTION (Specify type)**

Air supplied masks in confined area

**VENTILATION**

LOCAL EXHAUST

SPECIAL

Preferred

MECHANICAL (General)

OTHER

**PROTECTIVE GLOVES**

Rubber

**EYE PROTECTION**

Face shield or goggles

**OTHER PROTECTIVE EQUIPMENT**

Eye bath and safety shower. Rubber boots and apron if possibility of contact exists

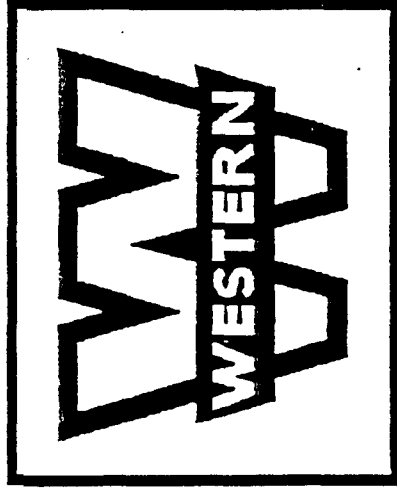
### SECTION IX - SPECIAL PRECAUTIONS

**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING**

Avoid contact with eyes, skin, and clothing. Avoid breathing vapors. Keep away from heat, sparks and open flames.

**OTHER PRECAUTIONS**

Do not transfer to improperly marked containers. Keep container closed when not in use.



Western Petroleum Services

WIN 100197

WK-1

Surfactant

Flash Point: 94 °F (34 °C) PMCC  
Net Contents: 428 pounds (194 kg)  
54 gallons (204 liters) @ 73 °F (23 °C)

For Proper Use, Refer to Service Bulletin No.: 570.0 WG

**SPECIFIC USAGE:** Normal usage is recommended at 10 gallons per 1000 gallons of fluid. Lesser concentrations have been used with satisfactory results in some areas for less severe problems.

**When Handling This Product, Employees MUST WEAR:** Rubber gloves, boots and aprons, face shields or goggles, and air masks in confined areas.

**FOR INDUSTRIAL USE ONLY**

## **WARNING!**

### **CORROSIVE FLAMMABLE LIQUID**

**Eye irritant.** Avoid contact with eyes, skin and clothing. Avoid breathing vapors. Keep container closed. Have protective emergency equipment on hand.

#### **SPILL OR LEAK:**

Extinguish all sources of ignition. Wash down with water or soak up on sand, and dispose in approved industrial landfill. Do not wash down with water where run off will contaminate important water sources. Disposal: Industrial landfill or incineration.

#### **FIRST AID:**

Flush from skin or induce vomiting if swallowed. For eyes, wash with water for at least 15 minutes.

#### **FIRE FIGHTING:**

CO<sub>2</sub> dry chemical, alcohol foam, water. Wear self-contained breathing apparatus. Dilute rapidly with large quantities of water. Produces toxic fumes when burned.

**Refer to MSDS and SPM-04-04 for Safety Requirements.**

Manufactured for:

**THE WESTERN COMPANY OF NORTH AMERICA**

515 Post Oak Blvd., Houston, Texas 77027

Emergency Telephone: 817-731-5433

499659



U.S. DEPARTMENT OF LABOR  
Occupational Safety and Health Administration

# MATERIAL SAFETY DATA SHEET

DATE: August 27, 1990

## SECTION I

Supplier's Name The Western Company of North America		EMERGENCY TELEPHONE NO. (817) 731-5100
ADDRESS (Number, Street, City, State, and ZIP Code) P. O. Box 186, Ft. Worth, TX 76101		
CHEMICAL NAME AND SYNONYMS N/A Blend		TRADE NAME AND SYNONYMS WSA-2
CHEMICAL FAMILY Organic Solvent	FORMULA Proprietary Blend	W.I.N.499659

## SECTION IA HAZARDOUS MATERIAL CLASSIFICATION

D.O.T. PROPER SHIPPING NAME	Flammable liquid	(RQ / )
NAME OF HAZARDOUS COMPONENT	None	
HAZARD CLASS	Flammable liquid	
IDENTIFICATION NUMBER	UN 1219	
D.O.T. LABEL(S) REQUIRED	Flammable liquid	
PRECAUTIONARY LABEL	Flammable liquid	

## SECTION II - HAZARDOUS INGREDIENTS

	%	TLV (Units)
Isopropyl Alcohol	67-63-0	
Glycol Ethers		

## SECTION III - PHYSICAL DATA

BOILING POINT (°F.)	179°	SPECIFIC GRAVITY (H <sub>2</sub> O=1)	0.9
VAPOR PRESSURE (mm Hg.)		PERCENT VOLATILE BY VOLUME (%)	100
VAPOR DENSITY (AIR=1)	2.6	EVAPORATION RATE (_____=1)	
SOLUBILITY IN WATER	Soluble		
APPEARANCE AND ODOR	Clear, colorless liquid with strong odor		

## SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used) 145 F Seta cc	FLAMMABLE LIMITS	Lel	Uel
EXTINGUISHING MEDIA Use water spray, alcohol foam, drv chemical or carbon dioxide			
SPECIAL FIRE FIGHTING PROCEDURES Use water spray to cool fire exposed surfaces and water spray to disperse the vapors. Full protective clothing and full face piece positive pressure self-contained breathing apparatus for fire fighters.			
UNUSUAL FIRE AND EXPLOSION HAZARDS Flammable liquid can release vapors that form flammable mixtures at temperatures at or above the flash point. Toxic gases will form upon combustion			

TRADE NAME: W.I.N. 499659 WSA-2

### SECTION V - HEALTH HAZARD DATA

#### THRESHOLD LIMIT VALUE

EFFECTS OF OVEREXPOSURE Eyes - causes noticeable pain, moderate irritation & transient cornea injury. Skin - causes slight irritation. Can be readily absorbed through skin in moderate amounts. Inhalation - causes respiratory tract irritation, liver & kidney damage and central nervous system effects such as headache, weakness, slurred speech, and blurred vision. Ingestion - causes headache, dizziness, nausea, vomiting, gastrointestinal distress, liver & kidney injury.

EMERGENCY AND FIRST AID PROCEDURES

Eyes - immediately flush eyes with large amounts of water for at least 15 min.

Skin - Flush with large amounts of water, use soap if available. Remove grossly contaminated clothing, including shoes & launder before reuse. Inhalation - immediately remove the affected victim from exposure. Administer artificial respiration if breathing is stopped. Keep at rest. Ingestion - if conscious, give water to drink & induce vomiting by sticking finger down throat. Take immediately to hospital or physician.

STABILITY	UNSTABLE		CONDITIONS TO AVOID Heat or flame
	STABLE	X	

INCOMPATIBILITY (Materials to avoid)  
Strong base oxidizing agents

HAZARDOUS DECOMPOSITION PRODUCTS Acrid smoke and irritating fumes when heated to decomposition. Products of combustion include carbon monoxide and carbon dioxide.

HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID
	WILL NOT OCCUR	X	

### SECTION VII - SPILL OR LEAK PROCEDURES

#### STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Eliminate source of ignition. Prevent additional discharge of material. Implement clean up procedures. Vapors/dust can be harmful/fatal. Prevent liquid from entering sewers, water courses or low areas. Contain spilled liquid with sand or earth. Do not use combustible materials such as sawdust. Recover by pumping (explosion proof or hand pump or suitable absorbent).

#### WASTE DISPOSAL METHOD

Consult expert on disposal of recovered material and ensure conformity to local disposal regulations.

### SECTION VIII - SPECIAL PROTECTION INFORMATION

#### RESPIRATORY PROTECTION (Specify type)

NIOSH/MSHA

VENTILATION	LOCAL EXHAUST OK	SPECIAL
	MECHANICAL (General) or when heated or agitated Recommended in confined spaces	OTHER

#### PROTECTIVE GLOVES

Chemical resistance gloves

#### EYE PROTECTION

Chemical goggles

#### OTHER PROTECTIVE EQUIPMENT

Eyewash fountains and safety showers should be easily accessible

### SECTION IX - SPECIAL PRECAUTIONS

#### PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

#### OTHER PRECAUTIONS

100128

RECEIVED

MAY 13 1988

R.E.F.C.

U.S. DEPARTMENT OF LABOR  
Occupational Safety and Health Administration

## MATERIAL SAFETY DATA SHEET

DATE: 10MAR88

## SECTION I

Supplier's Name The Western Company of North America		EMERGENCY TELEPHONE NO. (817) 731-5100
ADDRESS (Number, Street, City, State, and ZIP Code) P. O. Box 186, Ft. Worth, TX 76101		
CHEMICAL NAME AND SYNONYMS blend	TRADE NAME AND SYNONYMS SCALE INHIBITOR, P-7	
CHEMICAL FAMILY acrylate polymer	FORMULA W.I.N. 100128	

## SECTION IA HAZARDOUS MATERIAL CLASSIFICATION

D.O.T. PROPER SHIPPING NAME	not regulated
NAME OF HAZARDOUS COMPONENT	N/A
HAZARD CLASS	N/A
IDENTIFICATION NUMBER	N/A
D.O.T. LABEL(S) REQUIRED	N/A
PRECAUTIONARY LABEL	see page 3

## SECTION II - HAZARDOUS INGREDIENTS

	%	TLV (Units)

## SECTION III - PHYSICAL DATA

BOILING POINT (°F.)	N/A	SPECIFIC GRAVITY (H <sub>2</sub> O=1) @ 60°F	1.180
VAPOR PRESSURE (mm Hg.)	N/A	PERCENT. VOLATILE BY VOLUME (%)	N/A
VAPOR DENSITY (AIR=1)	>1	EVAPORATION RATE (_____ =1)	
SOLUBILITY IN WATER	soluble		
APPEARANCE AND ODOR light amber liquid			

## SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	greater than 200°F TCC	FLAMMABLE LIMITS	N/A	LeI	UeI
EXTINGUISHING MEDIA	Foam, dry chemical, CO <sub>2</sub> , water fog or spray				
SPECIAL FIRE FIGHTING PROCEDURES Do not enter fire area without proper protective equipment including NIOSH approved self-contained breathing apparatus. Cool exposed container with water spray.					
UNUSUAL FIRE AND EXPLOSION HAZARDS Material may burn if exposed to sufficient heat.					

RECEIVED  
TRADE NAME: W.I.N. 100128, SCALE INHIBITOR, P-7

### SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

N/A

EFFECTS OF OVEREXPOSURE

Inhalation of concentrated vapors may cause dizziness, headaches or unconsciousness. Ingestion may cause irritation, nausea or death. Eye contact may cause severe irritation, redness, tearing or blurred vision.

EMERGENCY AND FIRST AID PROCEDURES

See Section IXA

### SECTION VI - REACTIVITY DATA

STABILITY

UNSTABLE

CONDITIONS TO AVOID

N/A

STABLE

X

INCOMPATIBILITY (Materials to avoid)

Strong oxidizers

HAZARDOUS DECOMPOSITION PRODUCTS

carbon monoxide, oxides or nitrogen and sulfur

HAZARDOUS  
POLYMERIZATION

MAY OCCUR

CONDITIONS TO AVOID

N/A

WILL NOT OCCUR

X

### SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Eliminate ignition sources. Shut off leak if it can be done safely. Dike and pump large spills into salvage containers. Soak up residue and small spills with absorbant clay, sand or dirt.

WASTE DISPOSAL METHOD

### SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type)

NIOSH approved vapor canister

VENTILATION

LOCAL EXHAUST

recommended

SPECIAL

MECHANICAL (General)

if necessary

OTHER

PROTECTIVE GLOVES

chemically resistant

EYE PROTECTION

chemical goggles or face shield

OTHER PROTECTIVE EQUIPMENT

chemically resistant boots and apron

### SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Do not store near heat, sparks or open flame. Do not store with strong oxidizers.

Store in well ventilated area.

OTHER PRECAUTIONS

Use proper protective equipment and clothing. Reseal container when not in use.

Do not add foreign material to container.



Attachment to and continuation of

# MATERIAL SAFETY DATA SHEET

DATE: August 27, 1990

## SECTION I

Supplier's Name		EMERGENCY TELEPHONE NO.
The Western Company of North America		(817) 731-5100
ADDRESS (Number, Street, City, State, and ZIP Code) P. O. Box 186, Ft. Worth, TX 76101		
CHEMICAL NAME AND SYNONYMS N/A Blend	TRADE NAME AND SYNONYMS WSA-2	
CHEMICAL FAMILY Organic solvent	FORMULA Proprietary blend	W.I.N. 499659

## SECTION X - LABEL COPY

FOR INDUSTRIAL USE ONLY

### FIRST AID:

**FOR EYES:** In case of contact, immediately flush eyes with large amounts of water for at least 15 min. Get prompt medical attention.

**FOR SKIN:** In case of contact, flush with large amounts of water. Use soap if available. Remove contaminated clothing including shoes and launder before reuse.

**FOR INGESTION:** If swallowed, and conscious, give water to drink and induce vomiting by sticking finger down throat. Take immediately to hospital. Do not induce vomiting or give anything by mouth if unconscious.

**FOR INHALATION:** If breathed in, immediately remove victim from exposure. Administer artificial respiration if breathing is stopped. Keep at rest.

**HANDLING:** Employees must wear long sleeves, chemical resistant gloves and chemical goggles.

**ATTENTION!** After this container has been emptied, it may contain flammable and toxic liquid or vapor; observe all warnings and precautions listed for this product. Do not cut, puncture or weld on or near this container.

Refer to MSDS and SPM-04-04 for other safety requirements.



**WIN 499659**

**WSA-2**

**MUTUAL SOLVENT**

Flash Point: 145° F (63° C) TCC  
Net Contents: 412 lb (187 kg)  
55 gal (208 L) @ 25° C

Manufactured for:

**The Western Company of North America**

**P.O. BOX 186 • FORT WORTH, TEXAS 76101**

Emergency Telephone: (817) 731-5100 (817) 731-5433

Batch no

499

\*\*\*\*D.O.T. PROPER SHIPPING NAME; FLAMMABLE LIQUID (UN 1219)\*\*\*\*

**DIRECTIONS:**

For Proper Use, Refer to Service Bulletin No.(s): 560.5W & 560.5G

**SPECIFIC USAGE:**

For oil well stimulation, WSA-2 can be mixed 5% by volume with diesel oil as an afterflush or 5% by volume with acid or ammonium chloride. When treating gas wells, WSA-2 is added at 5% by volume to the acid or ammonium chloride overflush.

**FOR INDUSTRIAL USE ONLY**

**WARNING!**

FLAMMABLE LIQUID, DO NOT STORE NEAR HEAT, SPARKS OR OPEN FLAME. AVOID SKIN OR EYE CONTACT. KEEP CONTAINER CLOSED.

**FIRST AID:  
FOR EYES:**

In case of contact, flush with plenty of clean water for at least 15 minutes. Call a physician.

**FOR SKIN:**

In case of contact, wash with soap and water. Remove and launder contaminated clothing before reuse. If irritation persists call a physician.

**FOR INGESTION:**

If swallowed, give milk or water to dilute. Induce vomiting. Get emergency medical treatment for methanol ingestion.

**FOR INHALATION:**

If breathed in, remove to fresh air. Give artificial respiration if needed.

**HANDLING:**

Employees must wear chemical resistant gloves and chemical safety goggles.

**ATTENTION:**

After this container has been emptied, it may contain flammable and toxic liquid or vapor; observe all warnings and precautions listed for this product. DO NOT cut, puncture or weld on or near this container.

Refer to MSDS and SPM-04-04 for Safety Requirements.

**FLAMMABLE**



# MATERIAL SAFETY DATA SHEET

DATE: FEB. 1985

## SECTION I

Supplier's Name The Western Company of North America		EMERGENCY TELEPHONE NO. (817) 731-5100
ADDRESS (Number, Street, City, State, and ZIP Code) P. O. Box 186, Ft. Worth, TX 76101		
CHEMICAL NAME AND SYNONYMS 50% solution of citric acid	TRADE NAME AND SYNONYMS Citric Acid, Liquid (XR-2L)	
CHEMICAL FAMILY citric acid	FORMULA W.I.N. 100091	

## SECTION IA HAZARDOUS MATERIAL CLASSIFICATION

D.O.T. PROPER SHIPPING NAME	Corrosive Liquid, n.o.s.
NAME OF HAZARDOUS COMPONENT	Citric Acid
HAZARD CLASS	Corrosive Liquid, n.o.s.
IDENTIFICATION NUMBER	UN1760
D.O.T. LABEL(S) REQUIRED	Corrosive Label must be applied
PRECAUTIONARY LABEL	Attached

## SECTION II - HAZARDOUS INGREDIENTS

	%	TLV (Units)
Citric Acid	50	

## SECTION III - PHYSICAL DATA

BOILING POINT (°F.)	not established	SPECIFIC GRAVITY (H <sub>2</sub> O=1)	1.2
VAPOR PRESSURE (mm Hg.)	not established	PERCENT VOLATILE BY VOLUME (%)	not established
VAPOR DENSITY (AIR=1)	not established	EVAPORATION RATE	(_____ =1) not established
SOLUBILITY IN WATER	1.25		
APPEARANCE AND ODOR Clear, colorless to faintly yellow-green liquid, essentially no odor			

## SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	N/A	FLAMMABLE LIMITS	Lei	Uel
EXTINGUISHING MEDIA	N/A			
SPECIAL FIRE FIGHTING PROCEDURES	N/A			
UNUSUAL FIRE AND EXPLOSION HAZARDS				

TRADE NAME: W.I.N.100091, ACID, citric, 50% solution, XR-2L

### SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

No TLV established

EFFECTS OF OVEREXPOSURE

May be mild eye and skin irritant

EMERGENCY AND FIRST AID PROCEDURES

Flush skin contact with water and flush eye contact immediately with plenty of water. Seek medical care for eyes.

### SECTION VI - REACTIVITY DATA

STABILITY

UNSTABLE

CONDITIONS TO AVOID

STABLE

X

N/A

INCOMPATIBILITY (Materials to avoid)

HAZARDOUS DECOMPOSITION PRODUCTS

HAZARDOUS  
POLYMERIZATION

MAY OCCUR

CONDITIONS TO AVOID

WILL NOT OCCUR

X

N/A

### SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Do not attempt to recover.

WASTE DISPOSAL METHOD

Flush with water to drains.

### SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type)

None

VENTILATION

LOCAL EXHAUST

None

SPECIAL

MECHANICAL (General)

None

OTHER

PROTECTIVE GLOVES

Standard work gloves

EYE PROTECTION

Safety glasses

OTHER PROTECTIVE EQUIPMENT

### SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

None normally required.

OTHER PRECAUTIONS

None

# MATERIAL SAFETY DATA SHEET

IRONROL(TM)

411039

2 NFPA HEALTH  
2 NFPA FLAMMABILITY  
0 NFPA REACTIVITY  
SPECIFIC HAZARD

## SECTION I - IDENTIFICATION

COMPANY NAME..... FRAC TECH DIVISION, PLAINSMAN TECHNOLOGY, INC.  
P.O. BOX 557  
MARLOW, OK 73055  
(405)658-6608  
EMERGENCY PHONE NUMBER... (800)653-8253  
EFFECTIVE DATE..... June 7, 1994  
REVISED DATE..... June 14, 1994  
CHEMICAL NAME..... IRON REDUCING AGENT  
TRADE NAME..... IRONROL(TM)  
CHEMICAL FAMILY..... Mercaptan

## SECTION II - COMPONENTS

HAZARDOUS COMPONENTS	HAZARDOUS %	PEL/TLV	CAS #
Thioglycol	N/A	50 ppm TWA Mfg. Recommendations	60-24-2

## SECTION III - PHYSICAL DATA

BOILING POINT(F)..... 154° - 161° C 760 MM HG  
FREEZING POINT (F)..... N/A  
VOLATILITY/VOL(%)..... N/A  
MELTING POINT..... Unknown  
VAPOR PRESSURE (mm Hg)... 0.76 millibars @ 20° C  
VAPOR DENSITY (Air=1).... N/A  
SOLUBILITY IN H2O..... Miscible  
APPEARANCE/ODOR..... Colorless liquid with sulfide odor.  
SPECIFIC GRAVITY (H2O=1). 1.12  
EVAPORATION RATE..... N/A  
PH..... 6 - 8  
DENSITY..... N/A

## SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT..... 70.5°C  
LOWER FLAME LIMIT..... 2.3%  
HIGHER FLAME LIMIT..... 18%  
EXTINGUISH MEDIA..... Water fog, alcohol foam, CO2, or dry chemical.  
FOR FIRE..... Firefighters should be equipped with self-contained breathing apparatus and turn out gear.  
UNUSUAL FIRE HAZARD..... When heated to decomposition, toxic sulfur dioxide is emitted.

# MATERIAL SAFETY DATA SHEET

IRONTRONOL(TM)

## SECTION V - HEALTH HAZARD DATA

ROUTES OF ENTRY	INHALATION?	EYES?	SKIN?	INGESTION?
	Yes	Yes	Yes	Yes

HEALTH HAZARDS ..... Rabbit-Dermal LD50 - 150 MG/KG-Highly Toxic  
 Rabbit-Eye Irritation (Unirritated)-Severely irritating  
 Rat-Inhalation Safety Screen-Deaths after 30 Minute  
 Exposure. 8H. vapor Rat-Oral LD50 - 330 MG/KG Very  
 Toxic  
 Rabbit-Primary Skin Irritation-Corrosive

CARCINOGENICITY	NTP?	IARC MONOGRAPHS?	OSHA REGULATED
	Not listed	Not listed	No

THRESHOLD LIMIT VALUE.... Not established for this product.  
 SYMPTOMS.....  
 OVER EXPOSURE EFFECTS.... ACUTE: Contact with the eyes and skin may result in  
 severe irritation. Burns and permanent injury may  
 result. Skin contact may result in dermatitis and  
 defatting. Overexposure to Thioglycol by ingestion,  
 inhalation or skin absorption may result in  
 irritation, nausea, muscular weakness, tremors,  
 unconsciousness, respiratory paralysis and death.  
 Thioglycol is toxic by ingestion and highly toxic by  
 the dermal route.  
 CHRONIC: Animal studies indicate that chronic  
 overexposure to thioglycol may result in adverse  
 nervous system, blood and cardiovascular effects.

FIRST AID PROCEDURES..... SKIN: Wash affected areas with water while removing  
 contaminated clothing. Get immediate medical  
 attention. Launder contaminated clothing before  
 reuse.  
 EYES: Immediately wash eyes with running water for 15  
 minutes. Get immediate medical attention.  
 INGESTION: If swallowed, DO NOT INDUCE VOMITING.  
 Dilute with water or milk and get immediate medical  
 attention. Never give fluids or induce vomiting if  
 the victim is unconscious or having convulsions.  
 INHALATION: Move to fresh air. Aid in breathing, if  
 necessary, and get immediate medical attention. NOTES  
 TO PHYSICIANS: Not applicable.  
 AGGRAVATED MEDICAL CONDITIONS: No data is available  
 which addresses medical conditions that are generally  
 recognized as being aggravated by exposure to this  
 product. Please refer to Section V (Health Hazards)  
 for effects observed in animals.  
 SPECIAL PRECAUTIONS: Not applicable.

## SECTION VI - REACTIVITY DATA

CHEMICAL STABILITY..... Stable  
 CONDITIONS TO AVOID..... Strong alkali.  
 INCOMPATIBLE MATERIALS... Strong Alkali  
 DECOMPOSITION PRODUCTS... No Data Available.  
 HAZARDOUS POLYMERIZATION. Does not occur.

# MATERIAL SAFETY DATA SHEET

IRONTROL(TM)

POLYMERIZATION AVOID..... N/A

## SECTION VII - SPILL OR LEAK PROCEDURE

FOR SPILL ..... Spills should be contained, solidified and placed in suitable containers for disposal in a RCRA licensed facility. This material is RCRA hazardous due to its properties.

WASTE DISPOSAL METHOD.... Incinerate or bury in a RCRA licensed facility. Do not discharge into waterways or sewer systems without proper authority. Empty containers with less than 1 inch of residue may be landfilled at a licensed facility. Recommend crushing or other means to prevent unauthorized reuse. Other containers must be disposed of in a RCRA licensed facility.

HANDLING AND STORAGE..... Store materials to avoid sources of ignition and excessive heat.

PRECAUTIONARY MEASURES... Consult other sections of this MSDS for information on reactivity and flammability.

## SECTION VIII - SPECIAL PROTECTION

RESPIRATORY PROTECTION... If vapors or mists are generated, wear a NIOSH/MSHA approved organic vapor/mist respirator.

VENTILATION..... Use local exhaust to control vapors/mists.

PROTECTIVE GLOVES..... Neoprene

EYE PROTECTION..... Chemical splash goggles, also wear a face shield if splashing hazard exists.

OTHER PROTECTIVE EQUIPMENT..... Gloves, coveralls, apron, and boots are necessary to prevent contact. Eyewash fountains and safety showers must be easily accessible. Shower after handling.

## SECTION IX - SPECIAL PRECAUTIONS

HAZARD CLASS..... Poison

DOT SHIPPING NAME..... Trioglycol  
UN-2966

REPORTABLE QUANTITY (RQ). N/A

UN NUMBER..... UN-2966

NA #..... N/A

PACKAGING SIZE..... 55 gallon drum

## MATERIAL SAFETY DATA SHEET

IRONTROL(TM)

Safe Title III (Superfund Amendments & Reauthorization Act of 1986) - Sections 302, 311, 312 and 313:

Section 302 - Extremely Hazardous Substances (40CFR355): This product does not contain ingredients listed in Appendix A and B as an Extremely Hazardous Substance.

Sections 311 & 312 - Material Safety Data Sheet Requirements (40CFR370): Our hazard evaluation has found this product to be hazardous. The product should be reported under the following EPA hazard categories:

- ☒ Immediate (acute) health hazard
- ☐ Delayed (chronic) health hazard
- ☒ Fire hazard
- ☐ Sudden release of pressure hazard
- ☐ Reactive hazard

Under Section 311, submittal of MSDS's or a list of product names to the local emergency planning commission, state emergency response commission & local fire department is required after October 17, 1989 for all hazardous substances.

Section 313 - List of Toxic Chemicals (40CFR372): This product contains the following ingredients, (with CAS# and % range) which appears on the List of Toxic Chemicals: None.

### DISCLAIMER OF LIABILITY

Frac Tech warrants only title to the goods sold. THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, WITH RESPECT TO THE GOODS SOLD, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF UTILITY, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE. Frac Tech does not warrant: 1) that the goods sold or the use made thereof by the buyer will not infringe any intellectual property rights, including but not limited to, patents of any third party, and 2) that use of goods sold will not damage any subterranean formation which comes into contact with goods.

## IT CATALYST™

411040

2 NFPA HEALTH  
 0 NFPA FLAMMABILITY  
 1 NFPA REACTIVITY  
 oxy- SPECIFIC HAZARD  
 acid

## SECTION I - IDENTIFICATION

COMPANY NAME..... FRAC TECH DIVISION, PLAINSMAN TECHNOLOGY, INC.  
 P.O. BOX 357  
 MARLOW, OK 73033  
 (405)638-6608  
 EMERGENCY PHONE NUMBER... (800)633-8253  
 EFFECTIVE DATE..... March 11, 1994  
 REVISED DATE..... N/A  
 CHEMICAL NAME..... N/A  
 TRADE NAME..... IT CATALYST™  
 CHEMICAL FAMILY..... Salt Solution

## SECTION II - COMPONENTS

HAZARDOUS COMPONENTS	HAZARDOUS %	PEL/TLV	CAS #
Cupric Chloride	10-30%	PEL=1 mg/m <sup>3</sup> (CU) TLV-1 mg/m <sup>3</sup> (CU)	7447-39-4
Sodium Chloride	N/A	NE	N/A

## SECTION III - PHYSICAL DATA

BILING Point(F)..... N/A  
 REEZING POINT (F)..... -17°F  
 OLATILITY/VOL(%)..... 68%  
 ELTING POINT..... N/A  
 APOR PRESSURE (mm Hg)... N/A  
 APOR DENSITY (Air=1).... N/A  
 OLUBILITY IN H2O..... Complete  
 PPEARANCE/ODOR..... Green transparent liquid, slight hydrochloric odor.  
 PECIFIC GRAVITY (H2O=1). 1.25  
 VAPORATION RATE..... N/A  
 H..... 2-4  
 ENSITY..... 10.4 lbs/gal

## SECTION IV - FIRE AND EXPLOSION HAZARD DATA

LASH POINT..... N/A  
 OWER FLAME LIMIT..... N/A  
 IGHIER FLAME LIMIT..... N/A  
 XTINGUISH MEDIA..... Any suitable means to extinguish surrounding fire.  
 OR FIRE..... Use special breathing equipment and protective clothing appropriate to the surrounding fire.

# IT CATALYST (TM)

UNUSUAL FIRE HAZARD..... Not considered to be an explosion hazard. Reactions with incompatible materials may pose an explosion hazard.

## SECTION V - HEALTH HAZARD DATA

ROUTES OF ENTRY	INHALATION?	EYES?	SKIN?	INGESTION?
	Yes	Yes	Yes	Yes

HEALTH HAZARDS .....

CARCINOGENICITY	NTP?	IARC MONOGRAPHS?	OSHA REGULATED
	No	No	No

THRESHOLD LIMIT VALUE.... N/A

SYMPTOMS.....

OVER EXPOSURE EFFECTS.... Ingestion: May cause burning pain in the mouth, esophagus and stomach. Hemorrhagic gastritis, nausea, vomiting, abdominal pain, metallic taste and diarrhea may occur. If vomiting does not occur immediately systemic copper poisoning may occur. Symptoms may include capillary damage, headache, cold sweat, weak pulse, kidney and liver damage, central nervous excitation followed by depression, jaundice, convulsions, paralysis and coma. Death may occur from shock or renal failure. Inhalation: May cause irritation of the upper respiratory tract; symptoms may include coughing, sore throat, and shortness of breath. May also cause symptoms similar to the common cold, including chills and stuffiness of the head. Skin: May cause irritation, redness, and pain. Eyes: May cause irritation, redness, pain discoloration and damage. Chronic Exposure: Prolonged or repeated skin exposure may cause dermatitis. Prolonged or repeated exposure to dusts of copper salts may cause discoloration of the skin or hair, ulceration and perforation of the nasal septum, runny nose, metallic taste, and atrophic changes and irritation of the mucous membranes.

FIRST AID PROCEDURES..... Eyes: Immediately, flush with large amounts of water for at least 15 minutes while holding eyelids apart. Washing within one minute is essential to achieve maximum effectiveness. Get immediate medical attention after flushing. Skin: Wash affected area thoroughly with soap and water. Remove contaminated clothing and launder before reuse. If irritation should develop, get medical attention. Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Consult a physician. Ingestion: Never give anything by mouth to an unconscious person. Induce vomiting immediately by giving two glasses of water, or milk if available and sticking finger down throat. Call a physician immediately. Notes to Physician: None

LABORATORY REPORT

Client: PRC ENVIRONMENTAL Client Sample ID: BJWEST-TANXA-07 Date Sampled: 04/24/95  
Project Name: BJ/WESTERN COMPANY POP Sample ID: 2921.07 Date Received: 04/26/95  
Project No.: 170R063214LA Report No.: A6868 Date Reported: 05/22/95

GC/MS-TCLP SEMIVOLATILES (DATA SHEET)

Sample Matrix: SLUDGE Dilution: 1.0 Method Ref.: SW846-8270  
Multiplying Factor: 5.0 Date TCLP Extracted: 05/10/95 GC/MS File ID: A6868  
Sample Volume: 200 ml Date Extracted: 05/12/95 Analyst: RRP  
Extract Volume: 1.0 ml Date Analyzed: 05/21/95

COMPOUND	REGULATORY LEVEL (ug/L) ±	QUANTITATION LIMIT (ug/L)	RESULTS (ug/L)
1,4-Dichlorobenzene	7500	50	ND
2,4,5-Trichlorophenol	400000	50	ND
2,4,6-Trichlorophenol	2000	50	ND
2,4-Dinitrotoluene	130	50	ND
2-Methylphenol	200000	50	ND
3+4-Methylphenols	200000	50	ND
Hexachlorobenzene	130	50	ND
Hexachlorobutadiene	500	50	ND
Hexachloroethane	3000	50	ND
Nitrobenzene	2000	50	ND
Pentachlorophenol	100000	125	ND
Pyridine	5000	50	ND

QUALITY ASSURANCE/QUALITY CONTROL

Surrogate	Spike Added (ug/L)	QC Limits (Recovery)	% Recovery	Surrogate	Spike Added (ug/L)	QC Limits (Recovery)	% Recovery
Nitrobenzene-d5	250	(35-114)	105	Phenol-d5	375	(10-94)	89
2-Fluorobiphenyl	250	(43-116)	89	2-Fluorophenol	375	(21-100)	80
Terphenyl-d14	250	(33-141)	81	2,4,6-Tribromophenol	375	(10-123)	118

Method Blank ID: 2921S.MBLX1 LCS ID: NA MS ID: NA MSD ID: NA

TCLP Blank ID: 2921S.TBLX1 TCLP LCS ID: 2921S.TLCS1 TCLP MS ID: 2921.04MS TCLP MSD ID: NA

= Regulatory Levels are as stated in 40CFR 261.24 and are provided for information only.

000379

LABORATORY REPORT

Client: PRC ENVIRONMENTAL Client Sample ID: BJWEST-TANK8-08 Date Sampled: 04/24/95  
Project Name: BJ/WESTERN COMPANY PDP Sample ID: 2921.08 Date Received: 04/26/95  
Project No.: 170R063214LA Report No.: A6872 Date Reported: 05/23/95

GC/MS-TCLP SEMIVOLATILES (DATA SHEET)

Sample Matrix: LIQUID Dilution: 2.0 Method Ref.: SW846-8270  
Multipling Factor: 20000.0 Date TCLP Extracted: 05/10/95 GC/MS File ID: A6872  
Sample Volume: 1 ml Date Extracted: 05/19/95 Analyst: RRP  
Extract Volume: 10.0 ml Date Analyzed: 05/22/95

COMPOUND	REGULATORY LEVEL (ug/L) *	QUANTITATION LIMIT (ug/L)	RESULTS (ug/L)
1,4-Dichlorobenzene	7500	200000	ND
2,4,5-Trichlorophenol	400000	200000	ND
2,4,6-Trichlorophenol	2000	200000	ND
2,4-Dinitrotoluene	130	200000	ND
2-Methylphenol	200000	200000	ND
4-Methylphenols	200000	200000	ND
Hexachlorobenzene	130	200000	ND
Hexachlorobutadiene	500	200000	ND
Hexachloroethane	3000	200000	ND
Nitrobenzene	2000	200000	ND
Pentachlorophenol	100000	500000	ND
Picridine	5000	200000	ND

QUALITY ASSURANCE/QUALITY CONTROL

Surrogate	Spike Added (ug/L)	QC Limits (Recovery)	% Recovery	Surrogate	Spike Added (ug/L)	QC Limits (Recovery)	% Recovery
Nitrobenzene-d5	100000	(35-114)	192.0	Phenol-d5	150000	(10-94)	100.0
2-Fluorobiphenyl	100000	(43-116)	128.0	2-Fluorophenol	150000	(21-100)	93.0
Terphenyl-d14	100000	(33-141)	115.0	2,4,6-Tribromophenol	150000	(10-123)	122.0

Method Blank ID: 2921S.WBLK2 LCS ID: NA MS ID: NA MSD ID: NA

TCLP Blank ID: 2921S.FBLK2 TCLP LCS ID: 2921S.TLCS2 TCLP MS ID: 2921.04MS TCLP MSD ID: NA

\* Regulatory Levels are as stated in 40CFR 261.24 and are provided for information only.

000382

LABORATORY REPORT

Client: PRC ENVIRONMENTAL Client Sample ID: BJWEST-TANK8-09 Date Sampled: 04/24/95  
Project Name: 8J/WESTERN COMPANY PDP Sample ID: 2921.09 Date Received: 04/26/95  
Project No.: 170R063214LA Report No.: A6834 Date Reported: 05/22/95

GC/MS-TCLP SEMIVOLATILES (DATA SHEET)

Sample Matrix: SLUDGE Dilution: 1.0 Method Ref.: SM846-8270  
Multiplying Factor: 5.0 Date TCLP Extracted: 05/10/95 GC/MS File ID: A6834  
Sample Volume: 200 ml Date Extracted: 05/12/95 Analyst: RRP  
Extract Volume: 1.0 ml Date Analyzed: 05/20/95

COMPOUND	REGULATORY LEVEL (ug/L) *	QUANTITATION LIMIT (ug/L)	RESULTS (ug/L)
1,4-Dichlorobenzene	7500	50	ND
2,4,5-Trichlorophenol	400000	50	ND
2,4,6-Trichlorophenol	2000	50	ND
2,4-Dinitrotoluene	130	50	ND
2-Methylphenol	200000	50	ND
3+4-Methylphenols	200000	50	ND
Hexachlorobenzene	130	50	ND
Hexachlorobutadiene	500	50	ND
Hexachloroethane	3000	50	ND
Nitrobenzene	2000	50	ND
Pentachlorophenol	100000	125	ND
Pyridine	5000	50	ND

QUALITY ASSURANCE/QUALITY CONTROL

Surrogate	Spike Added (ug/L)	QC Limits (Recovery)	% Recovery	Surrogate	Spike Added (ug/L)	QC Limits (Recovery)	% Recovery
Nitrobenzene-d5	250	(35-114)	67	Phenol-d5	375	(10-94)	59
2-Fluorobiphenyl	250	(43-116)	64	2-Fluorophenol	375	(21-100)	33
Terphenyl-d14	250	(33-141)	93	2,4,6-Tribromophenol	375	(10-123)	45

Method Blank ID: 2921S.WBLX1 LCS ID: NA MS ID: NA MSD ID: NA

TCLP Blank ID: 2921S.TBLX1 TCLP LCS ID: 2921S.TLCS1 TCLP MS ID: 2921.04MS TCLP MSD ID: NA

\* Regulatory Levels are as stated in 40CFR 261.24 and are provided for information only.

000385

PDP ANALYTICAL SERVICES  
1680 Lake Front Circle, Suite 8, The Woodlands, TX 77380; (713) 363-2233

LABORATORY REPORT

Client: PRC ENVIRONMENTAL Client Sample ID: BJWEST-TANKC-10 Date Sampled: 04/24/95  
Project Name: BJ/WESTERN COMPANY PDP Sample ID: 2921.10 Date Received: 04/26/95  
Project No.: 170R063214LA Report No.: A6873 Date Reported: 05/23/95

GC/MS-TCLP SEMIVOLATILES (DATA SHEET)

Sample Matrix: LIQUID Dilution: 2.0 Method Ref.: SW846-8270  
Multiplying Factor: 20000.0 Date TCLP Extracted: 05/10/95 GC/MS File ID: A6873  
Sample Volume: 1 ml Date Extracted: 05/19/95 Analyst: RRP  
Extract Volume: 10.0 ml Date Analyzed: 05/22/95

COMPOUND	REGULATORY LEVEL (ug/L) ±	QUANTITATION LIMIT (ug/L)	RESULTS (ug/L)
1,4-Dichlorobenzene	7500	200000	ND
2,4,5-Trichlorophenol	400000	200000	ND
2,4,6-Trichlorophenol	2000	200000	ND
2,4-Dinitrotoluene	130	200000	ND
2-Methylphenol	200000	200000	ND
3+4-Methylphenols	200000	200000	ND
Hexachlorobenzene	130	200000	ND
Hexachlorobutadiene	500	200000	ND
Hexachloroethane	3000	200000	ND
Nitrobenzene	2000	200000	ND
Pentachlorophenol	100000	500000	ND
Pyridine	5000	200000	ND

QUALITY ASSURANCE/QUALITY CONTROL

Surrogate	Spike Added (ug/L)	QC Limits (Recovery)	% Recovery	Surrogate	Spike Added (ug/L)	QC Limits (Recovery)	% Recovery
Nitrobenzene-d5	100000	(35-114)	169 D	Phenol-d5	150000	(10-94)	99 D
2-Fluorobiphenyl	100000	(43-116)	129 D	2-Fluorophenol	150000	(21-100)	95 D
Terphenyl-d14	100000	(33-141)	125 D	2,4,6-Tribromophenol	150000	(10-123)	121 D

Method Blank ID: 2921S.WBLK2 LCS ID: NA MS ID: NA MSD ID: NA

TCLP Blank ID: 2921S.FBLK2 TCLP LCS ID: 2921S.TLCS2 TCLP MS ID: 2921.04MS TCLP MSD ID: NA

= Regulatory Levels are as stated in 40CFR 261.24 and are provided for information only.

000385

LABORATORY REPORT

Client: PRC ENVIRONMENTAL Client Sample ID: BJWEST-TANKE-11 Date Sampled: 04/24/95  
Project Name: BJ/WESTERN COMPANY PDP Sample ID: 2921.11 Date Received: 04/26/95  
Project No.: 170R063214LA Report No.: A6835 Date Reported: 05/22/95

GC/MS-TCLP SEMIVOLATILES (DATA SHEET)

Sample Matrix: SLUDGE Dilution: 1.0 Method Ref.: SW846-8270  
Multiplying Factor: 5.0 Date TCLP Extracted: 05/10/95 GC/MS File ID: A6835  
Sample Volume: 200 ml Date Extracted: 05/12/95 Analyst: RRP  
Extract Volume: 1.0 ml Date Analyzed: 05/20/95

COMPOUND	REGULATORY LEVEL (ug/L) ±	QUANTITATION LIMIT (ug/L)	RESULTS (ug/L)
1,4-Dichlorobenzene	7500	50	ND
2,4,5-Trichlorophenol	400000	50	ND
2,4,6-Trichlorophenol	2000	50	ND
2,4-Dinitrotoluene	130	50	ND
2-Methylphenol	200000	50	ND
3+4-Methylphenols	200000	50	ND
Hexachlorobenzene	130	50	ND
Hexachlorobutadiene	500	50	ND
Hexachloroethane	3000	50	ND
Nitrobenzene	2000	50	ND
Pentachlorophenol	100000	125	ND
Pyridine	5000	50	ND

QUALITY ASSURANCE/QUALITY CONTROL

Surrogate	Spike Added (ug/L)	QC Limits (Recovery)	% Recovery	Surrogate	Spike Added (ug/L)	QC Limits (Recovery)	% Recovery
Nitrobenzene-d5	250	(35-114)	72	Phenol-d5	375	(10-94)	60
2-Fluorobiphenyl	250	(43-116)	64	2-Fluorophenol	375	(21-100)	56
Terphenyl-d14	250	(33-141)	88	2,4,6-Tribromophenol	375	(10-123)	39

Method Blank ID: 2921S.MBLX1 LCS ID: NA MS ID: NA MSD ID: NA

TCLP Blank ID: 2921S.TBLX1 TCLP LCS ID: 2921S.TLCS1 TCLP MS ID: 2921.04MS TCLP MSD ID: NA

= Regulatory Levels are as stated in 40CFR 261.24 and are provided for information only.

000391

PDP ANALYTICAL SERVICES  
1680 Lake Front Circle, Ste.3; Woodlands TX 77380; Phone (713)363-2233

LABORATORY REPORT

Client: PRC ENVIRONMENTAL Client Sample ID: BJWEST-OUTSUMP-01 Date Sampled: 04-24-95  
Project Name: BJ/WESTERN COMPANY PDP Sample ID: 2921.01 Date Received: 04-26-95  
Project Number: 170R063214LA Report Number: I92101 Date Reported: 05-23-95

TCLP METALS (DATA SHEET)

Sample Matrix: SLUDGE

Units: mg/L

ANALYTE	METHOD	DATE EXTRACTED	DATE PREPARED	DATE ANALYZED	QUANTITATION LIMIT	RESULT	ANALYST
Asenic	SW846-6010	05-10-95	05-18-95	05-22-95	1	ND	RB
Barium	SW846-6010	05-10-95	05-18-95	05-22-95	0.05	1.01	RB
Cadmium	SW846-6010	05-10-95	05-18-95	05-22-95	0.025	ND	RB
Chromium	SW846-6010	05-10-95	05-18-95	05-22-95	0.05	ND	RB
Lead	SW846-6010	05-10-95	05-18-95	05-22-95	0.25	ND	RB
Mercury	SW846-7470	05-10-95	05-18-95	05-18-95	0.02	ND	CL
Selenium	SW846-6010	05-10-95	05-18-95	05-22-95	0.5	ND	RB
Silver	SW846-6010	05-10-95	05-18-95	05-22-95	0.05	ND	RB

QUALITY ASSURANCE/QUALITY CONTROL

ICP Method Blank ID: ICPB85 ICP LCS ID: ICPB85 ICP MS ID: 2921.04MS  
CV Method Blank ID: HGB85 CVAA LCS ID: HGLB5 CVAA MS ID: 2921.04MS  
ICP Extraction Blank ID: 2921.ELF1 ICP LCSD ID: ICPB85D ICP MSD ID: NA  
CLP Filtration Blank ID: 2921.FLT.9LX CVAA LCSD ID: HGLB5D CVAA MSD ID: NA

000014

LABORATORY REPORT

Client: PRC ENVIRONMENTAL Client Sample ID: BJWEST-SANDTRAP-04 Date Sampled: 04-24-95  
Project Name: SJ/WESTERN COMPANY PDP Sample ID: 2921.04 Date Received: 04-26-95  
Project Number: 170R063214LA Report Number: I92104 Date Reported: 05-23-95

TCLP METALS (DATA SHEET)

Sample Matrix: SLUDGE Units: mg/L

ANALYTE	METHOD	DATE EXTRACTED	DATE PREPARED	DATE ANALYZED	QUANTITATION LIMIT	RESULT	ANALYST
Arsenic	SW846-6010	05-10-95	05-18-95	05-22-95	1	NO	RB
Barium	SW846-6010	05-10-95	05-18-95	05-22-95	0.05	0.580	RB
Cadmium	SW846-6010	05-10-95	05-18-95	05-22-95	0.025	NO	RB
Chromium	SW846-6010	05-10-95	05-18-95	05-22-95	0.05	NO	RB
Lead	SW846-6010	05-10-95	05-18-95	05-22-95	0.25	0.30	RB
Mercury	SW846-7470	05-10-95	05-18-95	05-18-95	0.02	NO	CL
Selenium	SW846-6010	05-10-95	05-18-95	05-22-95	0.5	NO	RB
Silver	SW846-6010	05-10-95	05-18-95	05-22-95	0.05	0.051	RB

QUALITY ASSURANCE/QUALITY CONTROL

ICP Method Blank ID: ICPB85	ICP LCS ID: ICPL85	ICP MS ID: 2921.04MS
CVAA Method Blank ID: HG885	CVAA LCS ID: HGL85	CVAA MS ID: 2921.04MS
ICP Extraction Blank ID: 2921.E1F1	ICP LCSD ID: ICPL85D	ICP MSD ID: NA
TCLP Filtration Blank ID: 2921.FLT.BLX	CVAA LCSD ID: HGL85D	CVAA MSD ID: NA

000015

LABORATORY REPORT

Client: PRC ENVIRONMENTAL Client Sample ID: 8JWEST-SANDTRAP-04 Date Sampled: 04-24-95  
Project Name: 8J/WESTERN COMPANY POP Sample ID: 2921.04 (Dup) Date Received: 04-26-95  
Project Number: 170R063214LA Report Number: 1921040 Date Reported: 05-23-95

TCLP METALS (DATA SHEET)

Sample Matrix: SLUDGE

Units: mg/L

ANALYTE	METHOD	DATE EXTRACTED	DATE PREPARED	DATE ANALYZED	QUANTITATION LIMIT	RESULT	ANALYST
Arsenic	SW846-6010	05-10-95	05-18-95	05-22-95	1	ND	RB
Barium	SW846-6010	05-10-95	05-18-95	05-22-95	0.05	0.582	RB
Cadmium	SW846-6010	05-10-95	05-18-95	05-22-95	0.025	ND	RB
Chromium	SW846-6010	05-10-95	05-18-95	05-22-95	0.05	0.050	RB
Lead	SW846-6010	05-10-95	05-18-95	05-22-95	0.25	0.29	RB
Mercury	SW846-7470	05-10-95	05-18-95	05-18-95	0.001	ND	CL
Selenium	SW846-6010	05-10-95	05-18-95	05-22-95	0.5	ND	RB
Silver	SW846-6010	05-10-95	05-18-95	05-22-95	0.05	ND	RB

QUALITY ASSURANCE/QUALITY CONTROL

ICP Method Blank ID: ICP885	ICP LCS ID: ICPL85	ICP MS ID: 2921.04MS
CVAA Method Blank ID: HG885	CVAA LCS ID: HGL85	CVAA MS ID: 2921.04MS
ICP Extraction Blank ID: 2921.EIF1	ICP LCSD ID: ICPL85D	ICP MSD ID: NA
ICP Filtration Blank ID: 2921.FLT.BLK	CVAA LCSD ID: HGL85D	CVAA MSD ID: NA

000016

730000

LABORATORY REPORT

Client: PRC ENVIRONMENTAL Client Sample ID: 8JWEST-SANDTRAP-05 Date Sampled: 04-24-95  
Project Name: 8J/WESTERN COMPANY POP Sample ID: 2921.05 Date Received: 04-26-95  
Project Number: 170R063214LA Report Number: 192105 Date Reported: 05-23-95

TCLP METALS (DATA SHEET)

Sample Matrix: SLUDGE

Units: mg/L

ANALYTE	METHOD	DATE EXTRACTED	DATE PREPARED	DATE ANALYZED	QUANTITATION LIMIT	RESULT	ANALYST
Arsenic	SW846-6010	05-10-95	05-18-95	05-22-95	1	ND	RB
Barium	SW846-6010	05-10-95	05-18-95	05-22-95	0.05	0.47	RB
Cadmium	SW846-6010	05-10-95	05-18-95	05-22-95	0.025	ND	RB
Chromium	SW846-6010	05-10-95	05-18-95	05-22-95	0.05	ND	RB
Lead	SW846-6010	05-10-95	05-18-95	05-22-95	0.25	ND	RB
Mercury	SW846-7470	05-10-95	05-18-95	05-18-95	0.02	ND	CL
Selenium	SW846-6010	05-10-95	05-18-95	05-22-95	0.5	ND	RB
Silver	SW846-6010	05-10-95	05-18-95	05-22-95	0.05	ND	RB

QUALITY ASSURANCE/QUALITY CONTROL

ICP Method Blank ID: ICP885	ICP LCS ID: ICPL85	ICP MS ID: 2921.04MS
CVAA Method Blank ID: HG885	CVAA LCS ID: HGL85	CVAA MS ID: 2921.04MS
ICP Extraction Blank ID: 2921.ELF1	ICP LCSD ID: ICPL85D	ICP MSD ID: NA
ICP Filtration Blank ID: 2921.FLT.BLK	CVAA LCSD ID: HGL85D	CVAA MSD ID: NA

000017

LABORATORY REPORT

Client: PRC ENVIRONMENTAL Client Sample ID: 8JWEST-TANKA-07 Date Sampled: 04-24-95  
Project Name: 8J/WESTERN COMPANY POP Sample ID: 2921.07 Date Received: 04-26-95  
Project Number: 170R06J214LA Report Number: 192107 Date Reported: 05-23-95

TCLP METALS (DATA SHEET)

Sample Matrix: SLUDGE Units: mg/L

ANALYTE	METHOD	DATE EXTRACTED	DATE PREPARED	DATE ANALYZED	QUANTITATION LIMIT	RESULT	ANALYST
Arsenic	SW846-6010	05-10-95	05-18-95	05-22-95	1	ND	RB
Barium	SW846-6010	05-10-95	05-18-95	05-22-95	0.05	0.671	RB
Cadmium	SW846-6010	05-10-95	05-18-95	05-22-95	0.025	ND	RB
Chromium	SW846-6010	05-10-95	05-18-95	05-22-95	0.05	ND	RB
Lead	SW846-6010	05-10-95	05-18-95	05-22-95	0.25	ND	RB
Mercury	SW846-7470	05-10-95	05-18-95	05-18-95	0.02	ND	CL
Selenium	SW846-6010	05-10-95	05-18-95	05-22-95	0.5	ND	RB
Silver	SW846-6010	05-10-95	05-18-95	05-22-95	0.05	ND	RB

QUALITY ASSURANCE/QUALITY CONTROL

ICP Method Blank ID: ICP885	ICP LCS ID: ICPL85	ICP MS ID: 2921.04MS
CVAA Method Blank ID: HG885	CVAA LCS ID: HGL85	CVAA MS ID: 2921.04MS
ICP Extraction Blank ID: 2921.E1F1	ICP LCSD ID: ICPL85D	ICP MSD ID: NA
ICP Filtration Blank ID: 2921.FLT.BLK	CVAA LCSD ID: HGL85D	CVAA MSD ID: NA

000018

PDP ANALYTICAL SERVICES  
1680 Lake Front Circle, Ste.8; Woodlands TX 77380; Phone (713)363-2233

LABORATORY REPORT

Client: PRC ENVIRONMENTAL Client Sample ID: 8JWEST-TANK8-09 Date Sampled: 04-24-95  
Project Name: 8J/WESTERN COMPANY PDP Sample ID: 2921.09 Date Received: 04-26-95  
Project Number: 170R06J214LA Report Number: 192109 Date Reported: 05-23-95

TCLP METALS (DATA SHEET)

Sample Matrix: SLUDGE

Units: mg/L

ANALYTE	METHOD	DATE EXTRACTED	DATE PREPARED	DATE ANALYZED	QUANTITATION LIMIT	RESULT	ANALYST
Arsenic	SW846-6010	05-10-95	05-18-95	05-22-95	1	ND	RB
Barium	SW846-6010	05-10-95	05-18-95	05-22-95	0.05	0.32	RB
Cadmium	SW846-6010	05-10-95	05-18-95	05-22-95	0.025	ND	RB
Chromium	SW846-6010	05-10-95	05-18-95	05-22-95	0.05	ND	RB
Lead	SW846-6010	05-10-95	05-18-95	05-22-95	0.25	ND	RB
Mercury	SW846-7470	05-10-95	05-18-95	05-18-95	0.02	ND	CL
Selenium	SW846-6010	05-10-95	05-18-95	05-22-95	0.5	ND	RB
Silver	SW846-6010	05-10-95	05-18-95	05-22-95	0.05	ND	RB

QUALITY ASSURANCE/QUALITY CONTROL

ICP Method Blank ID: ICP885	ICP LCS ID: ICPL85	ICP MS ID: 2921.04MS
AA Method Blank ID: HG885	CVAA LCS ID: HGL85	CVAA MS ID: 2921.04MS
TCLP Extraction Blank ID: 2921.E1F1	ICP LCSD ID: ICPL85D	ICP MSD ID: NA
TCLP Filtration Blank ID: 2921.FLT.BLX	CVAA LCSD ID: HGL85D	CVAA MSD ID: NA

000019

POP ANALYTICAL SERVICES  
1680 Lake Front Circle, Ste.8; Woodlands TX 77380; Phone (713)363-2233

LABORATORY REPORT

Client: PRC ENVIRONMENTAL Client Sample ID: BJWEST-TANKE-11 Date Sampled: 04-24-95  
Project Name: BJ/WESTERN COMPANY POP Sample ID: 2921.11 Date Received: 04-26-95  
Project Number: 170R063214LA Report Number: 192111 Date Reported: 05-23-95

TCLP METALS (DATA SHEET)

Sample Matrix: SLUDGE Units: mg/L

ANALYTE	METHOD	DATE EXTRACTED	DATE PREPARED	DATE ANALYZED	QUANTITATION LIMIT	RESULT	ANALYST
Arsenic	SW846-6010	05-10-95	05-18-95	05-22-95	1	ND	RB
Barium	SW846-6010	05-10-95	05-18-95	05-22-95	0.05	0.33	RB
Cadmium	SW846-6010	05-10-95	05-18-95	05-22-95	0.025	ND	RB
Chromium	SW846-6010	05-10-95	05-18-95	05-22-95	0.05	ND	RB
Lead	SW846-6010	05-10-95	05-18-95	05-22-95	0.25	ND	RB
Mercury	SW846-7470	05-10-95	05-18-95	05-18-95	0.02	ND	CL
Selenium	SW846-6010	05-10-95	05-18-95	05-22-95	0.5	ND	RB
Silver	SW846-6010	05-10-95	05-18-95	05-22-95	0.05	ND	RB

QUALITY ASSURANCE/QUALITY CONTROL

ICP Method Blank ID: ICPB85	ICP LCS ID: ICPL85	ICP MS ID: 2921.04MS
VAA Method Blank ID: HG885	CVAA LCS ID: HGL85	CVAA MS ID: 2921.04MS
ICLP Extraction Blank ID: 2921.E1F1	ICP LCSD ID: ICPL85D	ICP MSD ID: NA
TCLP Filtration Blank ID: 2921.FLT.8LK	CVAA LCSD ID: HGL85D	CVAA MSD ID: NA

000020

*GENERAL CHEMISTRY*

000104

POP ANALYTICAL SERVICES  
1680 Lake Front Circle, Ste.3; Woodlands TX 77380; Phone (713)363-2233

LABORATORY REPORT

Client: PRC ENVIRONMENTAL  
Project Name: BJ/WESTERN COMPANY  
Project No: 170R063214LA

Date Reported: 05-23-95  
Report No: I921CORR  
Analyst: KW

WET CHEMISTRY PARAMETER: Corrosivity pH

Method Reference: SW-346 9040/9045

UNITS: NA

POP LABORATORY ID	CLIENT ID	MATRIX	DATE SAMPLED	DATE RECEIVED	DATE PREPARED	DATE ANALYZED	QUANT LIMIT	RESULT	SPIKE ADDED OR TRUE VALUE	RELATIVE PERCENT DIFF(20)	PERCENT RECOVERY (75-125)
2921.02	BJWEST-SANDTRAP-02	LIQUID	04-24-95	04-26-95	NA	05-22-95	NA	2.25			
2921.06	BJWEST-TANKA-06	LIQUID	04-24-95	04-26-95	NA	05-22-95	NA	2.26			
2921.07	BJWEST-TANKA-07	SLUDGE	04-24-95	04-26-95	NA	05-22-95	NA	2.90			
2921.14	BJWEST-DRUMOS-14	LIQUID	04-25-95	04-26-95	NA	05-22-95	NA	11.52			

QUALITY ASSURANCE/QUALITY CONTROL

LCS1	LAB CONTROL STD	NA	NA	NA	NA	05-22-95	NA	8.98	9.09		99
LCS2	LAB CONTROL STD	NA	NA	NA	NA	05-22-95	NA	8.99	9.09	0.1	99
2921.02	SAMPLE	NA	NA	NA	NA	05-22-95	NA	2.25			
2921.02D	DUPLICATE	NA	NA	NA	NA	05-22-95	NA	2.44		9.1	

00010.1A

POP ANALYTICAL SERVICES  
1680 Lake Front Circle, Ste.2; Woodlands TX 77380; Phone (713)363-2233

LABORATORY REPORT

Client: PRC ENVIRONMENTAL  
Project Name: BJ/WESTERN COMPANY  
Project No: 170R063214LA

Date Reported: 05-23-95  
Report No: I921IGNA  
Analyst: KW

WET CHEMISTRY PARAMETER: Ignitability

Method Reference: SW-846 1010

UNITS: Degrees F

POP LABORATORY ID	CLIENT ID	MATRIX	DATE SAMPLED	DATE RECEIVED	DATE PREPARED	DATE ANALYZED	QUANT LIMIT	RESULT	SPIKE ADDED OR TRUE VALUE	RELATIVE PERCENT DIFF(20)	PERCENT RECOVERY (75-125)
2921.02	BJWEST-SANDTRAP-02	LIQUID	04-24-95	04-26-95	NA	05-19-95	>200	>200			
2921.06	BJWEST-TANKA-06	LIQUID	04-24-95	04-26-95	NA	05-19-95	>200	>200			
2921.08	BJWEST-TANKB-08	LIQUID	04-24-95	04-26-95	NA	05-19-95	>200	>200			
2921.10	BJWEST-TANKC-10	LIQUID	04-24-95	04-26-95	NA	05-19-95	>200	>200			
2921.12	BJWEST-DRUM02-12	LIQUID	04-25-95	04-26-95	NA	05-19-95	>200	182			
2921.13	BJWEST-DRUM03-13	LIQUID	04-25-95	04-26-95	NA	05-19-95	>200	165			

QUALITY ASSURANCE/QUALITY CONTROL

W	METHOD BLANK	NA	NA	NA	NA	05-19-95	>200	>200			
LCS1	LAB CONTROL STD	NA	NA	NA	NA	05-19-95	>200	84	84		100
LCS2	LAB CONTROL STD	NA	NA	NA	NA	05-19-95	>200	84.1	84	0.1	100
2921.02	SAMPLE	NA	NA	NA	NA	05-19-95	>200	>200			
2921.02D	DUPLICATE	NA	NA	NA	NA	05-19-95	>200	>200		NC	

000105

PDP ANALYTICAL SERVICES  
1680 Lake Front Circle, Ste.B; Woodlands TX 77380; Phone (713)363-2233

LABORATORY REPORT

Client: PRC ENVIRONMENTAL  
Project Name: 8J/WESTERN COMPANY  
Project No: 170R063214LA

Date Reported: 05-23-95  
Report No: I921IGN8  
Analyst: KM

WET CHEMISTRY PARAMETER: Ignitability

Method Reference: SW-846 1010

UNITS: Degrees F

PDP LABORATORY ID	CLIENT ID	MATRIX	DATE SAMPLED	DATE RECEIVED	DATE PREPARED	DATE ANALYZED	QUANT LIMIT	RESULT	SPIKE ADDED OR TRUE VALUE	RELATIVE PERCENT DIFF(20)	PERCENT RECOVERY (75-125)
2921.15	8JWEST-DRUM11-15	LIQUID	04-25-95	04-26-95	NA	05-22-95	>200	180			
2921.16	8JWEST-DRUM15-16	LIQUID	04-25-95	04-26-95	NA	05-22-95	>200	162			
2921.17	8JWEST-DRUM17-17	LIQUID	04-25-95	04-26-95	NA	05-22-95	>200	155			
2921.18	8JWEST-DRUM27-18	LIQUID	04-25-95	04-26-95	NA	05-22-95	>200	<75.0			

QUALITY ASSURANCE/QUALITY CONTROL

PBW	METHOD BLANK	NA	NA	NA	NA	05-22-95	>200	>200			
LCS1	LAB CONTROL STD	NA	NA	NA	NA	05-22-95	>200	85	84		101
LCS2	LAB CONTROL STD	NA	NA	NA	NA	05-22-95	>200	84	84	1.2	100
2922.01	SAMPLE	NA	NA	NA	NA	05-22-95	>200	100			
2922.010	DUPLICATE	NA	NA	NA	NA	05-22-95	>200	98		2.0	

000106

*SPECIFIC GRAVITY*

000011



# Inchcape Testing Services

## Environmental Laboratories

1089 E. Collins Blvd.  
Richardson, TX 75081  
Tel. 214-238-5591  
Fax. 214-238-5592

DATE RECEIVED : 28-APR-1995

REPORT NUMBER : D95-3910-1

REPORT DATE : 2-MAY-1995

SAMPLE SUBMITTED BY : PDP Analytical Services  
ADDRESS : 1680 Lake Front Circle  
: Woodlands, TX 77380  
ATTENTION : Mr. Mark Bourgeois

SAMPLE MATRIX : Sludge  
ID MARKS : 2921.01  
DATE SAMPLED : 26-APR-1995

MISCELLANEOUS ANALYSES		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Specific Gravity at 25 C /1		1.74
Analyzed using ASTM D1429 on 2-MAY-1995 by RJS QC Batch No : 405005A		

000012



# Inchcape Testing Services

## Environmental Laboratories

1089 E. Collins Blvd.  
Richardson, TX 75081  
Tel. 214-238-5591  
Fax. 214-238-5592

DATE RECEIVED : 28-APR-1995

REPORT NUMBER : D95-3910-2  
REPORT DATE : 2-MAY-1995

SAMPLE SUBMITTED BY : PDP Analytical Services  
ADDRESS : 1680 Lake Front Circle  
: Woodlands, TX 77380  
ATTENTION : Mr. Mark Bourgeois

SAMPLE MATRIX : Liquid  
ID MARKS : 2921.02  
DATE SAMPLED : 26-APR-1995

*Sand Trap - 02*

MISCELLANEOUS ANALYSES		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Specific Gravity at 25 C /1		0.883
Analyzed using ASTM D1429 on 2-MAY-1995 by RJS QC Batch No : 405005A		

000013



# Inchcape Testing Services

## Environmental Laboratories

1089 E. Collins Blvd.  
Richardson, TX 75081  
Tel. 214-238-5591  
Fax. 214-238-5592

DATE RECEIVED : 28-APR-1995

REPORT NUMBER : D95-3910-3

REPORT DATE : 2-MAY-1995

SAMPLE SUBMITTED BY : PDP Analytical Services  
ADDRESS : 1680 Lake Front Circle  
: Woodlands, TX 77380  
ATTENTION : Mr. Mark Bourgeois

SAMPLE MATRIX : Sludge  
ID MARKS : 2921.04  
DATE SAMPLED : 26-APR-1995

*Sand Trap - 04*

MISCELLANEOUS ANALYSES		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Specific Gravity at 25 C /1		1.97
Analyzed using ASTM D1429 on 2-MAY-1995 by RJS QC Batch No : 405005A		

000014



# Inchcape Testing Services

## Environmental Laboratories

1089 E. Collins Blvd.  
Richardson, TX 75081  
Tel. 214-238-5591  
Fax. 214-238-5592

DATE RECEIVED : 28-APR-1995

REPORT NUMBER : D95-3910-4  
REPORT DATE : 2-MAY-1995

SAMPLE SUBMITTED BY : PDP Analytical Services  
ADDRESS : 1680 Lake Front Circle  
: Woodlands, TX 77380  
ATTENTION : Mr. Mark Bourgeois

SAMPLE MATRIX : Liquid  
ID MARKS : 2921.06  
DATE SAMPLED : 26-APR-1995

*Table A.06*

MISCELLANEOUS ANALYSES		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Specific Gravity at 25 C /1		0.986
Analyzed using ASTM D1429 on 2-MAY-1995 by RJS QC Batch No : 405005A		

000015



# Inchcape Testing Services

## Environmental Laboratories

1089 E. Collins Blvd.  
Richardson, TX 75081  
Tel. 214-238-5591  
Fax. 214-238-5592

DATE RECEIVED : 28-APR-1995

REPORT NUMBER : D95-3910-5  
REPORT DATE : 2-MAY-1995

SAMPLE SUBMITTED BY : PDP Analytical Services  
ADDRESS : 1680 Lake Front Circle  
: Woodlands, TX 77380  
ATTENTION : Mr. Mark Bourgeois

SAMPLE MATRIX : Sludge  
ID MARKS : 2921.07  
DATE SAMPLED : 26-APR-1995

*Task H-07*

MISCELLANEOUS ANALYSES		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Specific Gravity at 25 C /1		0.999
Analyzed using ASTM D1429 on 2-MAY-1995 by RJS QC Batch No : 405005A		

000016



# Inchcape Testing Services

## Environmental Laboratories

1089 E. Collins Blvd.  
Richardson, TX 75081  
Tel. 214-238-5591  
Fax. 214-238-5592

DATE RECEIVED : 28-APR-1995

REPORT NUMBER : D95-3910-6

REPORT DATE : 2-MAY-1995

SAMPLE SUBMITTED BY : PDP Analytical Services  
ADDRESS : 1680 Lake Front Circle  
: Woodlands, TX 77380  
ATTENTION : Mr. Mark Bourgeois

SAMPLE MATRIX : Liquid  
ID MARKS : 2921.08  
DATE SAMPLED : 26-APR-1995

*Tank B-CG*

MISCELLANEOUS ANALYSES		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Specific Gravity at 25 C /1		0.859
Analyzed using ASTM D1429 on 2-MAY-1995 by RJS QC Batch No : 405005A		

000017



# Inchcape Testing Services

## Environmental Laboratories

1089 E. Collins Blvd.  
Richardson, TX 75081  
Tel. 214-238-5591  
Fax. 214-238-5592

DATE RECEIVED : 28-APR-1995

REPORT NUMBER : D95-3910-7

REPORT DATE : 2-MAY-1995

SAMPLE SUBMITTED BY : PDP Analytical Services

ADDRESS : 1680 Lake Front Circle

: Woodlands, TX 77380

ATTENTION : Mr. Mark Bourgeois

SAMPLE MATRIX : Sludge

ID MARKS : 2921.09

DATE SAMPLED : 26-APR-1995

*Tank B-07*

MISCELLANEOUS ANALYSES		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Specific Gravity at 25 C /1		0.997
Analyzed using ASTM D1429 on 2-MAY-1995 by RJS QC Batch No : 405005A		

000015



# Inchcape Testing Services

## Environmental Laboratories

1089 E. Collins Blvd.  
Richardson, TX 75081  
Tel. 214-238-5591  
Fax. 214-238-5592

DATE RECEIVED : 28-APR-1995

REPORT NUMBER : D95-3910-8  
REPORT DATE : 2-MAY-1995

SAMPLE SUBMITTED BY : PDP Analytical Services  
ADDRESS : 1680 Lake Front Circle  
: Woodlands, TX 77380  
ATTENTION : Mr. Mark Bourgeois

SAMPLE MATRIX : Liquid  
ID MARKS : 2921.10  
DATE SAMPLED : 26-APR-1995

*Trunk C-10*

MISCELLANEOUS ANALYSES		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Specific Gravity at 25 C /1		0.860
Analyzed using ASTM 01429 on 2-MAY-1995 by RJS QC Batch No : 405005A		

000019



# Inchcape Testing Services

## Environmental Laboratories

1089 E. Collins Blvd.  
Richardson, TX 75081  
Tel. 214-238-5591  
Fax. 214-238-5592

DATE RECEIVED : 28-APR-1995

REPORT NUMBER : D95-3910-9  
REPORT DATE : 2-MAY-1995

SAMPLE SUBMITTED BY : PDP Analytical Services  
ADDRESS : 1680 Lake Front Circle  
: Woodlands, TX 77380  
ATTENTION : Mr. Mark Bourgeois

SAMPLE MATRIX : Sludge  
ID MARKS : 2921.11  
DATE SAMPLED : 26-APR-1995

*Tank C-11*

MISCELLANEOUS ANALYSES		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Specific Gravity at 25 C /1		0.929
Analyzed using ASTM D1429 on 2-MAY-1995 by RJS QC Batch No : 405005A		

000020



# Inchcape Testing Services

## Environmental Laboratories

1089 E. Collins Blvd.  
Richardson, TX 75081  
Tel. 214-238-5591  
Fax. 214-238-5592

DATE RECEIVED : 28-APR-1995

REPORT NUMBER : D95-3910-10

REPORT DATE : 2-MAY-1995

SAMPLE SUBMITTED BY : PDP Analytical Services  
ADDRESS : 1680 Lake Front Circle  
: Woodlands, TX 77380  
ATTENTION : Mr. Mark Bourgeois

SAMPLE MATRIX : Liquid  
ID MARKS : 2921.12  
DATE SAMPLED : 26-APR-1995

MISCELLANEOUS ANALYSES		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Specific Gravity at 25 C /1		0.839
Analyzed using ASTM D1429 on 2-MAY-1995 by RJS QC Batch No : 405005A		

000021



# Inchcape Testing Services

## Environmental Laboratories

1089 E. Collins Blvd.  
Richardson, TX 75081  
Tel. 214-238-5591  
Fax. 214-238-5592

DATE RECEIVED : 28-APR-1995

REPORT NUMBER : D95-3910-11

REPORT DATE : 2-MAY-1995

SAMPLE SUBMITTED BY : PDP Analytical Services  
ADDRESS : 1680 Lake Front Circle  
: Woodlands, TX 77380  
ATTENTION : Mr. Mark Bourgeois

SAMPLE MATRIX : Liquid  
ID MARKS : 2921.13  
DATE SAMPLED : 26-APR-1995

MISCELLANEOUS ANALYSES		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Specific Gravity at 25 C /1		0.836
Analyzed using ASTM D1429 on 2-MAY-1995 by RJS QC Batch No : 4050058		

000022



# Inchcape Testing Services

## Environmental Laboratories

1089 E. Collins Blvd.  
Richardson, TX 75081  
Tel. 214-238-5591  
Fax. 214-238-5592

DATE RECEIVED : 28-APR-1995

REPORT NUMBER : D95-3910-12

REPORT DATE : 2-MAY-1995

SAMPLE SUBMITTED BY : PDP Analytical Services  
ADDRESS : 1680 Lake Front Circle  
: Woodlands, TX 77380  
ATTENTION : Mr. Mark Bourgeois

SAMPLE MATRIX : Liquid  
ID MARKS : 2921.14  
DATE SAMPLED : 26-APR-1995

MISCELLANEOUS ANALYSES		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Specific Gravity at 25 C /1		1.34
Analyzed using ASTM 01429 on 2-MAY-1995 by RJS QC Batch No : 4050058		

000023



# Inchcape Testing Services

## Environmental Laboratories

1089 E. Collins Blvd.  
Richardson, TX 75081  
Tel. 214-238-5591  
Fax. 214-238-5592

DATE RECEIVED : 28-APR-1995

REPORT NUMBER : D95-3910-13

REPORT DATE : 2-MAY-1995

SAMPLE SUBMITTED BY : PDP Analytical Services  
ADDRESS : 1680 Lake Front Circle  
: Woodlands, TX 77380  
ATTENTION : Mr. Mark Bourgeois

SAMPLE MATRIX : Liquid  
ID MARKS : 2921.15  
DATE SAMPLED : 26-APR-1995

MISCELLANEOUS ANALYSES		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Specific Gravity at 25 C /1		0.909
Analyzed using ASTM D1429 on 2-MAY-1995 by RJS QC Batch No : 4050058		

000024



# Inchcape Testing Services

## Environmental Laboratories

1089 E. Collins Blvd.  
Richardson, TX 75081  
Tel. 214-238-5591  
Fax. 214-238-5592

DATE RECEIVED : 28-APR-1995

REPORT NUMBER : D95-3910-14

REPORT DATE : 2-MAY-1995

SAMPLE SUBMITTED BY : PDP Analytical Services

ADDRESS : 1680 Lake Front Circle

: Woodlands, TX 77380

ATTENTION : Mr. Mark Bourgeois

SAMPLE MATRIX : Liquid

ID MARKS : 2921.16

DATE SAMPLED : 26-APR-1995

MISCELLANEOUS ANALYSES		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Specific Gravity at 25 C /1		0.811
Analyzed using ASTM 01429 on 2-MAY-1995 by RJS QC Batch No : 4050058		

000025



# Inchcape Testing Services

## Environmental Laboratories

1089 E. Collins Blvd.  
Richardson, TX 75081  
Tel. 214-238-5591  
Fax. 214-238-5592

DATE RECEIVED : 28-APR-1995

REPORT NUMBER : D95-3910-15

REPORT DATE : 2-MAY-1995

SAMPLE SUBMITTED BY : PDP Analytical Services  
ADDRESS : 1680 Lake Front Circle  
: Woodlands, TX 77380  
ATTENTION : Mr. Mark Bourgeois

SAMPLE MATRIX : Liquid  
ID MARKS : 2921.17  
DATE SAMPLED : 26-APR-1995

MISCELLANEOUS ANALYSES		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Specific Gravity at 25 C /1		0.821
Analyzed using ASTM D1429 on 2-MAY-1995 by RJS QC Batch No : 4050058		

000026



# Inchcape Testing Services

## Environmental Laboratories

1089 E. Collins Blvd.  
Richardson, TX 75081  
Tel. 214-238-5591  
Fax. 214-238-5592

DATE RECEIVED : 28-APR-1995

REPORT NUMBER : D95-3910-16

REPORT DATE : 2-MAY-1995

SAMPLE SUBMITTED BY : PDP Analytical Services

ADDRESS : 1680 Lake Front Circle

: Woodlands, TX 77380

ATTENTION : Mr. Mark Bourgeois

SAMPLE MATRIX : Liquid

ID MARKS : 2921.18

DATE SAMPLED : 26-APR-1995

MISCELLANEOUS ANALYSES		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Specific Gravity at 25 C	/1	0.847
Analyzed using ASTM 01429 on 2-MAY-1995 by RJS QC Batch No : 4050058		

000027

**ATTACHMENT B**

**TOXICITY CHARACTERISTIC LEACHING PROCEDURE (TCLP) ANALYSIS  
OF SLUDGE FROM SAND TRAP TANK, CONDUCTED BY BJ WESTERN**

**(Two Sheets)**



PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TEXAS 79603  
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NEW MEXICO 88240

#### TCLP ANALYSIS REPORT

Company: Western Company of North America Date: 4/21/94  
Address: 2708 W. County Rd. Lab # H1600-1  
City, State: Hobbs, NM 88240

Project Name: not supplied  
Project Location: n/s  
Sampled by: JF  
Type of Sample: Soil/Sludge

Date: 4/5/94  
Sample Condition: GST

Sample ID: Sand Trap

#### TCLP ORGANICS

<u>PARAMETER</u>	<u>RESULT</u>	<u>UNITS</u>
Benzene	<0.025	mg/L
Carbon Tetrachloride	<0.025	mg/L
Chlorobenzene	<0.025	mg/L
Chloroform	<0.025	mg/L
1,4-Dichlorobenzene	<0.025	mg/L
1,2-Dichloroethane	<0.025	mg/L
1,1-Dichloroethene	<0.025	mg/L
2,4-Dinitrotoluene	<0.020	mg/L
Hexachlorobenzene	<0.020	mg/L
Hexachlorobutadiene	<0.020	mg/L
Hexachloroethane	<0.020	mg/L
Nitrobenzene	<0.020	mg/L
Pentachlorophenol	<0.100	mg/L
Tetrachloroethylene	<0.025	mg/L
Trichloroethylene	<0.025	mg/L
2,4,5-Trichlorophenol	<0.020	mg/L
2,4,6-Trichlorophenol	<0.020	mg/L
Vinyl Chloride	<0.050	mg/L
Cresol (O,M,P)	<0.020	mg/L
Methy Ethyl Ketone	<0.050	mg/L
Pyridine	<0.020	mg/L



# TCLP ANALYSIS REPORT

Company: Western Company of North America Date: 4/21/94  
Address: 2708 W. County Rd. Lab#: H1600-1  
City, State: Hobbs, NM 88240

Project Name: not supplied  
Project Location: n/s  
Sampled by: JF  
Type of Sample: Soil/Sludge

Date: 4/5/94  
Sample Condition: GST

Sample ID: Sand Trap

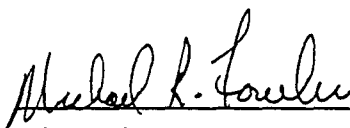
## TCLP INORGANICS (Leachate)

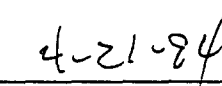
<u>PARAMETER</u>	<u>RESULT</u>	<u>UNITS</u>
Arsenic	0.013	mg/L
Barium	0.45	mg/L
Cadmium	<0.005	mg/L
Chromium	<0.05	mg/L
Lead	<0.1	mg/L
Mercury	<0.0005	mg/L
Selenium	<0.002	mg/L
Silver	0.059	mg/L

## HAZARDOUS WASTE CHARACTERIZATION

<u>PARAMETER</u>	<u>RESULT</u>	<u>UNITS</u>
Ignitability (Pensky-Martens Closed Cup)	>140 Degrees	F
Corrosivity, (pH)	6.47	
Reactivity-S	No Reaction (<0.01)	mg/kg
Reactivity-CN	No Reaction (<0.01)	mg/kg

METHODS: TCLP ORGANICS - EPA 8240/8270  
METHODS: TCLP INORGANICS (Leachate) - EPA 1311/3005/7000  
METHODS: HWC - EPA SW 846

  
Michael R. Fowler

  
Date

**ATTACHMENT C**  
**SAFETY-KLEEN SOLVENT RECYCLING MANIFESTS**  
**(Two Sheets)**



Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039 Expires 9-30-94

<b>UNIFORM HAZARDOUS WASTE MANIFEST</b>		1. Generator's US EPA ID No. <b>NMD 052377637</b>		Manifest Document No. <b>16159</b>		2. Page 1 of 1 Information in the shaded areas is not required by Federal law.	
3. Generator's Name and Mailing Address <b>WESTERN CO OF N AMER 2708 W COUNTY RD HDBBS NM 88240</b>				A. State Manifest Document Number <b>1081115</b>			
				B. State Generator's ID <b>99935</b>			
4. Generator's Phone ( <b>505</b> ) <b>392-5556</b>		6. US EPA ID Number <b>ILD 984908202</b>		C. State Transporter's ID <b>72078</b>			
5. Transporter 1 Company Name <b>SAFETY-KLEEN CORP.</b>		8. US EPA ID Number		D. Transporter's Phone <b>915 563-2305</b>			
7. Transporter 2 Company Name				E. State Transporter's ID			
				F. Transporter's Phone			
9. Designated Facility Name and Site Address <b>SAFETY-KLEEN CORP. 10607 W C R 127 MIDLAND, TX 79711</b>				10. US EPA ID Number <b>TXD 981056690</b>		G. State Facility's ID <b>72078</b>	
						H. Facility's Phone <b>915 563-2305</b>	
11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number) HM				12. Containers		13. Total Quantity	14. Unit Wt/Vol
				No.	Type		
a. <b>X</b> <b>WASTE COMBUSTIBLE LIQUID, N.O.S. (PETROLEUM NAPHTHA) NA1993 PGIII(D001) (D006,D008,D018,D035,D039,D040) (ERG#27)</b>				<b>1</b>	<b>DF</b>	<b>4</b>	<b>G</b>
b. <b>X</b> <b>RQ WASTE COMBUSTIBLE LIQUID, N.O.S. (PETROLEUM NAPHTHA) NA1993 PGIII(D001) (D006,D008,D018,D035,D039,D040) (ERG#27)</b>				<b>3</b>	<b>DM</b>	<b>60</b>	<b>G</b>
c.							
d.							
J. Additional Descriptions for Materials Listed Above <b>I (A) D001 D039 (A) D018,D006,D008,D035,D040</b> <b>I (B) D001 D039 (B) D018,D006,D008,D035,D040</b>				K. Handling Codes for Wastes Listed Above <b>(A) M125-BULKING</b> <b>(B) M125-BULKING</b>			
15. Special Handling Instructions and Additional Information <b>FOR RECYCLE 9515 79942686 116159 6-002-02-8028 02</b> <b>EMERGENCY RESP#1-708-888-4660 24HR</b> <b>SKDOT# A: 501 B: 585 C: D:</b>							
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.  If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.							
Printed/Typed Name <b>LARRY BROWER</b>				Signature <i>Larry Brower</i>		Date <b>14 11 95</b>	
17. Transporter 1 Acknowledgement of Receipt of Materials						Date	
Printed/Typed Name <b>ISAC FUENTEZ</b>				Signature <i>Isaac Fuentez</i>		Date <b>14 11 95</b>	
18. Transporter 2 Acknowledgement of Receipt of Materials						Date	
Printed/Typed Name				Signature		Date	
19. Discrepancy Indication Space <b>Line 20 - date should read 4-12-95 (A) 4-13-95</b>							
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.							
Printed/Typed Name <b>Tammy Frederick</b>				Signature <i>Tammy Frederick</i>		Date <b>14 11 95</b>	



Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039 Expires 9-30-94

<b>UNIFORM HAZARDOUS WASTE MANIFEST</b>		1. Generator's US EPA ID No. <b>NMD052377637</b>		Manifest Document No. <b>16030</b>		2. Page 1 of 1		Information in the shaded areas is not required by Federal law.		
3. Generator's Name and Mailing Address <b>WESTERN CO OF N AMER</b> <b>2708 W COUNTY RD</b> <b>HOBBS NM</b> <b>88240</b>						A. State Manifest Document Number <b>1057486</b>				
4. Generator's Phone ( <b>505</b> ) <b>392-5556</b>						B. State Generator's ID <b>99935</b>				
5. Transporter 1 Company Name <b>SAFETY-KLEEN CORP.</b>				6. US EPA ID Number <b>ILD 984908202</b>		C. State Transporter's ID <b>72078</b>				
7. Transporter 2 Company Name				8. US EPA ID Number		D. Transporter's Phone <b>915-563-2305</b>				
9. Designated Facility Name and Site Address <b>SAFETY-KLEEN CORP.</b> <b>10607 W C R 127</b> <b>MIDLAND, TX 79711</b>						E. State Transporter's ID				
10. US EPA ID Number <b>TXD 981056690</b>						F. Transporter's Phone				
11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)						12. Containers		13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. <b>WASTE COMBUSTIBLE LIQUID, N.O.S.</b> <b>(PETROLEUM NAPHTHA) NA1993 PGIII(D001)</b> <b>(D006,D008,D018,D035,D039,D040)(ERG#27)</b>						No.	Type			
b. <b>RQ WASTE COMBUSTIBLE LIQUID, N.O.S.</b> <b>(PETROLEUM NAPHTHA) NA1993 PGIII(D001)</b> <b>(D006,D008,D018,D035,D039,D040)(ERG#27)</b>										
c.										
d.										
J. Additional Descriptions for Materials Listed Above <b>I(A) D001 D039 (A) D018,D006,D008,D035,D040</b> <b>I(B) D001 D039 (B) D018,D006,D008,D035,D040</b>						K. Handling Codes for Wastes Listed Above <b>(A) M125-BULKING</b> <b>(B) M125-BULKING</b>				
15. Special Handling Instructions and Additional Information <b>9511 78832896 416080 6-002-02-8028 02</b> <b>FOR RECYCLE</b> <b>EMERGENCY RESP#1-708-888-4660 24HR</b> <b>SKDOT# A: 501 B: 585 C: D:</b>										
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.  If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.										
Printed/Typed Name <b>Ed D. Young</b>						Signature <i>Ed D. Young</i>		Date <b>3/15/95</b>		
17. Transporter 1 Acknowledgement of Receipt of Materials						Signature <i>Isaac Fuentz</i>		Date <b>3/15/95</b>		
18. Transporter 2 Acknowledgement of Receipt of Materials						Signature		Date		
19. Discrepancy Indication Space										
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.										
Printed/Typed Name <b>Tammy Frederick</b>						Signature <i>Tammy Frederick</i>		Date <b>3/15/95</b>		

**ATTACHMENT D**

**ANALYTICAL DATA FROM SAMPLES COLLECTED DURING THE INSPECTION**

**(68 Sheets)**

FOR ANALYTICAL SERVICES  
SAMPLE LOG-IN SHEET

LOGGED BY: JENNIFER CUSHMAN

DATE OF PHYSICAL LOG-IN: 4/25/95

Page 1 of 1

Episode #: 2921  
Client ID: PRC ENVIRONMENTAL  
Project ID: SJ/WESTERN COMPANY  
Project #: 170R063214LA  
PO Number:  
Courier/No.: PED-22/3911763122

DATE OF COMPUTER LOG-IN: 17-Apr-95  
COMPUTER LOG-IN BY: JC  
COMPUTER ID: NET

Lab ID	Client ID	Testing Required	No. Cont.	Sample Matrix	Date Sampled	Date Received	Date Due	Remarks
2921.01	SJWEST-OUTSUMP-01	TOTAL VOA TCLP VOA TCLP SVOA TCLP METALS SPECIFIC GRAVITY (SUB TO HDRC)	5	SLODGE	4/24/95	4/25/95	5/26/95 He	
2921.02	SJWEST-SANDTRAP-02	TOTAL VOA TCLP VOA TCLP SVOA IGNITE CORROSIVITY SPECIFIC GRAVITY	12	LIQUID	4/24/95	4/25/95	**MS/MSD	
2921.03	SJWEST-SANDTRAP-03	TOTAL VOA TCLP VOA TCLP SVOA	5	LIQUID	4/24/95	4/25/95		
2921.04	SJWEST-SANDTRAP-04	TOTAL VOA TCLP VOA TCLP SVOA TCLP METALS SPECIFIC GRAVITY	12	SLODGE	4/24/95	4/25/95	**MS/MSD	
2921.05	SJWEST-SANDTRAP-05	TOTAL VOA TCLP VOA TCLP SVOA TCLP METALS	6	SLODGE	4/24/95	4/25/95		
2921.06	SJWEST-TANKA-06	TOTAL VOA TCLP VOA TCLP SVOA IGNITE CORROSIVITY SPECIFIC GRAVITY	7	LIQUID	4/24/95	4/25/95		

MS/MSD BY CLIENT'S REQUEST

CAUTION!! SAMPLES ARE HASTY!!!

SPECIFIC GRAVITY SUBBED TO HDRC

Weight basis: 2 wet        dry

Deliverables:        norm 2 CLP-like        CLP

       raw data        electronic

APPROVED BY/DATE: *MS* 4/25/95

SEND REPORT TO:

MARK BUTLER

000006

PDP ANALYTICAL SERVICES  
SAMPLE LOG-IN SHEET

LOGGED BY: JENNIFER CUSHMAN

DATE OF PHYSICAL LOG-IN: 4/26/95

Page 1 of 1

Episode #:

DATE OF COMPUTER LOG-IN: 27-Apr-95

Client ID:

COMPUTER LOG-IN BY: JC

Project ID:

SAME AS FIRST

COMPUTER ID: NET

Project #:

PO Number:

Courier/No.:

Lab ID	Client ID	Testing Required	No. Cont.	Sample Matrix	Date Sampled	Date Received	Date Due	Remarks
2921.07	BJWEST-TANKA-07	TOTAL VOA TCLP VOA TCLP SVOA TCLP METALS CORROSIVITY SPECIFIC GRAVITY	7	SLUDGE	4/24/95	4/26/95		
2921.08	BJWEST-TANKB-08	TOTAL VOA TCLP VOA TCLP SVOA IGNITE SPECIFIC GRAVITY	6	LIQUID	4/24/95	4/26/95		
2921.09	BJWEST-TANKB-09	TOTAL VOA TCLP VOA TCLP SVOA TCLP METALS SPECIFIC GRAVITY	6	SLUDGE	4/24/95	4/26/95		
2921.10	BJWEST-TANKC-10	TOTAL VOA TCLP VOA TCLP SVOA IGNITE SPECIFIC GRAVITY	6	LIQUID	4/24/95	4/26/95		
2921.11	BJWEST-TANKC-11	TOTAL VOA TCLP VOA TCLP SVOA TCLP METALS SPECIFIC GRAVITY	6	SLUDGE	4/24/95	4/26/95		
2921.12	BJWEST-DRUM02-12	IGNITE SPECIFIC GRAVITY	1	LIQUID	4/25/95	4/26/95		
2921.13	BJWEST-DRUM03-13	SAME AS ABOVE	1	LIQUID	4/25/95	4/26/95		
2921.14	BJWEST-DRUM05-14	CORROSIVITY SPECIFIC GRAVITY	1	LIQUID	4/25/95	4/26/95		
2921.15	BJWEST-DRUM11-15	IGNITE SPECIFIC GRAVITY	1	LIQUID	4/25/95	4/26/95		
2921.16	BJWEST-DRUM15-16	SAME AS ABOVE	1	LIQUID	4/25/95	4/26/95		

Weight basis: ☐ wet ☐ dry

SAME AS FIRST

Deliverables: ☐ none ☐ CLP-like ☐ CSP

☐ raw data ☐ electronic

APPROVED BY/DATE:

*Handwritten signature and date*

SEND REPORT TO:

000007

PDP ANALYTICAL SERVICES  
SAMPLE LOG-IN SHEET

LOGGED BY: JENNIFER CUSHMAN

DATE OF PHYSICAL LOG-IN:

Page 1 of 1

Episode #: \_\_\_\_\_  
Client ID: \_\_\_\_\_  
Project ID: SAME AS FIRST  
Project #: \_\_\_\_\_  
PO Number: \_\_\_\_\_  
Courier/No.: \_\_\_\_\_

DATE OF COMPUTER LOG-IN: 17-Apr-95

COMPUTER LOG-IN BY:

COMPUTER ID:

Gab ID	Client ID	Testing Required	No. Cont.	Sample Matrix	Date Sampled	Date Received	Date Due	Remarks
1921.17	BJWEST-ORUM17-17	IGNITE SPECIFIC GRAVITY	1	LIQUID	4/25/95	4/26/95		
1921.18	BJWEST-ORUM27-18	SAME AS ABOVE	1	LIQUID	4/25/95	4/26/95		

SAME AS FIRST

Weight basis: ☐ wet ☐ dry

Deliverables: ☐ hard ☐ CLP-like ☐ CLP

☐ raw data ☐ electronic

APPROVED BY/DATE: *[Signature]* 4/26/95

SEND REPORT TO:

000008

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

OUTSUMP-01

Lab Name: PDP ANALYTICAL

Contract: \_\_\_\_\_

Lab Code: \_\_\_\_\_

Case No.: PRC

SAS No.: \_\_\_\_\_

SDG No.: 2921

Matrix: (soil/water) SOIL

Lab Sample ID: 2921\_01

Sample wt/vol: 4.00 (g/mL) G

Lab File ID: E3103

Level: (low/med) MED

Date Received: 04/26/95

Moisture: not dec. 0

Date Analyzed: 05/16/95

Column: (pack/cap) CAP

Dilution Factor: 5000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u>	Q
---------	----------	--	---

74-87-3-----	Chloromethane	6200000	U
74-83-9-----	Bromomethane	6200000	U
75-01-4-----	Vinyl Chloride	6200000	U
75-00-3-----	Chloroethane	6200000	U
75-09-2-----	Methylene Chloride	3100000	U
67-64-1-----	Acetone	6200000	U
75-15-0-----	Carbon Disulfide	3100000	U
75-35-4-----	1,1-Dichloroethene	3100000	U
75-34-3-----	1,1-Dichloroethane	3100000	U
540-59-0-----	1,2-Dichloroethene (total)	3100000	U
67-66-3-----	Chloroform	3100000	U
107-06-2-----	1,2-Dichloroethane	3100000	U
78-93-3-----	2-Butanone	6200000	U
71-55-6-----	1,1,1-Trichloroethane	3100000	U
56-23-5-----	Carbon Tetrachloride	3100000	U
108-05-4-----	Vinyl Acetate	6200000	U
75-27-4-----	Bromodichloromethane	3100000	U
78-87-5-----	1,2-Dichloropropane	3100000	U
10061-01-5-----	cis-1,3-Dichloropropene	3100000	U
10061-02-6-----	Trans-1,3-Dichloropropene	3100000	U
79-01-6-----	Trichloroethene	3100000	U
124-48-1-----	Dibromochloromethane	3100000	U
79-00-5-----	1,1,2-Trichloroethane	3100000	U
71-43-2-----	Benzene	3100000	U
10061-01-5-----	cis-1,3-Dichloropropene	3100000	U
10061-02-6-----	trans-1,3-Dichloropropene	3100000	U
75-25-2-----	Bromoform	3100000	U
108-10-1-----	4-Methyl-2-Pentanone	6200000	U
591-78-6-----	2-Hexanone	6200000	U
127-18-4-----	Tetrachloroethene	3100000	U
79-34-5-----	1,1,2,2-Tetrachloroethane	3100000	U
108-88-3-----	Toluene	3700000	
108-90-7-----	Chlorobenzene	3100000	U
100-41-4-----	Ethylbenzene	13000000	
100-42-5-----	Styrene	3100000	
1330-20-7-----	Xylene (total)	98000000	

FORM I VOA

1/87 Rev.

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

OUTSUMP-01RE

Lab Name: PDP ANALYTICAL Contract: \_\_\_\_\_

Lab Code: \_\_\_\_\_ Case No.: PRC SAS No.: \_\_\_\_\_ SDG No.: 2921

Matrix: (soil/water) SOIL Lab Sample ID: 2921\_01RE

Sample wt/vol: 4.00 (g/mL) G Lab File ID: E3104

Level: (low/med) MED Date Received: 04/26/95

% Moisture: not dec. 0 Date Analyzed: 05/16/95

Column: (pack/cap) CAP Dilution Factor: 5000

CAS NO. COMPOUND CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG Q

74-87-3-----	Chloromethane	6200000	U
74-83-9-----	Bromomethane	6200000	UU
75-01-4-----	Vinyl Chloride	6200000	UU
75-00-3-----	Chloroethane	6200000	UU
75-09-2-----	Methylene Chloride	3100000	UU
67-64-1-----	Acetone	6200000	UU
75-15-0-----	Carbon Disulfide	3100000	UU
75-35-4-----	1,1-Dichloroethene	3100000	UU
75-34-3-----	1,1-Dichloroethane	3100000	UU
540-59-0-----	1,2-Dichloroethene (total)	3100000	UU
67-66-3-----	Chloroform	3100000	UU
107-06-2-----	1,2-Dichloroethane	3100000	UU
78-93-3-----	2-Butanone	6200000	UU
71-55-6-----	1,1,1-Trichloroethane	3100000	UU
56-23-5-----	Carbon Tetrachloride	3100000	UU
108-05-4-----	Vinyl Acetate	6200000	UU
75-27-4-----	Bromodichloromethane	3100000	UU
78-87-5-----	1,2-Dichloropropane	3100000	UU
10061-01-5-----	cis-1,3-Dichloropropene	3100000	UU
10061-02-6-----	Trans-1,3-Dichloropropene	3100000	UU
79-01-6-----	Trichloroethene	3100000	UU
124-48-1-----	Dibromochloromethane	3100000	UU
79-00-5-----	1,1,2-Trichloroethane	3100000	UU
71-43-2-----	Benzene	3100000	UU
10061-01-5-----	cis-1,3-Dichloropropene	3100000	UU
10061-02-6-----	trans-1,3-Dichloropropene	3100000	UU
75-25-2-----	Bromoform	3100000	UU
108-10-1-----	4-Methyl-2-Pentanone	6200000	UU
591-78-6-----	2-Hexanone	6200000	UU
127-18-4-----	Tetrachloroethene	3100000	UU
79-34-5-----	1,1,2,2-Tetrachloroethane	3100000	U
108-88-3-----	Toluene	4400000	
108-90-7-----	Chlorobenzene	3100000	U
100-41-4-----	Ethylbenzene	13000000	
100-42-5-----	Styrene	3100000	U
1330-20-7-----	Xylene (total)	100000000	

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SANDTRAP-02

Lab Name: PDP ANALYTICAL Contract: \_\_\_\_\_

Lab Code: \_\_\_\_\_ Case No.: PRC SAS No.: \_\_\_\_\_ SDG No.: 2921

Matrix: (soil/water) SOIL Lab Sample ID: 2921 02

Sample wt/vol: 4.00 (g/mL) G Lab File ID: E3082

Level: (low/med) MED Date Received: 04/26/95

% Moisture: not dec. 0 Date Analyzed: 05/15/95

Column: (pack/cap) CAP Dilution Factor: 10

CAS NO. COMPOUND CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG Q

74-87-3	-----Chloromethane	12000	U
74-83-9	-----Bromomethane	12000	U
75-01-4	-----Vinyl Chloride	12000	U
75-00-3	-----Chloroethane	12000	U
75-09-2	-----Methylene Chloride	6200	U
67-64-1	-----Acetone	12000	U
75-15-0	-----Carbon Disulfide	6200	U
75-35-4	-----1,1-Dichloroethene	6200	U
75-34-3	-----1,1-Dichloroethane	6200	U
540-59-0	-----1,2-Dichloroethene (total)	6200	U
67-66-3	-----Chloroform	6200	U
107-06-2	-----1,2-Dichloroethane	6200	U
78-93-3	-----2-Butanone	12000	U
71-55-6	-----1,1,1-Trichloroethane	6200	U
56-23-5	-----Carbon Tetrachloride	6200	U
108-05-4	-----Vinyl Acetate	12000	U
75-27-4	-----Bromodichloromethane	6200	U
78-87-5	-----1,2-Dichloropropane	6200	U
10061-01-5	-----cis-1,3-Dichloropropene	6200	U
10061-02-6	-----Trans-1,3-Dichloropropene	6200	U
79-01-6	-----Trichloroethene	6200	U
124-48-1	-----Dibromochloromethane	6200	U
79-00-5	-----1,1,2-Trichloroethane	6200	U
71-43-2	-----Benzene	6200	U
10061-01-5	-----cis-1,3-Dichloropropene	6200	U
10061-02-6	-----trans-1,3-Dichloropropene	6200	U
75-25-2	-----Bromoform	6200	U
108-10-1	-----4-Methyl-2-Pentanone	12000	U
591-78-6	-----2-Hexanone	12000	U
127-18-4	-----Tetrachloroethene	6200	U
79-34-5	-----1,1,2,2-Tetrachloroethane	6200	U
108-88-3	-----Toluene	19000	U
108-90-7	-----Chlorobenzene	6200	U
100-41-4	-----Ethylbenzene	20000	U
100-42-5	-----Styrene	6200	U
1330-20-7	-----Xylene (total)	150000	

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SANDTRAP-03

Lab Name: PDP ANALYTICAL Contract: \_\_\_\_\_

Lab Code: \_\_\_\_\_ Case No.: PRC SAS No.: \_\_\_\_\_ SDG No.: 2921

Matrix: (soil/water) SOIL Lab Sample ID: 2921\_03

Sample wt/vol: 4.00 (g/mL) G Lab File ID: E3088

Level: (low/med) MED Date Received: 04/26/95

% Moisture: not dec. 0 Date Analyzed: 05/15/95

Column: (pack/cap) CAP Dilution Factor: 10

CAS NO. COMPOUND CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG Q

74-87-3-----	Chloromethane	12000	U
74-83-9-----	Bromomethane	12000	U
75-01-4-----	Vinyl Chloride	12000	U
75-00-3-----	Chloroethane	12000	U
75-09-2-----	Methylene Chloride	6200	U
67-64-1-----	Acetone	12000	U
75-15-0-----	Carbon Disulfide	6200	U
75-35-4-----	1,1-Dichloroethene	6200	U
75-34-3-----	1,1-Dichloroethane	6200	U
540-59-0-----	1,2-Dichloroethene (total)	6200	U
67-66-3-----	Chloroform	6200	U
107-06-2-----	1,2-Dichloroethane	6200	U
78-93-3-----	2-Butanone	12000	U
71-55-6-----	1,1,1-Trichloroethane	6200	U
56-23-5-----	Carbon Tetrachloride	6200	U
108-05-4-----	Vinyl Acetate	12000	U
75-27-4-----	Bromodichloromethane	6200	U
78-87-5-----	1,2-Dichloropropane	6200	U
10061-01-5-----	cis-1,3-Dichloropropene	6200	U
10061-02-6-----	Trans-1,3-Dichloropropene	6200	U
79-01-6-----	Trichloroethene	6200	U
124-48-1-----	Dibromochloromethane	6200	U
79-00-5-----	1,1,2-Trichloroethane	6200	U
71-43-2-----	Benzene	6200	U
10061-01-5-----	cis-1,3-Dichloropropene	6200	U
10061-02-6-----	trans-1,3-Dichloropropene	6200	U
75-25-2-----	Bromoform	6200	U
108-10-1-----	4-Methyl-2-Pentanone	12000	U
591-78-6-----	2-Hexanone	12000	U
127-18-4-----	Tetrachloroethene	6200	U
79-34-5-----	1,1,2,2-Tetrachloroethane	6200	U
108-88-3-----	Toluene	19000	U
108-90-7-----	Chlorobenzene	6200	U
100-41-4-----	Ethylbenzene	20000	U
100-42-5-----	Styrene	6200	U
1330-20-7-----	Xylene (total)	150000	U

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SANDTRAP-04

Lab Name: PDP ANALYTICAL Contract: \_\_\_\_\_

Lab Code: \_\_\_\_\_ Case No.: PRC SAS No.: \_\_\_\_\_ SDG No.: 2921

Matrix: (soil/water) SOIL Lab Sample ID: 2921\_04

Sample wt/vol: 4.00 (g/mL) G Lab File ID: E3069

Level: (low/med) MED Date Received: 04/26/95

% Moisture: not dec. 0 Date Analyzed: 05/15/95

Column: (pack/cap) CAP Dilution Factor: 20

CAS NO. COMPOUND CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG Q

74-87-3	-----Chloromethane	25000	U
74-83-9	-----Bromomethane	25000	U
75-01-4	-----Vinyl Chloride	25000	U
75-00-3	-----Chloroethane	25000	U
75-09-2	-----Methylene Chloride	12000	U
67-64-1	-----Acetone	25000	U
75-15-0	-----Carbon Disulfide	12000	U
75-35-4	-----1,1-Dichloroethene	12000	U
75-34-3	-----1,1-Dichloroethane	12000	U
540-59-0	-----1,2-Dichloroethene (total)	12000	U
67-66-3	-----Chloroform	12000	U
107-06-2	-----1,2-Dichloroethane	12000	U
78-93-3	-----2-Butanone	25000	U
71-55-6	-----1,1,1-Trichloroethane	12000	U
56-23-5	-----Carbon Tetrachloride	12000	U
108-05-4	-----Vinyl Acetate	25000	U
75-27-4	-----Bromodichloromethane	12000	U
78-87-5	-----1,2-Dichloropropane	12000	U
10061-01-5	-----cis-1,3-Dichloropropene	12000	U
10061-02-6	-----Trans-1,3-Dichloropropene	12000	U
79-01-6	-----Trichloroethene	12000	U
124-48-1	-----Dibromochloromethane	12000	U
79-00-5	-----1,1,2-Trichloroethane	12000	U
71-43-2	-----Benzene	12000	U
10061-01-5	-----cis-1,3-Dichloropropene	12000	U
10061-02-6	-----trans-1,3-Dichloropropene	12000	U
75-25-2	-----Bromoform	12000	U
108-10-1	-----4-Methyl-2-Pentanone	25000	U
591-78-6	-----2-Hexanone	25000	U
127-18-4	-----Tetrachloroethene	12000	U
79-34-5	-----1,1,2,2-Tetrachloroethane	12000	U
108-88-3	-----Toluene	12000	U
108-90-7	-----Chlorobenzene	12000	U
100-41-4	-----Ethylbenzene	37000	U
100-42-5	-----Styrene	12000	U
1330-20-7	-----Xylene (total)	230000	

FORM I VOA

1/87 Rev.

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1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SANDTRAP-05

Lab Name: PDP ANALYTICAL

Contract: \_\_\_\_\_

Lab Code: \_\_\_\_\_

Case No.: PRC

SAS No.: \_\_\_\_\_

SDG No.: 2921

Matrix: (soil/water) SOIL

Lab Sample ID: 2921\_05

Sample wt/vol: 4.00 (g/mL) G

Lab File ID: E3089

Level: (low/med) MED

Date Received: 04/26/95

Moisture: not dec. 0

Date Analyzed: 05/15/95

Column: (pack/cap) CAP

Dilution Factor: 10

CAS NO.

COMPOUND

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

Q

74-87-3-----	Chloromethane	12000	U
74-83-9-----	Bromomethane	12000	U
75-01-4-----	Vinyl Chloride	12000	U
75-00-3-----	Chloroethane	12000	U
75-09-2-----	Methylene Chloride	6200	U
67-64-1-----	Acetone	12000	U
75-15-0-----	Carbon Disulfide	6200	U
75-35-4-----	1,1-Dichloroethene	6200	U
75-34-3-----	1,1-Dichloroethane	6200	U
540-59-0-----	1,2-Dichloroethene (total)	6200	U
67-66-3-----	Chloroform	6200	U
107-06-2-----	1,2-Dichloroethane	6200	U
78-93-3-----	2-Butanone	12000	U
71-55-6-----	1,1,1-Trichloroethane	6200	U
56-23-5-----	Carbon Tetrachloride	6200	U
108-05-4-----	Vinyl Acetate	12000	U
75-27-4-----	Bromodichloromethane	6200	U
78-87-5-----	1,2-Dichloropropane	6200	U
10061-01-5-----	cis-1,3-Dichloropropene	6200	U
10061-02-6-----	Trans-1,3-Dichloropropene	6200	U
79-01-6-----	Trichloroethene	6200	U
124-48-1-----	Dibromochloromethane	6200	U
79-00-5-----	1,1,2-Trichloroethane	6200	U
71-43-2-----	Benzene	6200	U
10061-01-5-----	cis-1,3-Dichloropropene	6200	U
10061-02-6-----	trans-1,3-Dichloropropene	6200	U
75-25-2-----	Bromoform	6200	U
108-10-1-----	4-Methyl-2-Pentanone	12000	U
591-78-6-----	2-Hexanone	12000	U
127-18-4-----	Tetrachloroethene	6200	U
79-34-5-----	1,1,2,2-Tetrachloroethane	6200	U
108-88-3-----	Toluene	8700	
108-90-7-----	Chlorobenzene	6200	U
100-41-4-----	Ethylbenzene	21000	
100-42-5-----	Styrene	6200	U
1330-20-7-----	Xylene (total)	140000	

FORM I VOA

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1/87 Rev.

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TANKA-06

Lab Name: PDP ANALYTICAL Contract: \_\_\_\_\_

Lab Code: \_\_\_\_\_ Case No.: PRC SAS No.: \_\_\_\_\_ SDG No.: 2921

Matrix: (soil/water) WATER Lab Sample ID: 2921\_06

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: E3093

Level: (low/med) LOW Date Received: 04/26/95

% Moisture: not dec. \_\_\_\_\_ Date Analyzed: 05/15/95

Column: (pack/cap) CAP Dilution Factor: 2500

CAS NO. COMPOUND CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/L Q

74-87-3-----	Chloromethane	25000	U
74-83-9-----	Bromomethane	25000	U
75-01-4-----	Vinyl Chloride	25000	U
75-00-3-----	Chloroethane	25000	U
75-09-2-----	Methylene Chloride	12000	U
67-64-1-----	Acetone	25000	U
75-15-0-----	Carbon Disulfide	12000	U
75-35-4-----	1,1-Dichloroethene	12000	U
75-34-3-----	1,1-Dichloroethane	12000	U
540-59-0-----	1,2-Dichloroethene (total)	12000	U
67-66-3-----	Chloroform	12000	U
107-06-2-----	1,2-Dichloroethane	12000	U
78-93-3-----	2-Butanone	25000	U
71-55-6-----	1,1,1-Trichloroethane	12000	U
56-23-5-----	Carbon Tetrachloride	12000	U
108-05-4-----	Vinyl Acetate	25000	U
75-27-4-----	Bromodichloromethane	12000	U
78-87-5-----	1,2-Dichloropropane	12000	U
10061-01-5-----	cis-1,3-Dichloropropene	12000	U
10061-02-6-----	Trans-1,3-Dichloropropene	12000	U
79-01-6-----	Trichloroethene	12000	U
124-48-1-----	Dibromochloromethane	12000	U
79-00-5-----	1,1,2-Trichloroethane	12000	U
71-43-2-----	Benzene	12000	U
10061-01-5-----	cis-1,3-Dichloropropene	12000	U
10061-02-6-----	trans-1,3-Dichloropropene	12000	U
75-25-2-----	Bromoform	12000	U
108-10-1-----	4-Methyl-2-Pentanone	25000	U
591-78-6-----	2-Hexanone	25000	U
127-18-4-----	Tetrachloroethene	12000	U
79-34-5-----	1,1,2,2-Tetrachloroethane	12000	U
108-88-3-----	Toluene	12000	U
108-90-7-----	Chlorobenzene	12000	U
100-41-4-----	Ethylbenzene	33000	U
100-42-5-----	Styrene	12000	U
1330-20-7-----	Xylene (total)	350000	

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TANKA-07

Lab Name: PDP ANALYTICAL Contract: \_\_\_\_\_

Lab Code: \_\_\_\_\_ Case No.: PRC SAS No.: \_\_\_\_\_ SDG No.: 2921

Matrix: (soil/water) SOIL Lab Sample ID: 2921\_07

Sample wt/vol: 4.00 (g/mL) G Lab File ID: E3071

Level: (low/med) MED Date Received: 04/26/95

% Moisture: not dec. 0 Date Analyzed: 05/15/95

Column: (pack/cap) CAP Dilution Factor: 10

CAS NO. COMPOUND CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG Q

74-87-3	-----Chloromethane	12000	U
74-83-9	-----Bromomethane	12000	UU
75-01-4	-----Vinyl Chloride	12000	UUU
75-00-3	-----Chloroethane	12000	UUU
75-09-2	-----Methylene Chloride	6200	UUU
67-64-1	-----Acetone	12000	UUU
75-15-0	-----Carbon Disulfide	6200	UUU
75-35-4	-----1,1-Dichloroethene	6200	UUU
75-34-3	-----1,1-Dichloroethane	6200	UUU
540-59-0	-----1,2-Dichloroethene (total)	6200	UUU
67-66-3	-----Chloroform	6200	UUU
107-06-2	-----1,2-Dichloroethane	6200	UUU
78-93-3	-----2-Butanone	12000	UUU
71-55-6	-----1,1,1-Trichloroethane	6200	UUU
56-23-5	-----Carbon Tetrachloride	6200	UUU
108-05-4	-----Vinyl Acetate	12000	UUU
75-27-4	-----Bromodichloromethane	6200	UUU
78-87-5	-----1,2-Dichloropropane	6200	UUU
10061-01-5	-----cis-1,3-Dichloropropene	6200	UUU
10061-02-6	-----Trans-1,3-Dichloropropene	6200	UUU
79-01-6	-----Trichloroethene	6200	UUU
124-48-1	-----Dibromochloromethane	6200	UUU
79-00-5	-----1,1,2-Trichloroethane	6200	UUU
71-43-2	-----Benzene	6200	UUU
10061-01-5	-----cis-1,3-Dichloropropene	6200	UUU
10061-02-6	-----trans-1,3-Dichloropropene	6200	UUU
75-25-2	-----Bromoform	6200	UUU
108-10-1	-----4-Methyl-2-Pentanone	12000	UU
591-78-6	-----2-Hexanone	12000	UU
127-18-4	-----Tetrachloroethene	6200	UU
79-34-5	-----1,1,2,2-Tetrachloroethane	6200	U
108-88-3	-----Toluene	7600	
108-90-7	-----Chlorobenzene	6200	U
100-41-4	-----Ethylbenzene	17000	
100-42-5	-----Styrane	6200	U
1330-20-7	-----Xylene (total)	95000	

FORM I VOA

000601787 Rev.

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TANKA-07RE

Lab Name: PDP ANALYTICAL Contract: \_\_\_\_\_

Lab Code: \_\_\_\_\_ Case No.: PRC SAS No.: \_\_\_\_\_ SDG No.: 2921

Matrix: (soil/water) SOIL Lab Sample ID: 2921\_07RE

Sample wt/vol: 4.00 (g/mL) G Lab File ID: E3092

Level: (low/med) MED Date Received: 04/26/95

% Moisture: not dec. 0 Date Analyzed: 05/15/95

Column: (pack/cap) CAP Dilution Factor: 10

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

CAS NO. COMPOUND Q

74-87-3	Chloromethane	12000	U
74-83-9	Bromomethane	12000	U
75-01-4	Vinyl Chloride	12000	U
75-00-3	Chloroethane	12000	U
75-09-2	Methylene Chloride	6200	U
67-64-1	Acetone	21000	
75-15-0	Carbon Disulfide	6200	U
75-35-4	1,1-Dichloroethene	6200	U
75-34-3	1,1-Dichloroethane	6200	U
540-59-0	1,2-Dichloroethene (total)	6200	U
67-66-3	Chloroform	6200	U
107-06-2	1,2-Dichloroethane	6200	U
78-93-3	2-Butanone	12000	U
71-55-6	1,1,1-Trichloroethane	6200	U
56-23-5	Carbon Tetrachloride	6200	U
108-05-4	Vinyl Acetate	12000	U
75-27-4	Bromodichloromethane	6200	U
78-87-5	1,2-Dichloropropane	6200	U
10061-01-5	cis-1,3-Dichloropropene	6200	U
10061-02-6	Trans-1,3-Dichloropropene	6200	U
79-01-6	Trichloroethene	6200	U
124-48-1	Dibromochloromethane	6200	U
79-00-5	1,1,2-Trichloroethane	6200	U
71-43-2	Benzene	6200	U
10061-01-5	cis-1,3-Dichloropropene	6200	U
10061-02-6	trans-1,3-Dichloropropene	6200	U
75-25-2	Bromoform	6200	U
108-10-1	4-Methyl-2-Pentanone	12000	U
591-78-6	2-Hexanone	12000	U
127-18-4	Tetrachloroethene	6200	U
79-34-5	1,1,2,2-Tetrachloroethane	6200	U
108-88-3	Toluene	8300	
108-90-7	Chlorobenzene	6200	U
100-41-4	Ethylbenzene	17000	
100-42-5	Styrene	6200	U
1330-20-7	Xylene (total)	99000	

000613

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TANKE-08

Lab Name: PDP ANALYTICAL Contract: \_\_\_\_\_

Lab Code: \_\_\_\_\_ Case No.: PRC SAS No.: \_\_\_\_\_ SDG No.: 2921

Matrix: (soil/water) SOIL Lab Sample ID: 2921\_08

Sample wt/vol: 4.00 (g/mL) G Lab File ID: E3074

Level: (low/med) MED Date Received: 04/26/95

% Moisture: not dec. 0 Date Analyzed: 05/15/95

Column: (pack/cap) CAP Dilution Factor: 100

CAS NO. COMPOUND CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG Q

74-87-3-----	Chloromethane	120000	U
74-83-9-----	Bromomethane	120000	U
75-01-4-----	Vinyl Chloride	120000	U
75-00-3-----	Chloroethane	120000	U
75-09-2-----	Methylene Chloride	62000	U
67-64-1-----	Acetone	120000	U
75-15-0-----	Carbon Disulfide	62000	U
75-35-4-----	1,1-Dichloroethene	62000	U
75-34-3-----	1,1-Dichloroethane	62000	U
540-59-0-----	1,2-Dichloroethene (total)	62000	U
67-66-3-----	Chloroform	62000	U
107-06-2-----	1,2-Dichloroethane	62000	U
78-93-3-----	2-Butanone	120000	U
71-55-6-----	1,1,1-Trichloroethane	62000	U
56-23-5-----	Carbon Tetrachloride	62000	U
108-05-4-----	Vinyl Acetate	120000	U
75-27-4-----	Bromodichloromethane	62000	U
78-87-5-----	1,2-Dichloropropane	62000	U
10061-01-5-----	cis-1,3-Dichloropropene	62000	U
10061-02-6-----	Trans-1,3-Dichloropropene	62000	U
79-01-6-----	Trichloroethene	62000	U
124-48-1-----	Dibromochloromethane	62000	U
79-00-5-----	1,1,2-Trichloroethane	62000	U
71-43-2-----	Benzene	62000	U
10061-01-5-----	cis-1,3-Dichloropropene	62000	U
10061-02-6-----	trans-1,3-Dichloropropene	62000	U
75-25-2-----	Bromoform	62000	U
108-10-1-----	4-Methyl-2-Pentanone	120000	U
591-78-6-----	2-Hexanone	120000	U
127-18-4-----	Tetrachloroethene	62000	U
79-34-5-----	1,1,2,2-Tetrachloroethane	62000	U
108-88-3-----	Toluene	62000	U
108-90-7-----	Chlorobenzene	62000	U
100-41-4-----	Ethylbenzene	65000	
100-42-5-----	Styrene	270000	
1330-20-7-----	Xylene (total)	310000	

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TANKB-09

Lab Name: PDP ANALYTICAL Contract: \_\_\_\_\_

Lab Code: \_\_\_\_\_ Case No.: PRC SAS No.: \_\_\_\_\_ SDG No.: 2921

Matrix: (soil/water) SOIL Lab Sample ID: 2921\_09

Sample wt/vol: 4.00 (g/mL) G Lab File ID: E3094

Level: (low/med) MED Date Received: 04/26/95

% Moisture: not dec. 0 Date Analyzed: 05/16/95

Column: (pack/cap) CAP Dilution Factor: 50

CAS NO. COMPOUND CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG Q

74-87-3-----	Chloromethane	62000	U
74-83-9-----	Bromomethane	62000	U
75-01-4-----	Vinyl Chloride	62000	U
75-00-3-----	Chloroethane	62000	U
75-09-2-----	Methylene Chloride	31000	U
67-64-1-----	Acetone	62000	U
75-15-0-----	Carbon Disulfide	31000	U
75-35-4-----	1,1-Dichloroethene	31000	U
75-34-3-----	1,1-Dichloroethane	31000	U
540-59-0-----	1,2-Dichloroethene (total)	31000	U
67-66-3-----	Chloroform	31000	U
107-06-2-----	1,2-Dichloroethane	31000	U
78-93-3-----	2-Butanone	62000	U
71-55-6-----	1,1,1-Trichloroethane	31000	U
56-23-5-----	Carbon Tetrachloride	31000	U
108-05-4-----	Vinyl Acetate	62000	U
75-27-4-----	Bromodichloromethane	31000	U
78-87-5-----	1,2-Dichloropropane	31000	U
10061-01-5-----	cis-1,3-Dichloropropene	31000	U
10061-02-6-----	Trans-1,3-Dichloropropene	31000	U
79-01-6-----	Trichloroethene	31000	U
124-48-1-----	Dibromochloromethane	31000	U
79-00-5-----	1,1,2-Trichloroethane	31000	U
71-43-2-----	Benzene	31000	U
10061-01-5-----	cis-1,3-Dichloropropene	31000	U
10061-02-6-----	trans-1,3-Dichloropropene	31000	U
75-25-2-----	Bromoform	31000	U
108-10-1-----	4-Methyl-2-Pentanone	62000	U
591-78-6-----	2-Hexanone	62000	U
127-18-4-----	Tetrachloroethene	31000	U
79-34-5-----	1,1,2,2-Tetrachloroethane	31000	U
108-88-3-----	Toluene	63000	U
108-90-7-----	Chlorobenzene	31000	U
100-41-4-----	Ethylbenzene	80000	U
100-42-5-----	Styrene	31000	U
1330-20-7-----	Xylene (total)	380000	U

000627

FORM I VOA

1/87 Rev.

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TANKC-10

Lab Name: PDP ANALYTICAL Contract: \_\_\_\_\_

Lab Code: \_\_\_\_\_ Case No.: PRC SAS No.: \_\_\_\_\_ SDG No.: 2921

Matrix: (soil/water) WATER Lab Sample ID: 2921\_10

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: E3095

Level: (low/med) LOW Date Received: 04/26/95

% Moisture: not dec. \_\_\_\_\_ Date Analyzed: 05/16/95

Column: (pack/cap) CAP Dilution Factor: 5000

CAS NO. COMPOUND CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/L Q

74-87-3-----	Chloromethane	50000	U
74-83-9-----	Bromomethane	50000	U
75-01-4-----	Vinyl Chloride	50000	U
75-00-3-----	Chloroethane	50000	U
75-09-2-----	Methylene Chloride	25000	U
67-64-1-----	Acetone	50000	U
75-15-0-----	Carbon Disulfide	25000	U
75-35-4-----	1,1-Dichloroethene	25000	U
75-34-3-----	1,1-Dichloroethane	25000	U
540-59-0-----	1,2-Dichloroethene (total)	25000	U
67-66-3-----	Chloroform	25000	U
107-06-2-----	1,2-Dichloroethane	25000	U
78-93-3-----	2-Butanone	50000	U
71-55-6-----	1,1,1-Trichloroethane	25000	U
56-23-5-----	Carbon Tetrachloride	25000	U
108-05-4-----	Vinyl Acetate	50000	U
75-27-4-----	Bromodichloromethane	25000	U
78-87-5-----	1,2-Dichloropropane	25000	U
10061-01-5-----	cis-1,3-Dichloropropene	25000	U
10061-02-6-----	Trans-1,3-Dichloropropene	25000	U
79-01-6-----	Trichloroethene	25000	U
124-48-1-----	Dibromochloromethane	25000	U
79-00-5-----	1,1,2-Trichloroethane	25000	U
71-43-2-----	Benzene	25000	U
10061-01-5-----	cis-1,3-Dichloropropene	25000	U
10061-02-6-----	trans-1,3-Dichloropropene	25000	U
75-25-2-----	Bromoform	25000	U
108-10-1-----	4-Methyl-2-Pentanone	50000	U
591-78-6-----	2-Hexanone	50000	U
127-18-4-----	Tetrachloroethene	25000	U
79-34-5-----	1,1,2,2-Tetrachloroethane	25000	U
108-88-3-----	Toluene	48000	
108-90-7-----	Chlorobenzene	25000	U
100-41-4-----	Ethylbenzene	25000	U
100-42-5-----	Styrene	240000	
1330-20-7-----	Xylene (total)	63000	

FORM I VOA

1/87 Rev.

000635

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TANKC-10RE

Lab Name: PDP ANALYTICAL Contract: \_\_\_\_\_

Lab Code: \_\_\_\_\_ Case No.: PRC SAS No.: \_\_\_\_\_ SDG No.: 2921

Matrix: (soil/water) WATER Lab Sample ID: 2921\_10RE

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: E3106

Level: (low/med) LOW Date Received: 04/26/95

% Moisture: not dec. \_\_\_\_\_ Date Analyzed: 05/16/95

Column: (pack/cap) CAP Dilution Factor: 5000

CAS NO. COMPOUND CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/L Q

74-87-3	-----Chloromethane	50000	U
74-83-9	-----Bromomethane	50000	U
75-01-4	-----Vinyl Chloride	50000	U
75-00-3	-----Chloroethane	50000	U
75-09-2	-----Methylene Chloride	25000	U
67-64-1	-----Acetone	50000	U
75-15-0	-----Carbon Disulfide	25000	U
75-35-4	-----1,1-Dichloroethene	25000	U
75-34-3	-----1,1-Dichloroethane	25000	U
540-59-0	-----1,2-Dichloroethene (total)	25000	U
67-66-3	-----Chloroform	25000	U
107-06-2	-----1,2-Dichloroethane	25000	U
78-93-3	-----2-Butanone	50000	U
71-55-6	-----1,1,1-Trichloroethane	25000	U
56-23-5	-----Carbon Tetrachloride	25000	U
108-05-4	-----Vinyl Acetate	50000	U
75-27-4	-----Bromodichloromethane	25000	U
78-87-5	-----1,2-Dichloropropane	25000	U
10061-01-5	-----cis-1,3-Dichloropropene	25000	U
10061-02-6	-----Trans-1,3-Dichloropropene	25000	U
79-01-6	-----Trichloroethene	25000	U
124-48-1	-----Dibromochloromethane	25000	U
79-00-5	-----1,1,2-Trichloroethane	25000	U
71-43-2	-----Benzene	25000	U
10061-01-5	-----cis-1,3-Dichloropropene	25000	U
10061-02-6	-----trans-1,3-Dichloropropene	25000	U
75-25-2	-----Bromoform	25000	U
108-10-1	-----4-Methyl-2-Pentanone	50000	U
591-78-6	-----2-Hexanone	50000	U
127-18-4	-----Tetrachloroethene	25000	U
79-34-5	-----1,1,2,2-Tetrachloroethane	25000	U
108-88-3	-----Toluene	80000	U
108-90-7	-----Chlorobenzene	25000	U
100-41-4	-----Ethylbenzene	25000	U
100-42-5	-----Styrene	25000	U
1330-20-7	-----Xylene (total)	94000	

FORM I VOA

0006-11 1/87 Rev.

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TANKC-11

Lab Name: PDP ANALYTICAL Contract: \_\_\_\_\_

Lab Code: \_\_\_\_\_ Case No.: PRC SAS No.: \_\_\_\_\_ SDG No.: 2921

Matrix: (soil/water) SOIL Lab Sample ID: 2921\_11

Sample wt/vol: 4.00 (g/mL) G Lab File ID: E3096

Level: (low/med) MED Date Received: 04/26/95

% Moisture: not dec. \_\_\_\_\_ Date Analyzed: 05/16/95

Column: (pack/cap) CAP Dilution Factor: 100

CAS NO. COMPOUND CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG Q

74-87-3	-----Chloromethane	120000	U
74-83-9	-----Bromomethane	120000	U
75-01-4	-----Vinyl Chloride	120000	U
75-00-3	-----Chloroethane	120000	U
75-09-2	-----Methylene Chloride	62000	U
67-64-1	-----Acetone	120000	U
75-15-0	-----Carbon Disulfide	62000	U
75-35-4	-----1,1-Dichloroethene	62000	U
75-34-3	-----1,1-Dichloroethane	62000	U
540-59-0	-----1,2-Dichloroethene (total)	62000	U
67-66-3	-----Chloroform	62000	U
107-06-2	-----1,2-Dichloroethane	62000	U
78-93-3	-----2-Butanone	120000	U
71-55-6	-----1,1,1-Trichloroethane	62000	U
56-23-5	-----Carbon Tetrachloride	62000	U
108-05-4	-----Vinyl Acetate	120000	U
75-27-4	-----Bromodichloromethane	62000	U
78-87-5	-----1,2-Dichloropropane	62000	U
10061-01-5	-----cis-1,3-Dichloropropene	62000	U
10061-02-6	-----Trans-1,3-Dichloropropene	62000	U
79-01-6	-----Trichloroethene	62000	U
124-48-1	-----Dibromochloromethane	62000	U
79-00-5	-----1,1,2-Trichloroethane	62000	U
71-43-2	-----Benzene	62000	U
10061-01-5	-----cis-1,3-Dichloropropene	62000	U
10061-02-6	-----trans-1,3-Dichloropropene	62000	U
75-25-2	-----Bromoform	62000	U
108-10-1	-----4-Methyl-2-Pentanone	120000	U
591-78-6	-----2-Hexanone	120000	U
127-18-4	-----Tetrachloroethene	62000	U
79-34-5	-----1,1,2,2-Tetrachloroethane	62000	U
108-88-3	-----Toluene	1100000	U
108-90-7	-----Chlorobenzene	62000	U
100-41-4	-----Ethylbenzene	62000	U
100-42-5	-----Styrene	62000	U
1330-20-7	-----Xylene (total)	230000	

FORM I VOA

000647A 1/87 Rev.

LABORATORY REPORT

Client:	PRC ENVIRONMENTAL	Client Sample ID:	BJWEST-OUTSUMP-01	Date Sampled:	04/24/95
Project Name:	BJ/WESTERN COMPANY	PDP Sample ID:	2921.01	Date Received:	04/26/95
Project No.:	170R06J214LA	Report No.:	E3175	Date Reported:	05/24/95

GC/MS-TCLP VOLATILE ORGANICS (DATA SHEET)

Sample Matrix:	SLUDGE	Dilution:	5.0	Method Ref.:	SW846-3240
Multiplying Factor:	5.0	Date TCLP Extracted:	05/08/95	GC/MS File ID:	E3175
Sample Volume:	5.0 ml	Date Analyzed:	05/19/95	Analyst:	LJ

COMPOUND	REGULATORY LEVEL (ug/L) :	QUANTITATION LIMIT (ug/L)	RESULTS (ug/L)
1,1-Dichloroethene	700	25	ND
1,2-Dichloroethane	500	25	ND
2-Butanone	200000	50	101
Benzene	500	25	ND
Carbon tetrachloride	500	25	ND
Chlorobenzene	100000	25	ND
Chloroform	6000	25	ND
Tetrachloroethene	700	25	ND
Trichloroethene	500	25	ND
Vinylchloride	200	50	ND

QUALITY ASSURANCE/QUALITY CONTROL

Surrogate	Spike Added (ug/L)	QC Limits (Recovery)	% Recovery
1,2-Dichloroethane-d4	50	(76-114)	98
Toluene-d8	50	(88-118)	99
Bromofluorobenzene	50	(86-115)	89

Method Blank ID: 2953V.WBLK2	LCS ID: NA	MS ID: NA	MSD ID: NA	DUP ID: NA
TCLP Blank ID: 2921V.TBLK1	TCLP LCS ID: 2921V.WLCS1	TCLP MS ID: NA	TCLP MSD ID: NA	TCLP DUP ID: NA

Regulatory Levels are as stated in 40CFR 261.24 and are provided for information only.

000132

LABORATORY REPORT

Client: PRC ENVIRONMENTAL	Client Sample ID: BJWEST-SANDTRAP-02	Date Sampled: 04/24/95
Project Name: BJ/WESTERN COMPANY	PDP Sample ID: 2921.02	Date Received: 04/26/95
Project No.: 170R063214LA	Report No.: E3176	Date Reported: 05/24/95

GC/MS-TCLP VOLATILE ORGANICS (DATA SHEET)

Sample Matrix: LIQUID	Dilution: 5.0	Method Ref.: SW846-8248
Multiplying Factor: 5.0	Date TCLP Extracted: 05/08/95	GC/MS File ID: E3176
Sample Volume: 5.0 ml	Date Analyzed: 05/19/95	Analyst: LI

COMPOUND	REGULATORY LEVEL (ug/L) *	QUANTITATION LIMIT (ug/L)	RESULTS (ug/L)
1,1-Dichloroethene	700	25	ND
1,2-Dichloroethane	500	25	ND
2-Butanone	200000	50	119
Benzene	500	25	ND
Carbon tetrachloride	500	25	ND
Chlorobenzene	100000	25	ND
Chloroform	6000	25	ND
Tetrachloroethene	700	25	ND
Trichloroethene	500	25	ND
Vinylchloride	200	50	ND

QUALITY ASSURANCE/QUALITY CONTROL

Surrogate	Spike Added (ug/L)	QC Limits (Recovery)	% Recovery
1,2-Dichloroethane-d4	50	(76-114)	96
Toluene-d8	50	(86-110)	98
Bromofluorobenzene	50	(86-115)	88

Method Blank ID: 2953V.WBLK2	LCS ID: NA	MS ID: NA	MSD ID: NA	DUP ID: NA
TCLP Blank ID: 2921V.TBLK1	TCLP LCS ID: 2921V.WLCS1	TCLP MS ID: 2921V.02MS	TCLP MSD ID: NA	TCLP DUP ID: NA

\* - Regulatory Levels are as stated in 40CFR 261.24 and are provided for information only.

000137

LABORATORY REPORT

Client: PRC ENVIRONMENTAL	Client Sample ID: BJWEST-SANDTRAP-83	Date Sampled: 04/24/95
Project Name: BJ/WESTERN COMPANY	PDP Sample ID: 2921.83	Date Received: 04/26/95
Project No.: 178R063214LA	Report No.: E3195	Date Reported: 05/24/95

GC/MS-TCLP VOLATILE ORGANICS (DATA SHEET)

Sample Matrix: LIQUID	Dilution: 5.8	Method Ref.: SW846-8248
Multiplying Factor: 5.8	Date TCLP Extracted: 05/08/95	GC/MS File ID: E3195
Sample Volume: 5.8 ml	Date Analyzed: 05/22/95	Analyst: LZ

COMPOUND	REGULATORY LEVEL (ug/L) :	QUANTITATION LIMIT (ug/L)	RESULTS (ug/L)
1,1-Dichloroethene	700	25	ND
1,2-Dichloroethane	500	25	ND
Butanone	200000	50	129
Benzene	500	25	ND
Carbon tetrachloride	500	25	ND
Chlorobenzene	100000	25	ND
Chloroform	6000	25	ND
Tetrachloroethene	700	25	ND
Trichloroethene	500	25	ND
Vinylchloride	200	50	ND

QUALITY ASSURANCE/QUALITY CONTROL

Surrogate	Spike Added (ug/L)	QC Limits (Recovery)	% Recovery
1,2-Dichloroethane-d4	50	(76-114)	101
Toluene-d8	50	(88-110)	107
Bromofluorobenzene	50	(86-115)	94

Method Blank ID: 2953V.WBLK2	LCS ID: NA	MS ID: NA	MSD ID: NA	DUP ID: NA
TCLP Blank ID: 2921V.TBLK1	TCLP LCS ID: 2921V.WLCS2	TCLP MS ID: NA	TCLP MSD ID: NA	TCLP DUP ID: NA

Regulatory Levels are as stated in 40CFR 261.24 and are provided for information only.

000143

PDP ANALYTICAL SERVICES  
1680 Lake Front Circle, Ste. B; The Woodlands, TX 77380; Phone (713)365-2255

LABORATORY REPORT

Client:	PRC ENVIRONMENTAL	Client Sample ID:	BJWEST-SANDTRAP-84	Date Sampled:	04/24/95
Project Name:	BJ/WESTERN COMPANY	PDP Sample ID:	2921.84	Date Received:	04/26/95
Project No.:	170R063214LA	Report No.:	E3196	Date Reported:	05/24/95

GC/MS-TCLP VOLATILE ORGANICS (DATA SHEET)

Sample Matrix:	SLUDGE	Dilution:	5.0	Method Ref.:	SW846-8240
Multiplying Factor:	5.0	Date TCLP Extracted:	05/08/95	GC/MS File ID:	E3196
Sample Volume:	5.0 ml	Date Analyzed:	05/22/95	Analyst:	LI

COMPOUND	REGULATORY LEVEL (ug/L) :	QUANTITATION LIMIT (ug/L)	RESULTS (ug/L)
1,1-Dichloroethene	700	25	ND
1,2-Dichloroethane	500	25	ND
2-Butanone	200000	50	107
Benzene	500	25	ND
Carbon tetrachloride	500	25	ND
Chlorobenzene	100000	25	ND
Chloroform	5000	25	ND
Tetrachloroethene	700	25	ND
Trichloroethene	500	25	ND
Vinylchloride	200	50	ND

QUALITY ASSURANCE/QUALITY CONTROL

Surrogate	Spike Added (ug/L)	QC Limits (Recovery)	% Recovery
1,2-Dichloroethane-d4	50	(76-114)	99
Toluene-d8	50	(90-110)	106
Bromofluorobenzene	50	(96-115)	92

Method Blank ID: 2921V.WBLK2	LCS ID: NA	MS ID: NA	MSD ID: NA	DUP ID: NA
TCLP Blank ID: 2921V.TBLK1	TCLP LCS ID: 2921V.WLCS2	TCLP MS ID: 2921.84MS	TCLP MSD ID: NA	TCLP DUP ID: NA

\* - Regulatory Levels are as stated in 40CFR 261.24 and are provided for information only.

000146

PDP ANALYTICAL SERVICES  
1688 Lake Front Circle, Ste. B; The Woodlands, TX 77380; Phone (713)363-2233

LABORATORY REPORT

Client: PRC ENVIRONMENTAL	Client Sample ID: BJWEST-SANDTRAP-85	Date Sampled: 84/24/95
Project Name: BJ/WESTERN COMPANY	PDP Sample ID: 2921.85	Date Received: 84/26/95
Project No.: 170R863214LA	Report No.: E3197	Date Reported: 85/24/95

GC/MS-TCLP VOLATILE ORGANICS (DATA SHEET)

Sample Matrix: SLUDGE	Dilution: 5.8	Method Ref.: SW846-9248
Multiplying Factor: 5.3	Date TCLP Extracted: 85/08/95	GC/MS File ID: E3197
Sample Volume: 5.8 ml	Date Analyzed: 85/22/95	Analyst: LZ

COMPOUND	REGULATORY LEVEL (ug/L) :	QUANTITATION LIMIT (ug/L)	RESULTS (ug/L)
1,1-Dichloroethene	700	25	ND
1,2-Dichloroethane	500	25	ND
2-Butanone	200000	50	99
Benzene	500	25	ND
Carbon tetrachloride	500	25	ND
Chlorobenzene	100000	25	ND
Chloroform	6000	25	ND
Tetrachloroethene	700	25	ND
Trichloroethene	500	25	ND
Vinylchloride	200	50	ND

QUALITY ASSURANCE/QUALITY CONTROL

Surrogate	Spike Added (ug/L)	QC Limits (Recovery)	% Recovery
1,2-Dichloroethane-d4	50	(76-114)	94
Toluene-d8	50	(88-118)	101
Bromofluorobenzene	50	(86-115)	97

Method Blank ID: 2921V.WBLK2	LCS ID: NA	MS ID: NA	MSD ID: NA	DUP ID: NA
TCLP Blank ID: 2921V.TBLK1	TCLP LCS ID: 2921V.WLCS1	TCLP MS ID: NA	TCLP MSD ID: NA	TCLP DUP ID: NA

Regulatory Levels are as stated in 40CFR 261.24 and are provided for information only.

000149

PDP ANALYTICAL SERVICES  
1688 Lake Front Circle, Ste. B; The Woodlands, TX 77380; Phone (713)363-2233

LABORATORY REPORT

Client: PRC ENVIRONMENTAL	Client Sample ID: BJWEST-TANKA-86	Date Sampled: 04/24/95
Project Name: BJ/WESTERN COMPANY	PDP Sample ID: 2921.86	Date Received: 04/26/95
Project No.: 170R063214LA	Report No.: E3216	Date Reported: 05/24/95

GC/MS-TCLP VOLATILE ORGANICS (DATA SHEET)

Sample Matrix: LIQUID	Dilution: 5.0	Method Ref.: SW846-8248
Multiplying Factor: 5.0	Date TCLP Extracted: 05/08/95	GC/MS File ID: E3216
Sample Volume: 5.0 ml	Date Analyzed: 05/23/95	Analyst: LZ

COMPOUND	REGULATORY LEVEL (ug/L) ‡	QUANTITATION LIMIT (ug/L)	RESULTS (ug/L)
1,1-Dichloroethene	700	25	ND
1,2-Dichloroethane	500	25	ND
Butanone	200000	50	ND
Benzene	500	25	ND
Carbon tetrachloride	500	25	ND
Chlorobenzene	100000	25	ND
Chloroform	6000	25	ND
Tetrachloroethene	700	25	ND
Trichloroethene	500	25	ND
Trichloride	200	50	ND

QUALITY ASSURANCE/QUALITY CONTROL

Surrogate	Spike Added (ug/L)	QC Limits (Recovery)	% Recovery
1,2-Dichloroethane-d4	50	(76-114)	99
Toluene-d8	50	(88-110)	100
Bromofluorobenzene	50	(86-115)	98

Method Blank ID: 2953V.WBLK3	LCS ID: NA	MS ID: NA	MSD ID: NA	DUP ID: NA
TCLP Blank ID: 2921V.TBLK1	TCLP LCS ID: 2921V.WLCS3	TCLP MS ID: NA	TCLP MSD ID: NA	TCLP DUP ID: NA

‡ = Regulatory Levels are as stated in 40CFR 261.24 and are provided for information only.

050152

*[Signature]*

LABORATORY REPORT

Client:	PRC ENVIRONMENTAL	Client Sample ID:	BJWEST-TANKA-87	Date Sampled:	04/24/95
Project Name:	BJ/WESTERN COMPANY	PDP Sample ID:	2921.07	Date Received:	04/26/95
Project No.:	170R86J214LA	Report No.:	ES217	Date Reported:	05/24/95

GC/MS-TCLP VOLATILE ORGANICS (DATA SHEET)

Sample Matrix:	SLUDGE	Dilution:	5.0	Method Ref.:	SW846-8240
Multiplying Factor:	5.0	Date TCLP Extracted:	05/08/95	GC/MS File ID:	ES217
Sample Volume:	5.0 ml	Date Analyzed:	05/23/95	Analyst:	LZ

COMPOUND	REGULATORY LEVEL (ug/L) ±	QUANTITATION LIMIT (ug/L)	RESULTS (ug/L)
1,1-Dichloroethene	700	25	ND
1,2-Dichloroethane	500	25	ND
Butanone	200000	50	185
Benzene	500	25	ND
Carbon tetrachloride	500	25	ND
Chlorobenzene	100000	25	ND
Chloroform	6000	25	ND
Tetrachloroethene	700	25	ND
Trichloroethene	500	25	ND
Trichloride	200	50	ND

QUALITY ASSURANCE/QUALITY CONTROL

Surrogate	Spike Added (ug/L)	QC Limits (Recovery)	% Recovery
1,2-Dichloroethane-d4	50	(76-114)	91
Toluene-d8	50	(88-110)	66
Bromofluorobenzene	50	(86-115)	87

Method Blank ID: 2921V.WBLK3	LCS ID: NA	MS ID: NA	MSD ID: NA	DUP ID: NA
TCLP Blank ID: 2921V.TBLK1	TCLP LCS ID: 2921V.WLCS3	TCLP MS ID: NA	TCLP MSD ID: NA	TCLP DUP ID: NA

Regulatory Levels are as stated in 40CFR 261.24 and are provided for information only.

000157

PDP ANALYTICAL SERVICES  
1688 Lake Front Circle, Ste. B; The Woodlands, TX 77380; Phone (713)363-2233

LABORATORY REPORT

Client: PRC ENVIRONMENTAL	Client Sample ID: BJWEST-TANKB-88	Date Sampled: 84/24/95
Project Name: BJ/WESTERN COMPANY	PDP Sample ID: 2921.88	Date Received: 84/26/95
Project No.: 178R063214LA	Report No.: 85884	Date Reported: 85/24/95

GC/MS-TCLP VOLATILE ORGANICS (DATA SHEET)

Sample Matrix: LIQUID	Dilution: 5.8	Method Ref.: SW846-8240
Multiplying Factor: 5.8	Date TCLP Extracted: 85/08/95	GC/MS File ID: 85884
Sample Volume: 5.8 ml	Date Analyzed: 85/19/95	Analyst: LZ

COMPOUND	REGULATORY LEVEL (ug/L) :	QUANTITATION LIMIT (ug/L)	RESULTS (ug/L)
1,1-Dichloroethene	700	25	ND
1,2-Dichloroethane	500	25	ND
2-Butanone	200000	50	ND
Benzene	500	25	ND
Carbon tetrachloride	500	25	ND
Chlorobenzene	100000	25	ND
Chloroform	6000	25	ND
Tetrachloroethene	700	25	ND
Trichloroethene	500	25	ND
Vinylchloride	200	50	ND

QUALITY ASSURANCE/QUALITY CONTROL

Surrogate	Spike Added (ug/L)	QC Limits (Recovery)	% Recovery
1,2-Dichloroethane-d4	50	(76-114)	93
Toluene-d8	50	(88-110)	88
Bromofluorobenzene	50	(86-115)	96

Method Blank ID: 2953V.WBLK1	LCS ID: NA	MS ID: NA	MSD ID: NA	DUP ID: NA
TCLP Blank ID: 2921V.FBLK1	TCLP LCS ID: 2921V.WLCS1	TCLP MS ID: NA	TCLP MSD ID: NA	TCLP DUP ID: NA

Regulatory Levels are as stated in 40CFR 261.24 and are provided for information only.

000163

PDP ANALYTICAL SERVICES  
1668 Lake Front Circle, Ste. B; The Woodlands, TX 77380; Phone (713)363-2233

LABORATORY REPORT

Client: PRC ENVIRONMENTAL	Client Sample ID: BJWEST-TANK8-89	Date Sampled: 04/24/95
Project Name: BJ/WESTERN COMPANY	PDP Sample ID: 2921.89	Date Received: 04/26/95
Project No.: 170R063214LA	Report No.: ES219	Date Reported: 05/24/95

GC/MS-TCLP VOLATILE ORGANICS (DATA SHEET)

Sample Matrix: SLUDGE	Dilution: 5.0	Method Ref.: SW846-8240
Multiplying Factor: 5.0	Date TCLP Extracted: 05/08/95	GC/MS File ID: ES219
Sample Volume: 5.0 ml	Date Analyzed: 05/23/95	Analyst: LZ

COMPOUND	REGULATORY LEVEL (ug/L) :	QUANTITATION LIMIT (ug/L)	RESULTS (ug/L)
1,1-Dichloroethene	700	25	ND
1,2-Dichloroethane	500	25	ND
2-Butanone	200000	50	145
Benzene	500	25	ND
Carbon tetrachloride	500	25	ND
Chlorobenzene	100000	25	ND
Chloroform	6000	25	ND
Tetrachloroethene	700	25	ND
Trichloroethene	500	25	ND
Vinylchloride	200	50	ND

QUALITY ASSURANCE/QUALITY CONTROL

Surrogate	Spike Added (ug/L)	QC Limits (Recovery)	% Recovery
1,2-Dichloroethane-d4	50	(76-114)	93
Toluene-d8	50	(88-110)	94
Bromofluorobenzene	50	(86-115)	96

Method Blank ID: 2921V.WBLK3	LCS ID: NA	MS ID: NA	MSD ID: NA	DUP ID: NA
TCLP Blank ID: 2921V.TBLK1	TCLP LCS ID: 2921V.WLCS3	TCLP MS ID: NA	TCLP MSD ID: NA	TCLP DUP ID: NA

= Regulatory Levels are as stated in 40CFR 261.24 and are provided for information only.

000167

LABORATORY REPORT

Client: PRC ENVIRONMENTAL Client Sample ID: BJWEST-TANKE-10 Date Sampled: 04/24/95  
Project Name: BJ/WESTERN COMPANY PDP Sample ID: 2921.10 Date Received: 04/26/95  
Project No.: 170R063214A Report No.: B5077 Date Reported: 05/24/95

GC/MS-TCLP VOLATILE ORGANICS (DATA SHEET)

Sample Matrix: LIQUID Dilution: 1.0 Method Ref.: SW846-8240  
Multiplying Factor: 1.0 Date TCLP Extracted: 05/08/95 GC/MS File ID: B5077  
Sample Volume: 5.0 ml Date Analyzed: 05/19/95 Analyst: LZ

COMPOUND	REGULATORY LEVEL (ug/L) ±	QUANTITATION LIMIT (ug/L)	RESULTS (ug/L)
1,1-Dichloroethene	700	5	ND
1,2-Dichloroethane	500	5	ND
2-Butanone	200000	10	ND
Benzene	500	5	ND
Carbon tetrachloride	500	5	ND
Chlorobenzene	100000	5	ND
Chloroform	6000	5	ND
Tetrachloroethene	700	5	ND
Trichloroethene	500	5	ND
Vinylchloride	200	10	ND

QUALITY ASSURANCE/QUALITY CONTROL

Surrogate	Spike Added (ug/L)	QC Limits (Recovery)	% Recovery
1,2-Dichloroethane-d4	50	(76-114)	97
Toluene-d8	50	(88-118)	87
Bromofluorobenzene	50	(86-115)	98

Method Blank ID: 2920V.WBLK1 LCS ID: NA MS ID: NA MSD ID: NA DUP ID: NA  
TCLP Blank ID: 2921V.FBLK1 TCLP LCS ID: 2921V.WLCS1 TCLP MS ID: NA TCLP MSD ID: NA TCLP DUP ID: NA

Regulatory Levels are as stated in 40CFR 261.24 and are provided for information only.

000174

LABORATORY REPORT

Client:	PRC ENVIRONMENTAL	Client Sample ID:	BJWEST-TANKC-13	Date Sampled:	04/24/95
Project Name:	BJ/WESTERN COMPANY	PDP Sample ID:	2921.10RA	Date Received:	04/26/95
Project No.:	170R063214LA	Report No.:	85082	Date Reported:	05/24/95

GC/MS-TCLP VOLATILE ORGANICS (DATA SHEET)

Sample Matrix:	SLUDGE	Dilution:	100000.0	Method Ref.:	SW846-3240
Multiplying Factor:	100000.0	Date TCLP Extracted:	05/08/95	GC/MS File ID:	85082
Sample Volume:	5.0 ml	Date Analyzed:	05/19/95	Analyst:	LJ

COMPOUND	REGULATORY LEVEL (ug/L) †	QUANTITATION LIMIT (ug/L)	RESULTS (ug/L)
1,1-Dichloroethene	700	500000	ND
1,2-Dichloroethane	500	500000	ND
2-Butanone	200000	1000000	ND
Benzene	500	500000	ND
Carbon tetrachloride	500	500000	ND
Chlorobenzene	100000	500000	ND
Chloroform	6000	500000	ND
Tetrachloroethene	700	500000	ND
Trichloroethene	500	500000	ND
Vinylchloride	200	1000000	ND

QUALITY ASSURANCE/QUALITY CONTROL

Surrogate	Spike Added (ug/L)	QC Limits (Recovery)	% Recovery
1,2-Dichloroethane-d4	50	(76-114)	98
Toluene-d8	50	(88-110)	97
Bromofluorobenzene	50	(86-115)	97

Method Blank ID: 2920V.WBLK1	LCS ID: NA	MS ID: NA	MSD ID: NA	DUP ID: N
TCLP Blank ID: 2921V.FBLK1	TCLP LCS ID: 2921V.WLCS1	TCLP MS ID: NA	TCLP MSD ID: NA	TCLP DUP ID: N

† = Regulatory Levels are as stated in 40CFR 261.24 and are provided for information only.

000177

PDP ANALYTICAL SERVICES  
1688 Lake Front Circle, Ste. B; The Woodlands, TX 77380; Phone (713)363-2233

LABORATORY REPORT

Client: PRC ENVIRONMENTAL	Client Sample ID: BJWEST-TANKC-11	Date Sampled: 04/24/95
Project Name: BJ/WESTERN COMPANY	PDP Sample ID: 2921.11	Date Received: 04/26/95
Project No.: 170R063214LA	Report No.: E3222	Date Reported: 05/24/95

GC/MS-TCLP VOLATILE ORGANICS (DATA SHEET)

Sample Matrix: SLUDGE	Dilution: 5.0	Method Ref.: SW846-8248
Multiplying Factor: 5.0	Date TCLP Extracted: 05/08/95	GC/MS File ID: E3222
Sample Volume: 5.0 ml	Date Analyzed: 05/23/95	Analyst: LZ

COMPOUND	REGULATORY LEVEL (ug/L) :	QUANTITATION LIMIT (ug/L)	RESULTS (ug/L)
1,1-Dichloroethene	700	25	ND
1,2-Dichloroethane	500	25	ND
Butanone	200000	50	242
Benzene	500	25	ND
Carbon tetrachloride	500	25	ND
Chlorobenzene	100000	25	ND
Chloroform	6000	25	ND
Tetrachloroethene	700	25	ND
Trichloroethene	500	25	ND
Trichloride	200	50	ND

QUALITY ASSURANCE/QUALITY CONTROL

Surrogate	Spike Added (ug/L)	QC Limits (Recovery)	% Recovery
1,2-Dichloroethane-d4	50	(76-114)	97
Toluene-d8	50	(88-110)	97
Bromofluorobenzene	50	(86-115)	93

Method Blank ID: 2921V.WBLK3	LCS ID: NA	MS ID: NA	MSD ID: NA	DUP ID: NA
TCLP Blank ID: 2921V.TBLK1	TCLP LCS ID: 2921V.WLCS3	TCLP MS ID: NA	TCLP MSD ID: NA	TCLP DUP ID: NA

Regulatory Levels are as stated in 40CFR 261.24 and are provided for information only.

000180

LABORATORY REPORT

Client: PRC ENVIRONMENTAL	Client Sample ID: BJWEST-OUTSUMP-01	Date Sampled: 04/24/95
Project Name: BJ/WESTERN COMPANY	PDP Sample ID: 2921.01	Date Received: 04/26/95
Project No.: 170R063214LA	Report No.: A6823	Date Reported: 05/22/95

GC/MS-TCLP SEMIVOLATILES (DATA SHEET)

Sample Matrix: SLODGE	Dilution: 1.0	Method Ref.: SW846-8270
Multiplying Factor: 5.0	Date TCLP Extracted: 05/10/95	GC/MS File ID: A6823
Sample Volume: 200 ml	Date Extracted: 05/12/95	Analyst: RRP
Extract Volume: 1.0 ml	Date Analyzed: 05/19/95	

COMPOUND	REGULATORY LEVEL (ug/L) *	QUANTITATION LIMIT (ug/L)	RESULTS (ug/L)
1,4-Dichlorobenzene	7500	50	ND
2,4,5-Trichlorophenol	400000	50	ND
2,4,6-Trichlorophenol	2000	50	ND
2,4-Dinitrotoluene	130	50	ND
2-Methylphenol	200000	50	ND
3+4-Methylphenols	200000	50	ND
Hexachlorobenzene	130	50	ND
Hexachlorobutadiene	500	50	ND
Hexachloroethane	3000	50	ND
Nitrobenzene	2000	50	ND
Pentachlorophenol	100000	125	ND
Pyridine	5000	50	ND

QUALITY ASSURANCE/QUALITY CONTROL

Surrogate	Spike Added (ug/L)	QC Limits (Recovery)	% Recovery	Surrogate	Spike Added (ug/L)	QC Limits (Recovery)	% Recovery
Nitrobenzene-d5	250	(35-114)	74	Phenol-d5	375	(10-94)	22
2-Fluorobiphenyl	250	(43-116)	64	2-Fluorophenol	375	(21-100)	48
Terphenyl-d14	250	(33-141)	72	2,4,6-Tribromophenol	375	(10-123)	51

Method Blank ID: 2921S.WBLK1 LCS ID: NA MS ID: NA MSD ID: NA

TCLP Blank ID: 2921S.TBLK1 TCLP LCS ID: 2921S.TLCS1 TCLP MS ID: 2921.04MS TCLP MSD ID: NA

\* = Regulatory Levels are as stated in 40CFR 261.24 and are provided for information only.

000347

PDP ANALYTICAL SERVICES  
1680 Lake Front Circle, Suite 8, The Woodlands, TX 77380; (713) 363-2233

LABORATORY REPORT

Client: PRC ENVIRONMENTAL	Client Sample ID: BJWEST-SANDTRAP-02	Date Sampled: 04/24/95
Project Name: BJ/WESTERN COMPANY	PDP Sample ID: 2921.02	Date Received: 04/26/95
Project No.: 170R063214LA	Report No.: A6824	Date Reported: 05/22/95

GC/MS-TCLP SEMIVOLATILES (DATA SHEET)

Sample Matrix: LIQUID	Dilution: 1.0	Method Ref.: SW846-8270
Multiplying Factor: 5.0	Date TCLP Extracted: 05/10/95	GC/MS File ID: A6824
Sample Volume: 200 ml	Date Extracted: 05/12/95	Analyst: RRP
Extract Volume: 1.0 ml	Date Analyzed: 05/19/95	

COMPOUND	REGULATORY LEVEL (ug/L) *	QUANTITATION LIMIT (ug/L)	RESULTS (ug/L)
1,4-Dichlorobenzene	7500	50	ND
2,4,5-Trichlorophenol	400000	50	ND
2,4,6-Trichlorophenol	2000	50	ND
2,4-Dinitrotoluene	130	50	ND
2-Methylphenol	200000	50	ND
3+4-Methylphenols	200000	50	ND
Hexachlorobenzene	130	50	ND
Hexachlorobutadiene	500	50	ND
Hexachloroethane	3000	50	ND
Nitrobenzene	2000	50	ND
Pentachlorophenol	100000	125	ND
Pyridine	5000	50	ND

QUALITY ASSURANCE/QUALITY CONTROL

Surrogate	Spike Added (ug/L)	QC Limits (Recovery)	% Recovery	Surrogate	Spike Added (ug/L)	QC Limits (Recovery)	% Recovery
Nitrobenzene-d5	250	(35-114)	75	Phenol-d5	375	(10-94)	61
2-Fluorobiphenyl	250	(43-116)	69	2-Fluorophenol	375	(21-100)	62
Terphenyl-d14	250	(33-141)	82	2,4,6-Tribromophenol	375	(10-123)	53

Method Blank ID: 2921S.MBLK1    LCS ID: NA    MS ID: NA    MSD ID: NA

TCLP Blank ID: 2921S.TBLK1    TCLP LCS ID: 2921S.TLCS1    TCLP MS ID: 2921.04MS    TCLP MSD ID: NA

\* = Regulatory Levels are as stated in 40CFR 261.24 and are provided for information only.

000352

PDP ANALYTICAL SERVICES  
1680 Lake Front Circle, Suite 8, The Woodlands, TX 77380; (713) 363-2233

LABORATORY REPORT

Client: PRC ENVIRONMENTAL Client Sample ID: BJWEST-SANDTRAP-03 Date Sampled: 04/24/95  
Project Name: BJ/WESTERN COMPANY PDP Sample ID: 2921.03 Date Received: 04/26/95  
Project No.: 170R063214LA Report No.: A6825 Date Reported: 05/22/95

GC/MS-TCLP SEMIVOLATILES (DATA SHEET)

Sample Matrix: LIQUID Dilution: 1.0 Method Ref.: SW846-8270  
Multiplying Factor: 5.0 Date TCLP Extracted: 05/10/95 GC/MS File ID: A6825  
Sample Volume: 200 ml Date Extracted: 05/12/95 Analyst: RRP  
Extract Volume: 1.0 ml Date Analyzed: 05/19/95

COMPOUND	REGULATORY LEVEL (ug/L) ±	QUANTITATION LIMIT (ug/L)	RESULTS (ug/L)
1,4-Dichlorobenzene	7500	50	ND
2,4,5-Trichlorophenol	400000	50	ND
2,4,6-Trichlorophenol	2000	50	ND
2,4-Dinitrotoluene	130	50	ND
2-Methylphenol	200000	50	ND
3+4-Methylphenols	200000	50	ND
Hexachlorobenzene	130	50	ND
Hexachlorobutadiene	500	50	ND
Hexachloroethane	3000	50	ND
Nitrobenzene	2000	50	ND
Pentachlorophenol	100000	125	ND
Pyridine	5000	50	ND

QUALITY ASSURANCE/QUALITY CONTROL

Surrogate	Spike Added (ug/L)	QC Limits (Recovery)	% Recovery	Surrogate	Spike Added (ug/L)	QC Limits (Recovery)	% Recovery
Nitrobenzene-d5	250	(35-114)	78	Phenol-d5	375	(10-94)	57
2-Fluorobiphenyl	250	(43-116)	74	2-Fluorophenol	375	(21-100)	55
Terphenyl-d14	250	(33-141)	89	2,4,6-Tribromophenol	375	(10-123)	52

Method Blank ID: 2921S.MBLK1 LCS ID: NA MS ID: NA MSD ID: NA

TCLP Blank ID: 2921S.TBLK1 TCLP LCS ID: 2921S.TLCS1 TCLP MS ID: 2921.04MS TCLP MSD ID: NA

= Regulatory Levels are as stated in 40CFR 261.24 and are provided for information only.

000358

POP ANALYTICAL SERVICES  
1680 Lake Front Circle, Suite 8, The Woodlands, TX 77380; (713) 363-2233

LABORATORY REPORT

Client: PRC ENVIRONMENTAL Client Sample ID: 8JWEST-SANDTRAP-04 Date Sampled: 04/24/95  
Project Name: 8J/WESTERN COMPANY POP Sample ID: 2921.04 Date Received: 04/26/95  
Project No.: 170R063214LA Report No.: A6826 Date Reported: 05/22/95

GC/MS-TCLP SEMIVOLATILES (DATA SHEET)

Sample Matrix: SLUDGE Dilution: 1.0 Method Ref.: SM846-8270  
Multiplying Factor: 5.0 Date TCLP Extracted: 05/10/95 GC/MS File ID: A6826  
Sample Volume: 200 ml Date Extracted: 05/12/95 Analyst: RRP  
Extract Volume: 1.0 ml Date Analyzed: 05/19/95

COMPOUND	REGULATORY LEVEL (ug/L) *	QUANTITATION LIMIT (ug/L)	RESULTS (ug/L)
1,4-Dichlorobenzene	7500	50	ND
2,4,5-Trichlorophenol	400000	50	ND
2,4,6-Trichlorophenol	2000	50	ND
2,4-Dinitrotoluene	130	50	ND
2-Methylphenol	200000	50	ND
4-Methylphenols	200000	50	ND
Hexachlorobenzene	130	50	ND
Hexachlorobutadiene	500	50	ND
Hexachloroethane	3000	50	ND
Nitrobenzene	2000	50	ND
Pentachlorophenol	100000	125	ND
Pyridine	5000	50	ND

QUALITY ASSURANCE/QUALITY CONTROL

Surrogate	Spike Added (ug/L)	QC Limits (Recovery)	% Recovery	Surrogate	Spike Added (ug/L)	QC Limits (Recovery)	% Recovery
trobenzene-d5	250	(35-114)	79	Phenol-d5	375	(10-94)	58
Fluorobiphenyl	250	(43-116)	76	2-Fluorophenol	375	(21-100)	56
Terphenyl-d14	250	(33-141)	89	2,4,6-Tribromophenol	375	(10-123)	51

Method Blank ID: 2921S.WBLX1 LCS ID: NA MS ID: NA MSD ID: NA

TCLP Blank ID: 2921S.TBLX1 TCLP LCS ID: 2921S.TLCS1 TCLP MS ID: 2921.04MS TCLP MSD ID: NA

Regulatory Levels are as stated in 40CFR 261.24 and are provided for information only.

000364

POP ANALYTICAL SERVICES  
1680 Lake Front Circle, Suite 8, The Woodlands, TX 77380; (713) 363-2233

LABORATORY REPORT

Client: PRC ENVIRONMENTAL Client Sample ID: BJWEST-SANDTRAP-05 Date Sampled: 04/24/95  
Project Name: BJ/WESTERN COMPANY PDP Sample ID: 2921.05 Date Received: 04/26/95  
Project No.: 170R063214LA Report No.: A6831 Date Reported: 05/22/95

GC/MS-TCLP SEMIVOLATILES (DATA SHEET)

Sample Matrix: SLUDGE Dilution: 1.0 Method Ref.: SW846-8270  
Multiplying Factor: 5.0 Date TCLP Extracted: 05/10/95 GC/MS File ID: A6831  
Sample Volume: 200 ml Date Extracted: 05/12/95 Analyst: RRP  
Extract Volume: 1.0 ml Date Analyzed: 05/19/95

COMPOUND	REGULATORY LEVEL (ug/L) *	QUANTITATION LIMIT (ug/L)	RESULTS (ug/L)
1,4-Dichlorobenzene	7500	50	ND
2,4,5-Trichlorophenol	400000	50	ND
2,4,6-Trichlorophenol	2000	50	ND
2,4-Dinitrotoluene	130	50	ND
2-Methylphenol	200000	50	ND
3+4-Methylphenols	200000	50	ND
Hexachlorobenzene	130	50	ND
Hexachlorobutadiene	500	50	ND
Hexachloroethane	3000	50	ND
Nitrobenzene	2000	50	ND
Pentachlorophenol	100000	125	ND
Pyridine	5000	50	ND

QUALITY ASSURANCE/QUALITY CONTROL

Surrogate	Spike Added (ug/L)	QC Limits (Recovery)	% Recovery	Surrogate	Spike Added (ug/L)	QC Limits (Recovery)	% Recovery
Nitrobenzene-d5	250	(35-114)	71	Phenol-d5	375	(10-94)	66
2-Fluorobiphenyl	250	(43-116)	69	2-Fluorophenol	375	(21-100)	61
Terphenyl-d14	250	(33-141)	91	2,4,6-Tribromophenol	375	(10-123)	47

Method Blank ID: 2921S.WBLX1 LCS ID: NA MS ID: NA MSD ID: NA

TCLP Blank ID: 2921S.TBLX1 TCLP LCS ID: 2921S.TLCS1 TCLP MS ID: 2921.04MS TCLP MSD ID: NA

\* Regulatory Levels are as stated in 40CFR 261.24 and are provided for information only.

000373

PDP ANALYTICAL SERVICES  
1680 Lake Front Circle, Suite 8, The Woodlands, TX 77380; (713) 363-2233

LABORATORY REPORT

Client: PRC ENVIRONMENTAL	Client Sample ID: 8JWEST-TANKA-06	Date Sampled: 04/24/95
Project Name: 8J/WESTERN COMPANY	PDP Sample ID: 2921.06	Date Received: 04/26/95
Project No.: 170R063214LA	Report No.: A6832	Date Reported: 05/22/95

GC/MS-TCLP SEMIVOLATILES (DATA SHEET)

Sample Matrix: LIQUID	Dilution: 1.0	Method Ref.: SW846-8270
Multiplying Factor: 5.0	Date TCLP Extracted: 05/10/95	GC/MS File ID: A6832
Sample Volume: 200 ml	Date Extracted: 05/12/95	Analyst: RRP
Extract Volume: 1.0 ml	Date Analyzed: 05/19/95	

COMPOUND	REGULATORY LEVEL (ug/L) *	QUANTITATION LIMIT (ug/L)	RESULTS (ug/L)
1,4-Dichlorobenzene	7500	50	ND
2,4,5-Trichlorophenol	400000	50	ND
2,4,6-Trichlorophenol	2000	50	ND
2,4-Dinitrotoluene	130	50	ND
2-Methylphenol	200000	50	ND
3+4-Methylphenols	200000	50	ND
Hexachlorobenzene	130	50	ND
Hexachlorobutadiene	500	50	ND
Hexachloroethane	3000	50	ND
Nitrobenzene	2000	50	ND
Pentachlorophenol	100000	125	ND
Pyridine	5000	50	ND

QUALITY ASSURANCE/QUALITY CONTROL

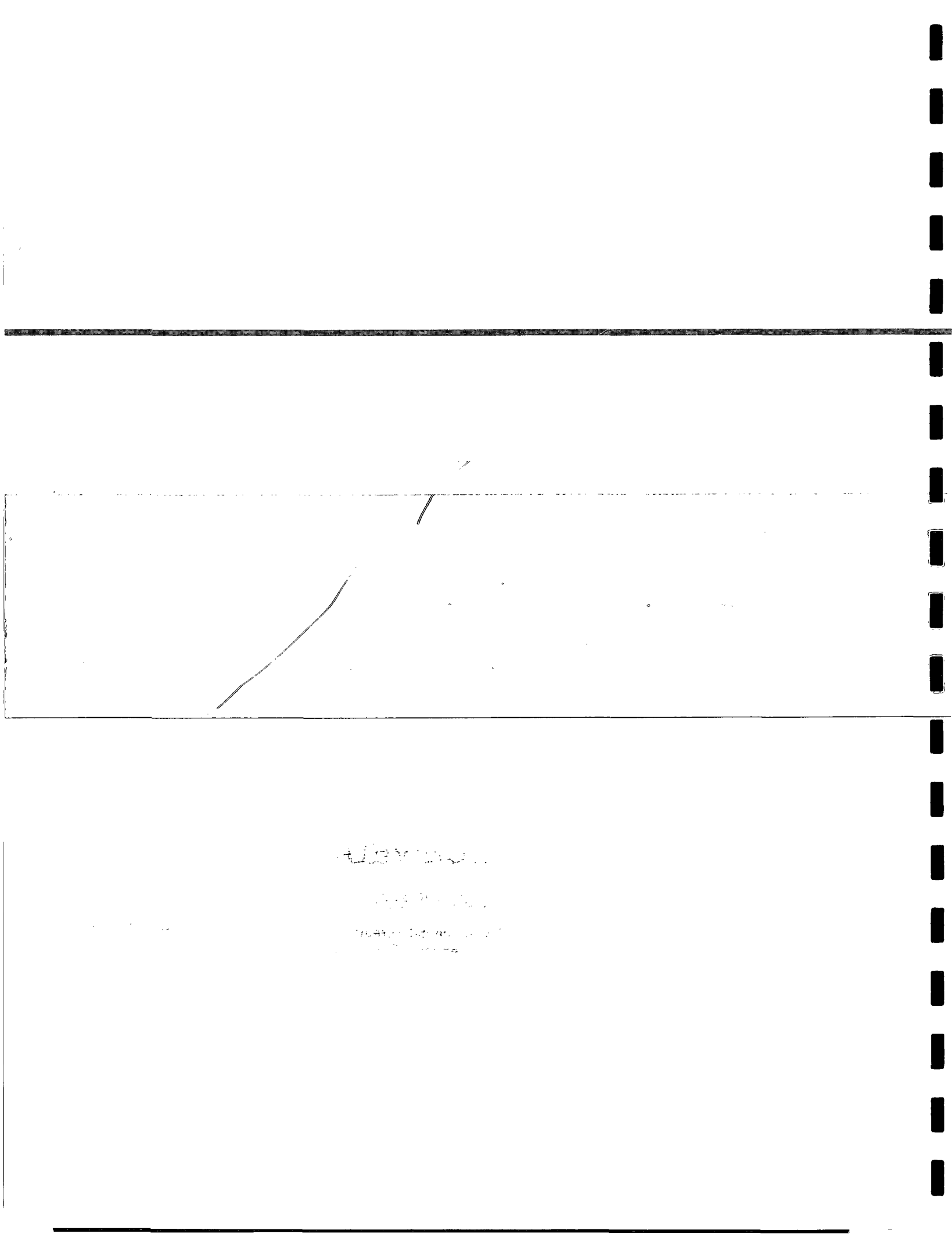
Surrogate	Spike Added (ug/L)	QC Limits (Recovery)	% Recovery	Surrogate	Spike Added (ug/L)	QC Limits (Recovery)	% Recovery
Nitrobenzene-d5	250	(35-114)	71	Phenol-d5	375	(10-94)	52
2-Fluorobiphenyl	250	(43-116)	68	2-Fluorophenol	375	(21-100)	44
Terphenyl-d14	250	(33-141)	92	2,4,6-Tribromophenol	375	(10-123)	19

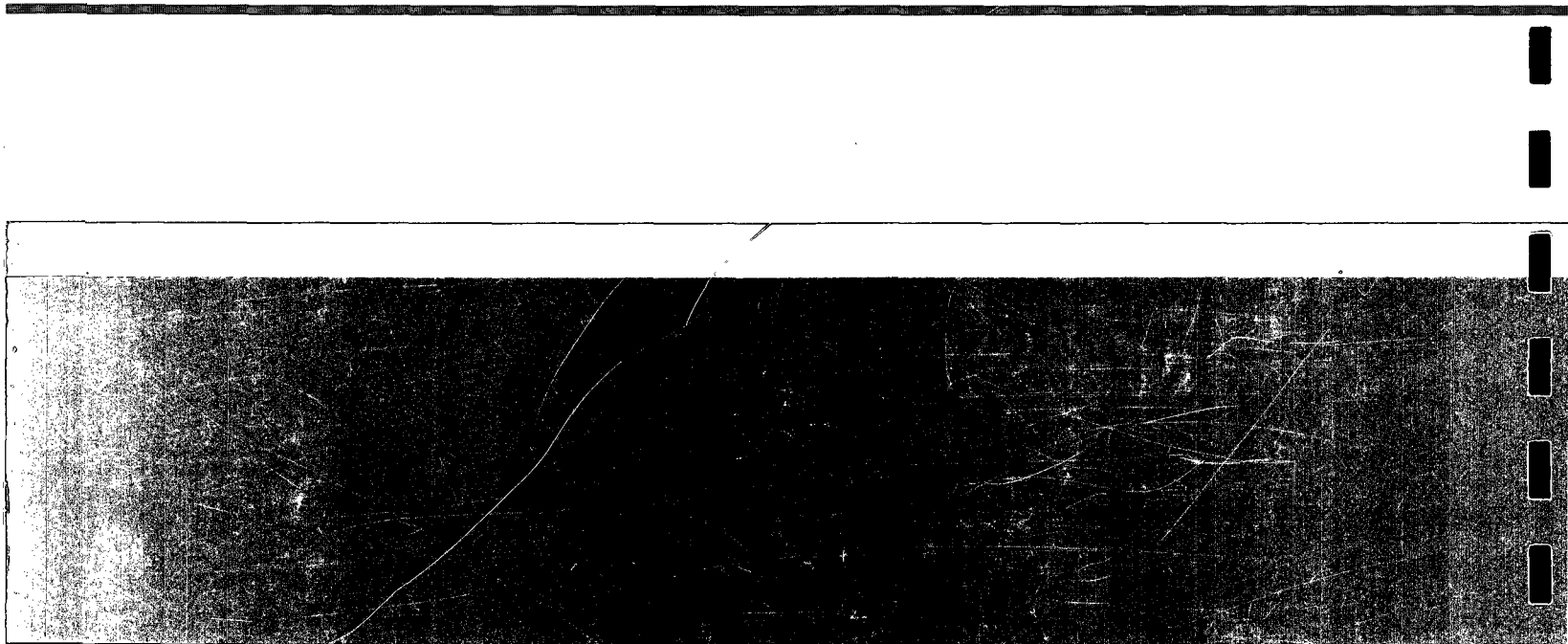
Method Blank ID: 2921S.MBLK1      LCS ID: NA      MS ID: NA      MSD ID: NA

TCLP Blank ID: 2921S.TBLK1      TCLP LCS ID: 2921S.TLCS1      TCLP MS ID: 2921.04MS      TCLP MSD ID: NA

\* Regulatory Levels are as stated in 40CFR 261.24 and are provided for information only.

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