

CASE 3590: Application of TEXACO
INC. for a pilot waterflood
project, Lea County, N. Mex.

CASE No.
3590

Application,
TRANSCRIPTS,
SMALL Exhibits
ETC.

dearnley-meier reporting service, inc.

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS

1120 SIMAS BLDG. • P. O. BOX 1092 • PHONE 243-6491 • ALBUQUERQUE, NEW MEXICO



BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
May 24, 1967

EXAMINER HEARING

IN THE MATTER OF:)

Application of Texaco Inc. for)
a pilot waterflood project,)
Lea County, New Mexico.)

CASE NUMBER
3590

BEFORE:

ELVIS A. UTZ, Examiner

TRANSCRIPT OF HEARING

MR. UTZ: Case 3590.

MR. HATCH: Case 3590, Application of Texaco Inc. for a pilot waterflood project, Lea County, New Mexico.

MR. KELLY: Booker Kelly of White, Gilbert, Kooh and Kelly of Santa Fe, appearing on behalf of the applicant. I have one witness and I ask that he be sworn.

(Witness sworn.)

E. D. McCARTER

called as a witness on behalf of the applicant, first having been duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. KELLY:

Q Would you state your name, position and employer, please?

A E. D. McCarter, Texaco, Incorporated, district proration engineer at Hobbs, New Mexico.

Q Have you previously testified as an expert witness before this Commission?

A Yes, sir.

(Whereupon, Applicant's Exhibit Number 1 through 6 were marked for identification.)

Q Referring to what has been marked as Applicant's Exhibit 1, would you state what Texaco seeks by this application?

dearnley-meier

A Exhibit Number 1 is an area map showing the Lazy-J Pennsylvanian Pool with a proposed pilot waterflood project outlined in red, the wells to be included in this project circled and colored red, with the proposed injection well, with a slash symbol through it as indicated by the legend below.

We propose to inject water into this Number 1 Texaco's State of New Mexico "BV", Tract 1 lease.

Q In referring to Exhibit 2, which is a structure map, would you give the Examiner some history of this field?

A This structure map is abbreviated to show only the controlled points. It is mechanically contoured, it is a portion of a northwest southeast trending nose, the field is delineated on the north by a permeability barrier and porosity pinch out. To the south and southeast, the field is still under development. The field was discovered, oh, I believe that was October of '52 by Gulf's Number 1 State "A-N" located in Unit "K" of Section 27, Township 13 South, Range 33 East. Development was essentially complete by 1955. In July of 1966, Texaco drilled the State of New Mexico BYNCT-1 Well Number 2 located in Unit "A" of Section 35 which flowed at a top allowable rate and since that time the wells to the south and to the east of this location have been drilled. I think there are eleven all total now, the latest completion being the Huber

Corporation Well Number 1-A in Unit "A" of Section 2-13 -- no, 14-33. It is shown as a location on this map right below the C and the O. It has now been completed. Texaco has extended the field as far south as Unit "N" in Section 3 of 14-33.

Q But as far as the project area, that part of the pool has pretty well played out.

A Yes, with the exception of one well. One well in the original developed area, Skelly's Well "BD", Well Number 1 located in Unit "F" of Section 35 is still a flowing oil well which would indicate that there is possibly some permeability barrier between this newer portion of the field and the older portion.

Q What is the present status of the three wells in the project area?

A The three wells in the proposed project area, Well Number 1 is presently pumping at a rate of two oil. Well Number 2 was temporarily abandoned, effective May 1st of this year. Well Number 3 is currently pumping at the rate of seven oil.

Q You feel that primary production is essentially exhausted, then?

A In this portion of the field, yes, sir.

Q Now, going on to Exhibit Number 3, would you give the production history of the wells involved?

dearnley-meier

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS

1120 SIMMS BLDG. • P.O. BOX 1092 • PHONE 243-6691 • ALBUQUERQUE, NEW MEXICO 87101
1400 FIRST NATIONAL BANK EAST • PHONE 256-1294 • ALBUQUERQUE, NEW MEXICO 87108

PAGE 5

A This is a production plot showing oil, water, cumulative oil and gas-oil ratio for the three wells within the proposed project area. You will note that the production started in 1953, reached a peak and started a rapid decline. In 1955 the three wells were entered and deepened from 125 to 150 feet and opened up an additional pay section and since then, the field has been on a practically steady decline except for one reversal trend in 1958 which has gone unexplained. The gas-oil ratio, as you will notice, is, looks like it has peaked around 9,000 to one, it has started to drop which is further evidence for substantiating that this portion of the field is under a solution gas drive.

Q Can you give any estimate of the response you expect from this pilot project?

A No, not at the current time. You will notice that the low production, and referring back to Exhibits Number 1 and 2, which indicate that they are pulling quite a few wells plugged and abandoned in the field. We did not believe that the field was floodable, but with this new production, we feel we will have to make an attempt to see if secondary recovery operations are economical.

Q Are there any other secondary recovery programs in the area that would give you any indication --

A There was one in the Saunder's Field which is, it

is about ten miles south, the Saunder's Field, called the Saunder's Wolfcamp, although they are comparable pay zones with the Lazy-J, they had a pilot waterflood project down there which was not an outstanding success, however there has been a unit formed in the Saunder's Field and I think they have a double five spot going at the present time.

Q Referring to Exhibit 4, which is your diagramatic sketch of the injection well, would you describe your casing program?

A Thirteen and three-eighths inch casing was set in a seventeen and a half inch hole at 353 feet. It was cemented with 350 sacks and cement circulated. Nine and five-eighths inch casing was set in twelve and a quarter inch hole at 4,059 feet cemented with 2,080 sacks and the cement circulated.

Five and a half inch casing was set at 9660 and cemented with 450 sacks. The top of the cement is at 8,075 feet by a temperature survey. The well was drilled deeper as have all three wells from 9660 to 9800. This is a four and a half inch hole, four and three-quarter inch, excuse me.

Q You are going to have plasticoated tubing and water in the annulus, right?

A Yes, plasticoated tubing will be run on a packer with the packer set at approximately 9600 feet. Injection will be through perforations from 9612 to 9652 and an open hole section

from 9660 to 9800.

Q Now, I notice you show perforations of 9143 to 9155. Would you describe what that is to the Examiner?

A This is a portion of the Wolfcamp zone which was perforated in 1962 in an attempt to increase production. The zone was treated with 3,000 gallons, again retreated with 6,000 gallons, swabbed dry. The zone was not squeezed. Instead the equipment was pulled out and a production string run back in and the well placed back on production. There was a production increase from the well at the time it was placed back on production. However, this production increase was short-lived so it is believed that this was an accumulation of oil from the original pay zone and these perforations from 9143 to 9155 were nonproductive.

Q All right. Do you plan to squeeze those perforations?

A No, sir. We plan to load the back side of the hole with inhibited water and keep a check on the fluid level if we cannot get the fluid to stand to the surface, and if there is any change in the fluid level, then we will go back in and squeeze off the zone.

Q But you feel that the fluid will not escape into those perforations?

A No, sir, I do not. This zone is, by the way, not open in any other well.

MR. KELLY: Mr. Examiner, I might point out at this time that there is a letter from the State Engineer, or at least there should be in your file, giving approval to this application. I talked to Mr. Irby this morning. He did not have a diagramatic sketch and therefore did not know about these perforations, but Mr. McCarter and myself both discussed these with him and he said that he would leave the decision in your hands. He had no particular position to take on the matter. However, he felt that if the testimony was sufficient, that he didn't have any further objection.

Q (By Mr. Kelly) Do you feel the insulation you have shown on Exhibit 4 -- well, first going to Exhibit 5, would you state what type of water you will be injecting into it?

A Well, the water that will be injected will be produced water from Texaco's properties in the Lazy-J Pennsylvanian Field. This is a salt water as evidenced by Exhibit Number 5 which is a water analysis performed by the Western Company at the request of Texaco on its State of New Mexico AQNCT-11 Well Number 1. This well produces approximately 110 barrels of water per day so it will be one of the major sources of produced water that will be injected.

Q Do you feel your casing program is adequate to protect against corrosion problems?

A Yes, sir.

Q Now, what is your expected injection rate on this project?

A The expected injection rate is 350 barrels of water per day at the outset.

Q And do you have any idea whether that will increase?

A With continued development, I feel sure it will increase.

Q And how about your supply, what is that now?

A The supply?

Q Of water. When you say 350, is that your, you are going to be injecting all the water that you produce?

A All the water we produce will be injected into this well.

Q And you feel that your production rate of water will increase?

A Yes, sir, as long as development continues I feel in this portion of the field we will find additional water.

Q What do you think would be the optimum injection rate for this project?

A The optimum injection rate as far as controlling any flood front, as well as you can with one well, would be approximately 500 barrels a day.

Q If the project is a success and you need more water, what sources do you anticipate getting them from?

A At the current time, we have no additional source of water. If the project is a success and additional water is needed, we would have to seek it and we would have to cross that bridge when we came to it.

Q What are you doing with your water now?

A A portion, a small portion is being put into a pit on the BVNCT-1 Lease. The major portion of the water located down on the AQ, if you will look at your map, which is located in Section 3 of 14-33 is being collected in a tank and hauled by truck from there. These two wells, Wells Number 1 and 2, one produces 110 barrels of water a day and the other one produces 140 barrels of water per day.

Q Would you state what your injection pressure would be?

A We feel the injection will be on a vacuum.

Q And Exhibit Number 6 is a log of the injection well?

A Yes, sir. This is intended as a log. I might point out it is not marked on any of your exhibits, Zone 2 which is the Contoured Horizon on Exhibit Number 2 is located at 9751 on that log. Normal completions in the field are in the comparable interval from 9600 to 9800 feet or below in the rest of the field.

Q I take it, then, that the purpose of this application is to get approval so you can see if any more of

dearnley-meier

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS
1120 SIMMS BLDG. • P.O. BOX 1092 • PHONE 243-4691 • ALBUQUERQUE, NEW MEXICO 87101
1400 FIRST NATIONAL BANK EAST • PHONE 256-1294 • ALBUQUERQUE, NEW MEXICO 87108

the oil can be produced out of this otherwise depleted zone?
And would the granting of this application at least help
Texaco determine whether further secondary recovery would
prevent waste in the area?

A Yes, sir.

Q Were Exhibits 1 through 6 prepared by you or under
your supervision?

A Yes, sir.

MR. KELLY: I move the introduction of Texaco's
Exhibits 1 through 6.

MR. UTZ: Without objection, Exhibits 1 through 6
will be entered into the record of this case.

(Whereupon, Applicant's Exhibit Numbers 1 through
6 were received in evidence.)

MR. KELLY: That's all we have on direct.

CROSS EXAMINATION

BY MR. UTZ:

Q About these perforations on your Exhibit Number 4,
9612 to 1952,--

A Yes, sir.

Q -- are they squeezed off?

A No, sir. The Commission records so indicate them to
be squeezed off, however, there is nothing in Texaco's records
to show that this operation was ever performed.

Q Do you propose to leave them open?

A Yes, sir. This was the original pay zone in the area produced for two years and then the additional pay zone was opened up after drilling of additional wells, we went in and deepened these wells because we did find production deeper, also.

Q Where was it you were going to put inert water?

A Behind the packer in the tubing casing annulus.

Q You don't think you will lose water up to perforations of 9143?

A No, sir.

Q That plastic coated tubing is internally plastic coated, isn't it?

A Yes, sir.

MR. UTZ: Any other questions of the witness? He may be excused.

(Witness excused.)

MR. UTZ: Statements?

MR. HATCH: I have a letter from the State Engineer's office dated May 22nd, 1967, reading part of it, only, "It appears that the stated plan of injection would not cause a threat of contamination if the packer is set above the lower end of the production casing and below the top of the cement surrounding the casing. Signed by Frank E. Irby, State

Engineer."

MR. UTZ: The case will be taken under advisement.

STATE OF NEW MEXICO)
) ss
COUNTY OF BERNALILLO)

I, JERRY POTTS, Notary Public in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached transcript of hearing was reported by me in stenotype and that the same was reduced to typewritten transcript under my personal supervision and contains a true and correct record of said proceedings, to the best of my knowledge, skill and ability.

Jerry Potts
NOTARY PUBLIC

My Commission Expires:

July 10, 1970

I do hereby certify that the foregoing is a correct record of the proceedings in the hearing of Case No. 3590, heard to be in May 24, 1970.
Theresa R. [Signature] Secretary
New Mexico Oil Conservation Commission

dearnley-meier

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS
1120 SIMMS BLDG. • P.O. BOX 1092 • PHONE 243-4691 • ALBUQUERQUE, NEW MEXICO 87101
1400 FIRST NATIONAL BANK EAST • PHONE 256-1294 • ALBUQUERQUE, NEW MEXICO 87108

OIL CONSERVATION COMMISSION

P. O. BOX 2088

SANTA FE, NEW MEXICO

August 28, 1967

C

Texaco Inc.
Drawer 728
Hobbs, New Mexico

O

Attention: Mr. J. G. Blevins, Jr.

Re: Commission Order No. R-3253

P

Gentlemen:

Y

Reference is made to Commission Order No. R-3253, which authorizes Texaco Inc. to institute a pilot waterflood project in the Lazy J-Pennsylvanian Pool by the injection of water into the Pennsylvanian formation in the interval from 9612 feet to 9800 feet in its State "BV" Well No. 1, located in Unit E of Section 26, Township 13 South, Range 33 East, Lea County, New Mexico, provided waivers of objection from all offset operators are furnished to the Commission. This proviso was necessary because the proposed zone of injection is somewhat different than that originally proposed which was given in the legal notice of the hearing.

The Commission has this date received the last required waiver of objection. Texaco is, therefore, hereby authorized to proceed with the waterflood project as outlined in Order No. R-3253.

Very truly yours,

A. L. PORTER, Jr.
Secretary-Director

ALP/DSN/esr

cc: Oil Conservation Commission - Hobbs

TEXACO
INC.

PETROLEUM PRODUCTS



July 27, 1967

MAILED 10:00 AM
JUL 28 PM 1 13

DRAWER 728
HOBBS, NEW MEXICO 88240

New Mexico Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico

Re: Order No. 3253, TEXACO "BV"
Waterflood Project, Lazy J
Pennsylvanian Field,
Lea County, New Mexico

Attention: Mr. A. L. Porter, Jr.

Gentlemen:

The above referenced order provided that TEXACO shall furnish to the Commission written waivers from all offset operators within 1/2 mile of the proposed injection well waiving objection to the injection into the interval from 9612' to 9800'. TEXACO wrote each offset operator by letter dated June 26, 1967 requesting waiver to the above effect with a copy to your office.

To date we have received waivers from all the offset operators except one, that being So. Main, Inc., who owns the west half of the south-east quarter of Section 26, Township 13S, Range 33E. The letter for this operator was sent care of Harry B. Williams, 1716 Esperson Building, Houston, Texas, as this was the latest address which TEXACO's Land Department had in previous correspondence concerning this tract. It has been 31 days since the above dated letter was mailed. Since it appears that we are not going to receive an answer to our request for a waiver from this operator and that there is no well located on the tract of land, it is requested that the attached waivers from all of the other offset operators suffice in fulfillment of the stipulation that all offset operators submit written waiver as provided in your Order No. R-3253.

from Ted Bulberry -

none of record, according to land office records, in
Manforth Production Co, Inc. of
Florence L. Karsten
the address to which rental notices are to be sent.
Box 337, Locust Valley, Long Island NY
advised Dan McCarter, 157 Terrace, Hobbs, of this 8/17/67 11560

New Mexico Oil Conservation Commission - 2 -

July 27, 1967

It is requested that you supply this office with your approval for TEXACO to start injection into the interval from 9612' - 9800' in its State "BV" Well No. 1 as provided in the above order.

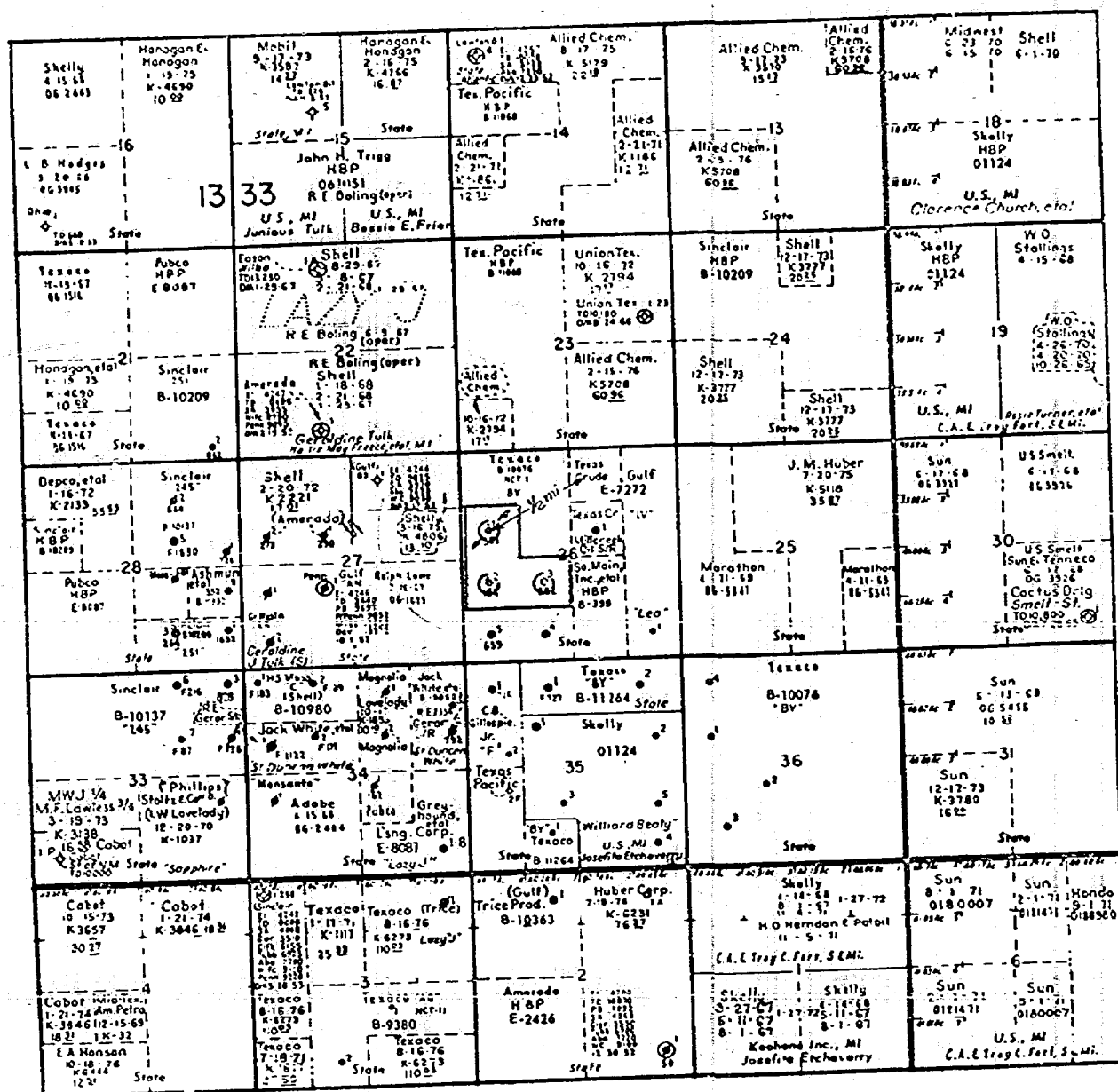
Yours very truly,

H. D. Raymond

EDMc-cr

cc: WDH

NMOCC - Hobbs

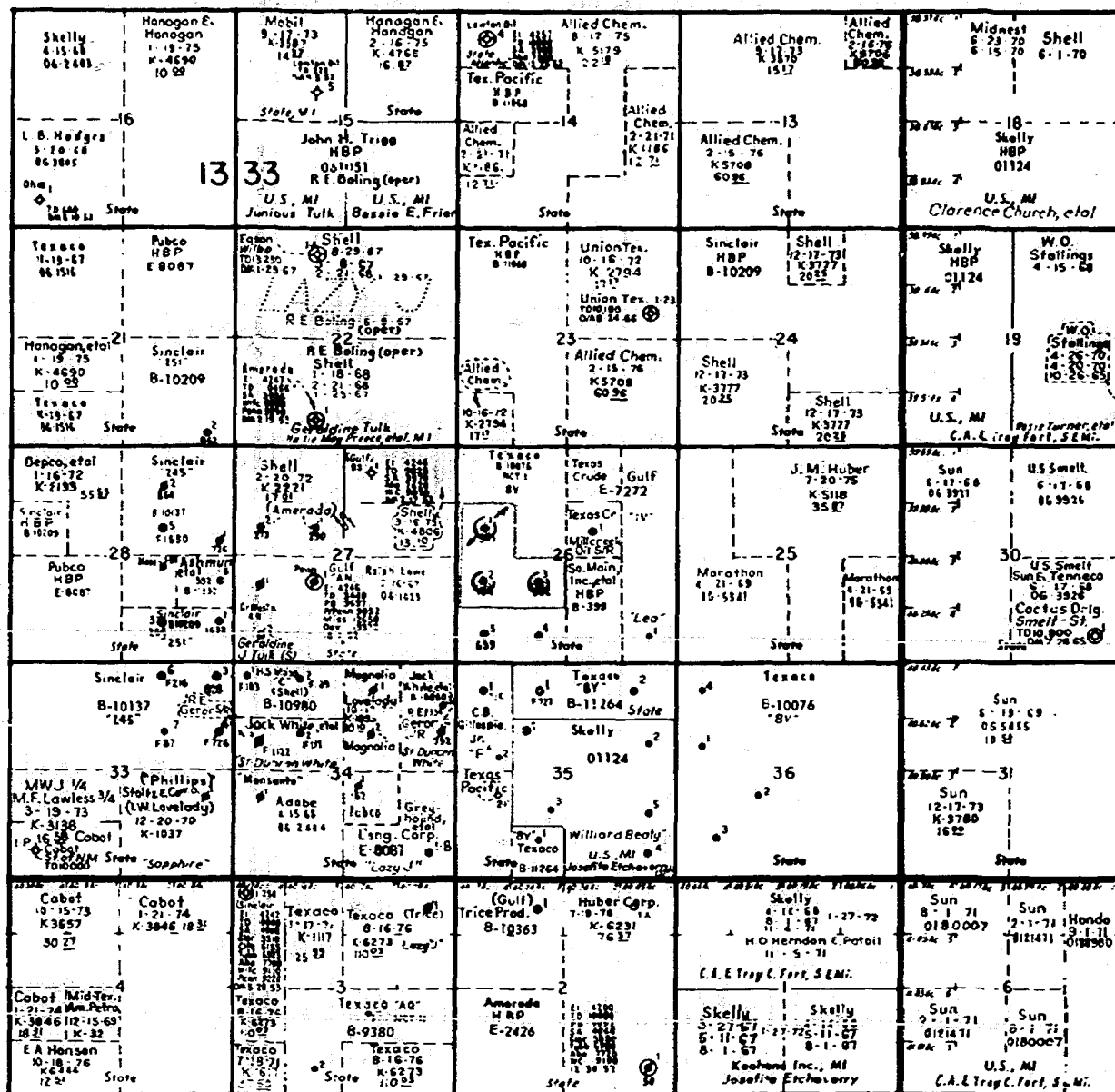


TEXACO Inc.
LAZY J PENNSYLVANIAN OIL POOL
LEA COUNTY, NEW MEXICO

- ① WELLS INCLUDED IN PROPOSED PROJECT AREA
- ② PROPOSED INJECTION WELL
- PROPOSED PROJECT AREA

NOTE: The Lazy J Pennsylvania Oil Pool is the only producing zone in the area covered by this map.

SCALE: 1" = 4000'



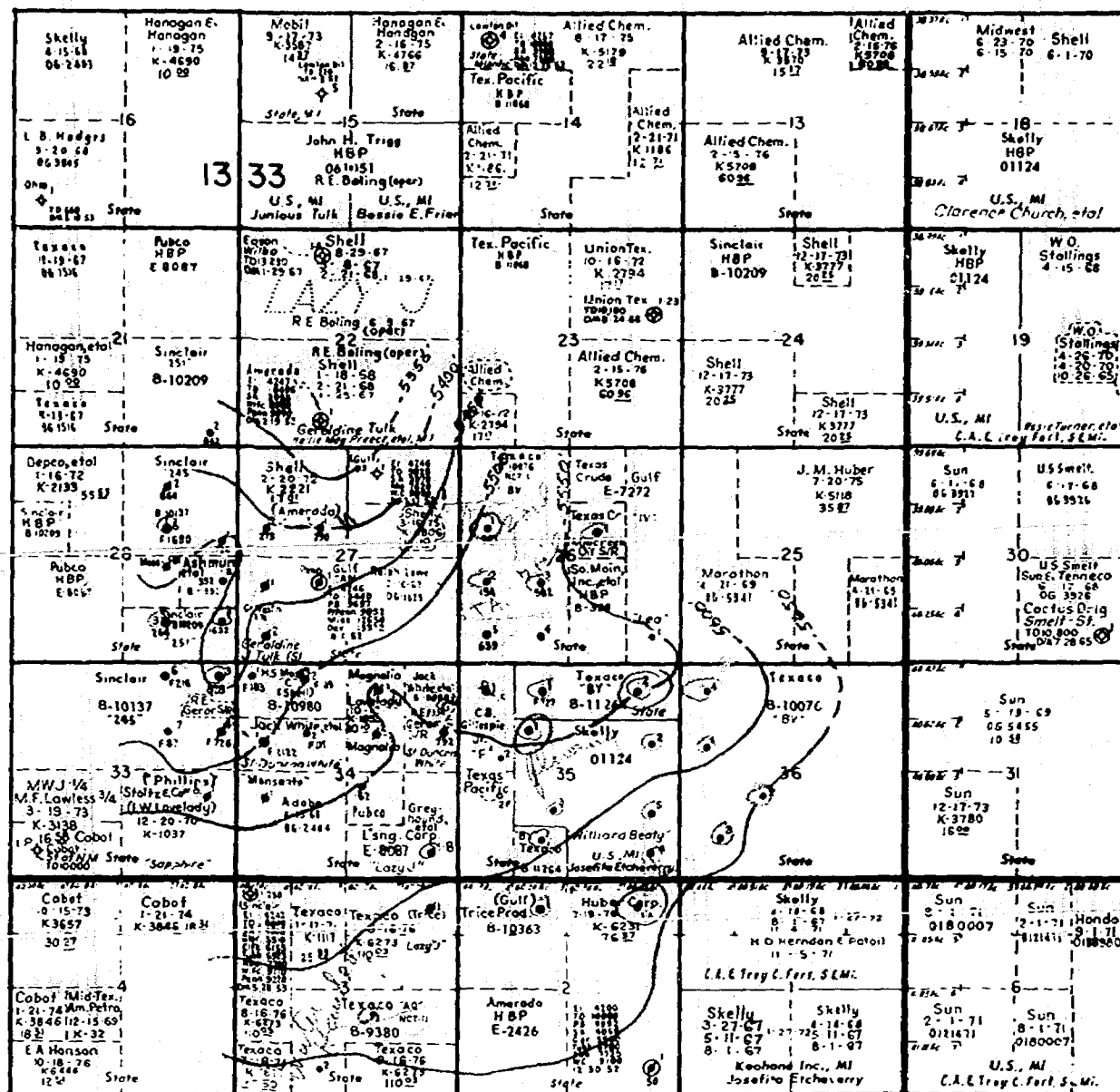
TEXACO Inc.
LAZY J PENNSYLVANIAN OIL POOL
LEA COUNTY, NEW MEXICO

② WELLS INCLUDED IN PROPOSED PROJECT AREA
③ PROPOSED INJECTION WELL
— PROPOSED PROJECT AREA

NOTE: The Lazy J Pennsylvania Oil Pool is the only producing zone in the area covered by this map.

SCALE: 1" = 4000'

BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION
EXHIBIT NO. 1
CASE NO. 3590



TEXACO Inc. Hobbs District	
STRUCTURE MAP LAZY J PENNSYLVANIAN POOL LEA COUNTY, NEW MEXICO	
Contoured Horizon:	WOLFCAMP ZONE 2
Contour Interval:	50'
Drawn By:	EDMC
Date:	5-12-67
Scale:	4000'

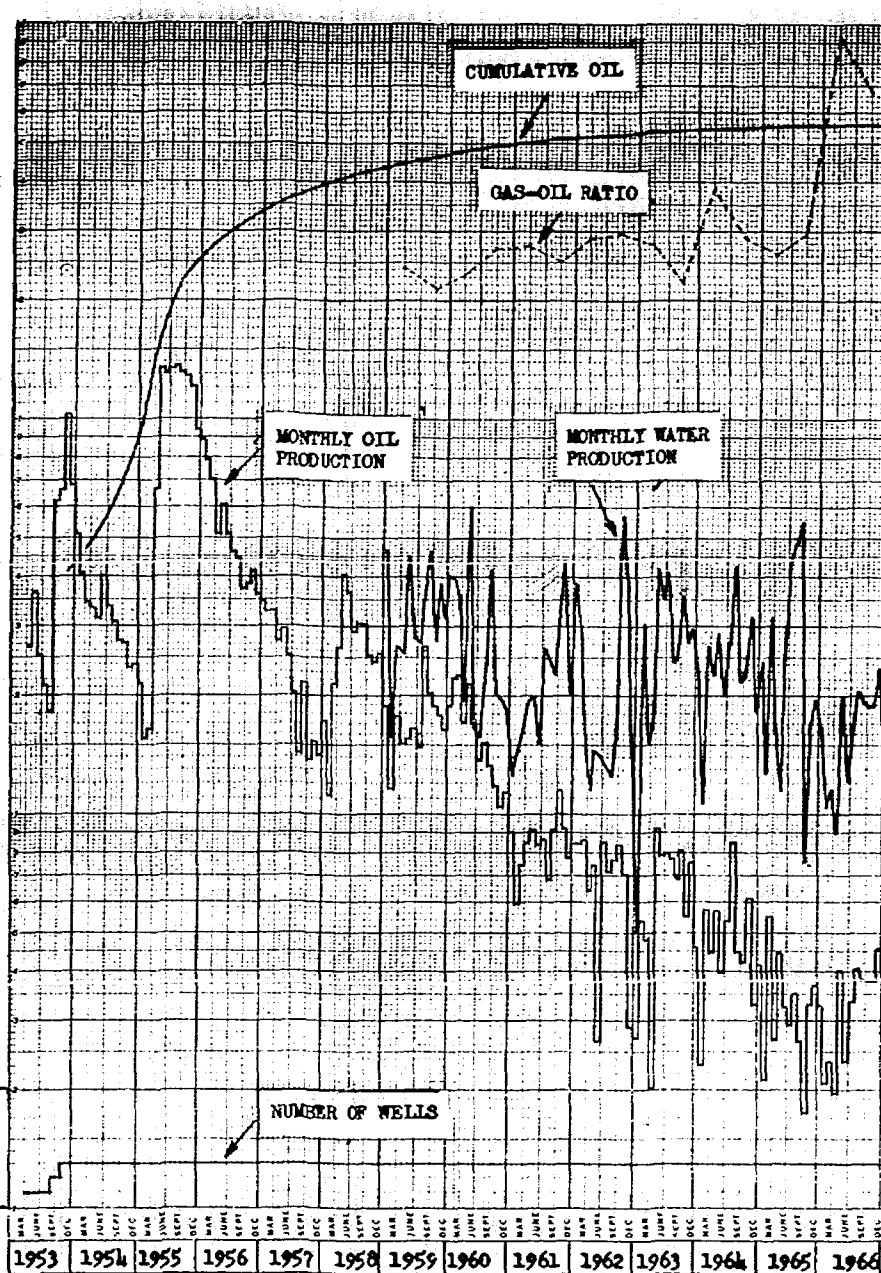
BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION

EXHIBIT NO. 2

ASE NO.

1,000,000
 100,000
 10,000
 1,000
 100
 10
 1

CUMULATIVE OIL PRODUCTION
 MONTHLY WATER PRODUCTION & COR
 MONTHLY OIL PRODUCTION
 NUMBER OF WELLS



TEXACO Inc.
 Hobbs District
 PERFORMANCE CURVES
 NEW MEXICO "BY" STATE HCT-1
 WELLS 1,2,3
 LAZY J (PENN) FIELD
 LEA COUNTY, NEW MEXICO
 Drawn By: JRS Date: 5-3-67

BEFORE EXAMINER USE
 OIL CONSERVATION COMMISSION
 EXHIBIT NO. 3
 CASE NO. 3542

SAMPLE NO.

THE WESTERN COMPANY

Service Laboratory
West Highway 80
Box 310
Midland, Texas

Phone MU 3-2781 Day or Night

WATER ANALYSIS

Operator Texaco Inc. Date Sampled 12-21-66
Well State of New Mexico AQ NCT 11 #1 Date Received 12-22-66
Field Lazy J Submitted by Hobbs District
Formation Wolfcamp Worked by M. Schall
Depth Other Description
County Lea, New Mexico

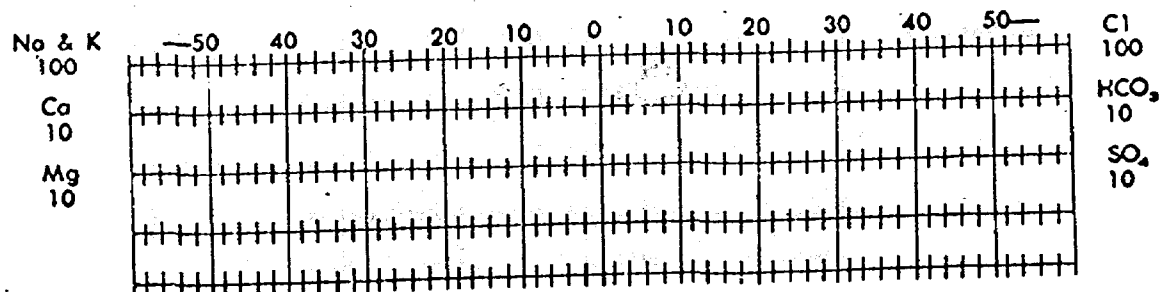
CHEMICAL DETERMINATIONS

Density 1.069 @ 74° F pH 5.6
Iron Fair Trace Hydrogen Sulfide None
Sodium and Potassium 28,900 ppm Bicarbonate 660 ppm
Calcium 6,280 ppm Sulfate 1,410 ppm
Magnesium 1,170 ppm Phosphate ppm
Chloride 57,600 ppm as Sodium Chloride ppm
Resistivity 0.085 ohm - meters @ 74° F

Remarks:

BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION
EXHIBIT NO. 5
CASE NO. 3540

for Stiff type plot (in meq./l.)

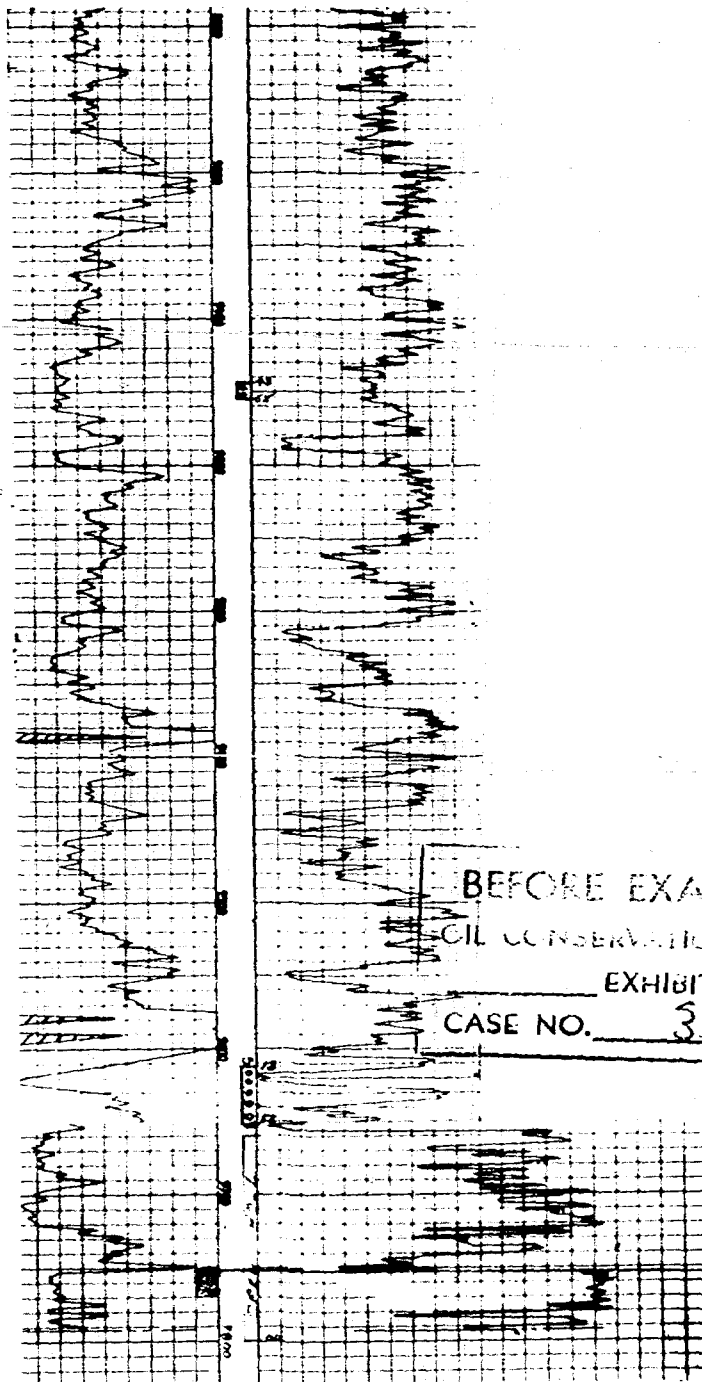


Per

LANE WELLS

Radioactivity Log

COMPANY: THE TEXAS OILFIELD		Location of Well	
WELL: STATE OF NEW MEXICO "77" NO. 1			
FIELD: LACE /			
COUNTY: LAM STATE: N.M.			
LOCATION: 3580' FUL & 150' FUL. 10			
SECTION 10, T13N, R13E			
LOG MEAS FROM	TO	DATE	TIME
DATE MEAS FROM	TO	DATE	TIME
MEASUREMENT	5 1/2" BORE HOLE	DATE	TIME
TYPE OF LOG RUN NO. DATE TOTAL DEPTH (FEET) DEPTH OF LOGGING INTERVAL TOP OF LOGGING INTERVAL BOTTOM OF LOGGING INTERVAL TYPE OF FLUID IN HOLE FLUID LTR. MAXIMUM RECORDED TEMP SOURCE OF TEMPERATURE SOURCE OF TEMPERATURE LENGTH OF MEASURING DEVICE - IN O.D. OF MEASURING DEVICE - IN TIME CONSTANT - SECONDS LOGGING SPEED - IN STATISTICAL VARIATION - IN SENSITIVITY REFERENCE RECORDING IN OPERATOR'S			
WELL RECORD			



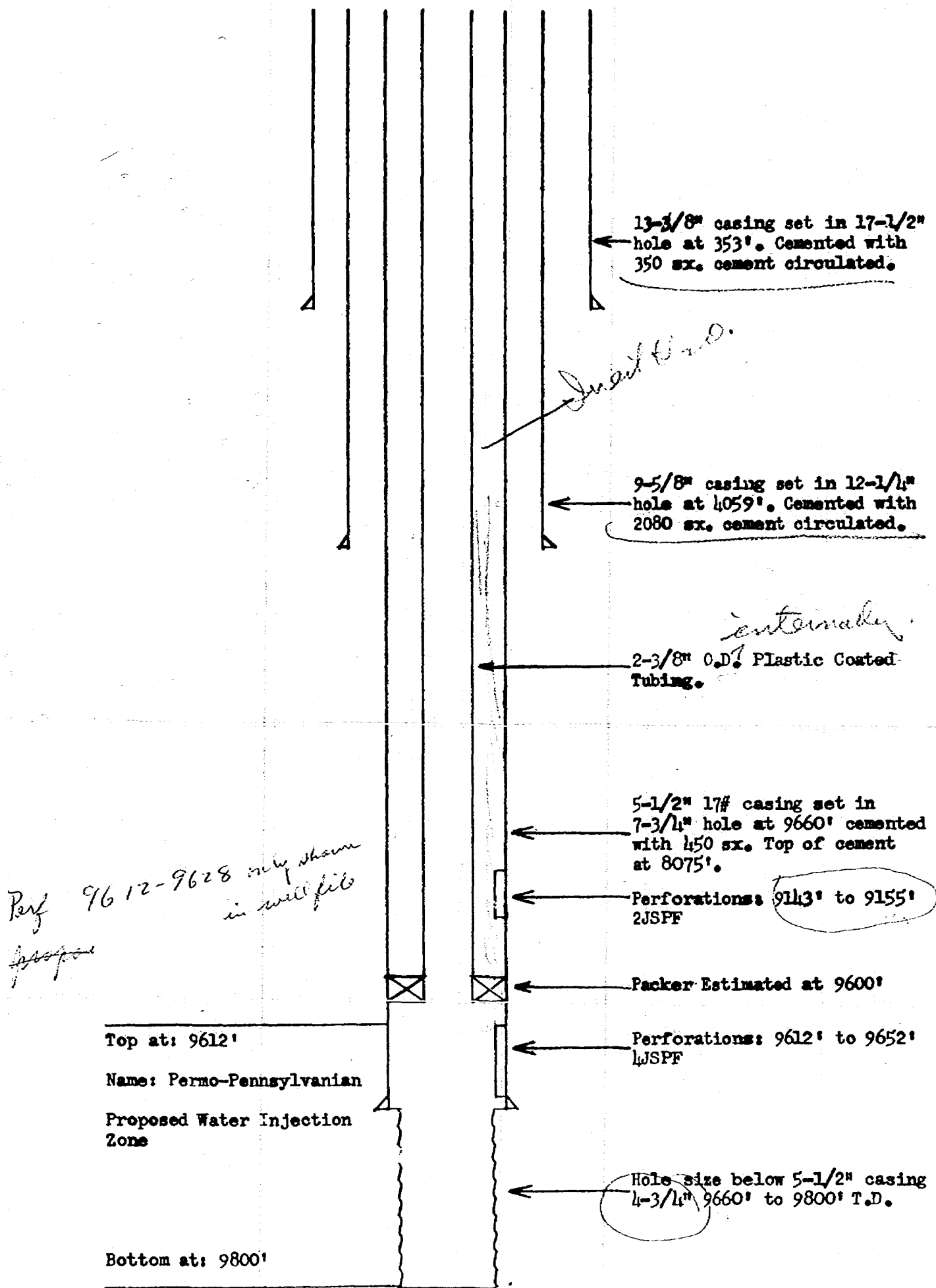
BEFORE EXAMINER UTZ

CIL CONSERVATION DIVISION

EXHIBIT NO. 6

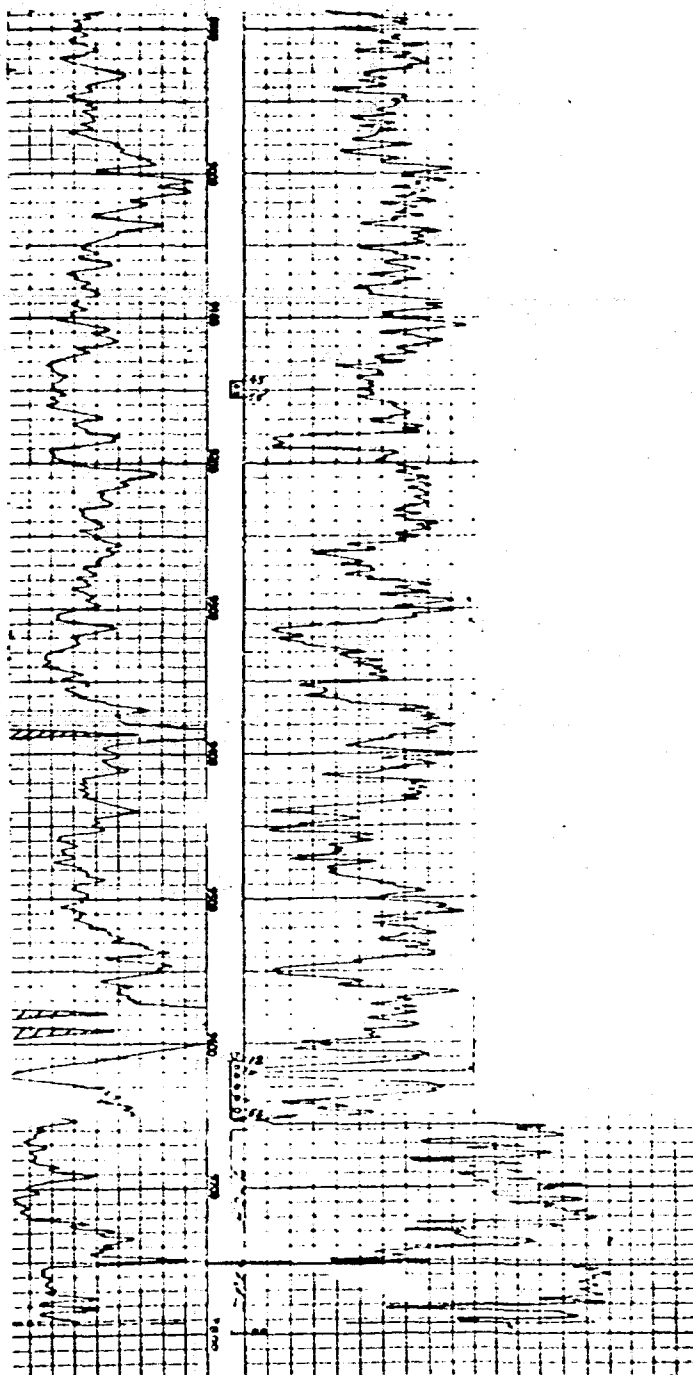
CASE NO. 3590

DIAGRAMMATIC SKETCH



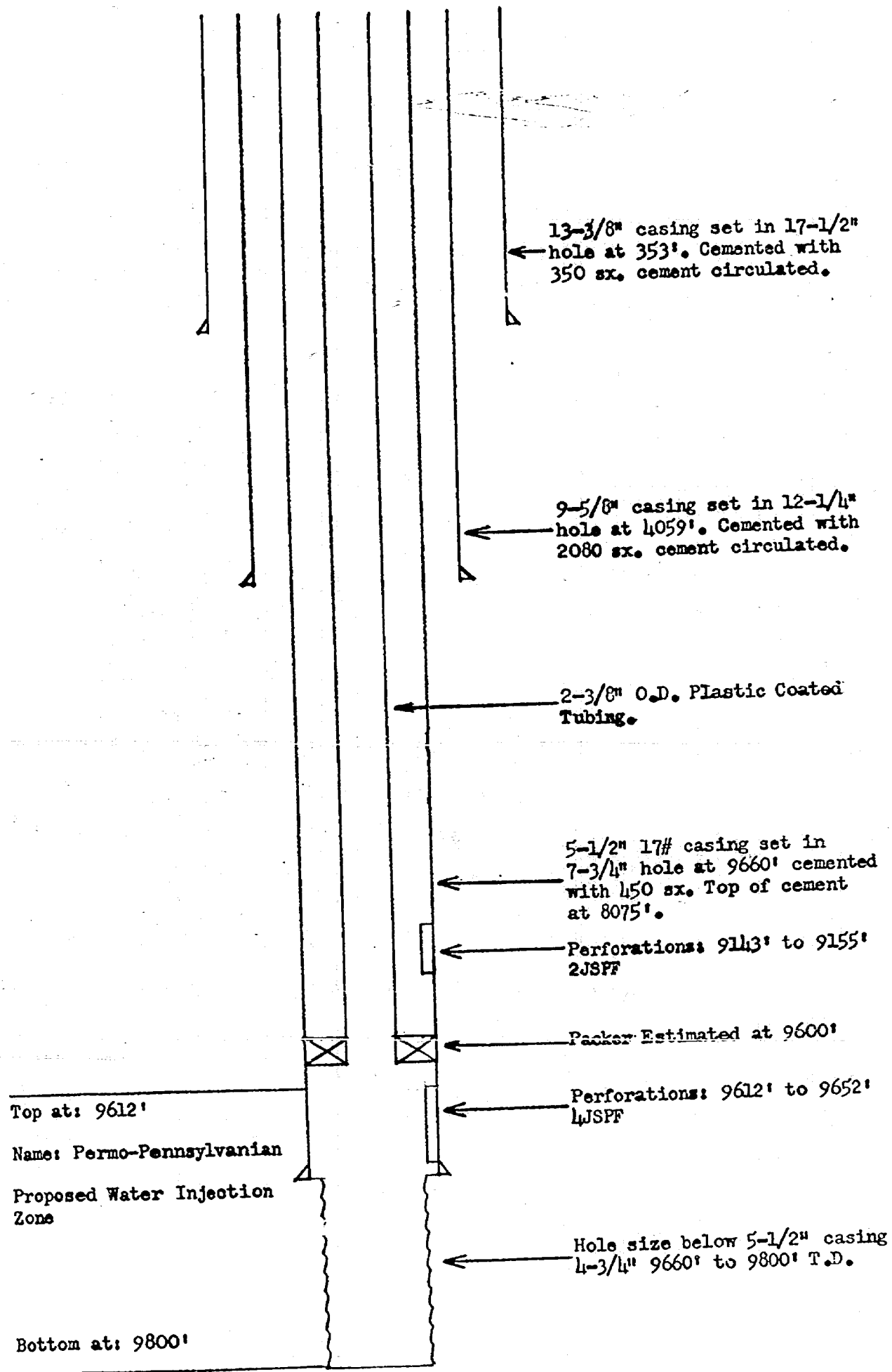
Company: TEXACO Inc.
 Lease: New Mexico "BV" State NCT-1 No. 1
 Field: Lazy J (Penn)
 County: Lea County, New Mexico

BEFORE EXAMINER UTZ
 OIL CONSERVATION COMMISSION
 EXHIBIT NO. 4
 CASE NO. 35-96

[illegible]

07 JUN 28 PM 1 17

DIAGRAMMATIC SKETCH



Company: TEXACO Inc.
 Lease: New Mexico "BV" State NCT-1 No. 1
 Field: Lazy J (Penn)
 County: Lea County, New Mexico

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
COMMISSION OF NEW MEXICO FOR
THE PURPOSE OF CONSIDERING:

CASE No. 3590
Order No. R-3253

APPLICATION OF TEXACO INC.
FOR A PILOT WATERFLOOD PROJECT,
LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on May 24, 1967,
at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 5th day of June, 1967, the Commission, a
quorum being present, having considered the testimony, the record,
and the recommendations of the Examiner, and being fully advised
in the premises,

FINDS:

(1) That due public notice having been given as required by
law, the Commission has jurisdiction of this cause and the subject
matter thereof.

(2) That the applicant, Texaco Inc., seeks permission to
institute a pilot waterflood project in the Lazy J-Pennsylvanian
pool by the injection of water into the Pennsylvanian formation
in the interval from 9612 feet to 9800 feet in its State "BV"
Well No. 1, located in Unit E of Section 26, Township 13 South,
Range 33 East, NMPM, Lea County, New Mexico.

(3) That this case was advertised as a proposal to inject
water into the interval from 9650 feet to 9800 feet in the subject
well.

(4) That the wells in the project area are in an advanced
state of depletion and should properly be classified as "stripper"
wells.

(5) That the proposed pilot waterflood project should result
in the recovery of otherwise unrecoverable oil, thereby preventing
waste.

-2-

CASE No. 3590
Order No. R-3253

(6) That the subject application should be approved and the project should be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations, provided the applicant furnishes to the Commission written waivers from all operators owning leases within one-half mile of the proposed injection well waiving objection to the injection of water into the proposed injection interval.

IT IS THEREFORE ORDERED:

(1) That the applicant, Texaco Inc., is hereby authorized to institute a pilot waterflood project in the Lazy J-Pennsylvanian Pool by the injection of water into the Pennsylvanian formation in the interval from 9612 feet to 9800 feet in its State "BV" Well No. 1, located in Unit E of Section 26, Township 13 South, Range 33 East, NMPM, Lea County, New Mexico;

PROVIDED HOWEVER, that the applicant shall furnish to the Commission written waivers from all operators owning leases within one-half mile of the proposed injection well waiving objection to the injection of water into said interval;

PROVIDED FURTHER, that in the absence of furnishing the aforementioned waivers, injection of water shall be limited to the interval from 9650 feet to 9800 feet in said State "BV" Well No. 1.

(2) That the subject pilot waterflood project is hereby designated the Texaco BV Waterflood Project and shall be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations.

(3) That monthly progress reports of the pilot waterflood project herein authorized shall be submitted to the Commission in accordance with Rules 704 and 1120 of the Commission Rules and Regulations.

(4) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.



STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

DAVID F. CARGO, Chairman

GUYTON B. EATZ, Member

A. L. PORTER, Jr., Member & Secretary

TEXACO
INC.

PETROLEUM PRODUCTS



DRAWER 728
HOBBS, NEW MEXICO 88240

June 26, 1967

MAIN OFFICE 000

'67 JUN 28 PM 1 17

TO: OFFSET OPERATORS

Re: TEXACO 'BV' Waterflood Project
Lazy 'J' Pennsylvanian Field
Lea County, New Mexico

Gentlemen:

TEXACO has been authorized to institute a pilot waterflood project in the Lazy 'J' Pennsylvanian Pool by the injection of water into the Pennsylvanian Formation in the interval from 9612 to 9800 feet in its New Mexico 'BV' State NCT-1 Well No. 1 located in Unit E of Section 26, Township 13-S, Range 33-E, Lea County, New Mexico. This case came before a hearing on May 24, 1967. The advertisement and the request for hearing indicated that the interval of injection would be from 9650 to 9800 feet in the subject well.

Due to the discrepancy between the advertisement and the actual perforations in the said well, the Commission has requested written waivers from all the Operators owning leases within one-half mile from the proposed injection well to the injection of water into the interval from 9612 to 9800 feet.

Attached please find a diagrammatic sketch and log over a portion of this well for your information. It would be appreciated if you would sign the attached waiver and return it, in duplicate, in the enclosed stamped return envelope.

Your prompt handling of this matter will be appreciated.

Yours very truly,

A handwritten signature in dark ink, appearing to read "J. G. Blevins, Jr.".
J. G. Blevins, Jr.
Assistant District Superintendent

EDMc-bh

Attachments

WDH
- NMOCC-Santa Fe, N.M.
NMOCC-Hobbs, N.M.

New Mexico Oil Conservation Commission
P.O. Box 2088
Santa Fe, New Mexico

WAIVER OF OBJECTION

The undersigned being advised of the discrepancy between the advertisement and the actual injection interval from 9612 to 9800 feet in TEXACO's New Mexico 'BV' State NCT-1 Well No. 1 hereby waives objection to the injection of water into the interval from 9612 to 9800 feet in the subject well.

COMPANY _____

By _____

Date _____

OFFSET OPERATORS

NEW MEXICO "BY" STATE NCT-1 LEASE
LAZY J PENN FIELD
LEA COUNTY, NEW MEXICO

Allied Chemical
1300 Wilco Building
Midland, Texas

Ralph Lowe
Midland Tower Building
P. O. Box 832
Midland, Texas 79701

Shell Oil Company, Western Division
P. O. Box 1509
Midland, Texas 79701

So. Main, Inc.
c/o Harry B. Williams
1716 Esperson Building
Houston, Texas

Texas Crude Oil Company
205 V&J Tower
Midland, Texas 79701

Texas Pacific Oil Company
P. O. Box 4067
Midland, Texas 79701

TEXACO
INC.

PETROLEUM PRODUCTS



DRAWER 728

HOBBS, NEW MEXICO 88240

August 25, 1967

New Mexico Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico

Re: Order No. 3253
TEXACO "BV" Waterflood Project
Lazy J Pennsylvanian Field
Lea County, New Mexico

Attention: Mr. Dan Nutter

Gentlemen:

Please reference our letter of July 27, 1967 and your telephone conversation with Mr. E. D. McCarter of this office on August 17, 1967, above subject. TEXACO mailed a copy of the original Request of Waiver to Manforth Production Company Inc., Locust Valley, New York by registered mail, return receipt requested. Attached please find the return receipt showing delivery of the subject letter and also please find a Waiver of Objection signed by Mr. Harry B. Williams and dated August 21, 1967. Mr. Williams was the person contacted on our original letter requesting waiver dated July 26, 1967, and since he had signed the waiver, is apparently the agent for Manforth Production Company Inc.

In view of the attached waiver, it is requested that you now supply this office with your approval for TEXACO to start injection into the interval from 9612' - 9800' in the State "BV" Well No. 1, as provided in the above order.

Yours very truly,

A handwritten signature in dark ink, appearing to read "J. G. Blevins, Jr.", is written over the typed name.

J. G. Blevins, Jr.
Assistant District Superintendent

EDMc-cr
WDH
NMOC-Hobbs
Attachment

67 Aug 28 AM 8 05

INSTRUCTIONS TO DELIVERING EMPLOYEE

☒ Show to whom and date delivered ☐ Show to whom, date, and address where delivered ☐ Deliver ONLY to addressee
(Additional charges required for these services)

RECEIPT

Received the numbered article described below.

REGISTERED NO.

9507

CERTIFIED NO.

INSURED NO.

DATE DELIVERED

AUG 21 1967

SIGNATURE OR NAME OF ADDRESSEE (Must always be filled in)

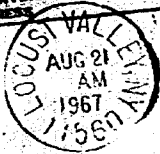
1 X Manforth Production Co

2 SIGNATURE OF ADDRESSEE'S AGENT, IF ANY

Ben Selart

SHOW WHERE DELIVERED (only if requested)

POST OFFICE DEPARTMENT
OFFICIAL BUSINESS



PENALTY FOR PRIVATE USE TO AVOID
PAYMENT OF POSTAGE \$300

FOR
PEACE

POSTMARK OF
DELIVERING OFFICE

INSTRUCTIONS: Show name and address below and
complete instructions on other side, where applicable.
If return requested, attach and hold firmly to back
of article. Point on front of article RETURN
RECEIPT REQUESTED.

RETURN
TO

NAME OF SENDER

STREET AND NO. OR P.O. BOX

POST OFFICE, STATE, AND ZIP CODE

POD Form 3811 June 1965

Waco Inc
Box 728
Albuquerque, NM 88240

New Mexico Oil Conservation Commission
P.O. Box 2088
Santa Fe, New Mexico

WAIVER OF OBJECTION

The undersigned being advised of the discrepancy between the advertisement and the actual injection interval from 9612 to 9800 feet in TEXACO's New Mexico 'BV' State NCT-1 Well No. 1 hereby waives objection to the injection of water into the interval from 9612 to 9800 feet in the subject well.

COMPANY

By

Date

Larry B. Williams

8-21-67

New Mexico Oil Conservation Commission
P.O. Box 2088
Santa Fe, New Mexico

WAIVER OF OBJECTION

The undersigned being advised of the discrepancy between the advertisement and the actual injection interval from 9612 to 9800 feet in TEXACO's New Mexico 'BY' State NCT-1 Well No. 1 hereby waives objection to the injection of water into the interval from 9612 to 9800 feet in the subject well.

COMPANY UNION TEXAS PETROLEUM CORP.

By *A. L. Stover*

Date June 30, 1967

Allied Chemical

New Mexico Oil Conservation Commission
P.O. Box 2088
Santa Fe, New Mexico

WAIVER OF OBJECTION

The undersigned being advised of the discrepancy between the advertisement and the actual injection interval from 9612 to 9800 feet in TEXACO's New Mexico 'BV' State NCT-1 Well No. 1 hereby waives objection to the injection of water into the interval from 9612 to 9800 feet in the subject well.

COMPANY Ralph Lowe Estate
By H. Landua
Date 6-30-67

New Mexico Oil Conservation Commission
P.O. Box 2088
Santa Fe, New Mexico

WAIVER OF OBJECTION

The undersigned being advised of the discrepancy between the advertisement and the actual injection interval from 9612 to 9800 feet in TEXACO's New Mexico 'BV' State NCT-1 Well No. 1 hereby waives objection to the injection of water into the interval from 9612 to 9800 feet in the subject well.

COMPANY Shell Oil Company

By J. M. Shuler

Date 4/30/67

New Mexico Oil Conservation Commission
P.O. Box 2088
Santa Fe, New Mexico

WAIVER OF OBJECTION

The undersigned being advised of the discrepancy between the advertisement and the actual injection interval from 9612 to 9800 feet in TEXACO's New Mexico 'BV' State NCT-1 Well No. 1 hereby waives objection to the injection of water into the interval from 9612 to 9800 feet in the subject well.

COMPANY Texas Crude Oil Co.
By F. M. Littlejohn
Date 6-28-67

New Mexico Oil Conservation Commission
P.O. Box 2088
Santa Fe, New Mexico

WAIVER OF OBJECTION

The undersigned being advised of the discrepancy between the advertisement and the actual injection interval from 9612 to 9800 feet in TEXACO's New Mexico 'BV' State NCT-1 Well No. 1 hereby waives objection to the injection of water into the interval from 9612 to 9800 feet in the subject well.

COMPANY TEXAS PACIFIC OIL CO.

By

L. B. Jeffers

L. B. JEFFERS

Date

L.B.J. JUN 30 '67

MANAGER OF PRODUCTION SERVICES

OIL CONSERVATION COMMISSION

P. O. BOX 2088

SANTA FE, NEW MEXICO

June 5, 1967

C

Mr. Booker Kelly
White, Gilbert, Koch & Kelly
Attorneys at Law
Post Office Box 787
Santa Fe, New Mexico

O

Dear Sir:

P

Enclosed herewith is Commission Order No. R-3253, entered in Case No. 3590, approving the Texaco EV Waterflood Project in the Lazy J-Pennsylvanian Pool.

Y

Injection is to be through the one authorized injection well, which shall be equipped with plastic-coated tubing and a packer set at approximately 9600 feet. The casing-tubing annulus shall be filled with a corrosion-inhibited fluid.

As to allowable, our calculations indicate that when the authorized injection well has been placed on active injection, the maximum allowable which this project will be eligible to receive under the provisions of Rule 701-E-3 is 477 barrels per day.

Please report any error in this calculated maximum allowable immediately, both to the Santa Fe office of the Commission and the appropriate district proration office.

In order that the allowable assigned to the project may be kept current, and in order that the operator may fully benefit from the allowable provisions of Rule 701, it behooves him to promptly notify

OIL CONSERVATION COMMISSION
P. O. BOX 2088
SANTA FE, NEW MEXICO

-2-

Mr. Booker Kelly
Santa Fe, New Mexico
June 3, 1967

C both of the aforementioned commission offices by letter of any change in the status of wells in the project area, i.e., when active injection commences, when additional injection or producing wells are drilled, when additional wells are acquired through purchase or unitization, when wells have received a response to water injection, etc.

O Your cooperation in keeping the commission so informed as to the status of the project and the wells therein will be appreciated.

Very truly yours,

P

A. L. PORTER, Jr.
Secretary-Director

Y

Enclosure
ALP/DSM/ir

cc: Mr. Frank Irby
State Engineer Office
Santa Fe, New Mexico

Oil Conservation Commission
Post Office Box 1980
Hobbs, New Mexico

TEXACO
INC.

PETROLEUM PRODUCTS



DOMESTIC PRODUCING DEPARTMENT
MIDLAND DIVISION

P. O. BOX 3109
MIDLAND, TEXAS 79701

May 4, 1967

Case 35-90

REQUEST FOR EXAMINER HEARING
PILOT WATERFLOOD PROJECT
LAZY J PENNSYLVANIAN POOL
LEA COUNTY, NEW MEXICO

Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico

Attention: Mr. A. L. Porter, Jr.

Gentlemen:

It is respectfully requested that an Examiner Hearing in Santa Fe, New Mexico, be scheduled to consider the application of Texaco Inc. for Oil Conservation Commission approval to conduct a pilot waterflood operation in the Lazy J Pennsylvanian Pool in Lea County, New Mexico.

At the requested hearing Texaco will seek an order authorizing the formation of a pilot waterflood project area comprised of a portion of Texaco's New Mexico "BV" State NCT-1 lease. The area would include the 40-acre units assigned to Well Nos. 1, 2 and 3 located in the SW/4 of the NW/4 and the N/2 of the SW/4 of Section 26, T-13-S, R-33-E, being 120 acres more or less.

Approval will be requested to convert Well No. 1 located in Unit E to water injection use. This will be the only injection well. The injection fluid will be produced water from other Lazy J Pennsylvanian wells and will be injected at an initial rate of approximately 175 barrels of water per day on a vacuum. Injection will be down 2-3/8" OD plastic coated tubing with a packer set at 9600' injecting into perforations at a depth of 9650' to 9675' and into an open hole section from 9675' to 9800'. Total depth of the injection well is 9800'. Attached is a plat showing the wells in the Lazy J Pennsylvanian Pool, the proposed pilot waterflood project area and the proposed injection well.

Also attached is a list of all operators in the Lazy J Pennsylvanian oil pool with the operators offsetting the proposed

DOCKET MAILED

Date 5-12-67
h


Mr. A. L. Porter, Jr.
Oil Conservation Commission

-2-

April 5, 1967

project area being designated with an asterisk. The offset operators are being mailed a copy of this letter. A copy of this hearing request is also being mailed to the New Mexico State Engineer at Santa Fe.

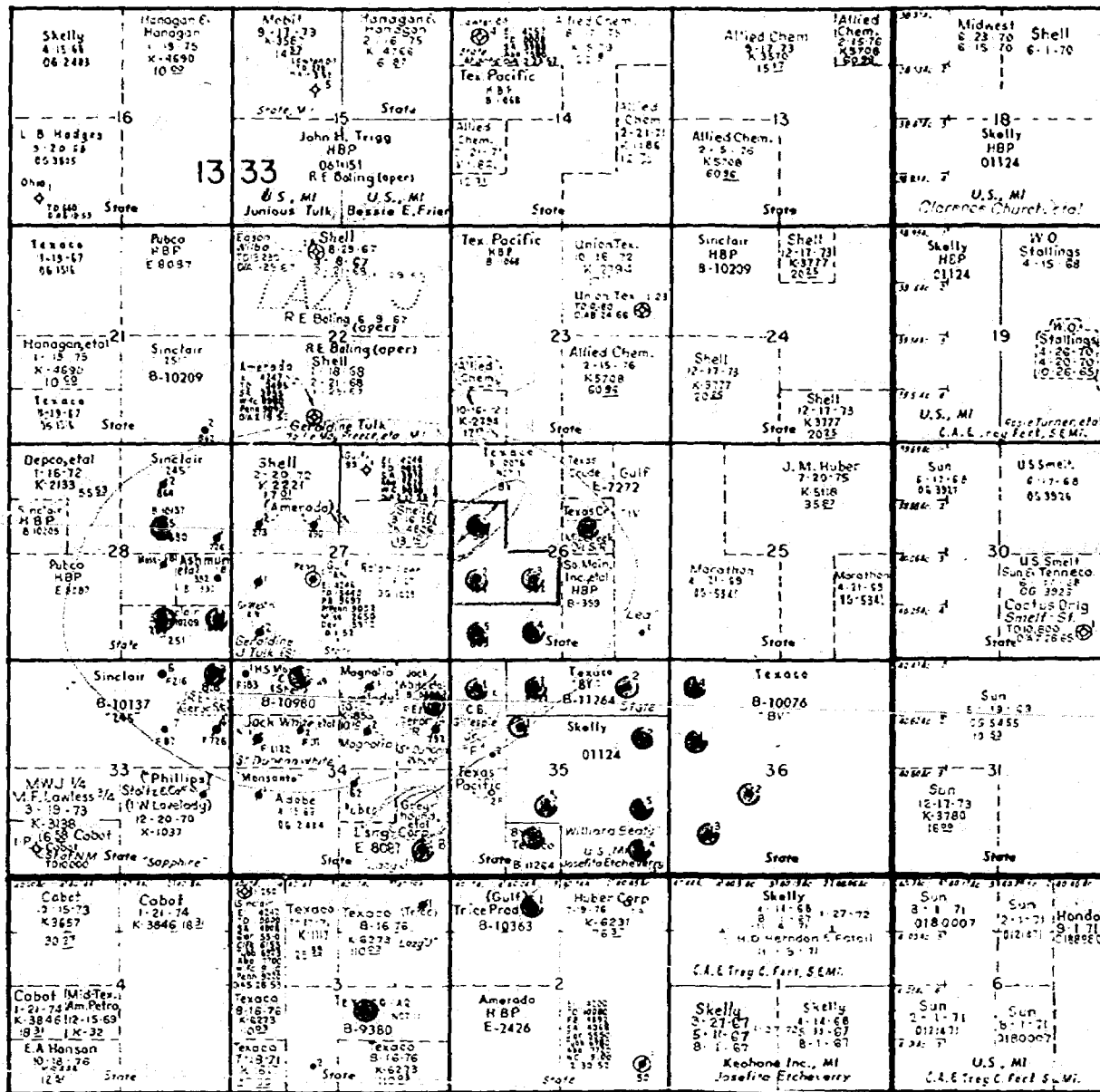
Yours very truly,



C. L. Whigham
Division Proration Engineer

CLW-JH

Attach.



TEXACO INC.

LAZY J PENNSYLVANIAN OIL POOL

LEA COUNTY, NEW MEXICO

● PENNSYLVANIAN COMPLETION

● PROPOSED INJECTION WELL

— PROPOSED PROJECT AREA

SCALE: 1" = 4000'

DDD 5-3-67

Case 3590

waterflood
allowance
Depth factor 3.77
3.77
42
754
1508
158.34

159
3
77

LAZY J PENNSYLVANIAN POOL
OPERATORS MAILING LIST

R. E. Geror
1846 East Broadway
Tucson, Arizona

Charles B. Gillespie, Jr.
Wilkinson-Foster Bldg.
Midland, Texas 79701

Greyhound Leasing & Financial Corp.
(Address not available)

H. S. Moss
1503 1st National Bank Bldg.
Dallas, Texas

Sinclair Oil & Gas Company
P. O. Box 1470
Midland, Texas 79701

Skelly Oil Company
Box 933
Midland, Texas 79701

*Texas Crude Oil Company
205 V&J Tower
Midland, Texas 79701

Trice Production Company
Drawer 2232
Longview, Texas 75603

John H. Trigg
110 E. 3rd
Roswell, New Mexico

* Offset to Texaco Inc. State of New Mexico "BV" (NCT-1) Lease

Case 3590

Case 3580

Heard. 5-24-67

Res. 5-31-67

1. Grant Texasco permission to conduct a pilot waterflood by converting their N. Mos. ~~13V~~ 13V" Lt. NCT-1-#1 E-26-135-33E to an injection well.

2. The well shall have a packer set at approx 2600 and injection shall be thru internally plastic coated tubing. The $5\frac{1}{2} \times 2\frac{3}{8}$ inch annulus shall be filled with an inert fluid.

3. Water used well be produced water from the Lazy J. Pool.

Water will be injected into the Lazy J. Penn oil Pool at approx 9612-
~~9800~~ 9806.

Thos A. [Signature]

Docket No. 16-67

DOCKET: EXAMINER HEARING - WEDNESDAY - MAY 24, 1967

9 A.M. - OIL CONSERVATION COMMISSION CONFERENCE ROOM,
STATE LAND OFFICE BUILDING - SANTA FE, NEW MEXICO

The following cases will be heard before Elvis A. Utz, Examiner, or Daniel S. Nutter, Alternate Examiner:

- CASE 3572: Application of Jones Exploration Company for a dual completion and for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dually complete its State Well No. 1 located in Unit H of Section 35, Township 17 South, Range 35 East, Vacuum Field, Lea County, New Mexico, in such a manner as to permit the production of Abo Reef oil through the tubing and the disposal of produced salt water down the casing-tubing annulus into the Paddock formation in the perforated interval from 6955 to 6995 feet.
- CASE 3573: Application of Aztec Oil & Gas Company for special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the promulgation of special pool rules for the South Corbin Strawn Oil Pool, including a provision for 160-acre proration units and the establishment of a 4000 to one gas-oil ratio limitation.
- CASE 3574: Application of Cima Capitan, Inc. for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project by the injection of water into the Grayburg-San Andres formations through one well located in Unit C of Section 3, Township 17 South, Range 32 East, Maljamar Pool, Lea County, New Mexico.
- CASE 3575: Application of Harvey E. Yates for a triple completion, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the triple completion of his Stebbins Deep Federal Well No. 1 located in Unit H of Section 30, Township 20 South, Range 29 East, Eddy County, New Mexico, to produce oil from the Scanlon Delaware Oil Pool through one string of tubing and to selectively produce gas from an undesignated Strawn gas pool and from an undesignated Morrow gas pool through another string of tubing. Selective production of one of the two gas zones at a time would be accomplished by means of a sliding side door and tubing plug.
- CASE 3576: Application of Jomar Industries, Inc. for water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, has proposed to drill certain wells in the S/2 NW/4 SE/4 and the N/2 SW/4 SE/4 of Section 30, Township 18 South, Range 38 East, Lea County, New Mexico, for production of oil from the Ogallala formation. Applicant anticipates that fresh water will be produced from the Ogallala formation incidental to the production of said oil and now seeks authority to dispose of said water back into the Ogallala formation through an injection well or wells to be located no nearer than 330 feet to the outer boundaries of the above-described acreage.

CASE 3577: Application of El Paso Natural Gas Company for four non-standard units, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval of the following non-standard gas proration units in Township 29 North, Range 7 West, Basin-Dakota Gas Pool, Rio Arriba County, New Mexico:

A 327.78-acre non-standard unit comprising the W/2 of Section 6 and the NW/4 of Section 7, to be dedicated to the San Juan 29-7 Unit Well No. 100 located 790 feet from the South line and 950 feet from the West line of said Section 6;

A 345.19-acre non-standard unit comprising the SW/4 of Section 7 and the W/2 of Section 18;

A 361.64-acre non-standard unit comprising the W/2 of Section 19 and the NW/4 of Section 30;

A 375.28-acre non-standard unit comprising the SW/4 of Section 30 and the W/2 of Section 31.

Each of the latter three non-standard units will be dedicated to a well to be drilled at an as yet undetermined standard location on the respective unit.

CASE 3578: Application of Texas Pacific Oil Company for several non-standard gas proration units, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the dedication and rededication of certain acreage and the establishment of the following non-standard gas proration units in Township 22 South, Range 36 East, Jalmat Gas Pool, Lea County, New Mexico.

A 120-acre non-standard gas proration unit comprising the N/2 NE/4 and the SE/4 NE/4 of Section 7, to be dedicated to the State "A" A/c-2 Well No. 5, located in Unit A of said Section 7, and also to the State "A" A/c-2 Well No. 6 located in Unit B of said Section 7;

A 160-acre non-standard gas proration unit comprising the W/2 W/2 of Section 5, to be dedicated to the State "A" A/c-2 Well No. 41, located in Unit M of said Section 5;

An 80-acre non-standard gas proration unit comprising the E/2 NW/4 Section 5, to be dedicated to the State "A" A/c-2 Well No. 44, located in Unit F of said Section 5;

A 160-acre non-standard gas proration unit comprising the N/2 SE/4 and the E/2 SW/4 Section 5, to be dedicated to the State "A" A/c-2 Well No. 28, located in Unit I of said Section 5;

(Case 3578 continued)

An 80-acre non-standard gas proration unit comprising the S/2 SE/4 of Section 5, to be dedicated to the State "A" A/c-2 Well No. 27, located in Unit P of said Section 5;

A 160-acre non-standard gas proration unit comprising the W/2 SW/4, SE/4 SW/4, and SW/4 SE/4 Section 8, to be dedicated to the State "A" A/c-2 Well No. 54, located in Unit O of said Section 8;

A 160-acre non-standard gas proration unit comprising the S/2 NW/4, NE/4 SW/4, and NW/4 SE/4 of Section 8, to be dedicated to the State "A" A/c-2 Well No. 56, located in Unit J of said Section 8;

An 80-acre non-standard gas proration unit comprising the S/2 NE/4 of Section 8, to be dedicated to the State "A" A/c-2 Well No. 43, located in Unit H of said Section 8;

An 80-acre non-standard gas proration unit comprising the N/2 NW/4 Section 8, to be dedicated to the State "A" A/c-2 Well No. 49, located in Unit C of said Section 8;

A 240-acre non-standard gas proration unit comprising the NE/4 and E/2 NW/4 of Section 9, to be dedicated to the State "A" A/c-2 Well No. 40, located in Unit A of said Section 9;

A 240-acre non-standard gas proration unit comprising the E/2 SE/4 Section 8, and the SW/4 Section 9, to be dedicated to the State "A" A/c-2 Well No. 38, located in Unit K of said Section 9;

A 160-acre non-standard gas proration unit comprising the N/2 NE/4 Section 8, and the W/2 NW/4 of Section 9, to be dedicated to the State "A" A/c-2 Well No. 29, located in Unit D of said Section 9.

CASE 3579: Application of Texas Pacific Oil Company for three dual completions, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dually complete its State "A" A/c-2 Wells Nos. 28, 54, and 29, located in Unit I of Section 5, Unit O of Section 8, and Unit D of Section 9, respectively, Township 22 South, Range 36 East, Lea County, New Mexico, in such a manner as to produce gas from the Jalmat Gas Pool and oil from the South Eunice Oil Pool.

CASE 3580: Application of Sunray DX Oil Company for a waterflood project, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project by the injection of water into the Grayburg formation through one well located in Unit C of Section 17, Township 17 South, Range 31 East, Grayburg-Jackson Pool, Eddy County, New Mexico.

- CASE 3581: Application of Sunray DX Oil Company for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the San Andres formation from 4248 feet to 4286 feet in its Harris State Well No. 5 located in Unit I of Section 23, Township 10 South, Range 32 East, Mescalero-San Andres Pool, Lea County, New Mexico.
- CASE 3582: Application of Tenneco Oil Company for two unorthodox gas well locations, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox Blanco Mesaverde Gas Pool location of its Jicarilla C Well No. 6, located 1780 feet from the North line and 1455 feet from the West line of Section 14, and its Jicarilla C Well No. 4 located 1650 feet from the North and West lines of Section 24, all in Township 26 North, Range 5 West, Rio Arriba County, New Mexico.
- CASE 3583: Application of Stoltz & Company for special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the promulgation of special pool rules for the North Bagley-Lower Pennsylvanian Pool, Lea County, New Mexico, including a provision for 80-acre spacing and proration units.
- CASE 3584: Application of Gulf Oil Corporation for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to drill its Eddy "BD" State Well No. 1 at an unorthodox location 660 feet from the South line and 990 feet from the East line of Section 32, Township 20 South, Range 30 East, in an undesignated Strawn gas pool, Eddy County, New Mexico.
- CASE 3585: Application of Gulf Oil Corporation for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the force-pooling of all mineral interests in the North Bagley-Pennsylvanian Oil Field, SW/4 SE/4 and SE/4 SE/4 of Section 9, Township 11 South, Range 33 East, Lea County, New Mexico, to be dedicated to the Lea State "OE" Well No. 1 to be drilled 660 feet from the South line and 1980 feet from the East line of said Section 9.
- CASE 3586: Application of Morris R. Antweil for a unit agreement, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval of its Malaga Unit Area comprising 839 acres, more or less, of Federal and Fee lands in Sections 12 and 13, Township 24 South, Range 28 East, and Sections 7 and 18, Township 24 South, Range 29 East, Eddy County, New Mexico.
- CASE 3587: Application of Morris R. Antweil for a waterflood project, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project by the injection of water into the Delaware Sand through seven injection wells located in Sections 12 and 13, Township 24 South, Range 28 East, and Section 18, Township 24 South, Range 29 East, Malaga Pool, Eddy County, New Mexico.

CASE 3588: Application of Pan American Petroleum Corporation for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval of the unorthodox location in an undesignated Morrow and/or Devonian gas pool for its Poker Lake Unit Federal Well No. 26 at a location 660 feet from the South and East lines of Section 28, Township 24 South, Range 31 East, Eddy County, New Mexico, to be dedicated to a standard unit comprising the S/2 of said Section 28.

CASE 3589: Application of Claude C. Kennedy for special pool rules, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks the establishment of special pool rules for the Slick Rock-Dakota Oil Pool comprising the S/2 SE/4 of Section 36, Township 30 North, Range 17 West, including a provision for development on 2 1/2 acre spacing with the provision that each 40-acre tract be subject to the Northwest New Mexico normal unit allowable.

CASE 3590: Application of Texaco Inc. for a pilot waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a pilot waterflood project by the injection of water into the Pennsylvanian formation in the interval from 9650 feet to 9800 feet in its State BV Well No. 1 located in Unit E of Section 26, Township 13 South, Range 33 East, Lazy-J Pennsylvanian Pool, Lea County, New Mexico.

CASE 3591: Application of Anadarko Production Company for a waterflood expansion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to expand its Langlie-Mattix Penrose Sand Unit Waterflood Project by the injection of water into the Penrose Sand through eight additional injection wells located in Sections 20, 28, 29, 32, and 33, all in Township 22 South, Range 37 East, Langlie-Mattix Pool, Lea County, New Mexico.



STATE OF NEW MEXICO

STATE ENGINEER OFFICE

SANTA FE

S. E. REYNOLDS
STATE ENGINEER

May 22, 1967

ADDRESS CORRESPONDENCE TO:
STATE CAPITOL
SANTA FE, NEW MEXICO 87501

Mr. A. L. Porter, Jr.
Secretary-Director
Oil Conservation Commission
Santa Fe, New Mexico

Dear Mr. Porter:

Reference is made to Texaco's application for a pilot waterflood project which seeks to convert their well #1 in Unit E of Sec. 26, T. 13 S., R. 33 E. to a water injection service.

It appears that the stated plan of injection would not cause a threat of contamination if the packer is set above the lower end of the production casing and below the top of the cement surrounding the casing.

FEI/ma
cc-Texaco, Inc.
F. H. Hennighausen

Yours truly,

S. E. Reynolds
State Engineer

By: *Frank E. Irby*
Frank E. Irby
Chief
Water Rights Div.

Carl Whigham

Salt water disposal Pilah WF Proj.

Lazy J Penn

W/2 26-135-33E

State BV #1

E of 26

Pennsylvanian

9650-9675

open to 9675-9800