

1R - 279

## APPROVALS

YEAR(S):

2005 - 1998

## Price, Wayne

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**From:** Price, Wayne  
**Sent:** Thursday, May 19, 2005 11:23 AM  
**To:** Mark Larson (E-mail); Scott Toner (E-mail)  
**Cc:** VonGonten, Glenn; Sheeley, Paul; Johnson, Larry  
**Subject:** Chevron-Texaco Vacuum field Unit OCD Case #1R279

OCD is in receipt of the 2004 annual groundwater remediation and monitoring report and hereby approves of the recommendations.

Please be advised that NMOCD approval of this plan does not relieve (Chevron-Texaco) of liability should their operations fail 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 (Chevron-Texaco) of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Sincerely:

Wayne Price  
New Mexico Oil Conservation Division  
1220 S. Saint Francis Drive  
Santa Fe, NM 87505  
505-476-3487  
fax: 505-476-3462  
E-mail: [WPRICE@state.nm.us](mailto:WPRICE@state.nm.us)



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**BILL RICHARDSON**

Governor

**Joanna Prukop**

Cabinet Secretary

**Mark E. Fesmire, P.E.**

Director

**Oil Conservation Division**

September 30, 2004

Mr. Rodney Bailey  
ChevronTexaco  
15 Smith Road  
Midland, Texas 79705

**RE: CASE # 1R279  
VACUUM FIELD UNIT  
LEA COUNTY, NEW MEXICO**

Dear Mr. Bailey:

The New Mexico Oil Conservation Division (OCD) has reviewed ChevronTexaco's May 10, 2004 "ANNUAL GROUNDWATER MONITORING REPORT, CHEVRONTExACO EXPLORATION AND PRODUCTION COMPANY, VACUUM FIELD UNIT, CASE #1R279, NE/4, SECTION 1, TOWNSHIP 18 SOUTH, RANGE 34 EAST, LEA COUNTY, NEW MEXICO" which was submitted on behalf of ChevronTexaco by their consultant Larson & Associates, Inc. This document contains the results of ChevronTexaco's 2003 remediation and monitoring of contaminated ground water at the Vacuum Field Unit site south of Buckeye, New Mexico. The document also proposes to change the sampling schedule of ground water monitoring wells TW-10, TW-11, TW-13, TW-14, TW-17, TW-19 and TW-20 from quarterly to semi-annual sampling.

The above-referenced monitoring proposal is approved. Please be advised that OCD approval does not limit ChevronTexaco to the proposed work plan should the plan fail to adequately remediate or monitor contamination related to ChevronTexaco's activities, or if contamination exists which is outside the scope of the work plan. In addition, OCD approval does not relieve ChevronTexaco of responsibility for compliance with any other federal, state or local laws and regulations

If you have any questions, please contact me at (505) 476-3491.

Sincerely,

William C. Olson

Hydrologist

Environmental Bureau

xc: Chris Williams, OCD Hobbs District Office  
Cindy K. Crain, Larson & Associates, Inc.

RECEIVED

MAY 12 2004

OIL CONSERVATION  
DIVISION

May 10, 2004

Mr. William C. Olson, Hydrologist  
Environmental Bureau  
Oil Conservation Division  
New Mexico Energy, Minerals and Natural Resources Department  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

**Re: Annual Groundwater Monitoring Report, ChevronTexaco Exploration and Production Company, Vacuum Field Unit, Case #1R279, NE/4, Section 1, Township 18 South, Range 34 East, Lea County, New Mexico**

Dear Mr. Olson:

Please find enclosed a copy of the above-referenced report. The report is submitted on behalf of ChevronTexaco Exploration and Production Company, and presents the results of annual groundwater monitoring conducted by Larson and Associates, Inc. Please call Rodney Bailey at (432) 687-7251 or myself at (432) 687-0901 if you have questions.

Sincerely,  
**Larson and Associates, Inc.**



Cindy K. Crain, CPG  
Project Manager

cc: Rodney Bailey - ChevronTexaco

**Olson, William**

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**From:** Cindy Crain [cindy@laenvironmental.com]  
**Sent:** Monday, August 02, 2004 10:20 AM  
**To:** Paul Sheeley  
**Cc:** Bill Olson; Scott Toner  
**Subject:** GWM Scheduled - ChevronTexaco: G. L. Erwin, Vacuum Field Unit, Case #1R279, Buckeye Compressor Station (GW-029)

Paul,

Larson and Associates plans to conduct groundwater monitoring at the following ChevronTexaco sites during the week of August 2, 2004.

**August 2 and 3, 2004**

**G. L. Erwin Tank Battery, SW/4, SE/4, Section 35, Township 24 South, Range 37 East, Lea County, New Mexico**

**August 4, 2004**

**Vacuum Field Unit, Case #1R279, NE/4, Section 1, Township 18 South, Range 34 East, Lea County, New Mexico**

**August 5 and 6, 2004**

**Buckeye Compressor Station (GW-029), Unit Letter O (SW/4, SE/4), Section 36, Township 17 South, Range 34 East, Lea County, New Mexico**

Please give me a call if you have any questions.

Thank you,

*Cindy Crain, PG  
Project Manager  
Larson and Associates, Inc.  
507 N. Marienfeld, Suite 202  
Midland, Texas 79702  
office - (432) 687-0901  
mobile - (432) 556-8665*

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**Olson, William**

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**From:** Cindy Crain [cindy@laenvironmental.com]  
**Sent:** Tuesday, November 18, 2003 7:40 AM  
**To:** WOlson@state.nm.us  
**Subject:** FW: Quarterly Groundwater Sampling, ChevronTexaco E&P, Vacuum Field Unit, Case #1R279, Lea County, NM

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

**From:** Cindy Crain [mailto:cindy@laenvironmental.com]  
**Sent:** Tuesday, November 18, 2003 8:38 AM  
**To:** bolson@state.nm.us; Paul Sheeley  
**Subject:** Quarterly Groundwater Sampling, ChevronTexaco E&P, Vacuum Field Unit, Case #1R279, Lea County, NM

Dear Mr. Olson and Mr. Sheeley,

Larson and Associates, Inc. will be conducting groundwater monitoring activities at the ChevronTexaco E&P, Vacuum Field Unit, Case #1R279, in Lea County, New Mexico, beginning Tuesday, November 18, 2003.

If you have any questions, please call me at (432) 687-0901.

Sincerely,

Cindy Crain  
Project Manager/Geologist  
Larson and Associates, Inc.  
507 N. Marienfeld, Suite 202  
Midland, Texas 79702  
office - (432)687-0901  
mobile - (432)556-8665

June 11, 2003

**Via Facsimile:** (505) 476-3462

Mr. William C. Olson  
New Mexico Oil Conservation Division  
1220 S. St. Francis Drive  
Santa Fe, New Mexico 87505

**RECEIVED**

**JUN 1 2003**

ENVIRONMENTAL BUREAU  
OIL CONSERVATION DIVISION

**Re: Quarterly Groundwater Sample Results and Proposed Remediation Plan Modification, ChevronTexaco Exploration and Production Company, Vacuum Field Unit, Case #1R279, Lea County, New Mexico**

Dear Bill:

Per our telephone call on June 10, 2003, please find enclosed laboratory results of groundwater sample collected from ten (10) monitoring wells in conjunction with the above-referenced matter. ChevronTexaco Exploration and Production Company (ChevronTexaco) requested Larson and Associates, Inc. (LA) to collect the groundwater samples following its receipt of your letter dated March 19, 2003. The wells are located in the NE/4, Section 1, Township 18 South, Range 34 East, Lea County, New Mexico. The letter requested ChevronTexaco to continue groundwater monitoring on a quarterly (4 times per year) schedule, and analyze groundwater samples for chloride and total dissolved solids (TDS). This letter contains the laboratory results for the first quarter 2003. However, TDS was not analyzed by the laboratory in samples collected on May 15, 2003, but will be included in future sampling events.

Groundwater samples collected on May 15, 2003, were hand delivered under chain-of-custody control to Environmental Lab of Texas, Inc., located in Odessa, Texas. Prior to sample collection, depth-to-groundwater was measured at each well, including three (3) groundwater extraction wells, and the monitoring wells were purged to remove approximately three (3) casing volumes of groundwater. The wells were purged using an electric submersible pump or bailed using dedicated disposable bailers. The water level probe and submersible pump were thoroughly cleaned between wells using a solution of laboratory-grade detergent and water, and rinsed with distilled water between wells. Dedicated tubing was used with the pump, and was discarded after each well. The samples were collected in containers provided by the laboratory, labeled, and chilled in an ice chest. Table 1 presents a summary of the depth-to-groundwater measurements and chloride analysis. The laboratory report is attached.

Referring to Table 1, chloride was below the New Mexico Water Quality Control Commission (NMWQCC) domestic water quality standard of 250 milligrams per liter (mg/L) in all samples, except TW-23. Well number TW-23 is located near the suspected

Mr. William C. Olson  
June 12, 2003  
Page 2

source for the impact; a casing leak at Vacuum Glorietta San Andres Unit Well #58-A. The well has been plugged. Groundwater extraction well #3 is also located near the suspected source, and pumping was stopped in October 2002 to allow groundwater to stabilize. Chloride was reported in groundwater from well TW-23 at 384 mg/L on November 6, 2002. The chloride concentration was reported at 1,440 mg/L on May 15, 2003, and indicated a significant increase. The chloride increase may be in response to groundwater contacting soil in the capillary zone that contains residual chloride. ChevronTexaco proposes to resume pumping extraction well #3 to maintain hydraulic control of the contaminant source, reduce the chloride level in groundwater at TW-23, and to promote flushing in the capillary zone. A timing devise will be installed at extraction well #3 to pump the well for a period of about 12 to 24 hours, and turn off the pump for a period from about 24 to 48 hours. The pumping and resting periods may be adjusted to optimize flushing and maintain hydraulic control. Depth-to-groundwater measurements and groundwater samples will be collected from the monitoring wells and the pumping extraction well on a quarterly schedule to monitor remediation progress. The samples will be analyzed for chloride and TDS, and the results will be submitted to the NMOCD in the annual report. Please contact Mr. Rodney Bailey with ChevronTexaco at (432) 687-7251 or myself at (432) 687-0901 if you have questions.

Sincerely,

*Larson and Associates, Inc.*



Mark J. Larson, CPG, CGWP  
President

Encl.

cc: Rodney Bailey

**TABLES**

Table 1  
 Summary of Field and Laboratory Data  
 ChevronTexaco Inc., Vacuum Field Unit, Case #R279  
 Lea County, New Mexico

Monitoring Well	Sample Date	Depth-to-Groundwater Feet TOC	Chloride (mg/L)	TDS (mg/L)
TW-9	15-May-03	129.01	120	--
TW-10	15-May-03	127.99	44.3	--
TW-11	15-May-03	128.97	35.4	--
TW-13	15-May-03	128.85	39.0	--
TW-14	15-May-03	126.78	65.0	--
TW-15	15-May-03	123.50	88.6	--
TW-17	15-May-03	122.87	31.9	--
TW-19	15-May-03	121.80	35.4	--
TW-20	15-May-03	129.07	35.4	--
TW-23	15-May-03	124.42	1440	--
Ext. #1	15-May-03	126.65	--	--
Ext. #2	15-May-03	127.21	--	--
Ext.#3	15-May-03	124.15	--	--

- Notes: Analysis performed by Environmental Lab of Texas, Inc.
1. mg/L: Milligrams per liter
  2. --: No data available
  3. TDS: Total dissolved solids

**ATTACHMENT A**

**Environmental Lab of Texas, Inc. Report**

# ANALYTICAL REPORT

## Prepared for:

Ray Jones  
LARSON AND ASSOCIATES, INC.  
P.O. BOX 50685  
MIDLAND, TX 79710

**Project:** Chevron Texaco

**PO#:**

**Order#:** G0306536

**Report Date:** 05/21/2003

### 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#: G0306536  
Project: 2-0124  
Project Name: Chevron Texaco  
Location: Buckeye Gas Plant

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>
0306536-01	TW-14	WATER	5/16/03 12:30	5/20/03 8:00	1 L HDPE	Ice
	<u>Lab Testing:</u> Chloride	Rejected: No		Temp: 12 C		
0306536-02	TW-10	WATER	5/16/03 13:30	5/20/03 8:00	1 L HDPE	Ice
	<u>Lab Testing:</u> Chloride	Rejected: No		Temp: 12 C		
0306536-03	TW-9	WATER	5/16/03 14:15	5/20/03 8:00	1 L HDPE	Ice
	<u>Lab Testing:</u> Chloride	Rejected: No		Temp: 12 C		
0306536-04	TW-19	WATER	5/19/03 9:20	5/20/03 8:00	1 L HDPE	Ice
	<u>Lab Testing:</u> Chloride	Rejected: No		Temp: 12 C		
0306536-05	TW-15	WATER	5/19/03 9:45	5/20/03 8:00	1 L HDPE	Ice
	<u>Lab Testing:</u> Chloride	Rejected: No		Temp: 12 C		
0306536-06	TW-23	WATER	5/19/03 10:15	5/20/03 8:00	1 L HDPE	Ice
	<u>Lab Testing:</u> Chloride	Rejected: No		Temp: 12 C		
0306536-07	TW-17	WATER	5/19/03 10:45	5/20/03 8:00	1 L HDPE	Ice
	<u>Lab Testing:</u> Chloride	Rejected: No		Temp: 12 C		
0306536-08	TW-11	WATER	5/19/03 13:45	5/20/03 8:00	1 L HDPE	Ice
	<u>Lab Testing:</u> Chloride	Rejected: No		Temp: 12 C		

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# ENVIRONMENTAL LAB OF TEXAS

## SAMPLE WORK LIST

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

Order#: G0306536  
Project: 2-0124  
Project Name: Chevron Texaco  
Location: Buckeye Gas Plant

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>
0306536-09	TW-20	WATER	5/19/03 14:50	5/20/03 8:00	1 L HDPE	Ice
	<u>Lab Testing:</u> Chloride	Rejected: No		Temp: 12 C		
0306536-10	TW-13	WATER	5/19/03 14:45	5/20/03 8:00	1 L HDPE	Ice
	<u>Lab Testing:</u> Chloride	Rejected: No		Temp: 12 C		

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# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

Ray Jones  
 LARSON AND ASSOCIATES, INC.  
 P.O. BOX 50685  
 MIDLAND, TX 79710

Order#: G0306536  
 Project: 2-0124  
 Project Name: Chevron Texaco  
 Location: Buckeye Gas Plant

Lab ID: 0306536-01  
 Sample ID: TW-14

**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	65.0	mg/L	1	5.00	9253	5/21/03	SB

Lab ID: 0306536-02  
 Sample ID: TW-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	44.3	mg/L	1	5.00	9253	5/21/03	SB

Lab ID: 0306536-03  
 Sample ID: TW-9

**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	120	mg/L	1	5.00	9253	5/21/03	SB

Lab ID: 0306536-04  
 Sample ID: TW-19

**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	35.4	mg/L	1	5.00	9253	5/21/03	SB

Lab ID: 0306536-05  
 Sample ID: TW-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	88.6	mg/L	1	5.00	9253	5/21/03	SB

Lab ID: 0306536-06  
 Sample ID: TW-23

**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	1440	mg/L	1	5.00	9253	5/21/03	SB

RL = Reporting Limit    N/A = Not Applicable

# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

Ray Jones  
LARSON AND ASSOCIATES, INC.  
P.O. BOX 50685  
MIDLAND, TX 79710

Order#: G0306536  
Project: 2-0124  
Project Name: Chevron Texaco  
Location: Buckeye Gas Plant

Lab ID: 0306536-07  
Sample ID: TW-17

### 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	31.9	mg/L	1	5.00	9253	5/21/03	SB

Lab ID: 0306536-08  
Sample ID: TW-11

### 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	35.4	mg/L	1	5.00	9253	5/21/03	SB

Lab ID: 0306536-09  
Sample ID: TW-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	35.4	mg/L	1	5.00	9253	5/21/03	SB

Lab ID: 0306536-10  
Sample ID: TW-13

### 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	39.0	mg/L	1	5.00	9253	5/21/03	SB

Approval: *Raland K Tuttle* 5-22-03  
Raland 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.

# ENVIRONMENTAL LAB OF TEXAS

## QUALITY CONTROL REPORT

### Test Parameters

Order#: G0306536

<b><i>BLANK</i></b>		<b>LAB-ID #</b>	<b>Sample Concentr.</b>	<b>Spike Concentr.</b>	<b>QC Test Result</b>	<b>Pct (%) Recovery</b>	<b>RPD</b>
Chloride-mg/L	WATER	0005594-01			<5.00		
<b><i>MS</i></b>		<b>LAB-ID #</b>	<b>Sample Concentr.</b>	<b>Spike Concentr.</b>	<b>QC Test Result</b>	<b>Pct (%) Recovery</b>	<b>RPD</b>
Chloride-mg/L	WATER	0306536-01	65	167	230	98.8%	
<b><i>MSD</i></b>		<b>LAB-ID #</b>	<b>Sample Concentr.</b>	<b>Spike Concentr.</b>	<b>QC Test Result</b>	<b>Pct (%) Recovery</b>	<b>RPD</b>
Chloride-mg/L	WATER	0306536-01	65	167	233	100.6%	1.3%
<b><i>SRM</i></b>		<b>LAB-ID #</b>	<b>Sample Concentr.</b>	<b>Spike Concentr.</b>	<b>QC Test Result</b>	<b>Pct (%) Recovery</b>	<b>RPD</b>
Chloride-mg/L	WATER	0005594-04		5000	4960	99.2%	

CHAIN—OF—CUSTODY RECORD

CLIENT NAME: Champion Beyond  
 PROJECT NO.: 2-0121  
 SITE MANAGER: Randy Jones  
 PROJECT NAME: Bakery Gas Plant

LAB. PO # 1  
 NUMBER OF CONTAINERS 1

RECEIVING LABORATORY: Env. Lab of Texas  
 ADDRESS: \_\_\_\_\_  
 CITY: \_\_\_\_\_ STATE: \_\_\_\_\_ ZIP: \_\_\_\_\_  
 CONTACT: \_\_\_\_\_ PHONE: \_\_\_\_\_

DATE	TIME	WATER	SOIL	OTHER	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	PARAMETERS/METHOD NUMBER	LAB. ID. NUMBER (LAB USE ONLY)	REMARKS (I.E., FILTERED, UNFILTERED, PRESERVED, UNPRESERVED, GRAB COMPOSITE)
5/11/03	10:30	✓			TW-14	1		030653001	
5/14/03	13:30	✓			TW-10	1		2	
5/14/03	14:15	✓			TW-9	1		3	
5/19/03	9:30	✓			TW-19	1		4	
5/19/03	9:45	✓			TW-15	1		5	
5/19/03	10:15	✓			TW-23	1		6	
5/19/03	10:45	✓			TW-17	1		7	
5/19/03	13:45	✓			TW-11	1		8	
5/19/03	14:15	✓			TW-20	1		9	
5/19/03	14:46	✓			TW-13	1		10	

SAMPLED BY: (Signature) Randy Jones DATE: 5/11/03 TIME: 10:30  
 RELINQUISHED BY: (Signature) \_\_\_\_\_ DATE: 5/14/03 TIME: 14:45  
 RECEIVED BY: (Signature) \_\_\_\_\_ DATE: 5/20/03 TIME: 8:00A

RECEIVED BY: (Signature) \_\_\_\_\_ DATE: \_\_\_\_\_ TIME: \_\_\_\_\_  
 SAMPLE SHIPPED BY: (Circle) FEDEX \_\_\_\_\_ BUS \_\_\_\_\_ AIRBILL #: \_\_\_\_\_  
 HAND DELIVERED \_\_\_\_\_ UPS \_\_\_\_\_ OTHER: \_\_\_\_\_

COMMENTS: \_\_\_\_\_  
 TURNAROUND TIME NEEDED \_\_\_\_\_

RECEIVING LABORATORY: Env. Lab of Texas RECEIVED BY: (Signature) Randy Jones  
 ADDRESS: \_\_\_\_\_  
 CITY: \_\_\_\_\_ STATE: \_\_\_\_\_ ZIP: \_\_\_\_\_  
 CONTACT: \_\_\_\_\_ PHONE: \_\_\_\_\_  
 SAMPLE CONDITION WHEN RECEIVED: \_\_\_\_\_  
 LA CONTACT PERSON: \_\_\_\_\_  
 SAMPLE TYPE: \_\_\_\_\_



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**BILL RICHARDSON**

Governor

**Joanna Prukop**  
Cabinet Secretary

**Lori Wrotenberg**

Director

**Oil Conservation Division**

March 19, 2003

Mr. Rodney Bailey  
ChevronTexaco  
15 Smith Road  
Midland, Texas 79705

**RE: CASE # 1R279  
VACUUM FIELD UNIT  
LEA COUNTY, NEW MEXICO**

Dear Mr. Bailey:

The New Mexico Oil Conservation Division (OCD) has reviewed ChevronTexaco's January 14, 2003 "2002 - GROUNDWATER MONITORING SUMMARY AND CLOSURE REPORT, BUCKEYE VACUUM FIELD UNIT LEA COUNTY, NEW MEXICO, SECTION 1, T-18S, R-34E." This document contains the results of ChevronTexaco's remediation and monitoring of contaminated ground water at the Vacuum Field Unit site south of Buckeye, New Mexico. The document also requests closure of ground water remediation and monitoring actions at the site.

At sites that pre-date OCD Rule 19, the OCD requires that ground water remediation and monitoring continue until ground water has been remediated to concentrations below New Mexico Water Quality Control Commission (WQCC) standards for a minimum of 4 consecutive quarters or 4 consecutive longer term sampling events. A review of the monitoring data shows that the chloride concentration in ground water in at least 2 wells is still above WQCC standards. Therefore, the OCD cannot issue final closure approval. The OCD requires that ChevronTexaco continue to monitor ground water quality at the site pursuant to the previously approved plan. In addition to analyzing water samples for chloride concentrations, the OCD also requires that ChevronTexaco include total dissolved solids (TDS) as an analyte in all future water quality sampling events.

If you have any questions, please contact me at (505) 476-3491.

Sincerely,

William C. Olson  
Hydrologist  
Environmental Bureau

xc: Chris Williams, OCD Hobbs District Office  
Ike Tavarez, Highlander Environmental Corp.

Permian Business Unit  
North America Upstream  
15 Smith Road  
Midland, TX 79705  
Tel (915) 687-7251  
Fax (915) 687-7110  
bailerg@chevrontexaco.com

Rodney Bailey  
HES Champion

**ChevronTexaco**

Date: January 14, 2003

**RECEIVED**

Environmental Bureau  
Oil Conservation Division  
Energy, Minerals and Natural Resources Department  
2040 S. Pacheco  
Santa Fe, New Mexico 87505

**JAN 17 2003**

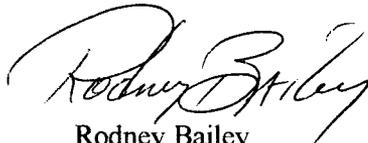
ENVIRONMENTAL BUREAU  
OIL CONSERVATION DIVISION

Re: 2002 – Groundwater Monitoring Summary and Closure Report  
Buckeye Vacuum Field Unit Lea County, New Mexico  
Section 1, T-18S, R-34E

Dear Mr. Olson:

Attached is a Final Closure report for the above mentioned site. Based on the remediation performed, the significant reduction in chloride levels and residual chloride levels which would not pose any future threat to groundwater in the vicinity, ChevronTexaco request closure on this site. If you have any question or additional information is needed please call me at 915-687-7251.

Sincerely,



Rodney Bailey  
ChevronTexaco  
HES Champion

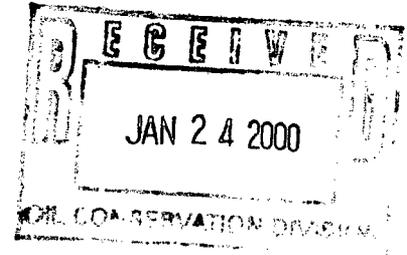


# Highlander Environmental Corp.

Midland, Texas

January 21, 2000

Mr. William C. Olson, Hydrogeologist  
Environmental Bureau  
Oil Conservation Division  
Energy, Minerals and Natural Resources Department  
2040 S. Pacheco  
Santa Fe, New Mexico 87505



**Re: Annual Groundwater Monitoring Report – (1999) Quarterly Groundwater Monitoring at the Texaco, Buckeye Vacuum Field Unit, Lea County, New Mexico**

Dear Mr. Olson,

On behalf of Texaco Exploration and Production, Inc. (Texaco), please find enclosed one copy of the above-referenced report. The report details the findings of the annual groundwater monitoring conducted by Highlander Environmental Corp. (Highlander) at the Buckeye Vacuum Field Unit, Lea County, New Mexico.

Please call if you have any questions.

Sincerely,  
*Highlander Environmental Corp.*

Ike Tavarez  
Project Manager/Geologist

cc: Mr. Rodney Bailey, Texaco Exploration and Production, Inc.  
Ms. Donna Williams, OCD-Hobbs District



STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

2040 S. PACHECO  
SANTA FE, NEW MEXICO 87505  
(505) 827-7131

June 14, 1999

**CERTIFIED MAIL**  
**RETURN RECEIPT NO. Z-274-520-672**

Mr. Rodney Bailey  
Texaco E&P Inc.  
205 E. Bender  
Hobbs, New Mexico 88240

**RE: VACUUM FIELD UNIT MONITOR WELL PLUGGING  
LEA COUNTY, NEW MEXICO**

Dear Mr. Bailey:

The New Mexico Oil Conservation Division (OCD) has reviewed Texaco Exploration & Production Inc.'s (TEPI) April 27, 1999 "WORK PLAN FOR PLUGGING OF MONITOR WELLS, TEXACO EXPLORATION AND PRODUCTION INC., VACUUM FIELD UNIT, BUCKEYE, LEA COUNTY, NEW MEXICO" which was submitted on behalf of TEPI by their consultant Highlander Environmental Corp. This document contains a work plan for plugging 13 monitor wells related to TEPI's monitoring of ground water at the Vacuum Field Unit site south of Buckeye, New Mexico.

The above referenced plugging work plan is approved on the condition that documentation of the actual plugging actions conducted at each monitor well be included in the next annual report on ground water sampling due on February 2, 2000. Please be advised that OCD approval does not limit TEPI to the proposed work plan should the plan fail to adequately plug the monitor wells. In addition, OCD approval does not relieve TEPI of responsibility for compliance with any other federal, state or local laws and regulations.

If you have any questions, please contact me at (505) 827-7154.

Sincerely,

A handwritten signature in black ink, appearing to read "William C. Olson".

William C. Olson  
Hydrologist  
Environmental Bureau

xc: Chris Williams, OCD Hobbs District Office  
Ike Tavarez, Highlander Environmental Corp.

Z 274 520 672

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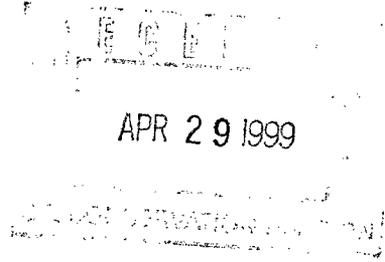


# Highlander Environmental Corp.

Midland, Texas

April 27, 1999

Mr. Rodney Bailey, EH & S Coordinator  
Texaco Exploration and Production, Inc.  
Hobbs Operating Unit  
205 East Bender  
Hobbs, New Mexico 88240



**Re: Work Plan for Plugging of Monitor wells, Texaco Exploration and Production, Inc.,  
Vacuum Field Unit, Buckeye, Lea County, New Mexico**

Dear Mr. Bailey:

Per your request, please find one copy of the above-referenced workplan. This workplan presents the plugging of selected monitor wells at the Site located at Buckeye, New Mexico. Highlander Environmental Corp. will continue the quarterly sampling of the other monitor wells at the Site.

Please call if you have questions.

Sincerely,  
*Highlander Environmental Corp.*

A handwritten signature in black ink, appearing to read "Ike Tavaréz". The signature is stylized and fluid.

Ike Tavaréz  
Project Manager/Geologist

Encl.



STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION  
2040 S. PACHECO  
SANTA FE, NEW MEXICO 87505  
(505) 827-7131

January 29, 1999

**CERTIFIED MAIL**  
**RETURN RECEIPT NO. Z-274-520-606**

Mr. Rodney Bailey  
Texaco E&P Inc.  
205 E. Bender  
Hobbs, New Mexico 88240

**RE: VACUUM FIELD UNIT  
LEA COUNTY, NEW MEXICO**

Dear Mr. Bailey:

The New Mexico Oil Conservation Division (OCD) has reviewed Texaco Exploration & Production Inc.'s (TEPI) October 14, 1998 "GROUNDWATER MONITORING REPORT, TEXACO EXPLORATION AND PRODUCTION INC., VACUUM FIELD UNIT, BUCKEYE, LEA COUNTY, NEW MEXICO" which was submitted on behalf of TEPI by their consultant Highlander Environmental Corp. This document contains the results of TEPI's monitoring of contaminated ground water at the Vacuum Field Unit site south of Buckeye, New Mexico. The document also contains TEPI's proposal for plugging and abandonment of a number of the monitoring wells and a work plan for additional ground water monitoring of the remaining monitor wells.

The above referenced plugging and ground water monitoring proposal is approved with the following conditions:

1. Monitor wells TW-10, TW-13 and TW-20 will not be plugged and will be included in the ground water monitoring plan.
2. Prior to conducting any plugging activities, TEPI will submit to the OCD for approval a monitor well plugging and abandonment work plan.
3. All ground water quality samples will be obtained and analyzed using EPA approved methods and procedures including use of appropriate quality assurance/quality control (QA/QC) methods.

Mr. Rodney Bailey  
January 29, 1999  
Page 2

4. TEPI will submit an annual report on ground water sampling to the OCD by February 2, 2000. The report will be submitted to the OCD Santa Fe Office with a copy provided to the OCD Hobbs District Office. The report will contain:
  - a. A description and summary of all past and present remediation and monitoring activities including conclusions and recommendations.
  - b. A summary of all past and present water quality sampling results including copies of the laboratory analytical data sheets and associated (QA/QC) data from the recent sampling events.
  - c. A site map showing the location of all monitor wells , recovery wells and relevant site features.
  - d. A water table elevation map constructed using the water table elevation of ground water in all site monitor and recovery wells. The map will show the direction and magnitude of the hydraulic gradient.
5. TEPI will notify the OCD at least 1 week in advance of all scheduled activities such that the OCD has the opportunity to witness the sampling events and split samples.
6. All wastes generated will be disposed of at an OCD approved facility.

Please be advised that OCD approval does not limit TEPI to the proposed work plan should the plan fail to adequately remediate or monitor contamination related to TEPI's activities, or if contamination exists which is outside the scope of the work plan. In addition, OCD approval does not relieve TEPI of responsibility for compliance with any other federal, state or local laws and regulations.

If you have any questions, please contact me at (505) 827-7154.

Sincerely,



William C. Olson  
Hydrologist  
Environmental Bureau

xc: Chris Williams, OCD Hobbs District Office  
Vijay K. Kurki, Highlander Environmental Corp.

Z 274 520 606

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PS Form 3800, April 1995

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STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

2040 S. PACHECO  
SANTA FE, NEW MEXICO 87505  
(505) 827-7131

August 19, 1998

**CERTIFIED MAIL**  
**RETURN RECEIPT NO. Z-235-437-320**

Mr. Rodney Bailey  
Texaco E&P Inc.  
205 E. Bender  
Hobbs, New Mexico 88240

**RE: VACUUM FIELD UNIT  
LEA COUNTY, NEW MEXICO**

Dear Mr. Bailey:

The New Mexico Oil Conservation Division (OCD) has reviewed Texaco Exploration & Production Inc.'s (TEPI) May 1, 1998 "RESULTS OF GROUNDWATER MONITORING, TEXACO EXPLORATION AND PRODUCTION INC., VACUUM FIELD UNIT, BUCKEYE, LEA COUNTY, NEW MEXICO" which was submitted on behalf of TEPI by their consultant Highlander Environmental Corp. This document contains the results of TEPI's remediation and monitoring of contaminated ground water at the Vacuum Field Unit site south of Buckeye, New Mexico. The document also contains TEPI's proposal for plugging and abandonment of a number of the monitoring wells and future closure of the site.

A review of the above referenced document shows that ground water at the site has been previously sampled for chloride, but not for other oil field related contaminants. Therefore, the OCD defers comment on the proposals contained in the above referenced document and requires that TEPI:

1. Sample and analyze ground water from all of the monitor wells and extraction wells for benzene, toluene, ethylbenzene and xylene (BTEX) using EPA approved methods and quality assurance/quality control (QA/QC).
2. Submit a report on ground water sampling to the OCD by October 16, 1998. The report will be submitted to the OCD Santa Fe Office with a copy provided to the OCD Hobbs District Office. The report will contain:
  - a. A description and summary of all past and present remediation and monitoring activities including conclusions and recommendations.

Mr. Rodney Bailey  
August 19, 1998  
Page 2

- b. A summary of all past and present water quality sampling results including copies of the laboratory analytical data sheets and associated QA/QC data from the recent sampling event.
  - c. A site map showing the location of all monitor wells , recovery wells and relevant site features.
  - d. A water table elevation map constructed using the water table elevation of ground water in all site monitor and recovery wells.
3. Notify the OCD at least 1 week in advance of all scheduled activities such that the OCD has the opportunity to witness the sampling event and split samples.

If you have any questions, please contact me at (505) 827-7154.

Sincerely,



William C. Olson  
Hydrologist  
Environmental Bureau

xc: Wayne Price, OCD Hobbs Office  
Ike Tavarez, Highlander Environmental Corp.

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PS Form 3800, April 1995