

1R - 257

REPORTS

DATE:

2004

February 12, 2004

VIA FACSIMILE: (505) 476-3462

Mr. Wayne Price
New Mexico Oil Conservation Division
1220 S. St. Francis Drive
Santa Fe, New Mexico 87505

Re: Closure Report for D. F. Ferguson Tank Battery, U. L. H (SE/4, NE/4), Section 30, Township 18 South, Range 39 East, Lea County New Mexico

Dear Mr. Price:

This report presents the results of a subsurface investigation to delineate the vertical extent of chloride in soil at the former D.F. Ferguson Tank Battery (Site) located in unit letter H (SE/4, NE/4), Section 30, Township 18 South, Range 39 East, Lea County, New Mexico. The investigation was performed on November 6, 2003, in accordance with conditions issued by New Mexico Oil Conservation Division (NMOCD) on October 21, 2004. The investigation was performed on behalf of ChevronTexaco Exploration and Production (Chevron Texaco), as successor to Texaco Exploration and Production, Inc. (Texaco) in conjunction with remediation of an emergency pit that was once associated with the tank battery. Figure 1 presents a location and topographic map. Figure 2 presents a Site drawing.

Background

CrownQuest Operating, LLC operated the Site until about April 2003, when equipment was removed. ChevronTexaco acquired the Site in May 2003 to facilitate remediation of the emergency pit, and removed the upper two (2) feet of soil. The soil was hauled to the ChevronTexaco centralized waste management facility located in Section 17, Township 24 South, Range 36 East, Lea County, New Mexico. On June 23, 2003, soil samples were collected at thirty-five (35) locations (SS-111 through SS-146) spaced about twenty-five (25) feet apart. The samples were collected in accordance with industry standards, preserved, and delivered under chain-of-custody control to Environmental Lab of Texas, Inc. (ELTI) located in Odessa, Texas. The laboratory analyzed the samples for benzene, toluene, ethylbenzene, xylene (collectively referred to as BTEX), total petroleum hydrocarbons (TPH) and chloride, using approved methods. The laboratory results were submitted to the NMOCD in a report dated October 14, 2003, ("*Remediation Report and Request for Closure of the D.F. Ferguson Tank Battery, U.L. H (SE/4, NE/4), Section 30, Township 18 South, Range 39 East, Lea County, New Mexico*") which requested closure for the Site.

On October 21, 2003, the NMOCD approved the closure report with a condition that required collection of soil samples below the area where the tank was previously located, in the vicinity of sample SS-125. The NMOCD recommended collecting a soil sample three (3) feet below the area, and testing the sample for chloride using the synthetic precipitation leaching procedure (SPLP), or collect enough samples below this point to show a definite decreasing trend. Appendix A presents NMOCD correspondence.

Current Investigation

On November 6, 2003, Eades Water Well Service, located in Hobbs, New Mexico, used a truck mounted rotary rig to drill a boring at the prescribed location. The boring was advanced to approximately 40 feet below ground surface (BGS), and soil samples were collected approximately every five feet, beginning at 3 feet BGS. The soil samples were collected using a split-barrel sampler that was thoroughly washed between events using a solution of laboratory-grade detergent and water, and rinsed with distilled water. The samples were placed in clean glass sample jars, labeled, chilled in an ice chest, and delivered under chain-of-custody control to ELTI, located in Odessa, Texas. The laboratory analyzed the samples for chloride using method SW-846-9253. The samples from 3 to 5 and 18 to 20 feet were also analyzed by SPLP for chloride. Duplicate samples were collected for headspace analysis using the ambient temperature headspace (ATH) method. The ATH method involves partially filling a clean glass sample jar, and sealing the opening with a sheet of aluminum foil before replacing the cap. A photoionization detector (PID) was used to measure the concentration of hydrocarbon vapors in the vacant headspace after the samples had reached ambient temperature. The PID probe was passed through the foil, and into the vacant headspace to measure the concentration of hydrocarbon vapors. The measurements were recorded in parts per million (ppm) on a boring log. The boring was filled to within 1 foot of ground surface with cement and bentonite grout. Figure 2 presents the boring location. Table 1 presents a summary of the PID and laboratory data. Appendix B presents the boring log. Appendix C presents the laboratory report. Appendix D presents photographs.

Referring to Table 1, the highest PID reading occurred in the sample from 28 to 30 feet BGS (181.3 ppm), and decreased to 94.2 ppm in the sample from 38 to 40 feet BGS. Chloride was 354 milligrams per kilogram (mg/kg) in the sample from 3 to 5 feet BGS, and the SPLP analysis was reported at 28.4 milligrams per liter (mg/L). The highest chloride was reported in the sample from 18 to 20 feet BGS (1,740 mg/kg), and decreased to 197 mg/kg in the sample from 38 to 40 feet. The SPLP analysis of the sample from 18 to 20 feet BGS reported chloride at 106 mg/L. The SPLP results are well below the New Mexico Water Quality Control Commission (WQCC) domestic water quality standard of 250 mg/L. Decreasing chloride concentrations with depth has been demonstrated, and do not suggest a threat to groundwater, which occurs at approximately 93 feet BGS. ChevronTexaco believes that the Site has been remediated in accordance with NMOCD guidelines, and requests no further action. Please call Mr. Scott Toner with ChevronTexaco at (432) 687-7318 or myself at (432) 687-0901. We may also be contacted by e-mail at stoner@chevrontexcaco.com or mark@Laenvironmental.com.

Sincerely,

Larson and Associates, Inc.



Mark J. Larson, CPG, CGWP
President

Encl.

cc: Scott Toner - ChevronTexaco
NMOCD District 1 - Hobbs

Tables

Table 1
Summary of Chloride Analysis of Soil Samples
ChevronTexaco Exploration and Production Inc.
D.F. Ferguson Tank Battery
U.L. H, Section 30, Township 18 South, Range 39 East
Lea County, New Mexico

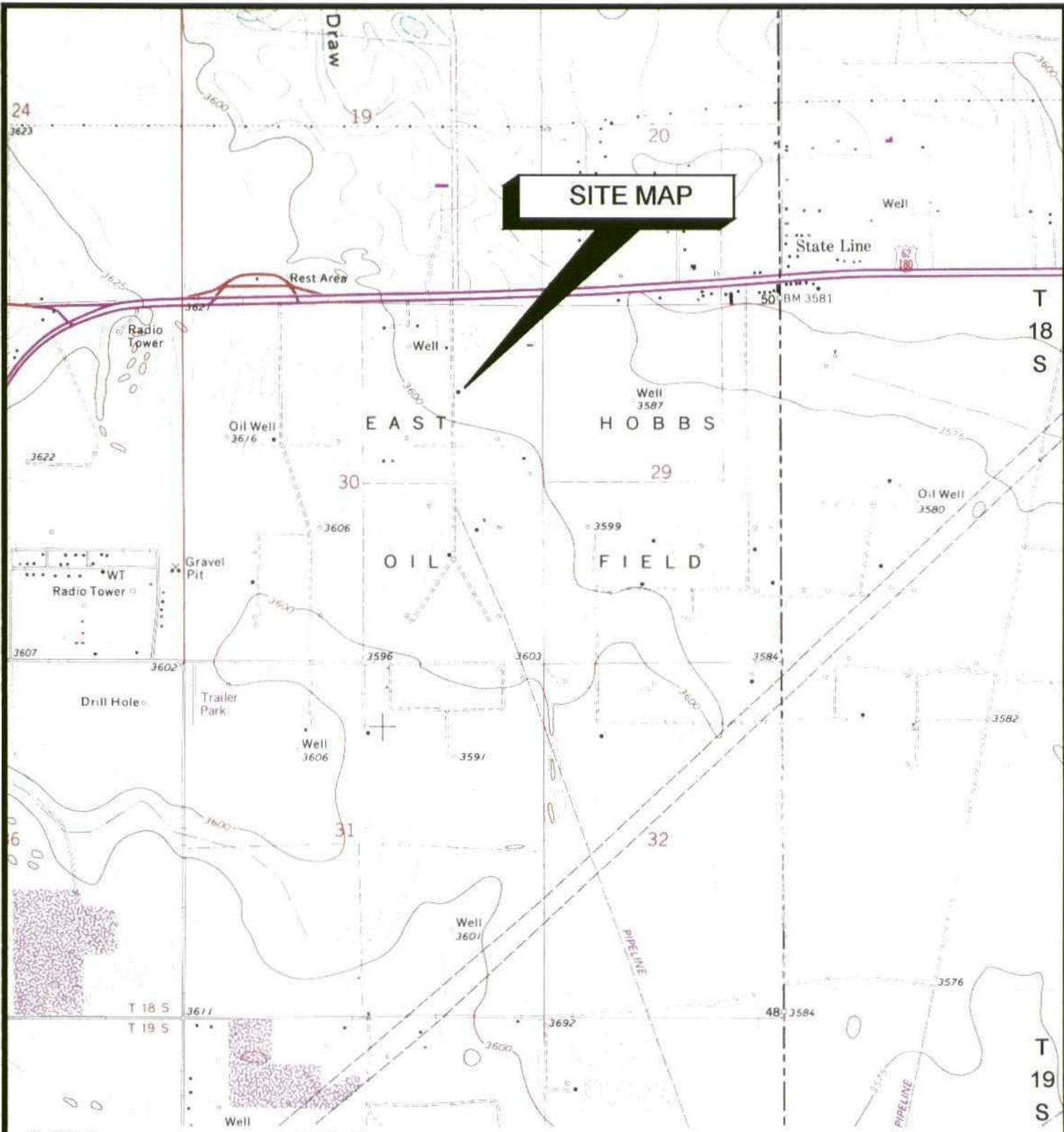
Sample Date	Sample Number	Depth (BGS)	PID (ppm)	Chloride (mg/kg)	SPLP Chloride (mg/L)
06-Nov-03	BH-1	3 - 5	21.1	354	28.4
06-Nov-03	BH-1	8 - 10	21.6	798	--
06-Nov-03	BH-1	13 - 15	21.9	478	--
06-Nov-03	BH-1	18 - 20	21.6	1740	106.0
06-Nov-03	BH-1	23 - 25	22.0	842	--
06-Nov-03	BH-1	28 - 30	181.3	354	--
06-Nov-03	BH-1	33 - 35	130.2	408	--
06-Nov-03	BH-1	38 - 40	94.2	197	--

Notes: Analysis performed by Environmental Lab of Texas I, Ltd., Odessa, Texas

1. BGS: Sample depth in feet below ground surface
2. PID: Photoionization detector
3. mg/kg: Milligrams per kilogram
4. SPLP: Synthetic precipitation leaching procedure (SW-846-1312)
5. --: No data available

Figures

SITE MAP



R-38-E

R-39-E

FIGURE #1

LEA COUNTY, NEW MEXICO

CHEVRONTEXACO INC.

D.F FERGASON
SE/4, NE/4, SEC. 30, T18S,R39E

TOPOGRAPHIC MAP

LAarson & Associates, Inc.
Environmental Consultants

DATE:	4/11/01
NAME:	
FILE:	

TAKEN FROM U.S.G.S.
HOBBS EAST, TEX.-N. MEX. 1969
7.5' QUADRANGLES



SCALE: 1"=2000'



Lina Rodriguez

W.A. Breeding

(Tank Battery Site)
ChevronTexaco

NAVAJO PIPELINE

PIPELINE EXCAVATION

PIPELINE REROUTED in this AREA

Garnice Land

PITS SHOWN on AERIAL
FEBRUARY 14 & MAY 12, 1967

Jimmy D. Roberts

Leah A. Pierce



FIGURE #2

LEA COUNTY, NEW MEXICO

CHEVRONTXACO INC.
D.F. FERGASON

SITE DRAWING

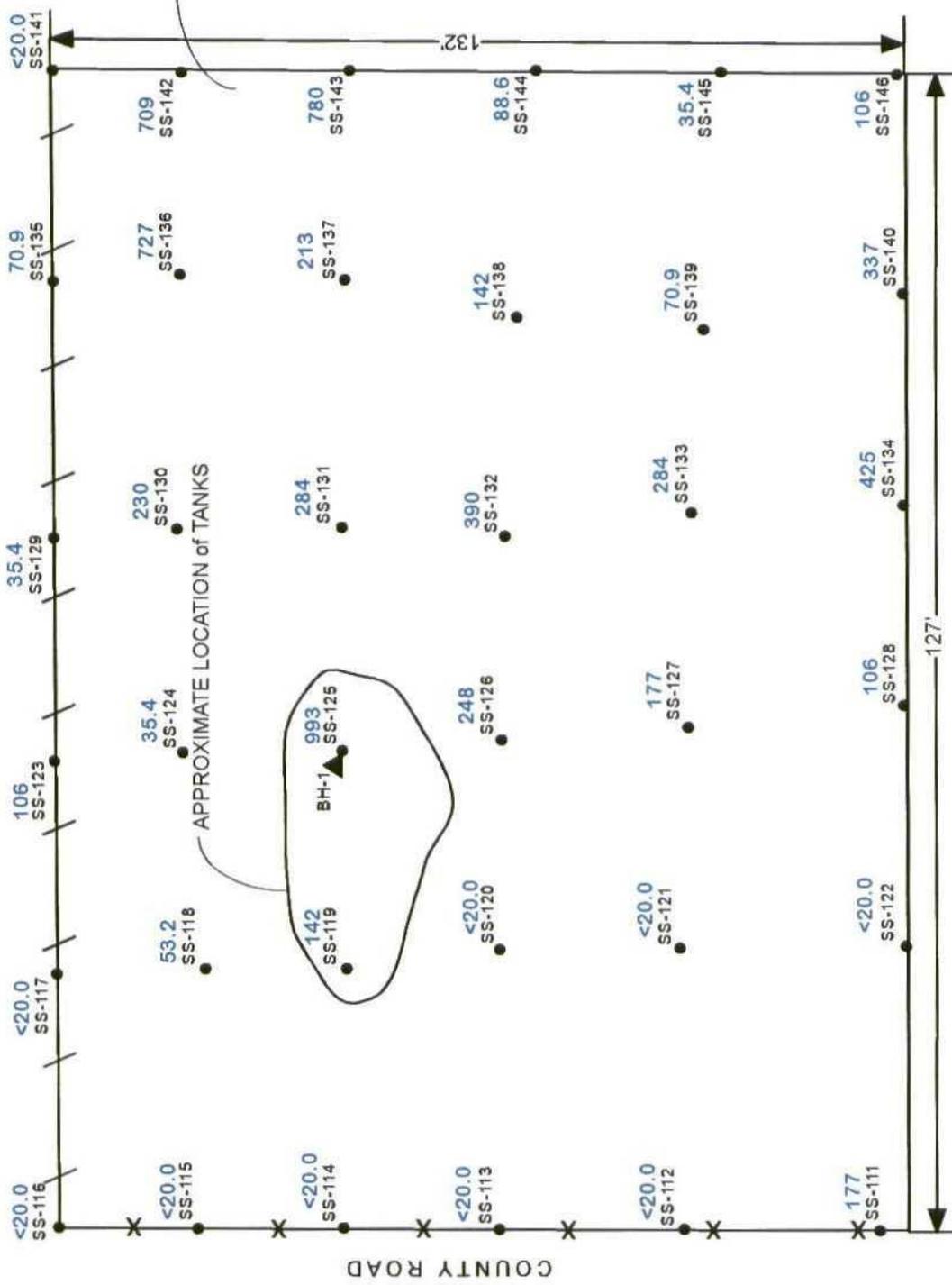
DWE: 06/04/03

NAME

FILE:

Larson & Associates, Inc.
Environmental Consultants

LINA RODRIGUES



FORMER TANK BATTERY SITE

APPROXIMATE LOCATION OF TANKS

COUNTY ROAD

127'

LEGEND

- SOIL SAMPLE LOCATION (APPROXIMATELY 2 FEET BGS), and CHLORIDE CONCENTRATION, Mg/Kg, JUNE 24, 2003
- ▲ SOIL BORING LOCATION, NOVEMBER 6, 2003

284
SS-115

FIGURE #3

LEA COUNTY, NEW MEXICO

CHEVRONTEXACO INC.
D.F. FERGASON TANK BATTERY
SE/4, NE/4, SECTION 30, T18S, R39E

SOIL SAMPLE and BORING LOCATIONS

Larson & Associates, Inc.
Environmental Consultants

DATE	10/10/03
NAME	
FILE	0-0107

SCALE as SHOWN

Appendix A
NMOCD Correspondence

Mark Larson

From: Price, Wayne [WPrice@state.nm.us]
Sent: Tuesday, October 21, 2003 2:35 PM
To: 'Mark Larson'; Price, Wayne
Cc: Toner, Scott L (SToner)
Subject: RE: Remediation Report and Request for Closure, D.F. Fergason Tank Battery, U.L. H, Section 30, Township 18 South, Range 39 East, lea County, NM

OCD hereby approves the work plan to close this site with the following condition:

Collect soil sample(s) below the area where the tank set. This is in area where sample # SS-125 was taken. I would recommend that you collect a sample three feet below this area and run a SPLP for chlorides, or collect enough samples below this point to show a definite decreasing trend.

-----Original Message-----

From: Mark Larson [mailto:mark@laenvironmental.com]
Sent: Friday, October 17, 2003 8:14 AM
To: Price, Wayne
Cc: Toner, Scott L (SToner)
Subject: Re: Remediation Report and Request for Closure, D.F. Fergason Tank Battery, U.L. H, Section 30, Township 18 South, Range 39 East, lea County, NM

Dear Mr. Price:

On October 16, 2003, the above-referenced report was faxed to your attention. ChevronTexaco is nearing completion of closing the emergency pit excavation at the D.F. Fergason Lease, and would like to close the former tank battery location while equipment and access is available. The document contains a request to close the tank battery, and your consideration of the request would be greatly appreciated.
Sincerely,

Mark J. Larson
Larson and Associates, Inc.
507 N. Marienfeld Street, Suite 202
Midland, Texas 79701
(432) 687-0901 (office)
(432) 687-0456 (fax)
(432) 556-8656 (mobile)
mark@LAenvironmental.com

Appendix B

Boring Log

Client: Texaco Exploration & Production

Log: BH-1

Project: J.C. Turner

Page: 1 of 1

Project No: 0-0107

Geologist: C. Crain

Location: Hobbs NM

SUBSURFACE PROFILE			SAMPLE			PID ppm 25 75 125 175	Notes
Depth	Symbol	Description	Number	Type	Recovery		
0		Ground Surface					
0-25		Silty Sand 5 YR 6/6, reddish yellow quartz sand, very fine grained, very poorly sorted, moderately loose, dry, no odor or stain	1			21	3-5' bgs Chloride: 354 mg/kg SPLP Chloride: 28.4mg/L
5			2			22	8-10 bgs Chloride: 798 mg/kg
10			3			22	13-15' bgs Chloride: 478 mg/kg
15			4			22	18-20' bgs Chloride: 1740 mg/kg
20			5			22	23-25' bgs Chloride: 842 mg/kg
25-30		Sandstone 7.5, YR 8/1, pinkish white quartz sand, very fine grained, very poorly sorted, dry, hard	6			181	28-30' bgs Chloride 354 mg/kg
30			7			130	33-35' bgs Chloride: 408 mg/kg
35			8			94	38-40' bgs Chloride: 194 mg/kg
40		T. D. at 40'					
45							
50							

Drill Method: Air Rotary	Larson and Associates, Inc 507 N. Marienfeld, Suite 202 Midland, Texas 79701 (915) 687-0901	Elevation:
Drill Date: 11/06/03		Checked by: CKC
Hole Size: 5"		Drilled by: Eades Drilling

Appendix C
Laboratory Reports

ANALYTICAL REPORT

Prepared for:

CINDY CRAIN
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Project: Texaco/ Turner

PO#:

Order#: G0307873

Report Date: 11/07/2003

Certificates

US EPA Laboratory Code TX00158

ENVIRONMENTAL LAB OF TEXAS

SAMPLE WORK LIST

LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710
915-687-0456

Order#: G0307873
Project: 0-0107
Project Name: Texaco/ Turner
Location: None Given

The samples listed below were submitted to Environmental Lab of Texas and were received under chain of custody. Environmental Lab of Texas makes no representation or certification as to the method of sample collection, sample identification, or transportation/handling procedures used prior to the receipt of samples by Environmental Lab of Texas, unless otherwise noted.

<u>Lab ID:</u>	<u>Sample :</u>	<u>Matrix:</u>	<u>Date / Time</u> <u>Collected</u>	<u>Date / Time</u> <u>Received</u>	<u>Container</u>	<u>Preservative</u>
0307873-01	BH-1 (3-5')	SOIL	11/6/03 8:45	11/6/03 14:45	4 oz glass	Ice
	<u>Lab Testing:</u> Chloride SPLP Chloride	Rejected: No		Temp: 3 C		
0307873-02	BH-1 (8-10')	SOIL	11/6/03 8:54	11/6/03 14:45	4 oz glass	Ice
	<u>Lab Testing:</u> Chloride	Rejected: No		Temp: 3 C		
0307873-03	BH-1 (13-15')	SOIL	11/6/03 9:04	11/6/03 14:45	4 oz glass	Ice
	<u>Lab Testing:</u> Chloride	Rejected: No		Temp: 3 C		
0307873-04	BH-1 (18-20')	SOIL	11/6/03 9:14	11/6/03 14:45	4 oz glass	Ice
	<u>Lab Testing:</u> Chloride	Rejected: No		Temp: 3 C		
0307873-05	BH-1 (23-25')	SOIL	11/6/03 11:35	11/6/03 14:45	4 oz glass	Ice
	<u>Lab Testing:</u> Chloride	Rejected: No		Temp: 3 C		

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

CINDY CRAIN
 LARSON AND ASSOCIATES, INC.
 P.O. BOX 50685
 MIDLAND, TX 79710

Order#: G0307873
 Project: 0-0107
 Project Name: Texaco/ Turner
 Location: None Given

Lab ID: 0307873-01
 Sample ID: BH-1 (3-5')

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Chloride	354	mg/kg	1	20	9253	11/7/03	SB
SPLP Chloride	28.4	mg/L	1	5.00	1312/325.3M	11/7/03	SB

Lab ID: 0307873-02
 Sample ID: BH-1 (8-10')

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Chloride	798	mg/kg	1	20	9253	11/7/03	SB

Lab ID: 0307873-03
 Sample ID: BH-1 (13-15')

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Chloride	478	mg/kg	1	20	9253	11/7/03	SB

Lab ID: 0307873-04
 Sample ID: BH-1 (18-20')

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Chloride	1740	mg/kg	1	20	9253	11/7/03	SB

Lab ID: 0307873-05
 Sample ID: BH-1 (23-25')

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Chloride	842	mg/kg	1	20	9253	11/7/03	SB

Approval: Roland K Tuttle 11-07-03
 Roland K. Tuttle, Lab Director, QA Officer Date
 Celey D. Keene, Org. Tech. Director
 Jeanne McMurrey, Inorg. Tech. Director
 Sandra Biezugbe, Lab Tech.
 Sara Molina, Lab Tech.

RL = Reporting Limit N/A = Not Applicable

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Test Parameters

Order#: G0307873

BLANK	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0007361-01			<20.0		
SPLP Chloride-mg/L		0007366-01			<5.00		
MS	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0307873-01	354	500	851	99.4%	
SPLP Chloride-mg/L		0307873-01	28.4	200	213	92.3%	
MSD	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0307873-01	354	500	868	102.8%	2.%
SPLP Chloride-mg/L		0307873-01	28.4	200	216	93.8%	1.4%
SRM	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0007361-04		5000	4960	99.2%	
SPLP Chloride-mg/L		0007366-04		5000	4960	99.2%	

ANALYTICAL REPORT

Prepared for:

CINDY CRAIN
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Project: Texaco/ Turner

PO#:

Order#: G0307903

Report Date: 11/13/2003

Certificates

US EPA Laboratory Code TX00158

ENVIRONMENTAL LAB OF TEXAS

SAMPLE WORK LIST

LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710
915-687-0456

Order#: G0307903
Project: 0-0107
Project Name: Texaco/ Turner
Location: None Given

The samples listed below were submitted to Environmental Lab of Texas and were received under chain of custody. Environmental Lab of Texas makes no representation or certification as to the method of sample collection, sample identification, or transportation/handling procedures used prior to the receipt of samples by Environmental Lab of Texas, unless otherwise noted.

<u>Lab ID:</u>	<u>Sample :</u>	<u>Matrix:</u>	<u>Date / Time</u> <u>Collected</u>	<u>Date / Time</u> <u>Received</u>	<u>Container</u>	<u>Preservative</u>
0307903-01	BH-1 (28-30')	SOIL	11/11/03 9:15	11/11/03 15:20	4 oz glass	Ice
	<u>Lab Testing:</u> Chloride	Rejected: No		Temp: 4 C		
0307903-02	BH-1 (33-35')	SOIL	11/11/03 9:28	11/11/03 15:20	4 oz glass	Ice
	<u>Lab Testing:</u> Chloride	Rejected: No		Temp: 4 C		
0307903-03	BH-1 (38-40')	SOIL	11/11/03 9:40	11/11/03 15:20	4 oz glass	Ice
	<u>Lab Testing:</u> Chloride	Rejected: No		Temp: 4 C		

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

CINDY CRAIN
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0307903
Project: 0-0107
Project Name: Texaco/ Turner
Location: None Given

Lab ID: 0307903-01
Sample ID: BH-1 (28-30')

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Chloride	354	mg/kg	1	20	9253	11/12/03	SB

Lab ID: 0307903-02
Sample ID: BH-1 (33-35')

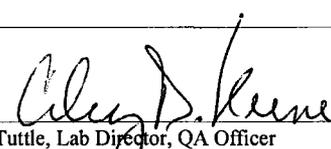
Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Chloride	408	mg/kg	1	20	9253	11/12/03	SB

Lab ID: 0307903-03
Sample ID: BH-1 (38-40')

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Chloride	197	mg/kg	1	20	9253	11/12/03	SB

Approval:  11/13/03

Raland K. Tuttle, Lab Director, QA Officer
Celey D. Keene, Org. Tech. Director
Jeanne McMurrey, Inorg. Tech. Director
Sandra Biezugbe, Lab Tech.
Sara Molina, Lab Tech.

RL = Reporting Limit N/A = Not Applicable

Page 1 of 1

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Test Parameters

Order#: G0307903

<i>BLANK</i>	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0007415-01			<20.0		
<i>MS</i>	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0307903-01	354	500	851	99.4%	
<i>MSD</i>	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0307903-01	354	500	851	99.4%	0.0%
<i>SRM</i>	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0007415-04		5000	4960	99.2%	

CHAIN—OF—CUSTODY RECORD

CLIENT NAME: **Texaco**
 PROJECT NO.: **0-0107**
 SITE MANAGER: **Lindy Crain**
 PROJECT NAME: **Turner**
 LAB. PO #

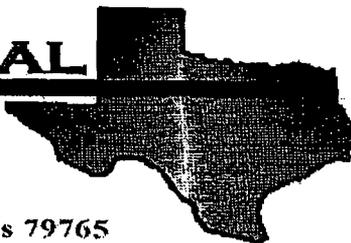
ARSON & ASSOCIATES, Inc.
 Environmental Consultants
 507 N. Marientfeld, Ste. 202 • Midland, TX 79701
 Fax: 915-687-0456
 915-687-0901

DATE	TIME	WATER	SOIL	OTHER	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	PARAMETERS/METHOD NUMBER	REMARKS (I.E., FILTERED, UNFILTERED, PRESERVED, UNPRESERVED, GRAB COMPOSITE)
11/10/03	0915		✓		BH-1 (28-30')	1		03071903-01
"	0928		✓		" (33-35')	1		-02
"	0940		✓		" (38-40')	1		-03
								04

SAMPLED BY: (Signature) *Lindy Crain* DATE: 11/10/03 TIME: 1015
 RELINQUISHED BY: (Signature) *Lindy Crain* DATE: 11/10/03 TIME: 1420
 RECEIVED BY: (Signature) _____ DATE: _____ TIME: _____
 SAMPLE SHIPPED BY: (Circle) FEDEX BUS UPS AIRBILL #: _____ OTHER: _____
 HAND DELIVERED
 TURNAROUND TIME NEEDED _____

RECEIVING LABORATORY: **ECT** RECEIVED BY: (Signature) *Kel-Dee Jones*
 ADDRESS: _____ DATE: 11-11-03 TIME: 1540
 CITY: _____ STATE: _____ ZIP: _____
 CONTACT: _____ PHONE: _____
 SAMPLE CONDITION WHEN RECEIVED: **4°C**
 LA CONTACT PERSON: *L. Crain*
 SAMPLE TYPE: *Soil*

E NVIRONMENTAL
LAB OF



12600 West I-20 East - Odessa, Texas 79765

Analytical Report

Prepared for:

Cindy Crain
Larson & Associates, Inc.
P.O. Box 50685
Midland, TX 79710

Project: Texaco/ Turner
Project Number: 0 0107
Location: None Given

Lab Order Number: 4B13003

Report Date: 02/18/04

Larson & Associates, Inc. P.O. Box 50685 Midland TX, 79710	Project: Texaco/ Turner Project Number: 0 0107 Project Manager: Cindy Crain	Fax: (432) 687-0456 Reported: 02/18/04 11:27
--	---	--

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH-1 (18-20')	4B13003-01	Soil	11/06/03 09:14	11/06/03 14:45

Larson & Associates, Inc.
P.O. Box 50685
Midland TX, 79710

Project: Texaco/ Turner
Project Number: 0 0107
Project Manager: Cindy Crain

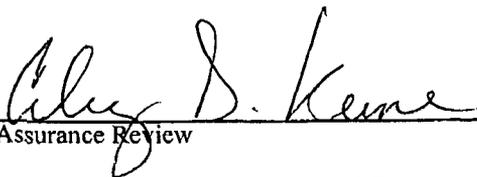
Fax: (432) 687-0456
Reported:
02/18/04 11:27

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BH-1 (18-20') (4B13003-01)									
Chloride	106	5.00	mg/L	1	EB41306	02/17/04	02/18/04	1312/9253	

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, without written approval of Environmental Lab of Texas.



Quality Assurance Review

Larson & Associates, Inc. P.O. Box 50685 Midland TX, 79710	Project: Texaco/ Turner Project Number: 0 0107 Project Manager: Cindy Crain	Fax: (432) 687-0456 Reported: 02/18/04 11:27
--	---	--

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 EB41306 - EPA 1312

Blank (EB41306-BLK1) Prepared: 02/17/04 Analyzed: 02/18/04

Chloride	0.00	5.00	mg/L							
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Calibration Check (EB41306-CCV1) Prepared & Analyzed: 02/18/04

Chloride	4960		mg/L	5000		99.2	80-120			
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Matrix Spike (EB41306-MS1) Source: 4B13003-01 Prepared: 02/17/04 Analyzed: 02/18/04

Chloride	305	5.00	mg/L	200	106	99.5	80-120			
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Matrix Spike Dup (EB41306-MSD1) Source: 4B13003-01 Prepared: 02/17/04 Analyzed: 02/18/04

Chloride	301	5.00	mg/L	200	106	97.5	80-120	1.32	20	
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Environmental Lab of Texas

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Alex D. Keene

Quality Assurance Review

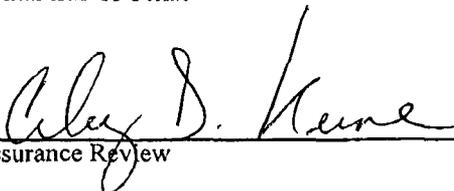
Larson & Associates, Inc. P.O. Box 50685 Midland TX, 79710	Project: Texaco/ Turner Project Number: 0 0107 Project Manager: Cindy Crain	Fax: (432) 687-0456 Reported: 02/18/04 11:27
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Notes and Definitions

- 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

Environmental Lab of Texas

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Quality Assurance Review

CHAIN—OF—CUSTODY RECORD

CLIENT NAME: Texas
 PROJECT NO.: 0-0107
 SITE MANAGER: Cindy Cairo
 PROJECT NAME: Turner
 LAB. PO #

PARAMETERS/METHOD NUMBER
SPR (Chloride)
Chlorides

LA arson & Associates, Inc.
 Environmental Consultants
 507 N. Marientfeld, Ste. 202 • Midland, TX 79701
 915-687-0456
 915-687-0901

DATE	TIME	WATER	SOIL	OTHER	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	REMARKS (I.E., FILTERED, UNFILTERED, PRESERVED, UNPRESERVED, GRAB COMPOSITE)
11/16/03	0845		✓		BH-1 (3-5')	1	0307873-01
"	0854		✓		" (8-10')	1	-02
"	0904		✓		" (13-15')	1	-03
"	0914		✓		" (18-20')	1	-04
"	1135		✓		" (23-25')	1	-05

SAMPLED BY: (Signature) Cindy Cairo DATE: 11/16/03 TIME: 1140 RELINQUISHED BY: (Signature) _____ DATE: _____ TIME: _____ RECEIVED BY: (Signature) _____ DATE: _____ TIME: _____

REINQUISHED BY: (Signature) _____ DATE: _____ TIME: _____ RECEIVED BY: (Signature) _____ DATE: _____ TIME: _____

COMMENTS: Phase cell w/verbal results ASAP!
Env. Lab. of Texas
 RECEIVING LABORATORY: Env. Lab. of Texas RECEIVED BY: (Signature) Rolando J. ...
 ADDRESS: _____ CITY: _____ STATE: _____ ZIP: _____
 CONTACT: _____ PHONE: _____ DATE: 11-06-03 TIME: 1445

TURNAROUND TIME NEEDED: PUSH!! 24hr!
 SAMPLE SHIPPED BY: (Circle) FEDEX DELIVERED UPS OTHER:
 WHITE - RECEIVING LAB
 YELLOW - RECEIVING LAB (TO BE RETURNED TO LA AFTER RECEIPT)
 PINK - PROJECT MANAGER
 GOLD - QA/QC COORDINATOR
 SAMPLE TYPE: Soil
 LA CONTACT PERSON: me 30

Appendix D

Photographs

D.F. Ferguson Tank Battery
U. L. H, Section 30, Township 18 South, Range 39 East
Lea County, New Mexico



1. Tank Battery Boring Location (Looking North)



2. Tank Battery Boring Location (Looking Southwest)

D.F. Ferguson Tank Battery
U. L. H, Section 30, Township 18 South, Range 39 East
Lea County, New Mexico



3. Tank Battery Location – After Remediation (Looking Northwest)



4. Tank Battery Location – After Remediation (Looking North)

**D.F. Fergason Tank Battery
U. L. H, Section 30, Township 18 South, Range 39 East
Lea County, New Mexico**



5. Tank Battery Location – After Remediation (Looking West)



6. Tank Battery Location – After Remediation (Looking Northeast)

D.F. Fergason Tank Battery
U. L. H, Section 30, Township 18 South, Range 39 East
Lea County, New Mexico

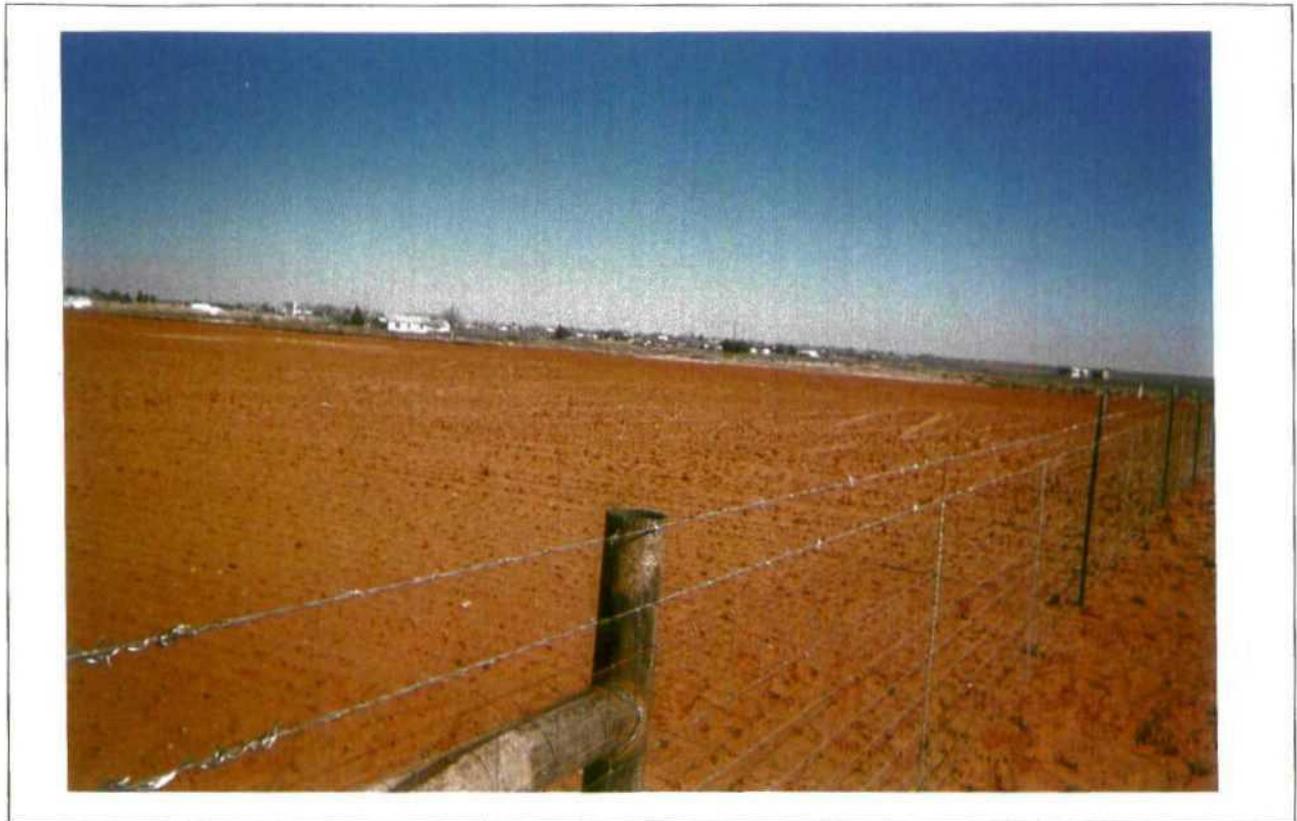


7. Emergency Pit Location - After Remediation (Looking North)



8. Emergency Pit Location - After Remediation (Looking Northeast)

D.F. Ferguson Tank Battery
U. L. H, Section 30, Township 18 South, Range 39 East
Lea County, New Mexico



9. Emergency Pit Location – After Remediation (Looking East)

LARSON & ASSOCIATES, INC.

P.O. Box 50685 ♦ Midland, Texas 79710-0685

Ph. (432) 687-0901