PIT CLOSURE

NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

Jennifer A. Salisbury
CABINET SECRETARY

Oil Conservation Div.
Environmental Bureau
2040 S. Pacheco
Santa Fe, NM 87505

Memorandum of Meeting or Conversation

Telephone __X___
Personal _____
E-Mail _____

Time: 9:05 am-9:41am
Date: March 22, 2000

505-622-2012

Originating Party: **Clayton Barnhill- Consultant for Elk Oil Co.**

Other Parties: **Wayne Price-OCD**

Subject: **Elk Oil Co. Pit Closure located in Sec 7-Ts11s-R33E**

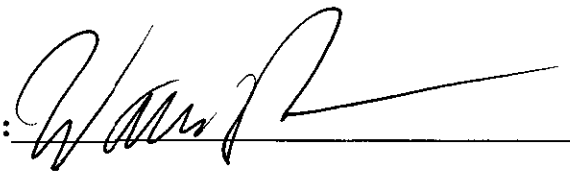
Discussion:

Mr. Barnhill notified me that he is working on the pit closure for Elk Oil Co. He indicated he had drilled the center of the pit and at a approximate depth of 18 feet they collected a split spoon soil sample and the analytical results of the samples revealed the BTEX to be non-detect, TPH DRO Was 21 ppm and chlorides was 3600 mg/kg. Mr. Barnhill wanted to know if OCD would accept this as a closure. I informed Mr. Barnhill that Elk Oil shall submit documentation that demonstrates the vertical migration of chlorides has not and will not impact groundwater. He indicated groundwater was 130 feet deep, I asked him if he would like me look up the estimated groundwater depth in that area, it was 48-53 feet deep.

Mr. Barnhill began to get upset and became very argumentative and repeatedly demanded OCD demonstrate we have the authority to have ELK Oil perform this demonstration. I referred to New Mexico Oil and Gas Act and Rule 19. I ask Mr. Barnhill to submit the information along with any regulatory questions and we would evaluate it as we could answer their questions in one letter. Mr. Barnhill demanded to have OCD demonstrate that the vadose zone background levels of chlorides were lower than what he had found below the pit. Mr. Barnhill also became very abusive in his tone of language and also demanded that I tell him my experience in the Oilfield

and he wanted to know which companies I had worked for. I informed him the conversation was not going anywhere and once again asked him to submit the information and the OCD would evaluate the Elk Oil Co. proposal just as we do other pit closures. Mr. Barnhill wanted to continue his argument that we had no authority since we had allowed past practices like this to occur. I asked him if the pit was lined and he said no they were not required to. I informed him it is the companies liability if groundwater has been contaminated and it would have to be addressed. Mr. Barnhill would not end the conversation and I had no other choice but to politely say have a good day and I hung up.

Conclusions or Agreements:

Signed: 

CC: Roger Anderson-Environmental Bureau Chief.

NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

November 10, 1999

CERTIFIED MAIL
RETURN RECEIPT NO. P 410 425 204

Joseph J. Kelly
Elk Oil Co.
P.O. Box 310
Roswell, NM 88202-0310

Re: Pit Closure
RR St#1 UL I Sec 7-Ts11s-R33e

Dear Mr. Kelly:

The New Mexico Oil Conservation Division (NMOCD) is in receipt of the site investigation report dated September 28, 1999 for the above captioned site submitted by CMB Environmental & Geological Services. The report indicates there are contaminants remaining that exceed the guideline levels and the fact there is shallow groundwater reported to be 50 to 60 feet below ground surface in this area. Therefore, the NMOCD has the following requirements in order to evaluate the site for closure:

1. Please demonstrate the vertical extent of the contamination. At a minimum, please collect one bottom hole soil sample from approximately in the center of the pit, to be taken three feet below the bottom of the existing pit. Please sample for BTEX (8021), TPH (418.1 or 8015) and Chlorides.

2. Notify the OCD Santa Fe office and the OCD District office at least 48 hours in advance of all scheduled activities such that the OCD has the opportunity to witness the events and/or split samples during OCD's normal business hours.

If you require any further information or assistance please do not hesitate to write or call me at (505-827-7155).

Sincerely Yours,

Wayne Price

Wayne Price-Pet. Engr. Spec.
Environmental Bureau

cc: OCD Hobbs Office

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& NATURAL RESOURCES DEPARTMENT

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2040 South Pacheco Street
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Sincerely Yours,

Wayne Price

Wayne Price-Pet. Engr. Spec.
Environmental Bureau

cc: OCD Hobbs Office

Is your RETURN ADDRESS completed on the reverse side?

SENDER:
- ☐ Complete items 1 and/or 2 for additional services. Complete items 3, 4a, and 4b.
- ☐ Print your name and address on the reverse of this form so that we can return this card to you.
- ☐ Attach this form to the front of the mailpiece, or on the back if space does not permit.
- ☐ Write *"Return Receipt Requested"* on the mailpiece below the article number.
- ☐ The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):
1. ☐ Addressee's Address
2. ☐ Restricted Delivery

3. Article Addressed to:
ELK OIL CO.
P.O. BOX 310
ROSWELL, NM 88202-0310
ATT: JOE KELLY

4a. Article Number
P 410 425 204

4b. Service Type
☒ Registered ☒ Certified
☐ Express Mail ☐ Insured
☐ Return Receipt for Merchandise ☐ COD

7. Date of Delivery
11-12-99

5. Received By: *(Print Name)*

8. Addressee's Address *(Only if requested and fee is paid)*

6. Signature *(Addressee or Agent)*

PS Form **3811**, December 1994 102595-99-B-0223 Domestic Return Receipt

ELK OIL COMPANY

BOX 310
ROSWELL, NEW MEXICO 88202
(505) 623-3190

JOSEPH J. KELLY
PRESIDENT

October 1, 1999

New Mexico Energy, Minerals &
Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505

Attention: Wayne Price, Pet. Engr. Spec.

Re: Pit Closure
RR State #1
Sec 7-T11S-R33E
Lea County, New Mexico

Gentlemen:

Enclosed please find environment site report on the RR State #1 well, located in Section 7, Township 11 South, Range 33 East, Lea County, New Mexico.

After review by your office, please issue Elk Oil Company a pit closure compliance letter.

If there are any questions please call.

Thank you for handling this matter.

Yours very truly,

ELK OIL COMPANY

Joseph J. Kelly
President

JJK/jgb
Enc.

Elk Oil Company
Environmental Site Investigation
Unlined Surface Impoundment
RR State #1, Unit Letter I, Section 7,
Township 11 South Range 33 East
Lea County, New Mexico

September 28, 1999

By:

Clayton M. Barnhill, Consultant
Environmental and Geological Services
PO Box 2304 Roswell, New Mexico 88202-2304
(505) 622-2012 Fax: (505) 622-2012

CMB

Environmental & Geological Services

CMB

Environmental & Geological Services

Clayton M. Barnhill
CMB
Environmental & Geological
P.O. Box 2304
Roswell, NM 88202-2304
Tel (505) 622-2012
Fax (505) 622-1711

September 28, 1999

Mr. Joeseph Kelly.
Elk Oil Company
PO Box 310
Roswell, New Mexico 88202-22304

Re: Environmental Site Investigation
Unlined Surface Impoundment
RR State #1 Unit I Sec. 7 T. 11 S. R. 33 E. , NMPM
Lea County, New Mexico

Dear Mr. Kelly:

Our report presenting the findings of an Environmental Site Investigation of the referenced property is presented herein. This report includes discussions concerning our assessment methods, the scope of the work performed, the history of the development of the site, a description of soil and groundwater conditions on or near the subject property, and results of the site investigation. If you have any questions during your review of this report please contact us at your convenience.

Clayton M. Barnhill is pleased to have been able to conduct this Site Investigation for you and looks forward to the opportunity to provide additional environmental services in the future. Thank you.

Sincerely,

Clayton M. Barnhill, CPG
Consulting Geologist

Copies: Addressee (3)

Table of Contents

1.0 GENERAL INFORMATION:

This section of the report contains subsections that discuss general information, the purpose of the report, the NMOCD Unlined Surface Impoundment Closure Guideline Requirements, NMOCD classification of the unlined surface impoundments, background information, environmental response activities taken to date, methods of investigation, results of the site investigation, and conclusions.

1.1 General Information:

Clayton M. Barnhill, CMB Environmental and Geological Services, (CMB) has prepared this Site Investigation Report for Elk Oil Company, the owner of the property upon which the work was conducted. The location of the subject property, the operator, and the consultant involved in the project are listed below:

Site Location:

Elk Oil Company
Unlined Surface Impoundment
RR State #1, 1874' FSL & 766' FEL
Unit Letter I, Section 7, T. 11 S. R. 33 E., NMPM
Lea County, New Mexico

Operator:

Elk Oil Company
PO Box 310, Roswell, New Mexico 88202-0310
(505) 623-3190 Contact
Mr. Joseph Kelly, President of Elk Oil Company

Consultant:

CMB Environmental & Geological Services
Contact: Clayton M. Barnhill, PG
P. O. Box 2304
Roswell, New Mexico 88202-2304
(505) 622-2012 Phone & Fax
E-mail: cmbenviro @dfn.com

The site is shown in Figure 1 on the USGS 7.5-minute topographic map (Caprock & Soldier Hill 7.5 Minute Quadrangle Maps) 1 " = 2000 feet. Figure 2 is a surface land ownership map, with the site location highlighted.

1.1.1 Purpose of the Report

The threefold purpose of this report is to:

- Provide ongoing compliance on behalf of the owner's legal obligation under New Mexico Oil Conservation Division Guidelines and Codes to restore the environment to the extent practicable.

- Describe investigative work that has been performed at this site.

- Document the site investigation activities in a manner suitable for owner and regulatory agency review and provide the basis for Unlined Surface Impoundment Final Closure Approval.

1.2 Background Information

This section of the report describes activities at or near the site that may have caused contamination, previous discharges of hazardous substances, and response activities taken to date.

1.2.1 Activities at and near the Site Which May Have Caused Alleged Hazardous Substance Discharges and History of Property Use

In November of 1984, Manzano Oil Company drilled the 1 Sunburst "A" State Com., located in unit letter I of section 7 of Township 11 South Range 33 East, NMPM, 1874'FEL & 766 FSL. Manzano Oil Company attempted completion of the Sunburst State "A " Com. # 1, as an oil well in December of 1984, determined the well to be dry, and plugged and abandoned the well. A copy of the mud log, electric log, and scout ticket of the well, located in appendix 1, show that the mud type used in the well was a salt gel / with oil added. The drill cuttings were placed in an unlined surface impoundment on site. **Oil and diesel fuel are frequently added to drilling mud while drilling through the Abo Formation in the area.** The Abo Formation is known to cause drilling problems. The Abo Formation is water sensitive shale. Oil and diesel are added to the drilling mud to control well bore sloughing and caving while drilling. The addition of oil and diesel fuel to drilling mud tends to inhibit those adverse reactions. The drilling mud added to the unlined surface impoundment would therefore have detectable levels of hydrocarbons, particularly of the DRO range (Diesel Range / Motor Oil Range Organic Hydrocarbons.)

In February of 1996, Elk Oil Company re-entered the #1 Sunburst "A" State Com., renamed the well RR State # 1, and completed the well in Pennsylvanian age rock formations. A portion of the former Manzano Oil Company unlined surface impoundment was used for drilling mud fluid circulation. During the course of the work over and re-completion work by Elk Oil Company, a minimum of 50 barrels of Oil was added to the drilling mud. (See RR State #1 drilling report, day of 3/5/96, appendix 1) **This oil / drilling mud combination added to the unlined surface impoundment would therefore have detectable levels of hydrocarbons (particularly in the DRO / TPH range).**

The unlined surface impoundment was not closed immediately. Elk Oil Company did not want to cover the pit until all drilling mud and associated fluids dried up completely. After

several complaints by the surface landowner, Elk Oil covered the pit. All visible trash and rubbish were removed. **Allowing drilling fluids and mud to dry before closing surface impoundments is a common oil field practice and procedure.** The pit was covered in February of 1997. Due to the pressure put on Elk Oil from the surface owner to close the pit; the fluids and drilling mud in the pit were never allowed to fully and completely dry.

In March of 1997, Rickey Pearce, of Pearce Trust Ranch (the surface owner), sought assistance from Mr. Wayne Price, Environmental Engineer of the Hobbs District OCD Office, for inspection of oil and gas operations on or near his ranch. Mr. Pearce's primary concern was protection of his ranch groundwater, stock, and wildlife. Mr. Price conducted a field inspection of the pit on March 6, 1997. Soil sampling of the pit, by Mr. Price, less ***than one month after the pit was covered,*** revealed free water and oil and a soil sample photoionization detector headspace reading of 1225-PPM TPH. **There was no EPA Certified Laboratory analysis confirmation of these field samples taken by Mr. Price.** The NMOCD District I Office, in an Inter-Office Correspondence, deferred this pit closure to Mr. Bill Olson of the NMOCD Environmental Bureau. Mr. Olson is handling the closure of this pit. (See Elk Oil Section of Inter-Office Correspondence dated March 13,1997 from Wayne Price to Jerry Sexton, District 1 Supervisor, NMOCD District 1 Office, appendix 1) ***Since Mr. Price's field examination of the pit, the well has been plugged and abandoned and additional clean up of the site has occurred,***

Clayton M. Barnhill, CMB Environmental & Geological Services, preformed a site examination on, July 6, 1999 and took seven soil samples of the closed pit. The results of the site examination and analytical results of the soils are discussed in this report.

2.0 RESULTS OF THE SITE INVESTIGATION

The following subsections contain discussions of the site investigation, site soils, site environmental setting, and discussion of analytical laboratory results of the site sampling activities.

On July 6, 1999 Clayton M. Barnhill, CMB Environmental Services, met Mr. Rocky Ray, Field Superintendent of Elk Oil Company, and Ms. Donna Williams MNOCD District I Environmental Engineer, at the former location of the RR State #1 well.

The former pit is located in Unit Letter I of Township 11 South Range 33 East, NMPM. Pit dimensions are 75 feet in length by 45 feet in width.

General Site Characteristics:

2.1 Depth to Ground Water

A new water well was drilled on the Pearce Ranch on 6/5/98 in the SW ¼ of the SE ¼ of Section 7, Township 11 South Range 33 East NMPM. (State Engineer's Office, Roswell District Office, well location described as 11.33.7.4330) Glenn's Water Well Service of Tatum, New Mexico, drilled the well. Total well depth is 125 feet. Water producing sand interval was encountered at 65'-122' feet. According to the drilling Log; 0'-27' feet was

soil and caliche, 28'-65' feet was sand, 65'-122' feet water sand, and at 122' –125' feet was red clay. The casing was perforated from 65'-125' feet. (See Appendix 2, Water Well Record)

Depth to ground water in the area is greater than 50 feet.

The above-described water well is greater than 1000 feet from the pit location.

2.2 Wellhead Protection Area

The horizontal distance of the closed pit from all water sources and private, domestic water sources is greater than 1000 feet. (See Figure 1, Location Map)

2.3 Distance to the Nearest Surface Water Body

The horizontal distance of the closed pit form downgradient surface water bodies is greater than 1000 feet. (See Figure 1, Location Map)

Soil / Waste Characteristics

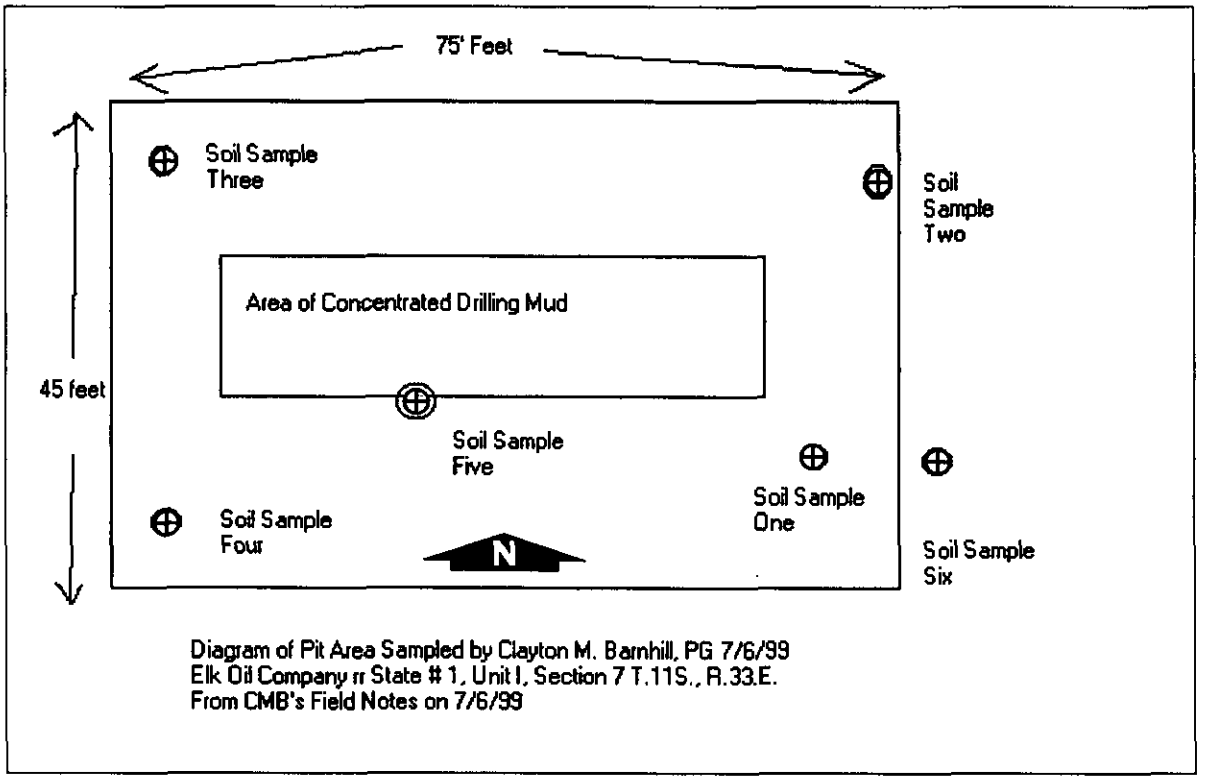

Diagram of Pit Area Sampled by Clayton M. Barnhill, PG 7/6/99
Elk Oil Company rr State # 1, Unit I, Section 7 T.11S., R.33.E.
From CMB's Field Notes on 7/6/99

2.4 Unsaturated Soils:

The former pit area is 75' feet by 45' feet. A 6' –10' foot ridge of fine drilling mud is concentrated in the middle of the former pit. **This is the area where Mr. Price took his samples on his field visit in March of 1997, as the drilling mud was concentrated in this area and still wet.** The pit area is very rocky with abundant gravel, cobbles and small boulders. The surface soil is brown gravelly loam to about 6 inches in depth underlain by hard-indurated caliche. There were no areas of gross surface hydrocarbon

staining. There were no areas of stressed vegetation. There was no visible trash or rubbish in the former pit area. Native grass is growing on the former pit location.

According to the US Soil Conservation Service, the soils located in the former pit area are of the Kimbrough Series of Soils. The Kimbrough Series is defined as follows: The Kimbrough Series of soils consists of well-drained loams, gravelly loams, or gravelly fine sandy loams overlying indurated caliche. (See Appendix 2, Soil Descriptions from US Soil Conservation Service map showing location of pit.)

Seven Soil Samples were taken by CMB on 7/6/99 and analyzed for TPH GRO/DRO by EPA Method Modified 8015 and for BTEX by EPA Method 8020. Hall Analytical Laboratory located in Albuquerque, New Mexico, performed lab analysis of the soil samples. The soil samples were collected using an AMS Soil Recovery Hand Auger. The auger was de-contaminated using a water- alconox sop solution and then rinsed with potable water between sample collections. Samples were placed in clean, air tight, 4-ounce soil sample jars, properly labeled, and placed in an ice chest and cooled to 4 degrees Celsius. The samples were promptly shipped to the laboratory for analysis.

The samples were field screened for TPH Using a MiniRae PID field calibrated to 100-PPM Isobutylene. A grab soil sample from each of the individual soil sample auger locations was placed in a clean Ziploc baggie, labeled with sample location and collection time, and allowed to be solar irradiated for a minimum of 30 minutes before headspace reading was collected. A composite sample of all locations was placed in a clean five gallon bucket, rolled, and then placed in a clean glass jar and Ziploc baggie for field screen and lab analysis. The highest field screen using the PID was in sample location #1, which had a field reading of 1068- PPM TPH. (See Lab Analysis, Appendix 3.)

All sample locations were identified using a Garmin GPS. At each sample location, brown gravelly, cobblely, loam was the soil type, underlain by hard thick layer of caliche. (See Appendix 3, Field Notes)

FIELD DESCRIPTION

Auger Refusal @ 1.3' Depth, Old Drilling Mud with Oil added while drilling. Hit Old Oily Glove with auger!!! Sample location # 1

Auger Refusal @ 0.6' Depth, 10 % sandy silty topsoil with 10% caliche and 80% gravel, cobbles and boulders. Sample Location # 2

Auger Refusal @ 0.8' Depth, 10 % sandy silty topsoil with 10% caliche and 80% gravel, cobbles and boulders. Sample Location # 3

Auger Refusal @ 0.8' Depth, 10 % sandy silty topsoil with 10% caliche and 80% gravel, cobbles and boulders. Sample Location # 4

Auger Refusal @ 0.8' Depth, 10 % sandy silty topsoil with 10% caliche and 80% gravel, cobbles and boulders. Sample Location # 5

No Oil Stained Gloves or Soil Staining. Sampled 3.5' feet due east of sample location # 1, Auger Refusal @ 1.3 10% Tan Brown Sandy Silty Topsoil with 30% caliche, 60% Rock, consisting of gravel, cobble, and boulders. Sample Location # 6

SAMPLE ID / LOCATION	UTM COORDINATES VIA GPS	FIELD PID READING TPH IN PPM
Grab Location # 1	13S 0625771 UTM 3694073	1068 PPM
Grab Location # 2	13S 0625777 UTM 3694074	490.3 PPM
Grab Location # 3	13S 0625755 UTM 3694056	11.3 PPM
Grab Location # 4	13S 0625737 UTM 3694082	25.8 PPM
Grab Location # 5	13S 0625788 UTM 3694015	27.4 PPM
Grab Location # 6	3.5' FEET EAST OF GRAB # 1	85.5 PPM
COMPOSITE ALL LOCATIONS	Compiled & Rolled in 5 gallon bucket	NO PID FIELD SCREEN

Field Soil Vapor Headspace
PID is a MiniRae,
Field Calibrated To 100 PPM
Isobutylene

⊕ PID HEADSPACE
ACCEPTABLE RANGE
100 PPM TPH

SAMPLE ID / LOCATION	BENZENE	TOULENE	ETHYLBENZENE	TOTAL XYLENES	MTBE
Grab Location # 1	ND	0.16 PPM	0.12 PPM	1.5 PPM	ND
Grab Location # 2	ND	ND	ND	ND	ND
Grab Location # 3	ND	ND	ND	ND	ND
Grab Location # 4	ND	ND	ND	ND	ND
Grab Location # 5	ND	ND	ND	ND	ND
Grab Location # 6	ND	ND	ND	ND	ND
Grab Location # 7	ND	ND	ND	ND	ND
COMPOSITE ALL LOCATIONS	ND	ND	ND	ND	ND

Sample Matrix: Soil
UNITS: PPM mg/kg
ND =Non Detection

Sample Matrix: Soil
UNITS: PPM mg/kg
ND =Non Detection

BTEX ACCEPTABLE RANGE
100 PPM SOILS

TPH ACCEPTABLE RANGE
100 PPM SOILS

SAMPLE ID / LOCATION	GRO	DRO	TPH: GRO + DRO	DATE SAMPLED	DATE ANALYZED
Grab Location # 1	28 PPM	850 PPM	850 PPM	7/6/99	7/14/99
Grab Location # 2	6.5 PPM	1900 PPM	1900 PPM	7/6/99	7/14/99
Grab Location # 3	ND	46 PPM	46 PPM	7/6/99	7/14/99
Grab Location # 4	ND	23 PPM	23 PPM	7/6/99	7/14/99
Grab Location # 5	ND	39 PPM	39 PPM	7/6/99	7/14/99
Grab Location # 6	ND	ND	ND	7/6/99	7/14/99
COMPOSITE ALL LOCATIONS	ND	240 PPM	240 PPM	7/6/99	7/14/99

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2.5 Discussion of Analytical Results:

On July 6, 1999 Clayton M. Barnhill sampled the Elk Oil Company RR State # 1 former pit area and found hydrocarbon concentrations generally less than 100 -PPM TPH. In two outlier samples **(where an oily glove was encountered while augering)**, less than 2000-PPM TPH was found. The TPH concentrations were validated in the field by the field Photoionization Detector and later confirmed by the analytical laboratory. From the operator's drilling and completion records, it is documented that the former pit had oil added during the original Manzano Oil Company's drilling and Elk Oil's completion of the well. **TPH Concentrations of 10000-PPM are common in old drilling or production pits where oil was added to the drilling mud during drilling, completion, and production of oil and natural gas.** Soils in the pit area are brown silty loam with significant gravel, cobbles and boulders. A hard caliche layer exists under the pit at less than two feet in depth. There were no areas of grossly oil stained soil or stressed vegetation on or near the pit area. Native grass is growing over the pit area. The pit has been ripped by heavy equipment to the hard caliche layer and subsequently covered. All trash and surface rubbish have been removed.

Two samples were above 100-PPM TPH. (Sample Location Number #1, and Sample Location # 2.) Both these samples were taken in an area where an oily glove was encountered during hand augering and sampling of the pit. Sample # 6, taken 3.5 feet east of sample location #1 Lab analyzed at 39-PPM TPH, showing that there is no widespread contamination on the site, or horizontal migration of TPH concentration values. The hard caliche layer and nature of the soils in the area restrict vertical migration. Soil sample # 1 had concentrations of BTEX of 1.5 PPM. (Five Soil Samples, including the composite sample, were Non—Detect for BTEX). The Volatile Organic Compound components analyzed for in the soils are not present and therefore are not a threat to groundwater. There is no great threat of horizontal or vertical migration of the TPH / DRO concentrations encountered.

In 1998, the U.S. Environmental Protection Agency ruled that wastes associated with exploration, development, and production of crude oil or natural gas were exempt form regulation under Subtitle C of the Resource Conservation and Recovery Act.

Along with this ruling the, the U.S. Environmental Protection Agency created lists of wasted related to oil and natural gas exploration, development, and production that were exempt from Subtitle C regulation. The key defining criteria as to where a given waste is exempt or not exempt lies in the waste's application to the exploration, development, or production of oil or natural gas. Common examples of exempt Oil and Gas wastes are as follows (Modified from EPA, 1995):

Produced water, drill cuttings, rigwash materials, drilling fluids, well completion, treatment, and stimulation fluids, workover wastes, pit sludges, waste crude oil from primary field operations, and production well blowdown ejection wastes.

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The high TPH concentrations of two of the samples from the pit area were intrinsically associated with the exploration, development, and production of the RR State #1 Well by Elk Oil Company and are exempt form RCRA Subtitle C Regulation.

3.0 SUMMARY & CONCLUSIONS

The former pit of the RR State #1 has been closed since 1997. The drilling mud and associated wastes have had time to significantly dry up. With the exception of significant rainfall event, the pit area is generally dry.

The area is clean. There is no visible surface trash, or rubbish. There are no areas of gross surface oil staining or stressed vegetation. Native grass is growing on the former pit.

Soils in the pit area are brown silty loam with significant gravel, cobbles and boulders. A hard caliche layer exists under the pit at less than two feet in depth

On July 6, 1999 Clayton M. Barnhill sampled the Elk Oil Company RR State # 1 former pit area and found hydrocarbon concentrations generally less than 100 -PPM TPH. In two outlier samples (where an oily glove was encountered while augering), less than 2000-PPM TPH was found. . The TPH concentrations were validated in the field by the field Photoionization Detector and later confirmed by the analytical laboratory. From the various operators' drilling and completion records, it is documented that the former pit had oil added during the completion of the well. TPH Concentrations of 10000-PPM are common in old drilling or production pits where oil was added to the drilling mud during drilling, completion, and production of oil and natural gas.

Two samples were above 100-PPM TPH. (Sample Location Number #1, and Sample Location # 2.) Both these samples were taken in an area where an oily glove was encountered during hand augering and sampling of the pit. Sample # 6, taken 3.5 feet east of sample location #1 analyzed at 39-PPM TPH showing that there is no widespread contamination on the site, or horizontal migration of TPH concentration values. None of the soil samples obtained had any concentrations of BTEX greater than 1.5 PPM. (Seven samples, including the composite sample, were Non-Detect for BTEX) There is no great threat of horizontal or vertical migration of the TPH / DRO concentrations encountered

A new water well was drilled on the Pearce Ranch on 6/5/98 in the SW ¼ of the SE ¼ of Section 7, Township 11 South Range 33 East NMPM. (State Engineer's Office, Roswell District Office, well location described as 11.33.7.4330) Glenn's Water Well Service of Tatum, New Mexico, drilled the well. Total depth is 125 feet. Water producing sand interval was encountered at 65'-122' feet. According to the drilling Log:; 0'-27' feet was soil and caliche, 28'-65' feet was sand, 65'-122' feet water sand and 122' –125 feet was red clay. The casing was perforated from 65'-125' feet. **The Pearce Ranch Trust drilled this new water after Mr. Pearce's request for assistance from the NMOCD District I Office, Mr. Price's field examination of the property in 1997, and subsequent pit closure.**

The horizontal distance of the closed pit from all water sources and private, domestic water sources is greater than 1000 feet.

The horizontal distance of the closed pit from downgradient surface water bodies is greater than 1000 feet.

The high TPH concentrations of two of the samples from the pit area were intrinsically associated with the exploration, development, and production of the RR State #1 Well by Elk Oil Company and are exempt form RCRA Subtitle C Regulations.

The Ranking score for NMOCD Unlined Surface impoundment Closure Guidelines for pit closure is 10.

The Pit Closure Report for RR State # 1should be filed and the pit immediately closed by the NMOCD.

No further remedial action is warranted or needed.

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STATEMENT OF QUALIFICATIONS:

Clayton M. Barnhill, Consulting Geologist / Hydrogeologist

EDUCATION:

40 Hour OSHA Health and Safety Training
8 Hour Hazardous Materials Refresher / Supervisor
Confined Space Entrant / Attendant

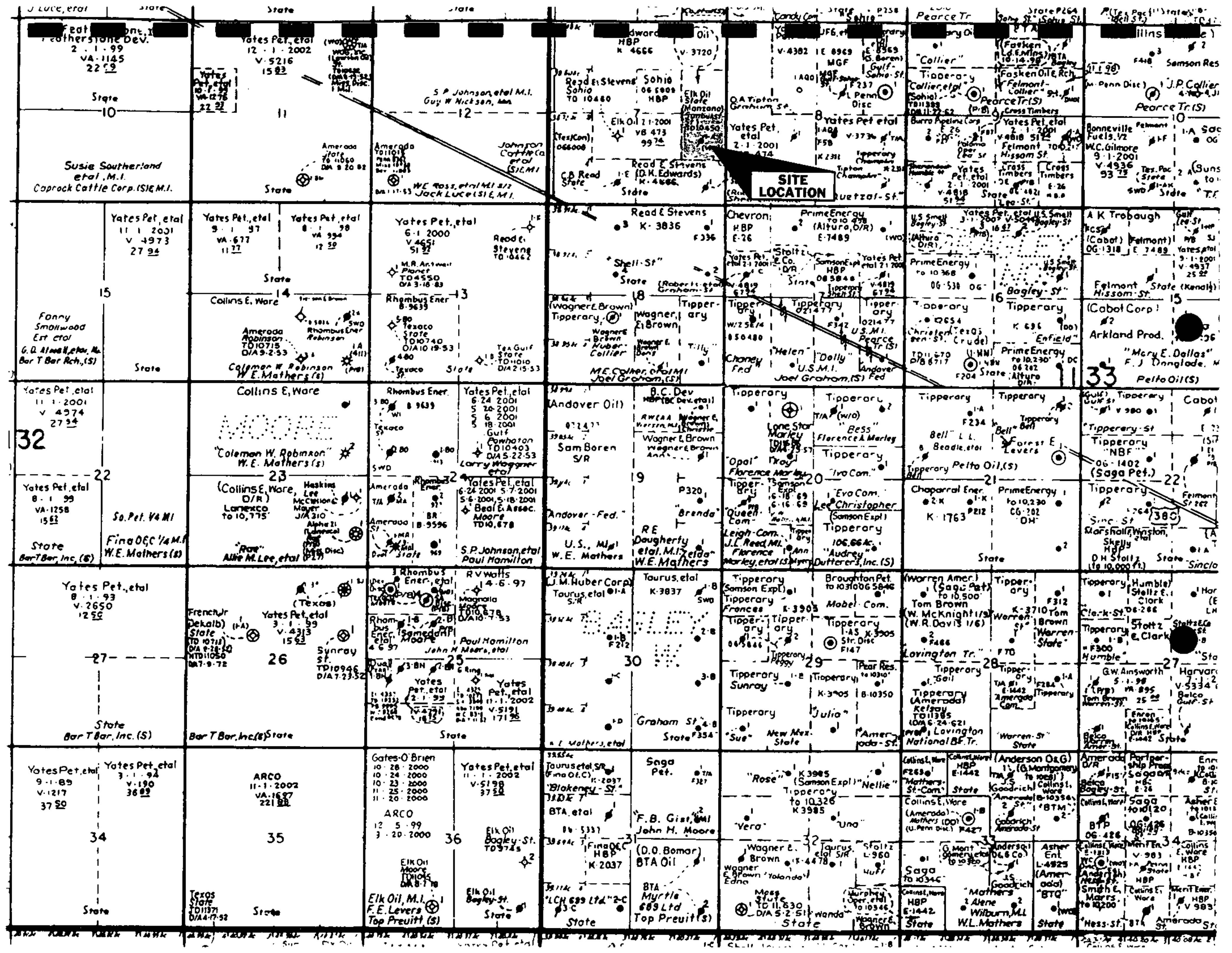
Oklahoma State University Graduate School of Geology 9 Graduate Credit Hours	Ground-Water Hydrology and Contamination Program, 1993 3.7 GPA
University of Arizona	B.Sc. Geochemistry, 1980

REGISTRATION:

American Institute of Professional Geologists, Certified Professional Geologist # 7145
New Mexico Environment Department UST Bureau Certified Scientist # 246
Wisconsin Division of Safety & Buildings (Petroleum Environmental Cleanup Fund)
PECFA Consultant # 261265
State of Wyoming Professional Geologist No. PG-3072

PROFESSIONAL EXPERIENCE:

Mr. Barnhill has 18 years of total geological experience, domestically and internationally, supervising exploration and drilling programs for minerals, oil and gas, and environmental site assessment and remediation. Mr. Barnhill completed Oklahoma State University's, graduate school program, *Practical Approaches to Ground-Water Hydrology and Contamination*, in August of 1993. Since that time, Mr. Barnhill has prepared several Phase I, II, and III reports, and completed several Phase II and III investigative and redmediation environmental drilling and recovery projects under the guidelines of the New Mexico and Texas Environment Departments and the US EPA in southeast New Mexico and west Texas. Various clients include; Cypress Engineering Services, Freese and Nichols, Berry Land and Cattle Company, The Alamo Band Navajo Nation, Hi - Pro Feeds, Queen Oil and Gas Company, Enron Oil and Gas Company, Transwestern Pipeline Company, Navajo Refining Company, Amoco Pipeline Company, The NMED, The FAA, The Town of Silver City, Waide Construction Company, Wakefield Oil Company, Tri-City Landfill Grant County, NM, Nations Bank, First Federal Savings Bank, Camp Dresser, & Mckee, Intera, Daniel B. Stephens & Associates, Souder Miller & Associates, MBF Services, Clayton Environmental Services., Soil Investigations, Inc., Harding Lawson Associates, Century 21 Real Estate, US Army Corp. of Engineers, Nature's Dairy, Baca Linda Dairy, Break-Away-Dairy, Sundance Dairies, Sand Creek Consultants, Bascor Environmental, RESPEC / Inc., SEMS Inc., and Coldwell Bankers.


SITE LOCATION
Susie Southerland etal, M.I.
Caprock Cattle Corp.(S)&M.I.
S.P. Johnson, etal M.I.
Guy W Nickson
Johnson Cattle Co. etal (S)&M.I.
W.E. Ross, etal M.I. 1/2
Jack Luce (S) & M.I.
Read & Stevens
Sohio
Elk Oil
C.B. Read State
Read & Stevens (D.K. Edwards)
Yates Pet. etal
Pearce Tr.
Tipperary
Collier etal
Fasken Oil & Rch.
Bonneville Fuels
W.C. Gilmore
Felmont
Hissom St.
Pearce Tr. (S)
Fanny Smallwood Est. etal
Bar T Bar Rch. (S)
Collins E. Ware
Amerada Robinson
Coleman W. Robinson
W.E. Mathers (S)
Rhombus Ener.
Texaco
Tex Gulf State
Shell St.
Wagner & Brown
Tipperary
M.E. Colher, etal M.I.
Joel Graham (S)
Chevron
PrimeEnergy
Stoltz & Co.
U.S.M.I.
Helen
Dolly
Choney Fed
Andover Fed
A.K. Trobaugh
Cabot Corp.
Arkland Prod.
Mary E. Dallas
F.J. Danglade
Pelto Oil (S)
Collins E. Ware
Yates Pet. etal
Powhaton
Larry Wagner etal
Beal & Assoc. Moore
S.P. Johnson, etal
Paul Hamilton
Andover Oil
Sam Boren S/R
B.C. Dev
U.S., M.I.
W.E. Mathers
R.E. Dougherty etal M.I.
Lone Star Marley
Bess
Florence & Marley
Opal
Leigh Com.
J.L. Reed, M.I.
Lee Christopher
Evo Com.
Ivo Com.
Audrey Dutterers, Inc. (S)
Bell
Forest E. Levers
Pelto Oil (S)
Chaparral Ener.
Saga Pet.
Marshall & Winston, etal
Skelly
D.H. Stoltz
Fina OE C 1/4 M.I.
W.E. Mathers (S)
So. Pet. V4 M.I.
Allie M. Lee, etal
French Jr.
Dekalb
Sunray St.
Bar T Bar, Inc. (S)
J.M. Huber Corp.
Taurus, etal
Graham St.
Tipperary
Frances
Mobel Com.
Broughton Pet.
Warren Amer.
Tom Brown
W. McKnight
W.R. Davis
Lovington Tr.
Lovington National BF. Tr.
Kelsay
Humble
Stoltz E. Clark
G.W. Ainsworth
Harvard
Belco Gulf St.
Gates-O'Brien
ARCO
Elk Oil, M.I.
F.E. Levers
Top Preuitt (S)
Texas State
Saga Pet.
F.B. Gist, M.I.
John H. Moore
D.O. Bomar
BTA Oil
BTA Myrtle 689 Ltd
Top Preuitt (S)
LCH 689 Ltd.
Rose
Nellie
Vera
Uno
Wagner E. Brown
Wanda
Anderson O&G
Collins E. Ware
Mathers St. Com.
Goodrich
Amerada
Saga
Mathers
Alene Wilburn, M.I.
W.L. Mathers
Smith E. Marrs
Asher Ent.
BTO
Amerada St.
Hess St.
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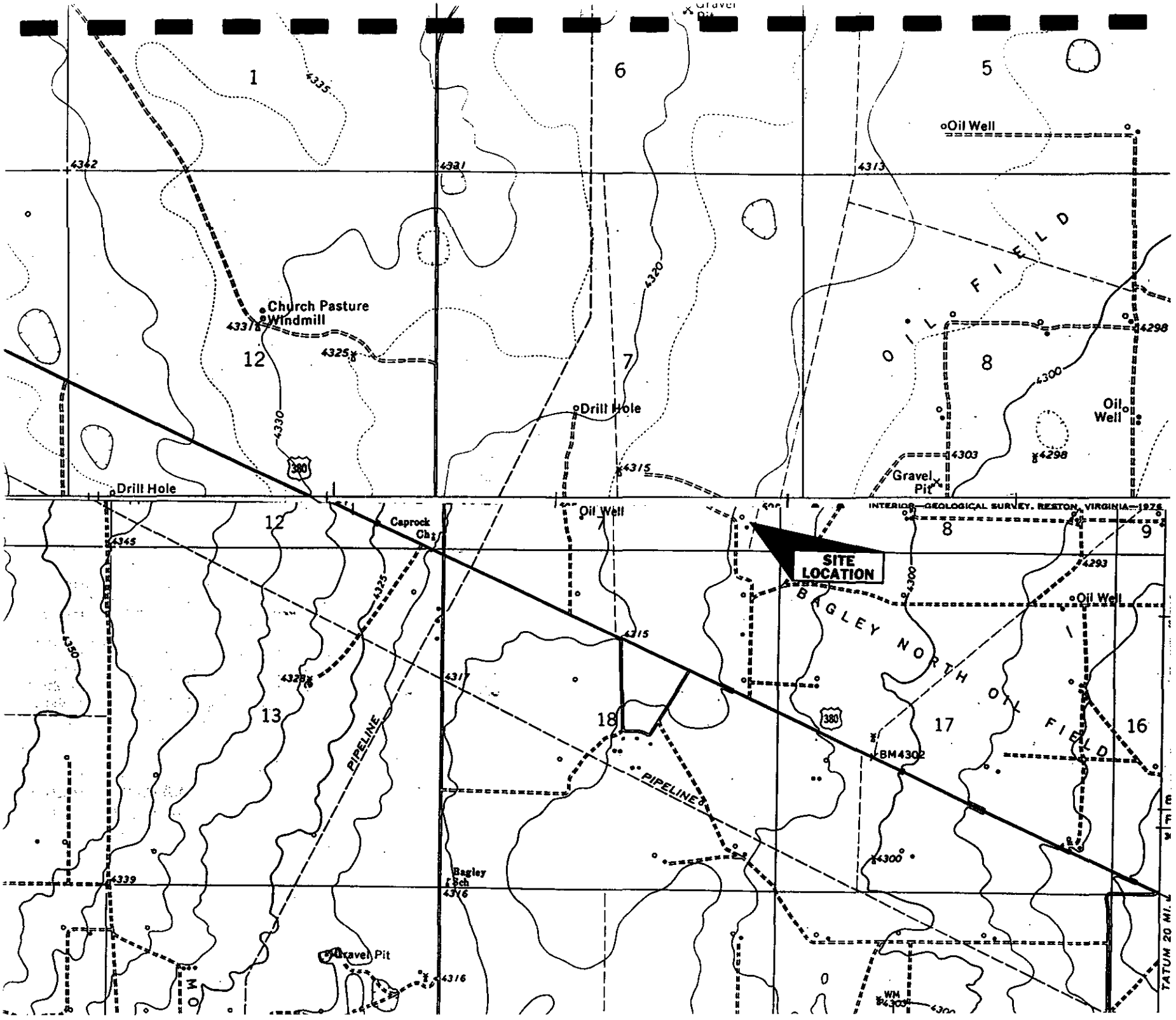
T.11 S. R.33 E. NMPM.
SITE LOCATION
BAGLEY NORTH OIL FIELD
Church Pasture Windmill
Drill Hole
Oil Well
Gravel Pit
Caprock Ch.
PIPELINE
Bagley Sch
BM4302
INTERIOR—GEOLOGICAL SURVEY, RESTON, VIRGINIA—1978
TATUM 20 MI.

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION
HOBBS DISTRICT OFFICE

POST OFFICE BOX 1980
HOBBS, NEW MEXICO 88241-1980
(505) 393-6161

NMOCD INTER-OFFICE CORRESPONDENCE

TO: Jerry Sexton-NMOCD District I Supervisor

From: Wayne Price-Environmental Engineer

Date: March 13, 1997

Reference: Field Trip Report on February 21, 1997.

Subject: Pearce Trust Ranch- Rickey Pearce operator/owner

Comments:

Mr. Pearce had requested assistance from the NMOCD District I office to sample ground water from some of the ranch water wells and to inspect some of the oil & gas operations in and near the area of his ranch operations.

As indicated to me, Mr. Pearce's primary concern is ground water contamination from oil & gas activities which will or have affected his ranch operations and future value of his property. He is requesting that the NMOCD ask the operators to clean up their leaks and spills to protect his ground water and to protect his stock and wildlife in the area.

Please find below my findings, conclusions, and recommendations for this area.

Pearce Ranch Water Wells:

1. se/4 nw/4 9-11-33; Sampled old well bore using PE bailer. Water is clear, no olfactory, TDS values were 1400-1700 umhos, Chlorides were 710 ppm. Depth to water is approximately 30-40 feet deep. Well was not purged and only the top was sampled. According to Mr. Pearce this well was contaminated a number of years ago and they had to quit using it as a stock tank.

2. Second well sampled was located west of the above well. Sampled with PE Bailer. Depth to water is approximately 30-33ft deep. This water was contaminated with black suspended solids with a strong sewage smell. There was also some hair found in this water, possibly from a dead animal. The TDS was measured and found to be around 600 umhos.

I recommend that NMOCD copy Mr. Pearce on this correspondence or provide him information as how me may obtain this information for his records.

Elk Oil Location:

Mr. Pearce showed me an active open unlined pit (un-netted) at the Elk Oil Co. RR St. #1 sec 7-Ts11s-R33e. This pit contained oil, BS&W, and solid debris, buckets, etc. Mr. Pearce indicated this is a relative new pit. The usage of this type of pit appears to violate NMOCD rule 18. Took Pictures.

On February 27, 1997 I received a call from Mr. Pearce indicating a contractor was covering the pit as is without removing any of the oily material.

On March 6, 1997 I inspected the covered pit. I took a sample three feet below the surface of the pit using an EPA type trier sample device and found free water/oil. Ran a BTEX headspace test using a PID (photoionization detector) and the results were 1225 ppm which is twelve times the limits set in the guidelines. As noted in the water well sampling the ground water in this area is quite shallow.

Conclusions/recommendations:

The NMOCD District I office has deferred this pit closure to the NMOCD Environmental Bureau. It is my understanding that Mr. Olson of the NMOCD Environmental Bureau is handling the closure of this pit. Mr. Olson can be contacted at 505-827-7154.

cc: Rickey Pearce-Ranch Owner
Gary Wink-NMOCD District I Field Rep. II
Roger Anderson-Environmental Bureau Chief
Bill Olson-NMOCD Hydrogeologist-Environmental Bureau
NMOCD Environmental files

attachments-2 spill reports.
copy of pictures.

WELLPRO
GEOLOGICAL SERVICES

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(505) 622-5234
(505) 393-0030
MOBILE UNIT 2424

PROPERTY OF Permian Basin Petroleum Association Inc. ROSWELL, N.M. 88201

DAVID PETROLEUM CORP
116 West First
Roswell NM 88201

COMPANY MANZANO OIL CORP.
WELL SUNBURST "A" STATE COM
FIELD NORTH BAGLEY
LOCATION 1874' FSL & 766' FEL S
COUNTY LEA STA
ELEVATION: GL 4313.5
DEPTH LOGGED 8400' T
DATE LOGGED NOV. 22, 1984 T
WELLSITE GEOLOGIST M.C. JONES

ABBREVIATIONS

ew Bit
Diamond Core Bit
d Return
ulated Out
DST - Drill Stem Test
TG - Trip Gas
CG - Connection Gas
GOL - Geologist On Location

LITHOLOGY

SAND = LIMESTONE = GRANITE WASH =
SILTSTONE = DOLOMITE = GRANITE =
SHALE = CHERT =
ANHYDRITE or GYPSUM = COAL =

RATE OF PENETRATION ☒ FT/HR ☐	Por T F G	LITHOLOGY	Leached Unit T F G	% OIL FLUOR 100	TOTAL GAS	CHROMA ANA
EDTNO 8-REED (RH) E248[J 14 4 B, NM /992' 20 13 5/8" csg at 372' 8 5/8" csg at 5710' D.S.- 1/4° at /992					BEGAN ONE MAN LOGGING 2:00PM 11/22/84 MUD TYPE: SALT GEL/OIL	GASES AND ROUGHNE LAGGED TO CORRECT

WELLPRO
GEOLOGICAL SERVICES

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(505) 622-5234
(505) 393-0030
MOBILE UNIT 2424

PROPERTY OF Permian Basin Petroleum Association, Inc. ROSWELL, N.M. 88201

DAVID PETROLEUM CORP.
116 West First
Roswell NM 88201

COMPANY MANZANO OIL CORP.
WELL SUNBURST "A" STATE COM. NO. 1
FIELD NORTH BAGLEY
LOCATION 1874' FSL & 766' FEL SECTION 7 TW
COUNTY LEA STATE NEW MEXICO
ELEVATION: GL 4313.5 KB 4325.5
DEPTH LOGGED 8400' TO 10,450'
DATE LOGGED NOV. 22, 1984 TO DEC. 9, 1984
WELLSITE GEOLOGIST M.C. JONES

ABBREVIATIONS

NB - New Bit	DST - Drill Stem Test
DCB - Diamond Core Bit	TG - Trip Gas
NR - No Return	CG - Connection Gas
CO - Circulated Out	GOL - Geologist On Location

LITHOLOGY

SAND = LIMESTONE = GRANITE = WASH
SILTSTONE = DOLOMITE = GRANITE =
SHALE = CHERT =
ANHYDRITE or GYPSUM = COAL =

GAS SEP

Methane — 1
Ethane — 2
Propane — 3
Butane — 4

RATE OF PENETRATION MIN/FT ☒ FT/HR ☐

Por T F G

LITHOLOGY

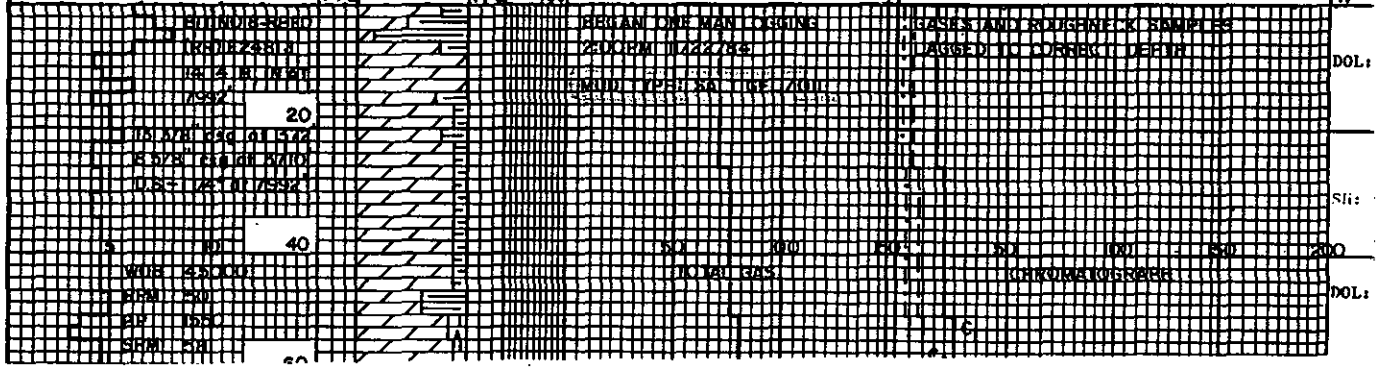
Leached Unit T F G

% OIL FLUOR 100

TOTAL GAS

CHROMATOGRAPH ANALYSIS

DAVID PETROLE
116 West First
Roswell, NM 8
W



Dresser Atlas

DRESSER

COMPENSATED DENSILOG®
COMPENSATED NEUTRON
GAMMA RAY

FILE NO.

API NO.

Company MANZANO OIL CORPORATION

Well SUNBURST "A" ST COM NO.

Field NORTH BAGLEY

County LEA State N.M.

Location:
1874' FSL & 766' FEL
UNIT I
SEC. 7 T-11-S R-33-E

Sec 7 Twp 11-S Rge 33-E

OTHER SERVICES
DLL-MLL-GR-

PERMANENT DATUM GROUND LEVEL ELEV. 4313.5

LOGGING MEASURED FROM K.B. 12 FT. ABOVE P.D.

DRILLING MEASURED FROM K.B.

ELEVATIONS

KB	4325.5'
DF	4324.5'
GL	4313.5'

DATE	DECEMBER 9, 1984	
RUN	1	
SERVICE ORDER	71434	
DEPTH-DRILLER	10450'	
DEPTH-LOGGER	10438'	
BOTTOM LOGGED INTERVAL	10435'	
TOP LOGGED INTERVAL	SURFACE	
CASING - DRILLER	8.625 IN. @ 3710'	
CASING - LOGGER	3705'	
BIT SIZE	7.875 IN.	
TYPE FLUID IN HOLE	SALT GEL / STARCH	
DENSITY AND VISCOSITY	9.4	45
PH AND FLUID LOSS	7.0	10.4
SOURCE OF SAMPLE	FLOWLINE	
RM AT MEAS. TEMP.	.610 OHM-M @ 50 DEG. F.	
RMF AT MEAS. TEMP.	.457 @ 50	
RMC AT MEAS. TEMP.	- @	
SOURCE OF RMF / RMC	MEAS.	-
RM AT BHT	.202 OHM-M @ 151 DEG. F	
TIME SINCE CIRCULATION	4.5 HRS.	
MAX. REC. TEMP. DEG. F	151	
EQUIP. NO. / LOC.	HL-6269	HOBBS, NM

DAVIS PETROLEUM CORP.
116 West First
Roswell, NM 88201

PROPERTY OF
Roswell Energy Library, Inc.
ROSWELL, NM 88201

ELK OIL **STATUS:** OIL
1 RR STATE (API 30-025-29004-0001)

LOC'N: **SEC 7 T11S R33E** 1874 FSL 766 FEL SEC, 4 MI SE CAPROCK, NM ; **(VERTICAL)**
OWWO: OLD INFO: FORMERLY MANZANO OIL 1 SUNBURST A STATE CO. ELEV 4314 GR. SPUD 11/2/84. 13 3/8 @ 373 W/375 SX. 8 5/8 @ 3710 W/1600 SX. LOG TOPS: WOLFCAMP 8490, PENNSYLVANIAN 9608, STRAWN 10148 OTD 10450. COMP 12/12/84. D&A; **WELL ID CHANGES:** LEASE NAME CHGD FROM STATE

SPUD: 02/26/96 **COMP:** 05/13/96 **EL:** 4314 GR **DTD:** 10450 (STRAWN) **PBTD:** 10443 **CONTR:** NOT RPTD

CSG/LNR/TBG: 5 1/2 @ 10450 W/600 SX. 2 7/8 @ 10307;

RESULT: IPF 45 BO, 45 MCFGPD, 200 BWPD, GTY 42, GOR 1000 PROD ZONE - PERMO-PENNSYLVANIAN 10081-10373 NO CORES OR TESTS RPTD

COMP INFO: DRLG COMMENTS: DO TO 10450 CSG 5 1/2 CSG **PRODUCING INTERVAL(S) DATA: PERF** (PENNSYLVANIAN): 10081-10373. W/28 SHOTS, ACID (10081-10373) W/ 3000 GALS. 20% NEFE, RESV: PERMO-PENNSYLVANIAN

COPYRIGHT 1996 PETROLEUM INFORMATION CORPORATION **DATE** 07/01/96**CARD #00005-N MEX**

LEA COUNTY NEW MEXICO BAGLEY, N. FIELD

Well: MANZANO OIL 1 Sunburst "A" State Com. Result: D&A D

Loc'n: 4 mi SE/Caprock; SEc 7-11S-33E; 1874' FSL 766' FEL of Sec;

Spud:11-2-84;Comp:12-12-84;Elev:4314'Grd;TD:10,450'Strawn;
Casing:3-3/8"@373'/375sx;8-5/8"3710'/1600sx;
Comp Info: DST (Wolfc) 9425-9530', rec 20' SOCM + 440' Mud, Times & Pressures NR; DST (Penn) 10,164-10,218', rec 180' FW + 347' HGCM w/tr oil, times & pressures not reported; No Cores; DST (Penn) 10,205-450',rec 372' HO&GCM + 1302' FW (Splr rec 1600 cc's wtr + 50 cc's oil), times and pressures NR;DST (SP)(Penn) 10,292-302', rec 280' GCM w/tr oil, times & pressures NR; Ran CNL, CDL, GRL, DLL, MLAT; C/WEK Drlg. #2.
Tops:(EL) Rustler 1750', Salt 1830', Yates 2450', Queen 3100', San Andres 3700', Glorieta 5122', Blinebry 5200', Tubb 6542', Drinkard 6685', Abo 7366', Wolfc 8490', Penn 9608', Strawn 10,148'.
API No:30-025-29004

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Date: 2-6-85 Card No.: 16 bc

Kermit-Wink complex, 0 to 3 percent slopes (KE).—This soil complex is about 70 percent Kermit fine sand, about 20 percent Wink fine sand, and about 10 percent inclusions of Active dune land, Maljamar, Palomas, Berino, Cacique, and Pyote soils.

These are deep sandy soils subject to severe soil blowing. The landscape is one of hummocks and dunes, resulting from the accumulation and removal of sands. The Kermit soil is on stabilized sand dunes, and the Wink soil is in depressions.

Except for the narrower range in slope, the Kermit soil is similar to that in Kermit-Palomas fine sands, 0 to 12 percent slopes. The Wink soil is similar to Wink fine sand (see Wink Series) except that in places the surface layer and subsoil are eroded and the substratum of white, limy sandy loam is exposed.

This complex is used only as range and wildlife habitat. Kermit soil: Dryland capability unit VIIe-10; Sand Hills (SD) range site; wildlife habitat group H. Wink soil: Dryland capability unit VIIe-10; Deep Sand range site; wildlife habitat group H.

Kermit soils and Dune land, 0 to 12 percent slopes (KM).—This mapping unit is in the southern part of Lea County. It is about 45 percent Kermit soils, 45 percent Active dune land, and about 10 percent Maljamar, Palomas, Wink, and Pyote soils. The Kermit soil is hummocky and undulating and is adjacent to, or surrounds, the Dune land areas. Some areas consist almost entirely of Kermit soil, and some are mostly Dune land.

Dune land consists of large barren sand dunes, or hills and ridges of wind-deposited sands that actively shift and drift with the wind. It is described under the heading "Active Dune Land." The Kermit soil is similar to that in Kermit-Palomas fine sands, 0 to 12 percent slopes, but its surface layer is fine sand to coarse sand.

These soils are used as range, wildlife habitat, and recreational areas. Kermit soil: Dryland capability unit VIIe-10; Sand Hills (SD) range site; wildlife habitat group H. Dune land: Dryland capability unit VIIIe-1; wildlife habitat group A.

Kimbrough Series

The Kimbrough series consists of well-drained loams, gravelly loams, or gravelly fine sandy loams overlying indurated caliche at a depth of 6 to 20 inches. These soils formed in wind-deposited and water-deposited sediments on uplands in the northern half of Lea County. Slopes are 0 to 3 percent. The vegetation consists of short and mid grasses and shrubs. The average annual precipitation is 12 to 15 inches, the average annual air temperature is 58° to 60° F., and the frost-free season is 195 to 205 days. Elevations range from 3,600 to 4,200 feet. Kimbrough soils are associated with Lea, Stegall, Portales, and Arvana soils.

Typically, the surface layer is dark grayish-brown gravelly loam about 6 inches thick. In places it is loam. The substratum is white indurated caliche (fig. 6).

Kimbrough soils are used for range, wildlife, and limited irrigated farming. They are a source of crushed caliche for use in construction.

Kimbrough gravelly loam, 0 to 3 percent slopes (Kg).—This soil is on prairie uplands. It is known locally as "scabland." Included in mapping are areas of Stegall, Lea, Slaughter, and Arvana soils.

Representative profile of Kimbrough gravelly loam, on north edge of a caliche pit, SW¼NE¼ sec. 16, T. 17 S., R. 37 E.:

A11—0 to 2 inches, dark grayish-brown (10YR 4/2) gravelly loam, very dark grayish brown (10YR 3/2) when moist; moderate, thin, platy structure; slightly hard, friable when moist, sticky and slightly plastic when wet; few caliche fragments on the surface and intermixed; mildly alkaline (pH 7.8), slightly calcareous; abrupt boundary. 2 to 6 inches thick.

A12—2 to 6 inches, dark grayish-brown (10YR 4/2) gravelly loam, very dark grayish brown (10YR 3/2) when moist; moderate, medium, subangular blocky structure; slightly hard, very friable when moist, sticky and slightly plastic when wet; many, sharp-angled, hard caliche fragments intermixed; mildly alkaline (pH 7.8), strongly calcareous; abrupt boundary. 4 to 10 inches thick.

Ccam—6 inches, white (10YR 8/1), indurated caliche, fragmental and indurated to a depth of about 30 inches, grading to weakly cemented, white caliche below. Several feet to many feet thick.

The A horizon ranges from gravelly loam to gravelly fine sandy loam in texture and from 7.5YR to 10YR in hue. It is dark grayish brown when dry and very dark grayish brown when moist. In areas where this horizon is gravelly, the depth to indurated caliche is 6 to 16 inches. The caliche is either fragmentary or massive.

This soil is moderately permeable. Runoff is slow to medium. Water intake is moderate, and the available water holding capacity is 1 to 2 inches. Roots penetrate to a depth of 6 to 16 inches. Erosion is a slight hazard.

This soil is too shallow to be suitable for crops. It is used for range and wildlife. It is also a source of crushed caliche for use in construction. Dryland capability unit VIIs–1; Shallow (HP) range site; wildlife habitat group K.

Kimbrough gravelly loam, 0 to 3 percent slopes (KO).—This soil is on low ridges in the northern part of Lea County. Included in mapping are areas of Lea, Sharvana, Stegall, and Slaughter soils.

This soil is used as range and wildlife habitat. It is also a source of crushed caliche for use in construction. Dryland capability unit VIIs-1; Shallow (HP) range site; wildlife habitat group K.

Kimbrough loam, 0 to 1 percent slopes (Kb).—This soil is in narrow swales, in small playas, and on low broad ridges between swales. It forms a narrow border between Lea loam in the swales and the adjacent sloping Kimbrough gravelly loam. It is underlain by indurated caliche at a depth of 10 to 20 inches. Included in mapping and making up about 15 percent of the mapping unit are areas of Sharvana, Lea, and Stegall soils.

This soil is similar to Kimbrough gravelly loam, 0 to 3 percent slopes, but its surface layer is loam about 16 inches thick. The available water holding capacity is 1.5 to 3.5 inches. Roots penetrate to a depth of 10 to 20 inches.

This soil is used as irrigated cropland, wildlife habitat, recreational areas, and range. Irrigated capability unit IVs-2; dryland capability unit VIs-2; Shallow (HP) range site; wildlife habitat group D.

Kimbrough loam, 1 to 3 percent slopes (Kc).—This soil is on slopes between ridges and swales in the northern

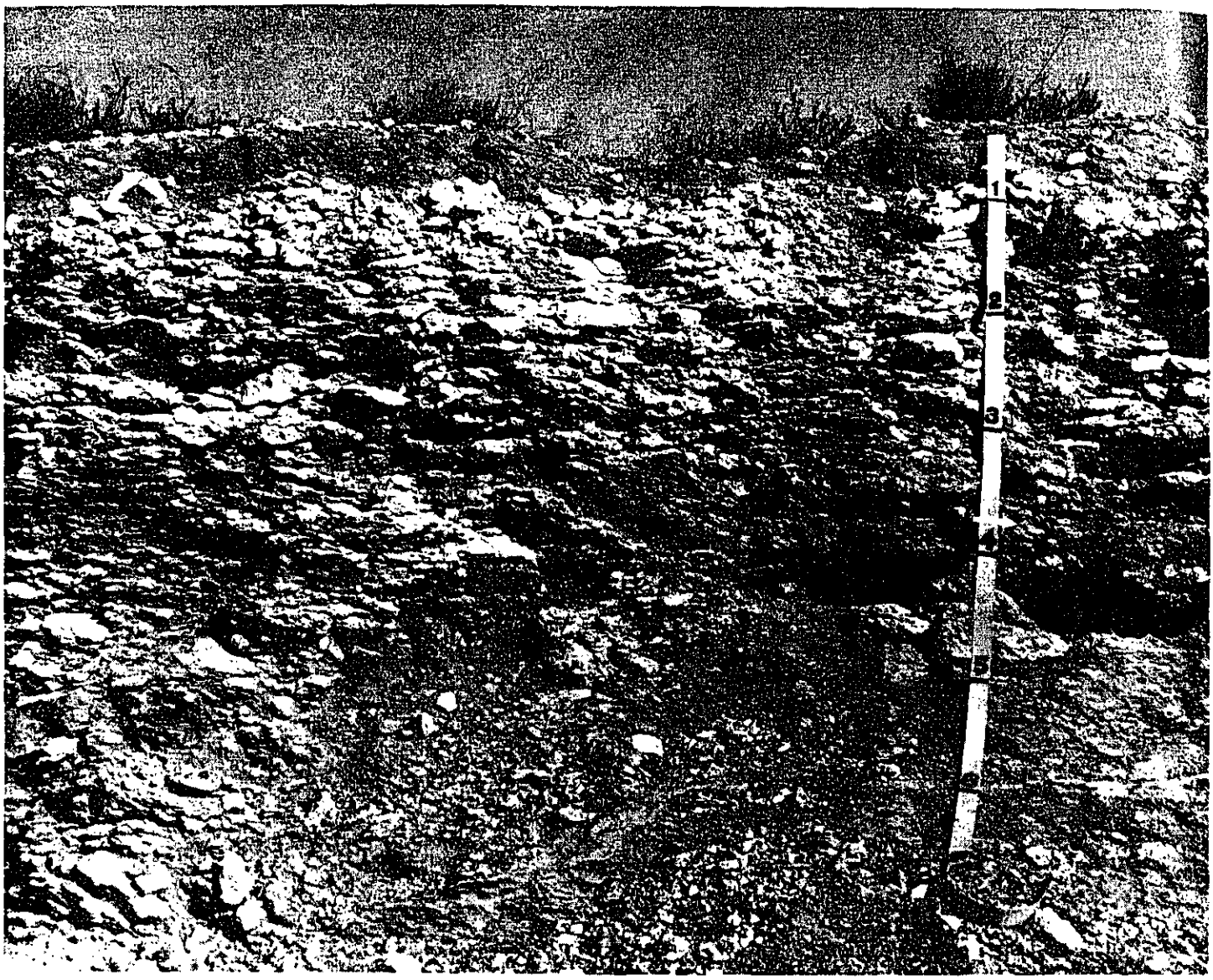


Figure 6.—Profile of Kimbrough gravelly loam, 0 to 3 percent slopes. The thin surface layer rests on beds of white indurated caliche.

part of Lea County. Included in mapping are areas of Sharvana soils and Kimbrough gravelly loam, 0 to 3 percent slopes.

This soil is similar to Kimbrough gravelly loam, 0 to 3 percent slopes, but its surface layer is loam about 12 inches thick. Runoff is medium. Available water holding capacity is 1.5 to 3 inches. Roots penetrate to a depth of 10 to 18 inches.

This soil is used as range and wildlife habitat. Dryland capability unit VIs-2; Shallow (HP) range site; wildlife habitat group K.

Kimbrough loam, 0 to 3 percent slopes (KN).—This soil is in the northern part of Lea County. Included in mapping are small areas of Sharvana, Lea, and Stegall soils and Kimbrough gravelly loam, 0 to 3 percent slopes.

This soil is similar to Kimbrough gravelly loam, 0 to 3 percent slopes, but its surface layer is loam about 14 inches thick. Available water holding capacity is 1.5 to 3.5 inches. Roots penetrate to a depth of 10 to 20 inches.

This soil is used as range and wildlife habitat. Dryland capability unit VIs-2; Shallow (HP) range site; wildlife habitat group K.

Kimbrough-Lea complex (0 to 3 percent slopes) (Kh).—This complex is about 60 percent Kimbrough gravelly loam, 25 percent Lea loam, 10 percent inclusions of Stegall and Arvana soils, and 5 percent inclusions of Slaughter and Sharvana soils. In places the Kimbrough and Lea soils are about equally distributed.

The generally dominant Kimbrough soil is on slightly convex areas or on low knolls. It is very shallow over a thick bed of indurated caliche. The Lea soil has a dark grayish-brown to brown surface layer and a grayish-

brown to brown loam subsoil (see Lea Series). Indurated caliche is at a depth of 20 to 40 inches.

The soils in this complex are used as range, wildlife habitat, and recreational areas. They are also a source of caliche for use in road construction. Kimbrough soil: Dryland capability unit VIIs-1; Shallow (HP) range site; wildlife habitat group K. Lea soil: Dryland capability unit VIIs-1; Loamy range site; wildlife habitat group K.

Kimbrough-Lea complex (0 to 3 percent slopes) (KU).—In some areas this complex is about 50 percent Kimbrough gravelly loam and 25 percent Lea loam, and in a few about 40 percent Kimbrough soils and 40 percent Lea soils. It is 20 to 25 percent inclusions of Stegall, Arvana, Slaughter, and Sharvana soils. The Kimbrough soil is gently sloping and is on the tops and sides of low ridges. The Lea soil is nearly level and is in swales between the ridges.

The soils in this complex are used as range, wildlife habitat, and recreational areas. They are also a source of caliche for use in construction. Kimbrough soil: Dryland capability unit VIIs-1; Shallow (HP) range site; wildlife habitat group K. Lea soil: Dryland capability unit VIIs-1; Loamy range site; wildlife habitat group K.

Kimbrough-Sharvana complex (0 to 3 percent slopes) (Ks).—This complex is on smooth broad prairies in association with the Kimbrough-Lea complex in the northern part of Lea County. It is about 60 percent Kimbrough gravelly loam, 25 percent Sharvana fine sandy loam, and 15 percent inclusions of Slaughter, Stegall, and Arvana soils.

The Kimbrough soil is underlain by indurated caliche at a depth of 6 to 16 inches. The Sharvana soil is similar to Sharvana loamy fine sand (see Sharvana Series), but its surface layer is fine sandy loam about 6 inches thick.

These soils are eroded in places. Soil blowing has removed most of the original surface layer in old abandoned fields and exposed caliche at the surface, or it has exposed fragments of caliche and the reddish-brown sandy clay loam subsoil of the Sharvana soil. The Kimbrough soil is on slightly elevated level areas and has a few small caliche pebbles on the mounds. The underlying caliche undulates irregularly near the surface. Runoff generally accumulates in small intermittent lakes and potholes.

These soils are used for range and wildlife and as a source of caliche. Kimbrough soil: Dryland capability unit VIIs-1; Shallow (HP) range site; wildlife habitat group K. Sharvana soil: Dryland capability unit VIIs-1; Sandy range site; wildlife habitat group K.

Kimbrough-Sharvana complex (0 to 3 percent slopes) (KX).—This complex is about 55 percent Kimbrough gravelly loam, 25 percent Sharvana fine sandy loam, and 20 percent inclusions of Slaughter, Stegall, and Arvana soils. The Kimbrough soil is gently sloping and is on the tops and sides of low ridges in the northern part of Lea County. The Sharvana soil is nearly level to gently sloping and is between the ridges. It is similar to Sharvana loamy fine sand, but its surface layer is fine sandy loam about 6 inches thick.

The soils in this complex are used for range and wildlife and as a source of caliche. Kimbrough soil: Dryland capability unit VIIs-1; Shallow (HP) range site; wildlife habitat group K. Sharvana soil: Dryland capability unit VIIs-1; Sandy range site; wildlife habitat group K.

Largo Series

The Largo series consists of well-drained, calcareous soils that have a light loam surface layer underlain by loam to clay loam. These gently sloping soils are on alluvial fans below outcrops of Triassic materials, in the southern part of Lea County. They formed in calcareous loamy alluvium. Slopes are 0 to 3 percent. The vegetation is short and mid grasses, forbs, and shrubs. The average annual precipitation is 10 to 12 inches, the average annual air temperature is 60° to 62° F., and the frost-free season is 190 to 200 days. Elevations range from 3,200 to 3,700 feet. These soils are associated with Pajarito and Palomas soils.

Typically, the surface layer is brown light loam about 6 inches thick. The next layer is reddish-brown to yellowish-red stratified loam, light silty clay loam, and clay loam about 24 inches thick. The substratum, to a depth of about 60 inches, is weak red silty and clayey shale. These soils are calcareous throughout.

Largo soils are used as range, wildlife habitat, and recreational areas. Indian artifacts can be found in this area.

Largo-Pajarito complex (0 to 3 percent slopes) (LP).—The soils in this complex formed on alluvial fans and plains and on foot slopes having outcrops of Triassic red-bed material. This complex is about 45 percent Largo loam, about 40 percent Pajarito loamy fine sand, and 15 percent inclusions of Palomas and Maljamar soils. It occurs only in the Southern Desertic Basins, Plains, and Mountains Resource Area in the southern part of Lea County.

The Largo soil is on alluvial plains and lower alluvial fans near deep gullied channels or in valley-filled channels where overflow and flooding are common after torrential rains.

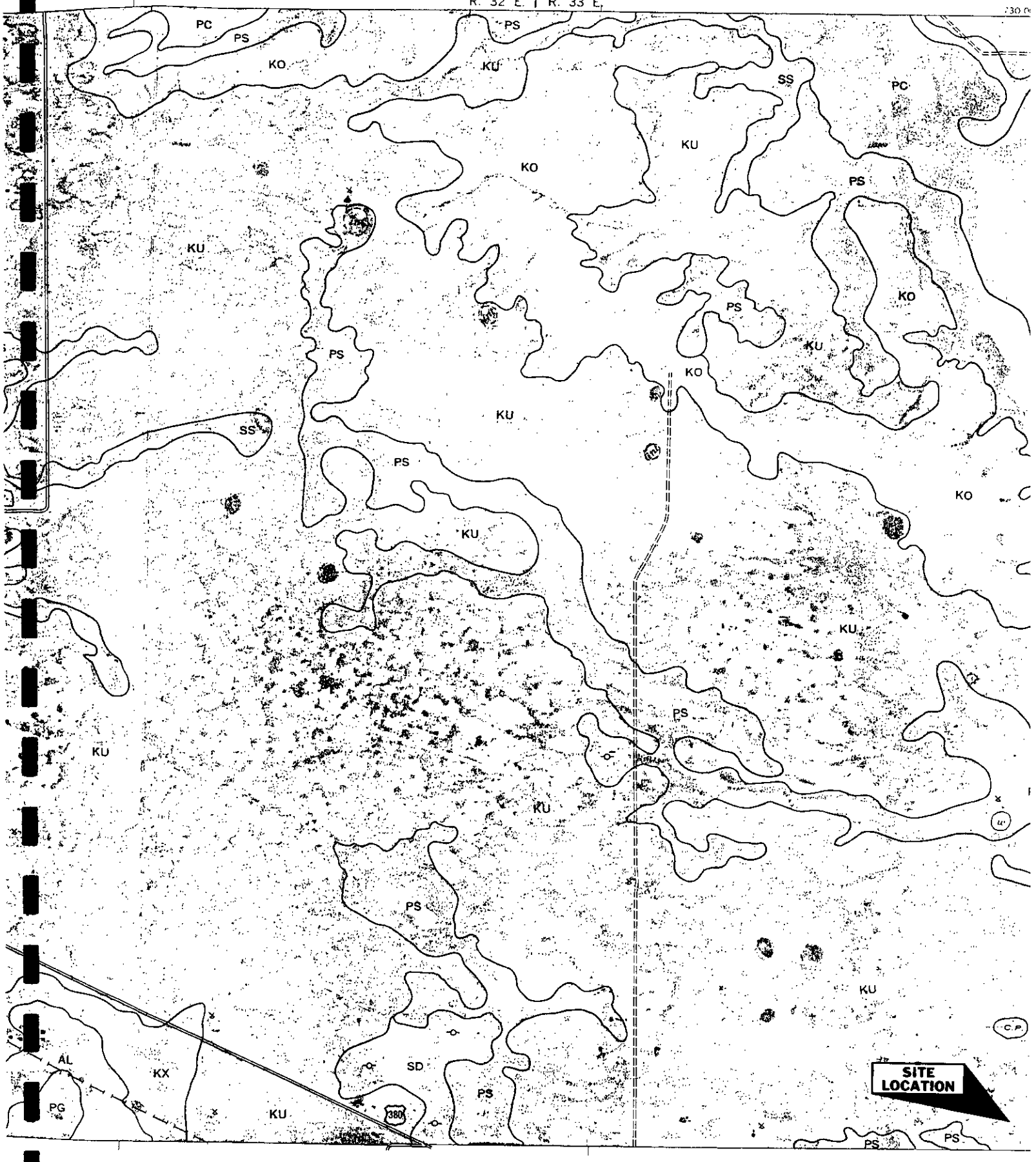
Representative profile of Largo loam in an area of Largo-Pajarito complex, one-half mile south of State Highway No. 128, northwest of Jal, about 0.3 mile east of Jal Dump grounds, sec. 24, T. 25 S., R. 36 E.:

A11—0 to 1 inch, brown (7.5YR 5/4) fine sandy loam, dark brown (10YR 4/4) when moist; weak, thin, platy structure; slightly hard, very friable when moist, slightly sticky and slightly plastic when wet; many fine roots; many fine interstitial pores; few dark organic stains; mildly alkaline (pH 7.7), slightly calcareous; abrupt boundary. 0 to 1 inch thick.

A12—1 to 6 inches, brown (7.5YR 5/5) light loam, dark brown (10YR 4/4) when moist; moderate, thick, platy and weak, fine, granular structure; soft, very friable when moist, slightly sticky and slightly plastic when wet; few fine roots; few coarse tubular pores; few organic stains; few worm casts; few root channels; few mycelia; mildly alkaline (pH 7.7), slightly calcareous; abrupt boundary. 4 to 12 inches thick.

AC1—6 to 13 inches, reddish-brown (5YR 5/4) loam, reddish brown (5YR 4/4) when moist; weak, coarse, subangular blocky and moderate, medium, granular structure; hard, firm when moist, sticky and plastic when wet; few fine roots; few small shale fragments intermixed; many worm casts; moderately alkaline (pH 7.9), strongly calcareous; clear boundary. 6 to 10 inches thick.

A COUNTY, NEW MEXICO — SHEET NUMBER 72



STATE ENGINEER OFFICE

WELL RECORD

Revised June 1972

148730

Section 1. GENERAL INFORMATION

(A) Owner of well Pearce Ranch Owner's Well No.

Street or Post Office Address West Star Box 52

City and State Tatum, New Mexico 88267

Well was drilled under Permit No. #1-10,817 and is located in the:

a. ____ ¼ ____ ¼ SW ¼ SE ¼ of Section 7 Township 11-S. Range 33-E. N.M.P.M.

b. Tract No. ____ of Map No. ____ of the ____

c. Lot No. ____ of Block No. ____ of the ____ Subdivision, recorded in ____ County.

d. X= ____ feet, Y= ____ feet, N.M. Coordinate System ____ Zone in the ____ Grant.

(B) Drilling Contractor Glenn's Water Well Service License No. WD-421

Address P.O. Box 692 Tatum, New Mexico, 88267

Drilling Began 6/5/98 Completed 6/5/98 Type tools rotary Size of hole 9 7/8 in.

Elevation of land surface or ____ at well is ____ ft. Total depth of well 125 ft.

Completed well is ☒ shallow ☐ artesian. Depth to water upon completion of well 60 ft.

Section 2. PRINCIPAL WATER-BEARING STRATA

Depth in Feet From	Depth in Feet To	Thickness in Feet	Description of Water-Bearing Formation	Estimated Yield (gallons per minute)
65	122	57	Sand	40 GPM

Section 3. RECORD OF CASING

Diameter (inches)	Pounds per foot	Threads per in.	Depth in Feet Top	Depth in Feet Bottom	Length (feet)	Type of Shoe	Perforations From	Perforations To
5½"	.250	T&C			125	none	65	125

Section 4. RECORD OF MUDDING AND CEMENTING

Depth in Feet From	Depth in Feet To	Hole Diameter	Sacks of Mud	Cubic Feet of Cement	Method of Placement

Section 5. PLUGGING RECORD

Plugging Contractor ____

Address ____

Plugging Method ____

Date Well Plugged ____

Plugging approved by:

State Engineer Representative

No.	Depth in Feet Top	Depth in Feet Bottom	Cubic Feet of Cement
1			
2			
3			
4			

FOR USE OF STATE ENGINEER ONLY 11.33.7.4330

Date Received 06/17/98

Quad ____ FWL ____ FSL ____

File No. L-10,817 Use Stock Location No. 11.33.7.4330

Sec[illegible]. LOG OF HOLE

Depth in Feet From	Depth in Feet To	Thickness in Feet	Color and Type of Material Encountered
0	1	1	soil
1	28	27	caleche
28	65	37	sand
65	122	57	water-sand
122	125	3	red-clay

Section 7. REMARKS AND ADDITIONAL INFORMATION

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described hole.

Corky [signature] Driller

INSTRUCTIONS: This form should be executed *in triplicate, preferably typewritten, and submitted to the appropriate district office* of [illegible]e State Engineer. All [illegible]ctions, except Section 5, shall be answered as completely and accurately as possible when any well is dr[illegible]d, repaired or deepe[illegible] [illegible]hen this form is used as a plugging record, only Section 1(a) and Secti[illegible] [illegible] need be completed.

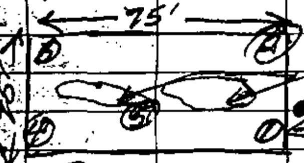
7/6/99 Elk Oil Co. Page 1 of 4

Cm Barnhill: Warm Sunny

No Wind

RR STATE #1

Met Rocky Ray @ 10:00 Am Mile Marker 206 NM Highway 380 - OCD Representative Donna Williams. Arrived Loc. @ 10:23 Hr. Sec. 7, T-11S, R33E. Unit Letter E.



PIT AREA: Very Rocky — 10% Sandy Tan brown Soil, 10% Caliche, Silty.
80% Rock - Limestone

Groundwater is Estimated to be Between 30'-55' (BGS) (Below Ground Surface)

Calibrated PID with 100 PPM Isobutylene @ 10:45 hr.

PID is Mini Rae

7/6/99 Elk Oil Co. of 1

CM Barnhill (Garmin GPS - 45XC)

GPS Position Sample #1
13S 0625771 (mud pit area oily places & debris)
UTM 3694073
Alt. 4297 Time: 11:07:18

Auger Refusal @ 1.3'

Sampled @ 11:12
PID = 1068 PPM TPH (old drilling mud)

GPS Position Sample #2
13S 0625777
UTM 3694074
Time 11:27:12
ALT. 4285

Auger Refusal @ 0.8'
Sampled @ 11:30
PID = 490.3 PPM TPH

GPS Position Sample #3
13 S 0625755
UTM 3694056
ALT. 4445 PID = 11.3 PPM TPH
Time 11:45:34

Auger Refusal @ 0.[illegible]
Sampled @ 11:50

GPS Position Sample #4
13S 0625787 Alt 436[illegible]
UTM 3694082
Time: 11:59:18

7/6/99 Elk O.L Co. page 3 of 4
[illegible]

Sample Location #4 : Continued.
Sampled @ 12:06 hr.
Auger Refusal @ 0.8'
PID = ~~113~~ 258 ppm - TPH

Sample Location #5
GPS Location : 13S ~~0625778~~ 0625788
UTM 3694015
Time: 12:19:51 ALT.: 4417
Sampled @ 12:25
Auger Refusal 0.8'
PID = 274 ppm TPH.

Sample Location 6
3.5' East of Location 1.
1.3' Deep - Sampled @
@ 12:53 ; No Oily
Gloves or staining in hole.
Auger Refusal @ 1.3'
PID = 85.5 TPH.

7/6/99 Elk Oil Co. 4 of 4

Took Composite Sample ~~of~~ (Rolled) - in bucket - will analyze all Samples for BTEX 8021B and TPH mod. 8015 Cas/Trail Geo/NMO.

Summary: Left Site 13:50.
Site is 75' x 45' old pit of oil well Drilling Operation. There is no obvious Surface contamination noted by Stained Soil or stressed Vegetation. Area is Very Rocky 80% - Very poor Soil Horizon developed.
Definite Channel in pit were drilling mud present. Oil used in drilling mud while drilling through [illegible] Formation. Sample #1 was hot - because oily mud was pulled out of hole. Other Samples low.

Hall Environmental Analysis Laboratory

July 20, 1999

Hall Environmental Analysis Laboratory
4901 Hawkins NE, Ste. A
Albuquerque, NM 87109

Elk Oil Company
P. O. Box 310
Roswell, NM 88202-0310

Dear Mr. Kelly:

Enclosed are the results for the analyses that were requested. These were done according to EPA procedures or equivalent.

Detection limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Nancy McDuffie
Assistant Laboratory Manager

Project: 9907035/Pit Sampling Elk Oil Co. RR State #1

Hall Environmental Analysis Laboratory

Client: Elk Oil Company
Project: Pit Sampling Elk Oil Co. RR #1
Project Manager: Joe Kelly
Project Number: Pit Closure Sampling Elk Oil Co.

Date Collected: 7/6/99
Date Received: 7/8/99
Sample Matrix: Soil
Date Extracted: 7/8/99

EPA Method - 8021

Units: PPM mg/kg

HEAL LAB ID	Sample ID	MTBE	Benzene	Toluene	Ethyl-benzene	Total Xylenes	BFB % Recovery	Dilution Factor	Date Analyzed
9907035-1	Grab Location #1	ND	ND	0.16	0.12	1.5	120	1	7/9/99
9907035-2	Grab Location #2	ND	ND	ND	ND	ND	108	1	7/9/99
9907035-3	Grab Location #3	ND	ND	ND	ND	ND	99	1	7/9/99
9907035-4	Grab Location #4	ND	ND	ND	ND	ND	93	1	7/9/99
9907035-5	Grab Location #5	ND	ND	ND	ND	ND	95	1	7/9/99
9907035-6	Composite all Locations	ND	ND	ND	ND	ND	97	1	7/9/99
9907035-7	Grab Locations #6	ND	ND	ND	ND	ND	97	1	7/9/99
Extraction Blank	-	ND	ND	ND	ND	ND	95	1	7/9/99
MRL		0.1	0.05	0.05	0.05	0.05			

Hall Environmental Analysis Laboratory

Client:	Elk Oil Company	**Date Collected:**	7/6/99
Project:	Pit Sampling Elk Oil Co. RR #1	**Date Received:**	7/8/99
Project Manager:	Joe Kelly	**Sample Matrix:**	Soil
Project Number:	Pit Closure Sampling Elk Oil Co.	**Extraction Date:**	7/8/99

EPA Method - 8015B Modified GRO

Units: PPM mg/kg

HEAL ID	Client ID	Dilution	Gasoline Range mg/kg	% BFB	Analysis Date
9907035-1	Grab Location #1	1	28	119	7/9/99
9907035-2	Grab Location #2	1	6.5	92	7/9/99
9907035-3	Grab Location #3	1	ND	97	7/9/99
9907035-4	Grab Location #4	1	ND	93	7/9/99
9907035-5	Grab Location #5	1	ND	95	7/9/99
9907035-6	Composite all Locations	1	ND	106	7/9/99
9907035-7	Grab Locations #6	1	ND	98	7/9/99
Extraction Blank	-	1	ND	96	7/9/99

MRL	5.0

QA/QC: BS/BSD

Sample ID:	Sample Amt.	Spike	Rec.	%	Dup.	%	RPD
BS/BSD 7/9	<5.0	25.0	24.1	96	23.5	94	3

Hall Environmental Analysis Laboratory

Client:	Elk Oil Company	**Date Collected:**	7/6/99
Project:	Pit Sampling Elk Oil Co. RR #1	**Date Received:**	7/8/99
Project Manager:	Joe Kelly	**Sample Matrix:**	Soil
Project Number:	Pit Closure Sampling Elk Oil Co.	**Extraction Date:**	7/13/99

EPA Method - 8015B Modified DRO

HEAL ID	Client ID	Dilution	Diesel Range (mg/kg)	Motor Oil Range (mg/kg)	% DNOP	Analysis Date
9907035-1	Grab Location #1	10	850	3,900	*	7/14/99
9907035-2	Grab Location #2	5	1,900	1,300	*	7/14/99
9907035-3	Grab Location #3	1	46	200	117	7/14/99
9907035-4	Grab Location #4	1	23	90	120	7/14/99
9907035-5	Grab Location #5	1	39	160	129	7/14/99
9907035-6	Composite all Locations	1	240	330	135	7/14/99
9907035-7	Grab Locations #6	1	ND	72	118	7/14/99
Extraction Blank	-	1	ND	ND	129	7/14/99

*Surrogate not recoverable due to sample dilution and matrix interferences.

MRL	5.0	50

QA/QC: BS/BSD

Sample ID:	Sample Amt.	Spike	Rec.	%	Dup.	%	RPD
BS/BSD 7/13	<5.0	50	55	110	55	110	0

Hall Environmental Analysis Laboratory

Client:	Elk Oil Company	**Date Collected:**	NA
Project:	Pit Sampling Elk Oil Co. RR #1	**Date Received:**	NA
Project Manager:	Joe Kelly	**Sample Matrix:**	Soil
Project Number:	Pit Closure Sampling Elk Oil Co.	**Date Extracted:**	NA

8021 QC: BS/BSD 7/9

Compound	Sample Amount (mg/kg)	Spike	Recovery	% Rec	Dup	% Dup	RPD
MTBE	<0.1	2.00	1.85	93	1.83	92	1
Benzene	<0.05	1.00	0.97	97	0.96	96	1
Toluene	<0.05	1.00	1.00	100	0.98	98	2
Ethylbenzene	<0.05	1.00	0.99	99	0.98	98	1
Total Xylenes	<0.05	3.00	2.94	98	2.94	98	0

CHAIN-OF-CUSTODY RECORD

HALL ENVIRONMENTAL ANALYSIS LABORATORY
4901 Hawkins NE, Suite A
Albuquerque, New Mexico 87109
505.345.3975
Fax 505.345.4107

Client: ELK OIL COMPANY
PO BOX 310
Address: ROSWELL, NM
88202-0310
ATTN: JOE KELLY
Phone #: 505-623-3190
Fax #: 505-623-5001

Project Name: PIT SAMPLING ELK OIL COMPANY R.R. STATE #1
Project #: PIT CLOSURE SAMPLING ELK OIL CO. R.R. STATE #1
Project Manager: MR. JOE KELLY
Sampler: CM BARNHILL
Samples Cold?: ☒ Yes ☐ No

Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative: $HgCl_2$	Preservative: HCl	Preservative: NONE	HEAL No.
7/6/99	11:12	SOIL	GRAB LOCATION #1	1 JAR			X	9907035-1
7/6/99	11:30	SOIL	GRAB LOCATION #2				X	2
7/6/99	11:50	SOIL	GRAB LOCATION #3				X	3
7/6/99	12:06	SOIL	GRAB LOCATION #4				X	4
7/6/99	12:25	SOIL	GRAB LOCATION #5				X	5
7/6/99	13:35	SOIL	COMPOSITE ALL LOCATIONS				X	6
7/6/99	12:53 Late	SOIL	GRAB LOCATION #6				X	7

ANALYSIS REQUEST

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gasoline Only)	TPH Method 8015B MOD (Gas/Diesel)	TPH (Method 418.1)	Volatiles Full List (8021)	EDB (Method 504.1)	EDC (Method 8021)	8310 (PNA or PAH)	RCRA 8 Metals	Cations (Na, K, Ca, Mg)	Anions (F, Cl, NO_3, NO_2, PO_4, SO_4)	8081 Pesticides / PCB's (8082)	8260 (VOA)	8270 (Semi-VOA)	BTEX 8021	TPH GRO/DRO	Air Bubbles or Headspace (Y or N)
		X												X	X	
		X												X	X	
		X												X	X	
		X												X	X	
		X												X	X	
		X												X	X	
		X												X	X	

Date: 7/7/99 Time: 16:30 Relinquished By: (Signature)
Date: Time: Relinquished By: (Signature)

Received By: (Signature) Joyce M Gallum
Received By: (Signature) 7-8-99

Remarks: PLEASE BILL ELK OIL DIRECTLY @ POB 310, ROSWELL, NM 88202-0310
PLEASE SEND COPY OF RESULTS TO: CMB @ PO BOX 2314

NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

April 20, 1999

10/1/99
called Joe Kelly
He will send closure
Report!
JP

CERTIFIED MAIL
RETURN RECEIPT NO. Z 357 870 125

Joe Kelly
Elk Oil Co.
P.O. Box 310
Roswell, NM 88202-0310

Re: Pit Closure
RR St#1 Sec 7-Ts11s-R33e

Dear Mr. Kelly:

Per our telephone conversation on April 20, 1999 and your request please find enclosed a copy of the New Mexico Oil Conservation Division's (NMOCD) Field Trip Report conducted on February 21, 1997 and March 6, 1997 for the Pearce Trust Ranch Area. Please call Donna Williams in our Hobbs office at 505-393-6161 ext 113 in order to review typical pit closure projects in this area.

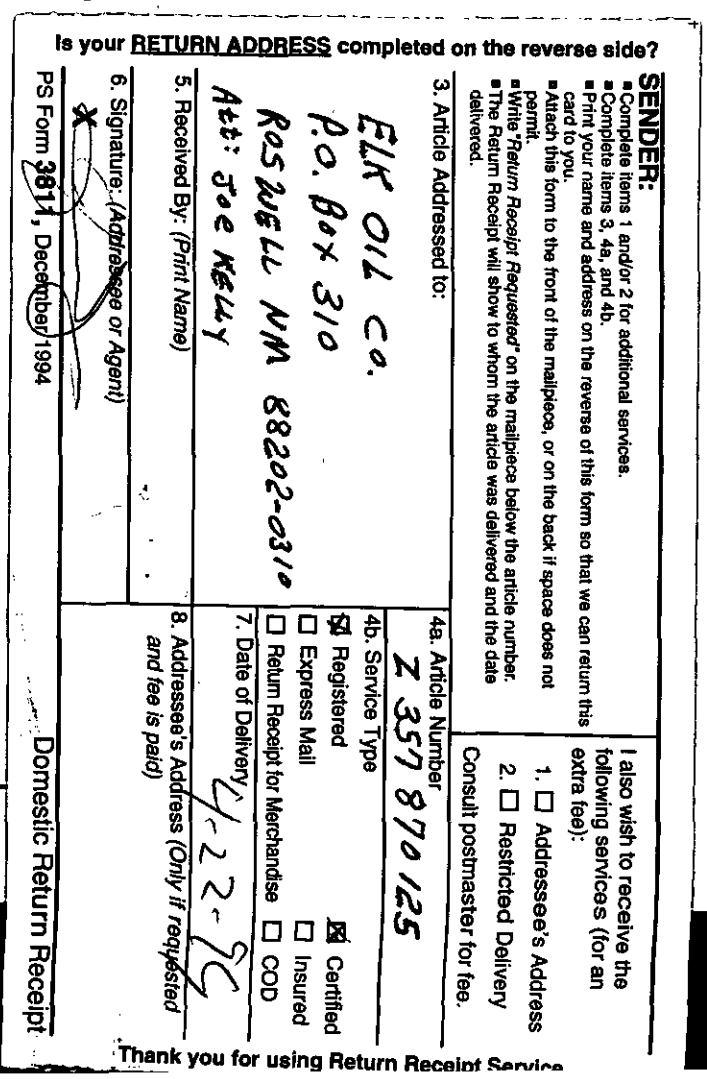
If you require any further information or assistance please do not hesitate to write or call me at (505-827-7155).

Sincerely Yours,

Wayne Price

Wayne Price-Pet. Engr. Spec.
Environmental Bureau

cc: OCD Hobbs Office



Submit 3 Copies to Appropriate District Office

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-103
Revised 1-1-89

DISTRICT I
P.O. Box 1980, Hobbs, NM 88241-1980

DISTRICT II
811 S. First Street, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, New Mexico 87505

RECEIVED
APR 1 1999
Environmental Bureau
Oil Conservation Division

WELL API NO.
30-025-29004

5. Indicate Type of Lease STATE [X] FEE [ ]

6. State Oil & Gas Lease No.
V-3720

SUNDRY NOTICES AND REPORTS ON WELLS

(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

7. Lease Name or Unit Agreement Name
R R STATE

1. Type of Well: OIL WELL [X] GAS WELL [ ] OTHER

2. Name of Operator
ELK OIL COMPANY

8. Well No.
1

3. Address of Operator
POST OFFICE BOX 310, ROSWELL, NEW MEXICO 88202-0310

9. Pool Name or Wildcat
NORTH BAGLEY PERMO PENN

4. Well Location
Unit Letter I : 1874 Feet From The SOUTH Line and 766 Feet From The EAST Line

Section 7 Township 11 SOUTH Range 33 EAST NMPM LEA County

10. Elevation (Show whether DF, RKB, RT, GR, etc.)
4314' GR

11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
PERFORM REMEDIAL WORK	[ ]	PLUG AND ABANDON	[ ]	REMEDIAL WORK	[ ]	ALTERING CASING	[ ]
TEMPORARILY ABANDON	[ ]	CHANGE PLANS	[ ]	COMMENCE DRILLING OPNS.	[ ]	PLUG AND ABANDONMENT	[X]
PULL OR ALTER CASING	[ ]			CASING TEST AND CEMENT JOB	[ ]		
OTHER:			[ ]	OTHER:			[ ]

12. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103

05/06/97: SPOT 200 SXS @ 7740' - 7180' AND TAG.
05/09/97: SPOT 25 SXS @ 6058' - 5813'.
05/09/97: SPOT 35 SXS @ 4522' - 4371' TAGGED, PULLED 4450' OF 5 1/2" CASING.
05/09/97: SPOT 35 SXS @ 3727' - 3563' TAGGED.
05/12/97: SPOT 55 SXS @ 1624' - 1412'.
05/12/97: SPOT 25 SXS @ 382' - 282'.
05/12/97: SPOT 10 SXS @ 30' - SURFACE.

INSTALL DRY HOLE MARKER.
CIRCULATE HOLE WITH 10# MUD.
LOCATION CLEANED AND READY FOR INSPECTION.

Post-it™ brand fax transmittal memo 7671 | # of pages ▸ 1

To	WAYNE PRICE	From	JOE KELLY
Co.	STATE OF NM	Co.	ELK OIL CO.
Dept.	ENVIRONMENTAL BUR.	Phone #	(505) 623-3190
Fax #	(505) 827-8177	Fax #	(505) 623-5801

AS PER YOUR TELEPHONE INSTRUCTIONS.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE _____ TITLE PRESIDENT DATE 4/14/98

TYPE OR PRINT NAME JOSEPH J. KELLY TELEPHONE NO. 505-623-3190

(This space for State Use)

APPROVED BY _____ TITLE OIL & GAS INSPECTOR. DATE APR 23 1999

CONDITIONS OF APPROVAL, IF ANY:

Jack Griffin

NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

April 10, 1999

CERTIFIED MAIL
RETURN RECEIPT NO. P 288 259 108

Elk Oil Co.
P.O. Box 310
Roswell, NM 88202-0310

Re: Pit Closure
RR St#1 Sec 7-Ts11s-R33e

Subject: Complaint from Landowner

The New Mexico Oil Conservation Division (NMOCD) understands that Elk Oil Co. has closed a pit at the above location. Please provide to NMOCD a Pit Remediation and Closure Report.

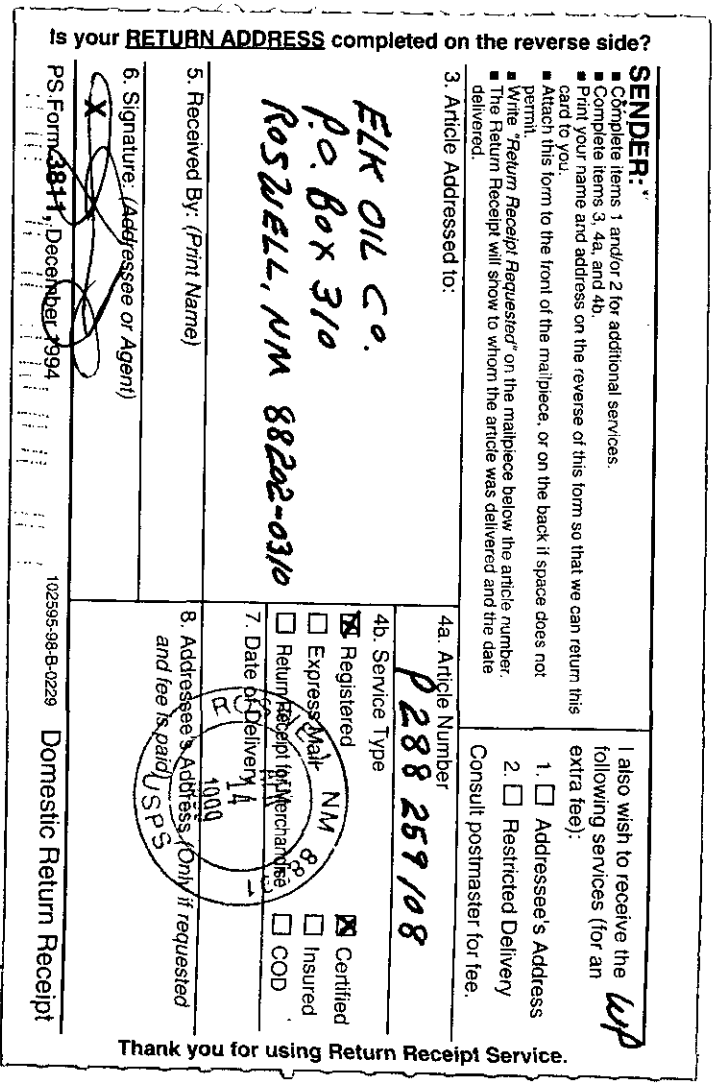
If you require any further information or assistance please do not hesitate to write or call me at (505-827-7155).

Sincerely Yours,

Wayne Price

Wayne Price-Pet. Engr. Spec.
Environmental Bureau

cc: OCD Hobbs Office
Pearce Trust Ranch



cc: R. ANDERSON

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION
HOBBS DISTRICT OFFICE

POST OFFICE BOX 1980
HOBBS, NEW MEXICO 88241-1980
(505) 393-6161

NMOCD INTER-OFFICE CORRESPONDENCE

TO: Jerry Sexton-NMOCD District I Supervisor

From: Wayne Price-Environmental Engineer

Date: March 13, 1997

Reference: Field Trip Report on February 21, 1997.

Subject: Pearce Trust Ranch- Rickey Pearce operator/owner

Comments:

Mr. Pearce had requested assistance from the NMOCD District I office to sample ground water from some of the ranch water wells and to inspect some of the oil & gas operations in and near the area of his ranch operations.

As indicated to me, Mr. Pearce's primary concern is ground water contamination from oil & gas activities which will or have affected his ranch operations and future value of his property. He is requesting that the NMOCD ask the operators to clean up their leaks and spills to protect his ground water and to protect his stock and wildlife in the area.

Please find below my findings, conclusions, and recommendations for this area.

Pearce Ranch Water Wells:

1. se/4 nw/4 9-11-33; Sampled old well bore using PE bailer. Water is clear, no olfactory, TDS values were 1400-1700 umhos, Chlorides were 710 ppm. Depth to water is approximately 30-40 feet deep. Well was not purged and only the top was sampled. According to Mr. Pearce this well was contaminated a number of years ago and they had to quit using it as a stock tank.

2. Second well sampled was located west of the above well. Sampled with PE Bailer. Depth to water is approximately 30-33ft deep. This water was contaminated with black suspended solids with a strong sewage smell. There was also some hair found in this water, possibly from a dead animal. The TDS was measured and found to be around 600 umhos.

3. Third well sampled was a well and stock tank located nearby (400 yds.) southeast of the first well sampled. This water from the well is very clear and potable. Sample was taken from the end of pipe. The TDS was measured at 300 umhos.

Conclusions/recommendations:

The water well located in se/4 nw/4 of 9-11-33 appears to be contaminated. Therefore in keeping with our NMOCD procedure, I recommend that the NMOCD Environmental Bureau be notified and handle this ground water contamination case.

The second water well appears to have a bacteria contamination. I recommend that Mr. Pearce contact the NMED on how to properly clean this well for future use.

The third well requires no action, However this well appears to be down gradient of the first well that is contaminated and in close proximity (400 yds).

Tipperary Locations and Pits.

Several of the Tipperary locations were visited in the area. Most of these locations have unlined pits. Some of the pits have been covered with signs of oil seeping out of them. Some are still open. There were a few that was visited that showed signs of re-entry for closure and three of the sites that had recent bore hole cuttings.

One Tipperary tank battery (St. NBN No. 1 se/sw sec 16-Ts 11s-R33e) showed signs of a recent leak. The soil was visually contaminated and had a mild to strong hydrocarbon odor. Took pictures.

Conclusions/recommendations:

Tipperary has been in the process of closing several pits in this area. Tipperary submitted pit closure information in December of 1996 and on February 22, 1997 the NMOCD District office received a copy of Tipperary's notification that they had encountered ground water in several of the soil borings during their site assessment.

Therefore per NM WQCC regulations the NMOCD Environmental Bureau will handle this remediation plan.

As for the contaminated soil found at the Tipperary battery st. NBN No. 1 se/sw sec 16-Ts 11s-R33e it is my recommendation that the District office ask tipperary to clean-up the site per NMOCD guidelines or another alternate method approved by the District Supervisor. (Spill report attached)

Burro Pipeline Corp.

The Burro Pipeline Water Disposal System Satellite #1 located in NW/4 SW/4 sec 22-Ts 11s-R33e was visited. This system consist of pumps and a medium to large lined netted surface pit. The pit was approximately 20 % full of water. The net is in need of repair. Took picture.

Conclusions/recommendations:

I recommend this site be evaluated to determine if it should be permitted under NMOCD Rule 711.

Penroc Tank Battery Location: (Now Saga Petroleum LP Co.)

Mr. Pearce showed me the Cabot state C N0.1- well no.1 tank battery located in sw/4 nw/4 sec. 14-Ts11s-R33e. where there had been a spill. There was visual soil contamination inside of the dike area and outside. Took pictures.

Conclusions/recommendations:

The NMOCD District office has on record a spill report on 1/23/96 for this site. The spill report reflected that 329 bbls of crude oil was released with only 20 bbls recovered. It indicated "All fluids stayed inside Earthen Dike. Picked up 20 barrels of oil remaining soaked up in caliche." (Spill report attached)

It is my recommendation that the NMOCD District office ask the current owner to clean-up the site per NMOCD guidelines or another alternate method approved by the District Supervisor.

Old Abandon Site:

Mr. Pearce showed me an old abandon site which still has some debris on site such as concrete foundation, miscellaneous pipe, and an area which appears to be oily stained soil. Took pictures. Exact location was not identified at this time.

Conclusions/recommendations:

Mr. Pearce has had an ongoing discussion on this issue with Mr. Gary Wink NMOCD Field Supervisor. According to Mr. Pearce, Gary has obtained information that pre-dates Mr. Pearce's ownership of the ranch which reflects that the previous owner of the ranch had received compensation for this site.

I recommend that NMOCD copy Mr. Pearce on this correspondence or provide him information as how me may obtain this information for his records.

ELK Oil Location:

Mr. Pearce showed me an active open unlined pit (un-netted) at the Elk Oil Co. RR St. #1 sec 7-Ts11s-R33e. This pit contained oil, BS&W, and solid debris, buckets, etc. Mr. Pearce indicated this is a relative new pit. The usage of this type of pit appears to violate NMOCD rule 18. Took Pictures.

On February 27, 1997 I received a call from Mr. Pearce indicating a contractor was covering the pit as is without removing any of the oily material.

On March 6, 1997 I inspected the covered pit. I took a sample three feet below the surface of the pit using an EPA type trier sample device and found free water/oil. Ran a BTEX headspace test using a PID (photoionization detector) and the results were 1225 ppm which is twelve times the limits set in the guidelines. As noted in the water well sampling the ground water in this area is quite shallow.

Conclusions/recommendations:

The NMOCD District I office has deferred this pit closure to the NMOCD Environmental Bureau. It is my understanding that Mr. Olson of the NMOCD Environmental Bureau is handling the closure of this pit. Mr. Olson can be contacted at 505-827-7154.

cc: Rickey Pearce-Ranch Owner
Gary Wink-NMOCD District I Field Rep. II
Roger Anderson-Environmental Bureau Chief
Bill Olson-NMOCD Hydrogeologist-Environmental Bureau
NMOCD Environmental files

attachments-2 spill reports.
copy of pictures.

DISTRICT I
P.O.Box 1980, Hobbs, NM 88241-1980

DISTRICT II
P.O. Drawer DD, Artesia, NM 88211-0719

DISTRICT III
1000 Rio Brazos Rd, Aztec, NM 87410

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

SUBMIT 2 COPIES TO APPROPRIATE DISTRICT OFFICE IN ACCORDANCE WITH RULE 116 PRINTED ON BACK SIDE OF FORM

NOTIFICATION OF FIRE, BREAKS, SPILLS, LEAKS, AND BLOWOUTS

OPERATOR: Tipperary Oil & Gas C orp.						ADDRESS: 800 N. Marienfeld,Midland, TX. 79701	TELEPHONE #: (915) 683-5203
REPORT OF	FIRE	BREAK	SPILL	LEAK: X		BLOWOUT	OTHER*
TYPE OF FACILITY	DRLG WELL	PROD WELL	TANK BTRY	PIPE LINE	GASO PLNT	OIL RFY	OTHER*

FACILITY NAME: State NBN

LOCATION OF FACILITY Qtr/Qtr Sec. or Footage	SEC.	TWP.	RGE.	COUNTY
Unit N 660 FSL & 1982 FWL	16	11S	33E	Lea

DISTANCE AND DIRECTION FROM NEAREST TOWN OR PROMINENT LANDMARK: Approximately 18 miles West of Tatum

DATE AND HOUR OF OCCURRENCE: Approx. 4:00AM 12/18/96				DATE AND HOUR OF DISCOVERY: 12:00PM MST 12/18/96	
WAS IMMEDIATE NOTICE GIVEN?	YES: X	NO	NOT REQUIRED	IF YES, TO WHOM: Bonnie Prichard	
BY WHOM: W. Jeffrey Sparks				DATE AND HOUR: 1:45 MST 12/18/96	
TYPE OF FLUID LOST: Crude Oil				QUANTITY OF LOSS: 66 Bbls.	VOLUME RECOVERED: None
DID ANY FLUIDS REACH A WATERCOURSE?	YES	NO: X	QUANTITY		

IF YES, DESCRIBE FULLY**

DESCRIBE CAUSE OF PROBLEM AND REMEDIAL ACTION TAKEN**

Hole came in tank about 9 inches from bottom. Hole about 1" in diameter. The tank was emptied of all fluids.

DESCRIBE AREA AFFECTED AND CLEANUP ACTION TAKEN**

The affected area was T-shaped. It was 100' x 20' along the top and 150' x 20' along the length of the T. The affected soil was removed and replaced with clean dirt.

DESCRIPTION OF AREA	FARMING	GRAZING: X	URBAN	OTHER*

SURFACE CONDITIONS	SANDY	SANDY LOAM	CLAY	ROCKY: X	WET	DRY	SNOW

DESCRIBE GENERAL CONDITIONS PREVAILING (TEMPERATURE, PRECIPITATION, ETC.)**

Overnight temperature about 5 degrees F. Daytime temperature about 20 degrees. No precipitation.

I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF

SIGNED: W. Jeffrey Sparks PRINTED NAME AND TITLE - W. Jeffrey Sparks DATE 12/20/96

*SPECIFY

DISTRICT I
P.O.Box 1980, Hobbs, NM 88241-1980
DISTRICT II
P.O. Drawer DD, Artesia, NM 88211-0719
DISTRICT III
1000 Rio Brazos Rd, Aztec, NM 87410

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

SUBMIT 2 COPIES TO APPROPRIATE DISTRICT OFFICE IN ACCORDANCE WITH RULE 116 PRINTED ON BACK SIDE OF FORM

NOTIFICATION OF FIRE, BREAKS, SPILLS, LEAKS, AND BLOWOUTS

OPERATOR: PENROC OIL CORPORATION					ADDRESS: P.O. Box 5970, HOBBS, NM 88241-5970		TELEPHONE #: 505-397-3596
REPORT OF	FIRE	BREAK	SPILL X	LEAK	BLOWOUT	OTHER*	
TYPE OF FACILITY	DRLG WELL	PROD WELL	TANK BTRY X	PIPE LINE	GASO PLNT	OIL RFY	OTHER*

FACILITY NAME: CABOT "C"

LOCATION OF FACILITY Qtr/Qtr Sec. or Footage	SEC	TWP	RGE	COUNTY
S/2 NW/4	14	11S	35E	LEA

DISTANCE AND DIRECTION FROM NEAREST TOWN OR PROMINENT LANDMARK: 20 MILES WEST OF TATUM, NM

DATE AND HOUR OF OCCURRENCE	DATE AND HOUR OF DISCOVERY
1/22/96 @ 2:00 PM	1/22/96 @ 2:30 PM

WAS IMMEDIATE NOTICE GIVEN?	YES	NO	NOT REQUIRED	IF YES, TO WHOM
		X		

BY WHOM	DATE AND HOUR

TYPE OF FLUID LOST	QUANTITY OF LOSS	VOLUME RECOVERED
CRUDE OIL	329	20

DID ANY FLUIDS REACH A WATERCOURSE?	YES	NO	QUANTITY
		X	

IF YES, DESCRIBE FULLY**

DESCRIBE CAUSE OF PROBLEM AND REMEDIAL ACTION TAKEN**
4" x 2" SWAGE IN CIRCULATING LINE LEAKED. REPLACED SWAGE AND PICKED UP OIL AND CLEANED UP LOCATION.
VERBAL NOTICE GIVEN TO PONNIE AT OCD @ 7:05 AM 1/23/96.

DESCRIBE AREA AFFECTED AND CLEANUP ACTION TAKEN**
ALL FLUIDS STAYED INSIDE EARTHEN DIKE. PICKED UP 20 BARRELS OF OIL REMAINING SOAKED UP IN CALICHE.

DESCRIPTION OF AREA	FARMING	GRAZING	URBAN	OTHER*
				INSIDE DIKE

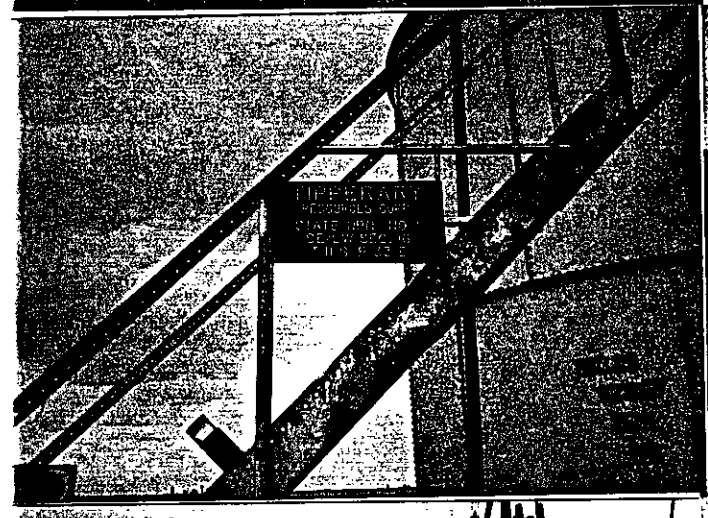
SURFACE CONDITIONS	SANDY	SANDY LOAM	CLAY	ROCKY	WET	DRY	SNOW
			X				

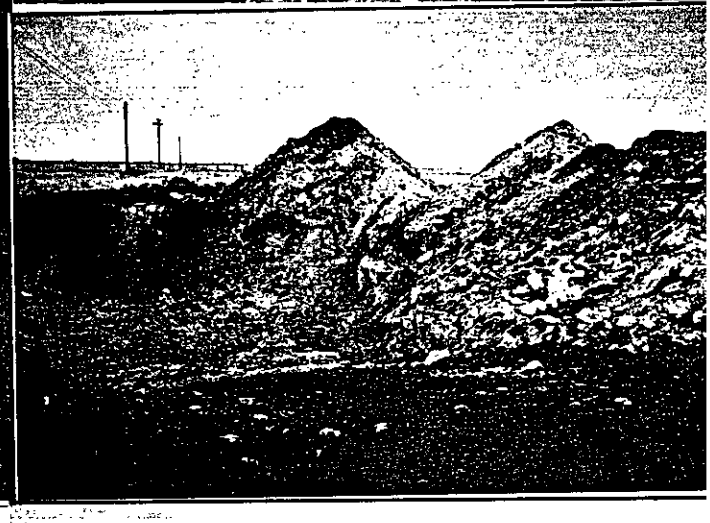
DESCRIBE GENERAL CONDITIONS PREVAILING (TEMPERATURE, PRECIPITATION, ETC.)**
TEMPERATURE 50° AND DRY

I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF

SIGNED: [signature] PRINTED NAME AND TITLE: M.Y. MERCHANT, PRESIDENT DATE: 1/23/96

*SPECIFY **ATTACH ADDITIONAL SHEETS IF NECESSARY.



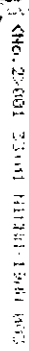


2/21/97 - PEARCE RANCH AREA NEG 041177

TIPPERARY LOCATION

≈ 1:45 pm

BY W PRICE



2/21/97 - PEARCE RANCH NEG 041178

≈ 12:30 pm

"OLD PIT" LOOKING NE AREA

of OLD WINDMILL - SAMPLED WATER

≈ 35-40' BGS CLEAR WATER - 1400 MMHOS - 1700

TIPPERARY COLLIER #1

SE/NW 7-11-33

BY: W PRICE

WITNESS: RICKY PEARCE-

2/21/97 - PEARCE RANCH AREA NEG 041177

≈ 2:00 pm

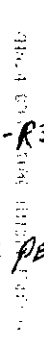
ST NBN #1

TIPPERARY CORP.

SE/SW SEC 16-T11S-R33E

LOOK ≈ EAST

BY: W PRICE / R PEARCE



2/21/97 - "PEARCE RANCH AREA" NEG 041178

TIPPERARY LOCATION

IUA COM #1

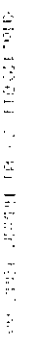
SE/NE 20-11-33

LOOKING EAST

BY: WAYNE PRICE

NMOCD-

WITNESS: R PEARCE



2/21/97 - PEARCE RANCH NEG 041177

≈ 2:00 pm

ST NBN #1

TIPPERARY CORP.

SE/SW 16-11-33

LOOKING ≈ SW

"BSW PIT - FOREGROUND SHOWS FRESH DRILL CUTTINGS of BORE HOLE"

BY: W PRICE / R. PEARCE

2/21/97 "PEARCE RANCH AREA" NEG 041178

≈ 1:45 pm

"TIPPERARY LOCATION"

CLOSE TO HWY

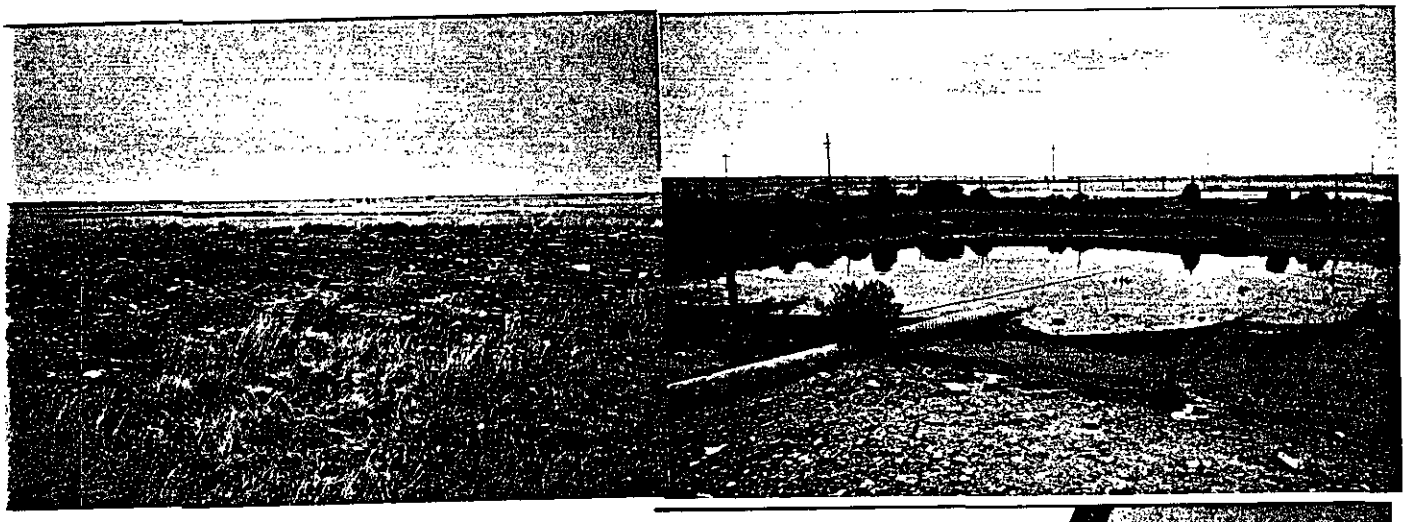
BELL "A" 1

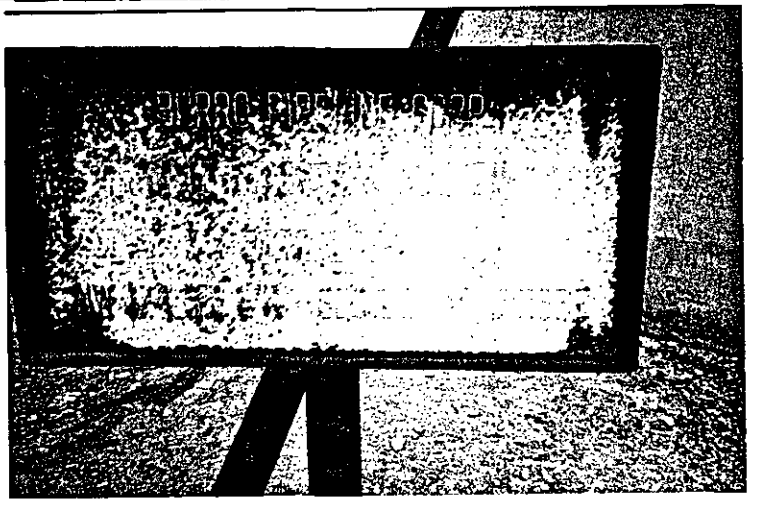
BSW pit

FOREGROUND SHOWS AREA BEHIND RECENT BORE HOLE DRILLED"

R. PEARCE WITNESS DRILLING!

BY W PRICE - NMOCD





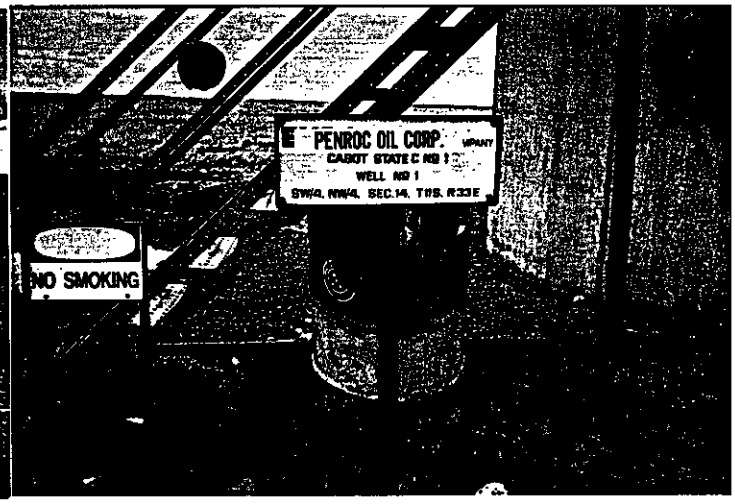
2/21/97 NEG 041177
≈ 2:45 PM
PEARCE RANCH
OLD SITE

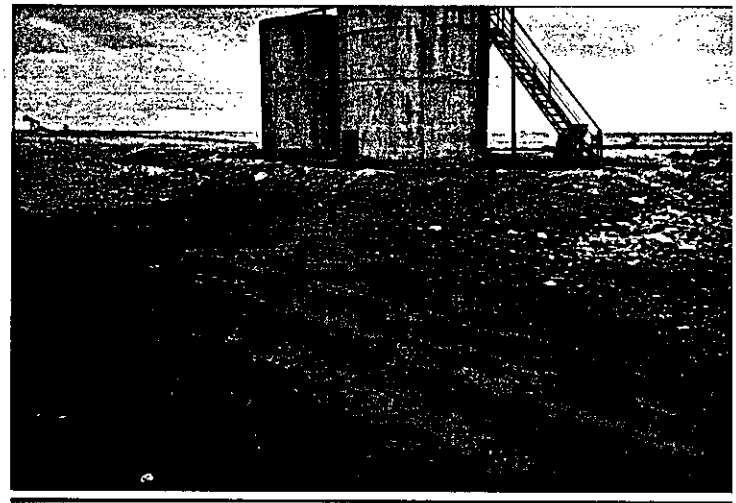
2/21/97 PEARCE RANCH NEG 041177
≈ 2:[illegible] PM
ST NBN #1
TIPPERARY CORP.
SE/SW 16-11-33
LOOK ≈ SOUTH
"OIL STAIN SOIL"
BY W PRICE / F PEARCE

2/21/97
≈ 2:45 PM
PEARCE RANCH
"OLD SITE"
NEG 041177

2/21/97 -
≈ 2:30 PM
BURRO PIPELINE CORP.
WASTE DISPOSAL SYS.
SAT #1
NW/4 SW/4 22-11-33
"NEL DOWN IN WATER"
"NO OIL"
NEG 041177

2/21/97
≈ 2:3[illegible]
BURRO PIPELINE
SAT #1
BY W. PRICE
NEG 041177


PENROC OIL CORP.
CABOT STATE C NO 1
WELL NO 1
SW/4, NW/4, SEC.14, T9S, R33E
NO SMOKING



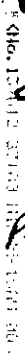
2/21/97 - "PEARCE RANCH" NEG 041177

≈ 2:50 PM

PENROC CABOT ST C #1

LOOKING NORTH

BY: W PRICE / R. PEARCE



2/21/97 - "PEARCE RANCH" NEG 041177

≈ 2:50 PM

PENROC BATTERY

LOOK ≈ EAST

BY: W PRICE / R. PEARCE

2/21/97 - "PEARCE RANCH" NEG 041177

≈ 2:50 PM

PENROC CABOT ST C #1

SW/4 NW/4 14-11-33

LOOKING SW

BY: W PRICE / R. PEARCE

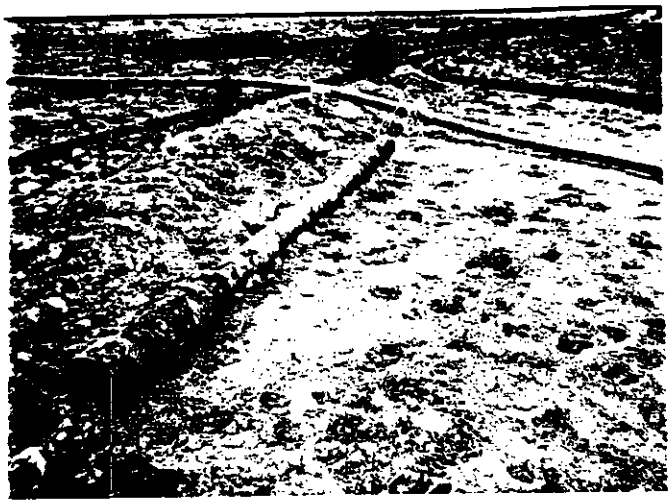
2/21/97 - "PEARCE RANCH" NEG 041177

≈ 2:50 PM

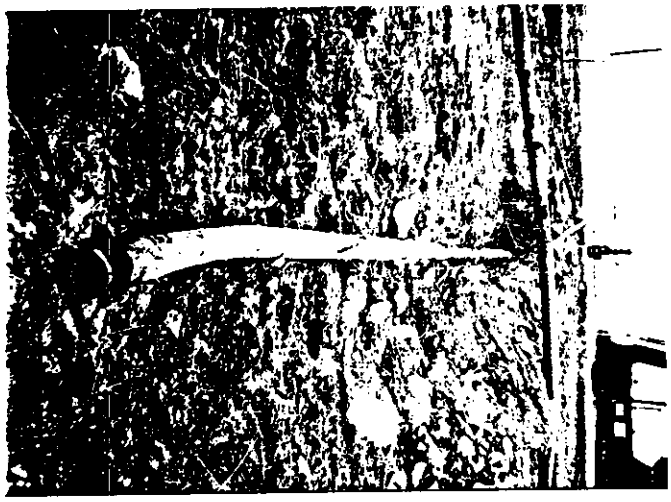
PENROC CABOT ST C #1

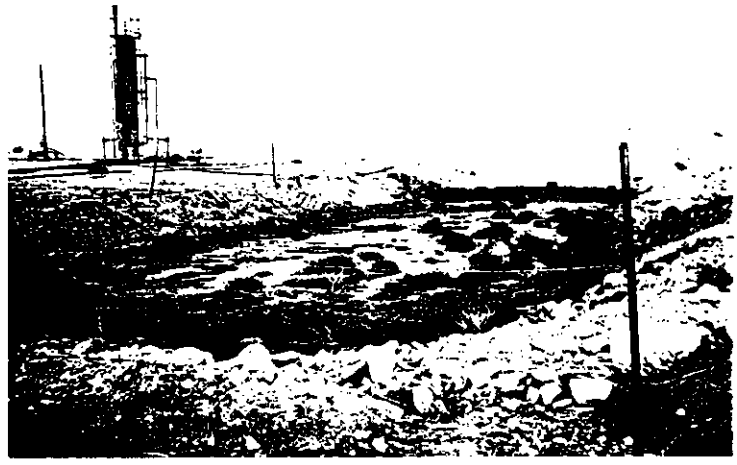
LOOKING NORTH

BY: W PRICE / R. PEARCE




ELK OIL COMPANY
RR STATE #1
SEC. 7, T11S, R33E
1874' FSL & 766' FEL
LEA COUNTY, NEW MEXICO
NO
SMOKING





2/21/97 - PEARCE RANCH NES 04/178
ELK OIL CO. RR SEC #1
"DRY HOLE MARKER BALL HAS BEEN RE-EMBEDDED"
BY: W PRICE / R. PEARCE

2/21/97 - PEARCE RANCH NES 04/178
~1:20 PM
ELK OIL CO. LOOK SOUTH
BY: W PRICE / R. PEARCE RANCH OWNER

2/21/97 - PEARCE RANCH NES 04/178
ELK OIL CO RR SEC #1
STANDING MEDIA PIT LOOK S-SE
"FLUIDS HAVE BEEN DISCHARGING FROM 2/5LL"
BY W PRICE / R. PEARCE

2/21/97 - PEARCE RANCH NES 04/178
BS & W PIT - LOOKING S.W
ELK OIL CO
7-11-33
RR SEC #1
BY: W PRICE / R PEARCE

2/21/97 - PEARCE RANCH NES 04/178
ELK OIL CO. RR SEC #1
LOOK SOUTH
BY: W PRICE / R. PEARCE

2/21/97 - PEARCE RANCH NES 04/178
BS & W PIT - LOOKING N.E.
ELK OIL CO -
1874' FSL 766' FEL RR SEC #1
7-11-33
BY: W PRICE / R PEARCE

Bill Olson/Page Anderson
Requested pictures
Gave to Mark Ashley
March 5 1997

NES 04/178

Roger Anderson

From: Wayne Price
Sent: Thursday, February 27, 1997 2:40 PM
To: William Lemay
Cc: Roger Anderson
Subject: FW: Elk Oil Co. Pit Closure- RR St. #1 sec 7-Ts11s-R33 e.
Importance: High

Dear Bill and Roger,

Jerry Sexton requested I forward this to you.

Please let me know if you have any questions.

From: Wayne Price
To: Jerry Sexton; Gary Wink
Cc: Roger Anderson
Subject: Elk Oil Co. Pit Closure- RR St. #1 sec 7-Ts11s-R33 e.
Date: Thursday, February 27, 1997 11:08AM
Priority: High

Dear Jerry,

Just received a call from Ricky Pearce Ranch owner. He informed me that Elk Oil Co. is covering the pit I told you about during my field trip on Feb 21, 1997 in this area.

I recommend that we require Elk Oil provide closure information on this pit. I make this recommendation on the fact that ground water appears to be very shallow ,around 50 feet or less, and the fact that this pit had quite a bit of oil in it, plus non-exempt material, buckets etc . Also this pit is relative new and not an old pit. It is also unlined and un-netted.

Please let me what actions you want me to take in this matter.

Wayne Price

From:	Wayne Price
To:	Jerry Sexton; Gary Wink
Cc:	Roger Anderson
Subject:	Elk Oil Co. Pit Closure- RR St. #1 sec 7-Ts11s-R33 e.
Date:	Thursday, February 27, 1997 11:08AM
Priority:	High

Dear Jerry,

Just received a call from Ricky Pearce Ranch owner. He informed me that Elk Oil Co. is covering the pit I told you about during my field trip on Feb 21, 1997 in this area.

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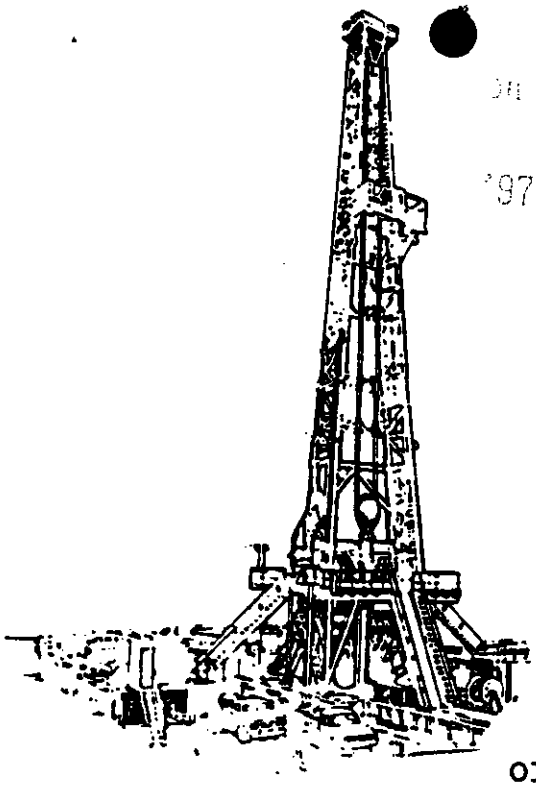
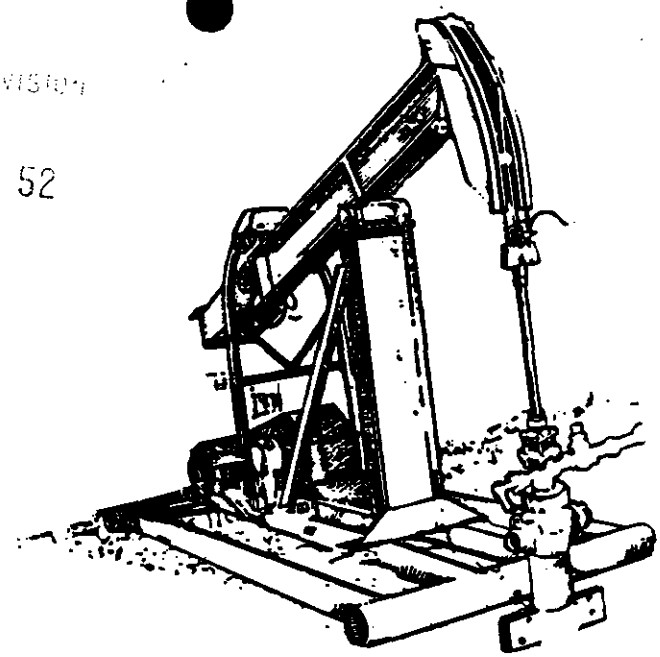
Please let me what actions you want me to take in this matter.



OIL CONSERVATION DIVISION
RECEIVED
'97 MAR 10 AM 8 52



STATE OF NEW MEXICO

OIL CONSERVATION DIVISION
PHONE: (505) 393-6161
FAX: (505) 393-0720

SHOULD YOU HAVE TROUBLE RECEIVING THIS TRANSMISSION, PLEASE CALL (505) 393-6161.

TO: Bill Olson

COMPANY: Santa Fe OCD

FROM: Wayne Price

DATE: 3/7/97

PAGES INCLUDING COVER PAGE: 2

COMMENTS:

cc: J SEXTON
B. OLSON
ELK OIL - file

NEW MEXICO OIL CONSERVATION COMMISSION
FIELD TRIP REPORT

INSPECTION	CLASSIFICATION	FACILITY	HOURS	QUARTER HOURS

Name WAYNE PRICE Date 3-6-97 Miles _____ District I

Time of Departure 7 AM Time of Return 4 PM Car No. G 047

In the space below indicate the purpose of the trip and the duties performed, listing wells or leases visited and any action taken.

Signature [signature]

REQUEST FROM NMOCD ENVR BUREAU TO INSPECT
ELK OIL CO. SITE PIT RRSL #1 7-11-33.

PIT HAS BEEN COVERED - TOOK PICTURES

SAMPLED PIT AREA USING 3' x 3/4" - DIRT TRIER
SAMPLE CONTAINED FREE LIQUID - WATER/OIL/MUD
RAN HEADSPACE BTEX USING PID ≈ 1225 ppm

Mileage		Per Diem		Hours	
UIC		UIC		UIC	
RFA		RFA		RFA	
Other		Other		Other	

TYPE INSPECTION PERFORMED

H = Housekeeping
P = Plugging
C = Plugging Cleanup
T = Well Test
R = Repair/Workover
F = Waterflow
M = Mishap or Spill
W = Water Contamination
O = Other

INSPECTION CLASSIFICATION

U = Underground Injection Control - Any inspection of or related to injection project, facility, or well or resulting from injection into any well. (SWD, 2ndry injection and production wells, water flows or pressure tests, surface injection equipment, plugging, etc.)
R = Inspections relating to Reclamation Fund Activity
O = Other - Inspections not related to injection or The Reclamation Fund
E = Indicates some form of enforcement action taken in the field (enter immediately below the letter U, R or O)

NATURE OF SPECIFIC WELL OR FACILITY INSPECTED

D = Drilling
P = Production
I = Injection
C = Combined prod. inj. operations
S = SWD
U = Underground Storage
G = General Operation
F = Facility or location
M = Meeting
O = Other

#2

#1

#3

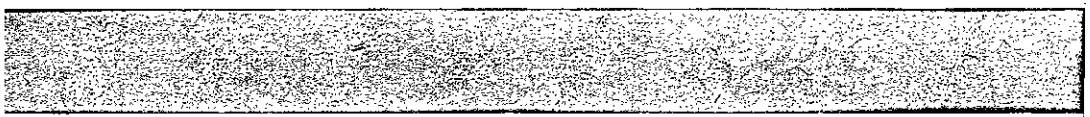
2/21/97 - PEARCE RANCH NEG 04#178

ELK OIL CO. RR STATE #1

"DRY HOLE MARKER WELL HAS BEEN RE-ENTERED"

BY W PRICE / R. PEARCE

#1



2/21/97 - PEARCE RANCH NEG #178

ELK OIL CO. RR ST #1

LOOK SOUTH

BY: W PRICE / R. PEARCE

#2

2/21/97 - PEARCE RANCH NEG 04#178

ELK OIL CO. RR ST #1

STANDING NEAR PIT LOOK S-SE

ILLUS HAVE BEEN DISMANTLING FROM WELL

BY / W PRICE / R. PEARCE

#3

4#


DANGER
NO
SMOKING
ELK OIL COMPANY
RR STATE #1
SEC. 7, T11S, R33E
1874' FSL & 766' FEL
LEA COUNTY, NEW MEXICO

5#

6#

2/21/97- PEARCE RANCH NEG 04/178

BS&W pit - LOOKING N.E.

ELK OIL CO. -

1874' FSL 766' FEL RR St #1

7-11-33

BY: W PRICE / R PEARCE

4

2/21/97 - PEARCE RANCH NEG 04/178

≈ 1:20 PM

ELK OIL CO. LOOK SOUTH

BY: W PRICE / R. PEARCE
UNOCA RANCH OWNER

5

2/21/97 - PEARCE RANCH NEG 04/178

BS&W pit - LOOKING S.W.

ELK OIL CO.

7-11-33

RR St #1

BY: W PRICE / R PEARCE

6