1R - 254

REPORTS

DATE:

2/9/1995

PHONE (505) 392-6167
FAX (505) 392-8788

ENVIRONMENTAL
SPILL CONTROL, INC.

P.O. BOX 5890 ★ HOBBS, NM 88241

February 9, 1995

Texaco E & P
P.O. Box 730
Hobbs, New Mexico 88241-0730

Attn: Mr. Larry Lehman

Re: HYDROGEOLOGIC INVESTIGATION FOR THE G.L. ERWIN "B" NCT 2, TANK BATTERY

Dear Mr. Lehman:

Environmental Spill Control, Incorporated ("ESC") is pleased to present this work plan to conduct a Hydrogeologic Investigation at the above referenced site. The purpose of this investigation is to assess the perch zone characteristics and whether there was any vertical or horizontal contamination to the perch zone associated with the G.L. Erwin "B" NCT 2, Tank Battery Emergency Overflow Pit.

HISTORICAL INFORMATION

When we developed an initial Environmental Site Assessment ("ESA") on the above referenced emergency overflow pit in October 1993 ,it should be noted that during the ESA, we encountered groundwater that contained extremely high levels of TDS. We had several meetings with the local District Office of the Oil Conservation Division ("OCD") here in Hobbs, concerning the referenced emergency overflow pit and the groundwater perch zone.

One of the first items we determine on our ESA's is the depth to groundwater. We encountered groundwater at 67 feet and the hole was drilled to 74 feet. The hole was cased as a temporary two (2) inch monitor well with 10 feet of 0.020 screen in water and 5 feet above. It appeared to us that we had encountered an unprotectable small perch zone, due to the high TDS. Prior to performing the ESA, we were informed that there had been incidents of contamination to the groundwater in the area and that in fact, the ranch house to the west of the location was purchased by another oil company due to contamination of the groundwater. I might add that we have drilled a number of test holes in the area to 130 feet to 140 feet and had not encountered groundwater in the area.

We worked with Mr. Wayne Price out of the Hobbs OCD office on the project. In May 1994, we sampled the temporary monitor well for analyses, with Mr. Price as witness. The water in the well had over 10,000 mg/liter of TDS and in excess of 5,200 mg/liter of chlorides. The samples indicated 0.003 mg/liter of benzene and 0.4 mg/liter of total reportable hydrocarbons. Mr. Price suggested that we drill an additional monitor well to the northwest of the pit to determine if this was in fact an unprotectable water zone.

We drilled an additional hole approximately 250 feet northwest of the main pit location as referenced by the attached drawing. We drilled past 75 feet and had trouble with the bit and sub in the hole. Attempts to retrieve the bit and sub were futile at the time and we were stuck at 68 feet. This is the depth we considered as being the bottom of the hole. We again attempted to save the hole and were able to get the bit and sub up to 53 feet. The hole was caving in due to the soft sand and the next day we used a short catch overshot and retrieved the bit and sub.

At no time during the drilling of the well did we encounter any moisture or wet sands on the alternate hole drilled to the northwest. Rather than drill a new monitor well, we essentially dry holed the well. It appeared that we might have been on the side of a small fault. The first test hole we drilled to the southeast of the pit we encountered wet sand at 55 feet and water at 64 feet.

Please note by the attached drawing that we drilled a number of other test holes at the location to determine the extent of hydrocarbon contamination of the pit. The holes were drilled anywhere from 20 to 60 feet in determining the plume of contamination emanating out of the pit. The contamination out of the pit was to the north of the pit to a low natural draw, the same draw where the alternate monitor well was attempted. The contamination went down to 62.5 feet to a very hard sandstone layer, it was through this layer to the south that we encountered the water. To the northwest, we did not find water through the layer, and again, we appeared to have drilled into a fault.

The concern of Mr. Price was that we may have impacted the perch layer or actually caused the layer from the pit. This hydrogeologic investigation will determine any characteristics or impaction to the perch zone. It should also be noted that during the remedial cleanup of the emergency overflow pit, the original temporary monitor well was destroyed, due to the size of the excavation to remove the associated hydrocarbon contamination. Copies of the water analyses are enclosed.

WORK PLAN

1. Conduct a preliminary literature search to aid in classifying the geology, depth to water table, and apparent direction of groundwater flow.

2. Prepare a topographical drawing of the immediate area and surrounding terrain in a 1/8 mile radius from the original emergency overflow pit area to indicate elevations and surface water run-off flows after excavation of the emergency overflow pit. Use existing United States

Geological Survey (USGS) Maps for reference elevations and add excavation changes of the area.

3. Perform a record search and field inspection to identify any potential contamination sources within 1 mile of the site. This would include personnel interviews with anyone in the area having any knowledge of impaction of area waters which might influence the investigation.

4. Perform a field inspection to identify any potential sensitive receptors including water wells within 1 mile of the site.

5. Installation of monitor wells to delineate any possible impaction to the groundwater/perch zone. This would be a series of groundwater observation wells [2 inch (5 cm) diameter] would be established in a pattern, determined by a geologist, around the perimeter of the site. The wells will be set in porous soils and penetrate the groundwater if found, at least 10 feet (3 m). A survey crew will establish the top elevation of the well to the nearest 0.01 ft (0.5 cm). The caps of the wells will be vented and provided with a locking device to prevent tampering. A sufficient number of wells (three minimum) will be set to accurately determine the slope and direction of groundwater flow. The wells will be used as groundwater sampling points.

The following conditions are being met as per your instructions for the three (3) monitor well development package which are being drilled approximately 75 feet deep (a drawing is enclosed for the positioning of the borings/monitor wells):

1) Approximately 60' of SCH 40 PVC, flush thread, well casing;
2) Approximately 15' of SCH 40 PVC, flush thread, well screen (0.020" machine slot);
3) 20/40 or 8/16 Brady or equivalent sandpack 2 to 5 feet above top of screen;
4) 2 to 5 foot bentonite (pellets or chips) seal;
5) Grout to top of well using portland cement with 5% bentonite;
6) Above-grade completion using steel lockable well over set on a 4' X 4' concrete pad;
7) Lockable well seal cap with keyed-alike lock.

A steam sprayer will be used for decontamination of all sampling equipment (split-spoon; between each sample) and drilling equipment (drill pipe, bit, etc.; between each boring location). All decontamination/rinsate water will be contained at a central location and each site shall be set up for decontamination operations. We will temporarily construct a bermed rectangular area lined with 2 layers of 6 mil plastic or one layer of 10 mil plastic using cinder blocks and 2" X 4" lumber for the sides. Well development and decontamination/rinsate water shall be contained and placed in 55-gallon drums.

Level D personal protective equipment (PPE) will be used, which includes the following: hard hat, safety glasses, steel toed boots, ear plugs, nitrile gloves for handling sampling equipment. Being the drilling contractor, all of our employees meet the 40 hour HAZWOPER training required per 29 CFR 1910.120.

6. Obtain representative water samples from the monitor wells and field screen for volatile organic components ("VOCs"), total dissolved solids ("TDS") and chlorides (Cl).

7. Submit water samples to an approved laboratory for analysis of appropriate contaminants based on field screening results. The samples will be tested for BTEX and anion and cation content.

8. Prepare a Hydrogeological Report including technical information, maps, soil boring logs, monitor well construction, and laboratory reports.

SCOPE OF SERVICES

Task 1: Site Reconnaissance, Topographical Map Survey, File Review, and Receptor Survey

ESC personnel will inspect the site to observe physical features of the site and the surrounding area. During the site inspection, information relative to the identification of potential sensitive receptors or potential sources of possible contamination within the site vicinity and adjacent properties will be documented including the drawing of a topographical map of the area within a 1/8 radius of the excavated pit area.

Task 2: Soil Boring/Monitor Well Installation

ESC will drill three (3) soil borings and install 2 inch PVC monitor wells at the locations shown on the attached site map if water is encountered. Based on existing site information, groundwater perch zone is at a depth of approximately 67 feet below ground surface. The monitor wells will be screened with 0.020 inch slotted screen 60 and 75 feet below ground surface. Prior to beginning soil boring operations, all utilities at the site will be located. Well construction will be in accordance with New Mexico Environmental Improvement Division monitoring well construction and abandonment policy.

Task 3: Water/Soil Sample Collection and Analyses

After the monitor wells have been installed and allowed to reach static conditions, each well will be gauged to measure depth to groundwater and phase-separated hydrocarbon thickness if present. Prior to groundwater sampling a minimum of three well volumes will be bailed from each well to remove any fines introduced from installation activities and to ensure groundwater within the well bore represents aquifer/perch zone conditions.

Groundwater samples from each monitor well will be collected with a new disposable bailer and placed in glass containers, sealed with QA/QC seals, and transported on ice to the laboratory for analysis. The groundwater samples will be analyzed for BTEX using EPA method 8020; total dissolved solids (TDS); anion/cation content; and Chlorides (Cl).

One soil sample will be obtained from the upper five foot interval of the perch zone and analyzed for organic carbon fraction, porosity, bulk density, and hydraulic conductivity to aid in groundwater zone characterization using the appropriate ASTM methods. The sample will be placed in a glass jar with a teflon-lined lid, sealed with QA/QC seals, and preserved at 4 degrees centigrade in accordance with EPA requirements. A chain-of-custody which documents sample collection times and delivery to the laboratory will be completed for each set of samples.

Task 4: Disposal of Investigation Waters

The development water generated from the monitor well sampling operations will be stored on-site in labeled 55 gallon drums pending disposal.

Task 5: Health and Safety Plan

A Health and Safety Plan will be prepared in accordance to OSHA standards for use by all on-site personnel prior to beginning the investigation.

Task 6: Report Preparation

A Hydrogeologic Report will be prepared that will include the following sections: Report Summary, Site Characterization, Groundwater Assessment, Waste Management and Disposition, Conclusions, Recommendations, Photographic Documentation, and QA/QC Procedures.

If you have any questions or desire further information, please contact us at any time.

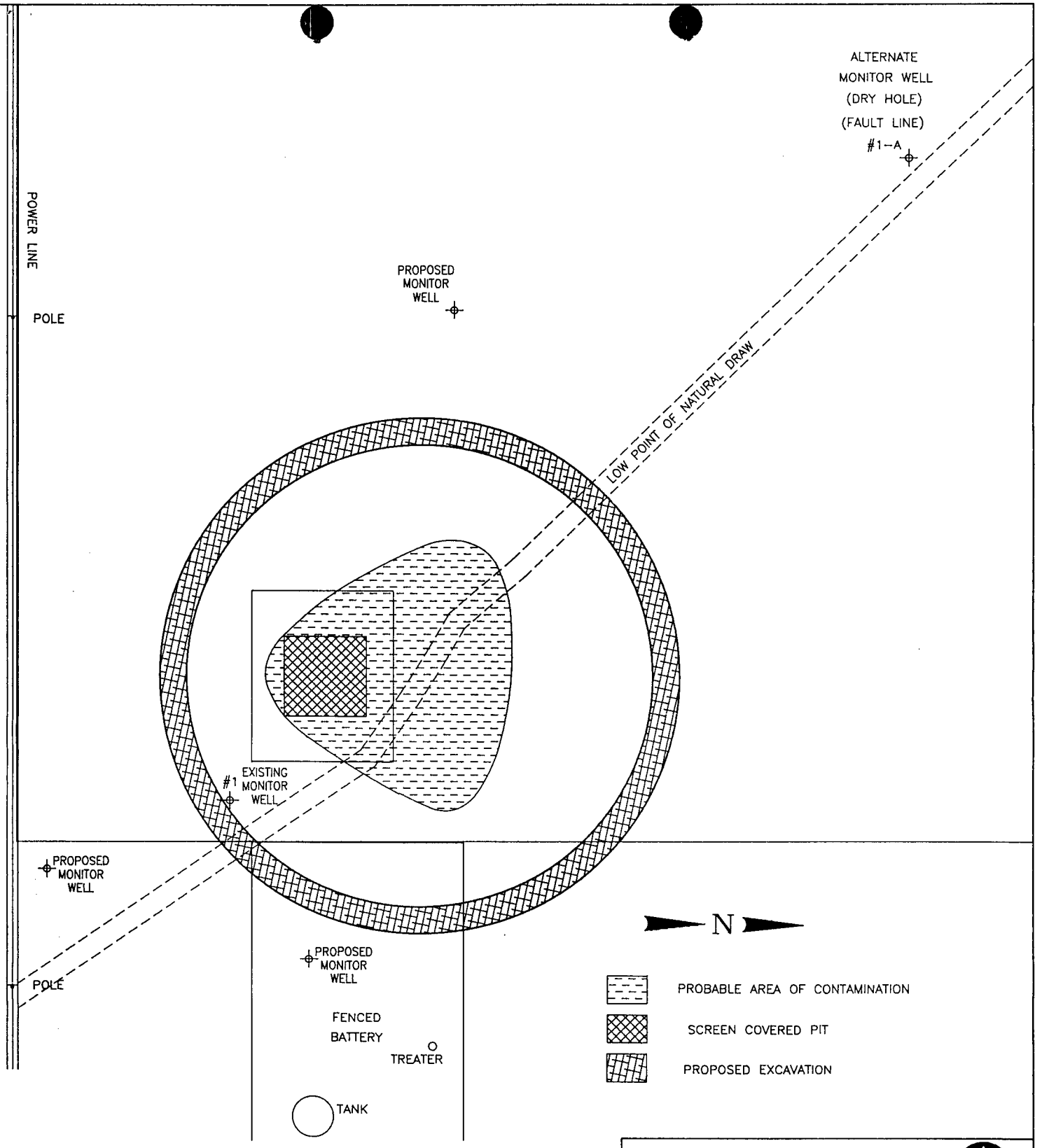
Best regards,

ENVIRONMENTAL SPILL CONTROL, INC.

Eddie Slavens

Eddie Slavens, REM
Vice President

cc: Mr. Allen Hodge
Mr. Jimmy Curtis



TEXACO Inc.

G.L. ERWIN NCT #2
TANK BATTERY
PROPOSED GROUND WATER MONITOR WELLS
SW4/SE4, SEC 35, T24S, R37E
LEA Co., NEW MEXICO

DATE: 2-9-95	DRAWN M.F.G.	REV. DATE	DIV
SCALE: 1" = 50'		JOB #	
SHEET 1 OF 1		DWG. #	

APPENDIX B

OCD Correspondence

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

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

HOBBS AREA
TLF

RSP		JLA	
MCA		JWB	
DAB		ADD	
DJC		MLG	
DDD		BCH	
RBD		PDH	
MCD		JDL	
DAD		SDU	
KJH		JY	
WTL			
RTM		PLH	
DLM		CPM	
LDR		MKR	
WAS		PAS	
SGW			
		CRA	
LML		HMC	
		OLH	
JAP		PWM	
		CDT	

LEASE FILE
WELL FILE
CORP FILE
COPIES SENT

March 28, 1995

6/20/95 A
Will be more soon!

APR 1995
Received
Texaco
Hobbs Area

CERTIFIED MAIL
RETURN RECEIPT NO. P-667-242-232

Mr. T.L. Frazier
Texaco E & P
P.O. Box 730
Hobbs, New Mexico 88241-0730

RE: GROUND WATER INVESTIGATION WORK PLAN
G.L. ERWIN "B" NCT-2 TANK BATTERY
LEA COUNTY, NEW MEXICO

Dear Mr. Frazier:

The New Mexico Oil Conservation Division (OCD) has completed a review of Texaco E & P's (TEP) February 14, 1995 "HYDROGEOLOGICAL INVESTIGATION FOR THE G.L. ERWIN "B" NCT-2, TANK BATTERY". This document contains TEP's work plan for investigating the extent of ground water contamination related to the use of an unlined emergency pit at the G.L. Erwin "B" NCT-2 tank battery in Section 35, T24S, R38E NMPM Lea County, New Mexico.

The above referenced work plan is approved with the following conditions:

1. All monitor wells will be constructed with at least 10 feet of well screen below the water table and 5 feet of well screen above the water table.

2. TEP will sample ground water from all monitor wells. Ground water from these monitor wells will be sampled and analyzed for concentrations of benzene, toluene, ethylbenzene, xylene (BTEX), major cations and anions, heavy metals and polynuclear aromatic hydrocarbons using EPA approved methods.

   NOTE: The OCD will not require TEP to analyze ground water samples for heavy metals and PAH's, if, TEP can provide the OCD with an analysis of the produced water from this line showing that these constituents do not exceed New Mexico Water Quality Control Commission ground water standards.

3. TEP will submit a report on the investigation to the OCD by June 30, 1995. The report will contain:

   a. A description of all activities which occurred during the investigation, conclusions and recommendations.

b. A summary of the laboratory analytic results of water quality sampling of the monitor wells.

c. A water table elevation map using the water table elevation of the ground water in all monitor wells.

d. A geologic log and as built well completion diagram for each well.

4. TEP will provide the OCD with the following information which was not included in the work plan:

a. The results of the "initial Environmental Site Assessment".

b. The locations and any other available information about the referenced "test holes at the location to determine the extent of hydrocarbon contamination of the pit".

c. The size of the excavated area, the final concentrations of contaminants in the bottom of the excavated area and the disposition or remediation method of the soils excavated.

d. Copies of the water analyses which are stated as being enclosed in the work plan.

5. TEP will notify the OCD at least one week in advance of all scheduled activities such that the OCD has the opportunity to witness the events and or split samples.

6. All original documents submitted for approval will be submitted to the OCD Santa Fe Office with copies provided to the OCD Hobbs District Office.

Please be advised that OCD approval does not relieve TEP of liability should the investigation activities determine that contamination exists which is beyond the scope of the work plan or if the activities fail to adequately determine the extent of contamination related to TEP's activities. In addition, OCD approval does not relieve TEP of responsibility for compliance with any other federal, state or local laws and/or regulations. If you have any questions, please call me at (505) 827-7154.

Sincerely,

William C. Olson
Hydrogeologist
Environmental Bureau

xc: Jerry Sexton, OCD Hobbs District Supervisor
Wayne Price , OCD Hobbs Office

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION
2040 S. PACHECO
SANTA FE, NEW MEXICO 87505
(505) 827-7131

July 10, 1997

CERTIFIED MAIL
RETURN RECEIPT NO. P-410-431-191

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

RE: G. L. ERWIN "B" NCT-2 TANK BATTERY
LEA COUNTY, NEW MEXICO

Dear Mr. Bailey:

On March 28, 1995, the New Mexico Oil Conservation Division (OCD) conditionally approved Texaco Exploration & Development's (TEXACO) February 14, 1995 "HYDROGEOLOGICAL INVESTIGATION FOR THE G.L. ERWIN "B" NCT-2 TANK BATTERY". This document contained TEXACO's work plan for investigating the extent of ground water contamination related to an unlined emergency pit at the G.L. Erwin "B" NCT-2 tank battery located in Section 35, T24S, R38E NMPM, Lea County, New Mexico. This approval required that TEXACO provide the OCD with a report on the investigation by June 30, 1995. To date the OCD has no record of TEXACO either implementing the required work plan or submitting the required investigation report.

The OCD requires that by August 15, 1997 TEXACO will provide the OCD with the investigation report required in the OCD's March 28, 1995 work plan approval.

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

Sincerely,

William C. Olson
Hydrogeologist
Environmental Bureau

xc: Chris Williams, OCD Hobbs District Supervisor
Wayne Price, OCD Hobbs Office

Texaco E & P

RECEIVED
SEP 24 1997
CONSERVATION DIVISION

Date: September 19, 1997

William C. Olson
Hydrogeologist
Environmental Bureau
Oil Conservation Division
Santa Fe, New Mexico 87505

RE: G.L. Erwin "B" NCT-2 Tank Battery
Lea County, New Mexico

Dear Mr. Olson

This letter is in response to our telephone conservation on September 19, 1997. The information requested by your July 10, 1997 letter has been difficult to obtain because the company that conducted the work back in 1995 is no longer in business. I have contacted them but they no longer have any records of this site.

At this time I have contacted Highlander Environmental and we are putting together the requested information. The required work plan for the extent of ground water contamination related to the emergency pit at the G.L. Erwin " B" NCT-2 will be provided no later than October 27, 1997.

If you have any questions or additional request please call me at 505-397-0422.

Sincerely,

Rodney Bailey

Rodney G. Bailey
EHS Professional
Hobbs Operating Unit

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION
2040 S. PACHECO
SANTA FE, NEW MEXICO 87505
(505) 827-7131

July 10, 1997

CERTIFIED MAIL
RETURN RECEIPT NO. P-410-431-191

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

RE: G. L. ERWIN "B" NCT-2 TANK BATTERY
LEA COUNTY, NEW MEXICO

Dear Mr. Bailey:

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Sincerely,

William C. Olson
Hydrogeologist
Environmental Bureau

xc: Chris Williams, OCD Hobbs District Supervisor
Wayne Price, OCD Hobbs Office

P 410 431 191

US Postal Service

Receipt for Certified Mail

No Insurance Coverage Provided.

Do not use for International Mail *(See reverse)*

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Street & Number	
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Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	$
Postmark or Date	

PS Form **3800**, April 1995

OIL CONSERVATION DIVISION
RECEIVED
'95 MAY 25 AM 8 52

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

MEMORANDUM OF MEETING OR CONVERSATION

To: Bill Olson
NMOCD

☒ Telephone ☐ Personal	Time 1:12 PM	Date 5/23/95

Originating Party	Other Parties
WES ROOT - ENVR SPILL CONTROL	

Subject: TEXACO - GL FRZN NE JAL

Discussion: WILL BE INSTALLING 3 MONITOR WELLS STARTING TOMORROW AT ≈ 1:00 PM

Conclusions or Agreements

Distribution cc: J SEXTON
B. OLSON

Signed

STATE OF NEW MEXICO
NMOCD District I

DIVISION
AUG 8 50

INTER-OFFICE MEMO

To file: Texaco-GL Erwin "B" NCT2 Tank Battery
Sec 35-24s-R38e

Date: Aug 9, 1994
Time:

Telephone call: XX Meeting: ___ Other: ____

Person called or attending:

George Willis-Jal NM
395-3007 home
369-5865 mobil

REFERENCE: Pit Remediation

Subject: "complaint"

Comments:

Mr. Willis called and complained about Texaco's remediation project. Mr. Willis indicated that he is the surface owner and no one contacted him on this issue.

I explained that our agency only approves these type of plans and we normally expect the operator to make sure they have permission to perform such task. I gave Mr. Willis the name of Larry Leman Texaco's environmental person in hobbs.

Called Bill Olson to confirm if this is correct procedure.

Wayne Price
NMOCD Environmental Engineer-District I

cc: Jerry Sexton-District I Supervisor
Bill Olson-Hydrogeologist