Sect 2060 Application of TEXAGO

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BEFORE THE OIL CONSERVATION COMMISSION OF THE STATE OF MEN MEXICO

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

> CASE No. 2569 Order No. R-2251

APPLICATION OF TEXACO INC. FOR A QUINTUPLE COMPLETION, LEA COUNTY, MEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on May 23, 1962, at Santa Fe, New Mexico, before Blvis A. Utz, Examiner duly appointed by the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission," in accordance with Rule 1214 of the Commission Rules and Regulations.

NOW, on this 4th day of June, 1962, the Commission, a quorum being present, having considered the application, the evidence adduced, and the recommendations of the Examiner, Elvis A. Dts, 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 an order approving the quintuple completion (tubingless) of its G. L. Erwin "B" MCT-2 Well Mo. 3, located in Unit I, Section 35, Township 24 South, Range 37 East, MMPM, Lea County, New Mexico, in such a manner as to product oil from an undesignated Waddell pool through 2 7/8-inch casing and from the North Justis-McKee, North Justis-Fusselman, North Justis-Devomian and North Justis-Drinkard Pools through parallel strings of 2 3/8-inch casing, all cemented in a common well bore.
- (3) That the mechanics of the proposed quintuple completion are feasible and in accord with good conservation practices.
- (4) That approval of the subject application will neither cause waste nor impair correlative rights.

IT IS THEREFORE ORDERED:

(1) That Texaco Inc. is hereby authorized to complete its G. L. Erwin "B" NCT-2 Well No. 3, located in Unit I, Section 35,

-2-CASE Bo. 2569 Order No. R-2251

Township 24 South, Range 37 East, MMPM, Lea County, New Mexico, as a quintuple completion (tubingless) in such a manner as to produce oil from an undesignated Waddell pool and from the Morth Justis-McKee, Morth Justis-Fusselman, North Justis-Devonian and Morth Justis-Drinkard Pools through parallel strings of casing, cemented in a common well bore.

<u>paovided MOWEVER</u>, That the applicant shall complete, operate, and produce said well in accordance with the provisions of Rule 112-A of the Commission Rules and Regulations.

PROVIDED FURTHER, That zone segregation tests shall be taken upon completion and annually thereafter during the Gas-Oil Ratio Test Period for the Waddell formation.

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

DOME at Santa Pe, New Mexico, on the day and year hereinabove designated.

> STATE OF NEW MEXICO OIL COMSERVATION COMMISSION

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EDWIN L. MECHEM, Chairman

EALUNCES

B. S. WALKER, Member)

A Pater &

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



State of New Mexico Oil Conservation Commission

LAND COMMISSIONER E. S. JOHNNY WALKER



SYATE SECLOSIST
A. L. PORTER, JR.
SECRETARY - DIRECTO

P.O. BOX 871 SANTA FE

June 4, 1962

Re:

Mr. Booker Kelly Gilbert, White & Gilbert Attorneys at Law Bex 787 Santa Fe, New Mexico Case No. 2569
Order No. 2-2251
Applicant:

TEXACO, INC.

Dear Sir:

Enclosed herewith are two copies of the above-referenced Commission order recently entered in the subject case.

Very truly yours,

A. L. PORTER, Jr. Secretary-Director

Carbon copy of order also sent to:

Hobbs OCC ___x__

Artesia OCC___
Aztec OCC ___
OTHER__

Case 2569 Heard 5-23-62 Rec. 5-23-62 I Shant Depocts request for a dring truple Completion for iter & I True
"L" NCT-2 # 3. wit I - 35-253-376. 2. Completing will be in the follow Poole & North Justin Rinkand 4 Duralma " mckee 3. a separate setting tubury (takingless) with the set cement for each of the 5 purduing 4. Write usual Order for Mull completions. the markening the wellhood for Thursto The.

No. 16-62

DOCKET: EXAMINER HEARING - WEDNESDAY - MAY 23, 1962

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, as alternate examiner.

CASE 2537: (Reopened)

Application of J. C. Williamson for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks permission to complete its Westates-Federal Well No. 8 located in Unit E of Section 1, Township 25 South, Range 37 East, Lea County, New Mexico, as a dual completion (conventional) in the North Justis-McKee Pool and an undesignated Montoya pool with the production of oil from both zones to be through parallel strings of tubing.

CASE 2564:

Application of Tidewater Oil Company for a triple completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the triple completion (conventional) of its A. B. Coates "C" Well No. 18, located in Unit I, Section 24, Township 25 South, Range 37 East, Lea County, New Mexico, in such a manner as to produce oil from the Justis-Blinebry, Justis Tubb-Drinkard and Justis Ellenburger Pools through parallel strings of 2 3/8-inch tubing.

CASE 2565:

Application of J. Glenn Turner for a dual completion and an unorthodox location, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks an order authorizing the dual completion (conventional) of his Nye Well No. 9-1 at an unorthodox location 1810 feet from the North line and 900 feet from the West line of Section 9, Township 29 North, Range 10 West, San Juan County, New Mexico, in such a manner as to produce gas from the Blanco Mesaverde Gas Pool and the Basin Dakota Gas pool through parallel strings of 1 ½-inch and 2 1/16-inch tubing.

CASE 2566:

Application of Newmont Oil Company for an amendment to Orders No. R-1110, R-1110-A and R-111-B, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order amending Orders No. R-1110, R-1110-A and R-1110-B to define the proper limits of its Square Lake Pool Waterflood Project, Eddy County, New Mexico, to establish rules for expansion of the flood within the defined area, and to provide for capacity allowables for said area.

-2-Docket No. 16-62

CASE 2567:

Application of Redfern & Herd, Inc., for a force-pooling/order, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks an order force-pooling all mineral interests in the Basin-Dakota Gas Pool underlying the S/2 Section 11, Township 29 North, Range 13 West, San Juan County, New Mexico, to be dedicated to a well to be drilled in the SE/4 SE/4 of said Section 11.

CASE 2568:

Application of Redfern & Herd, Inc., for a force-pooling order, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks an order force-pooling all mineral interests in the Basin-Dakota Gas Pool underlying the E/2 Section 15, Township 29 North, Range 13 West, San Juan County, New Mexico, to be dedicated to a well to be drilled in the SE/4 NE/4 of said Section 15.

CASE 2569:

Application of Texaco Inc., for a quintuple completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order approving the quintuple completion (tubingless) of its G. L. Erwin "B" NCT-2 Well No. 3, located in Unit I, Section 35, Township 24 South, Range 37 East, Lea County, New Mexico, in such a manner as to produce oil from the Waddell, McKee, Fusselman, Devonian, and Drinkard zones, North Justis Field, through parallel strings of 2 7/8 and 2 3/8 inch casing cemented in a common well bore.



SUPPLEMENTAL DOCKET: EXAMINER HEARING - WEDNESDAY MAY 23, 1962 9 A.M. CONFERENCE ROOM, STATE LAND OFFICE BUILDING, SANTA FE, N. M.

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

CASE 2570:

Application of Cities Service Petroleum Corporation for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks permission to complete its State "AD" Well No. 2, located 3300 feet from the North line and 660 feet from the East line of Section 22, Township 10 South, Range 32 East, Lea County, New Mexico, as an oil-oil dual completion in the San Andres and Pennsylvanian formations in the Mescalero field with the production of oil to be through strings of 2-inch and 1½ or 1¼-inch tubing utilizing a crossover assembly.

Clase 2569

TEXACO

MAIN OFFICE OCC

PETROLEUM PRODUCTS

DOMESTIC PRODUCING DEPARTMENT
MIDLAND DIVISION



1362 MAY A M 6 1 29

MIDLAND, TEXAS

April 30, 1962

New Mexico Oil Conservation Commission P. O. Box 871 Santa Fe, New Mexico

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

Gentlemen:

Texaco Inc. respectfully requests that a hearing be set to consider its application for a quintuple tubingless completion for its G. L. Erwin "B" NCT-2 Well No. 3. The completions will be in the North Justis Tubb-Drinkard, Devonian, Fusselman, and McKee and Undesignated Waddell Pools, Lea County, New Mexico. It has been found that all five completions will be oil completions and will flow initially. Each of the five completions will be produced through individual strings of tubing cemented in a common well bore. In support of our application we wish to state the following facts:

- 1. Texaco Inc. is the operator of the G. L. Erwin "B" NCT-2 Lease containing 160 acres and consisting of the SE/4 of Section 35, T-24-S, R-37-E, Lea County, New Mexico.
- 2. The G. L. Erwin "B" NCT-2 Well No. 3 is located in Unit I, Section 35, T-24-S, R-37-E.
- 3. The Waddell is an oil completion through perforations 8246 to 8654 and will be produced through a string of 2-7/8" OD tubing cemented in the well bore.
- 4. The McKee is an oil completion through perforations 8111 to 8119' and will be produced through a string of 2-3/8" OD tubing cemented in the well bore.
- 5. The Fusselman is an oil completion through various perforated intervals from 6961 to 7020' and will be produced through a string

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April 30, 1962

of 2-3/8" OD tubing cemented in the well bore.

- 6. The Devonian is an oil completion through perforations 6900 to 6908' and will be produced through a string of 2-3/8" OD tubing cemented in the well bore.
- 7. The Drinkard is an oil completion through various perforated intervals from 5955 to 6052' and will be produced through a string of 2-3/8" OD tubing cemented in the well bore.

Texaco's application to complete this well as a quintuple tubingless completion in the Ellenburger, McKee, Fusselman, Devonian, and Drinkard formations was approved by administrative order MC-1155; however, upon drilling this well to total depth, it was found that the Ellenburger formation was too low to be productive and, therefore, the well was completed in the Waddell, McKee, Fusselman, Devonian, and Drinkard formations. Inasmuch as this was the first completion from the Waddell formation, it is respectfully requested that this application be set for hearing on the first available examiner hearing docket. Attached in triplicate is an application for quintuple completion and a plat of the G. L. Erwin "B" NCT-2 lease.

Yours very truly,

C.R. Black

C. R. Black Assistant Division Proration Engineer

CRB-MM Attach.

NEW MEXICO OIL CONSERVATION COMMISSION

			QUINTUPLE	20 ·		_	
		APPLICATION		COMPLETION	Case 256	9	
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	TEXACO Inc.		G. L. Erwin (t) NCT-2	3		
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Commission will hold the application for a period of twenty (20) days from date of receipt by the Commission's Santa Fe office. If, after said twenty-day period, no protest nor request for hearing is received by the Santa Fe office, the application will then be processed.

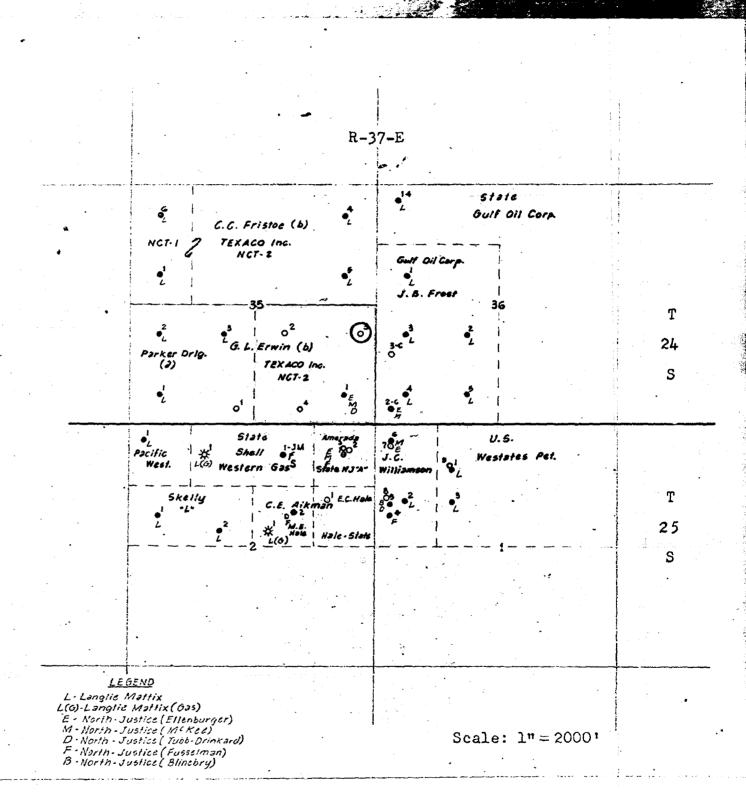
NOTE: If the proposed dual completion will result in an unorthodox well location and/or a non-standard proration unit in either or both of the

producing zones, then separate application for approval of the same should be filed simultaneously with this application.



3. The following facts are submitted:

a.	Name of reservoir	Drinkard	Devonian	Fusselman	McKee	Waddell
b.	Top and Bottom of Pay Section	5955-60', 6975-87', 6008-26',	6900-081	6961-71', 6993-96', 7010-20'	8111-19'	8246-54 '
-	(Perforations)	6038-41', 6047-52'	· · · · · · · · · · · · · · · · · · ·			
c.	Type of Production (Oil or Gas)	Oil	Oil	Oil	Oil	Oil
đ.	Method of Production (Flowing or Artificial Lift)	Flow	Flow	Flow	Flow	Flow



PLAT OF TEXACO Inc. G. L. ERWIN "b" NCT-2 LEASE AND OFFSET LEASES Lea County, New Mexico Scale: 1" = 2000'

J. B. Frost - 2106 Tower Petroleum Bldg. - Dallas 1, Texas Parker Drilling Co. - Commerce Bldg. - Houston, Texas Amerada - Drawer D - Monument, New Mexico Western Gas - 1006 Main St. - Hobbs, New Mexico J. C. Williamson - 608 V&J Tower - Midland, Texas Gulf Oil Corp. - P. O. Box 2167 - Hobbs, New Mexico Shell Oil Corporation, Box 1858, Roswell, New Mexico

CASE 2569

BEFORE THE OIL CONSERVATION COMMISSION Santa Fe, New Mexico May 23, 1962

EXAMINER HEARING

IN THE MATTER OF:

Application of Texaco Inc., for a quintuple completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order approving the quintuple completion (tubingless) of its G. L. Erwin "B" NCT-2 Well No. 3, located in Unit I, Section 35, Township 24 South, Range 37 East, Lea County, New Mexico, in such a manner as to produce oil from the Waddell, McKee, Fusselman, Devonian, and Drinkard zones, North Justis Field, through parallel strings of 2 7/8 and 2 3/8 inch casing cemented in a common well bore.

BEFORE: Elvis A. Utz, Examiner

TRANSCRIPT OF PROCEEDINGS

MR. UTZ: Case Number 2569.

MR. MORRIS: Application of Texaco Inc., for a quintuple completion, Lea County, New Mexico.

MR. KELLY: Booker Kelly appearing for Gilbert, White, and Gilbert, Santa Fe, New Mexico. We have one witness, and ask that he be sworn.

(Witness sworn.)

MR. UTZ: Any other appearances in this case? You may proceed.

(Whereupon, Applicant's Exhibits 1, 2, 3 marked for identifica-

REPORTING SERVICE, Inc.

C. R. BLACK

called as a witness, having been first duly sworn on oath, testified as follows:

DIRECT EXAMINATION

BY MR. KELLY:

- Q Would you state your name and your position?
- A I am C. R. Black. I'm employed by Texaco Inc. as a Petroleum Engineer, from Midland, Texas.

MR. KELLY: Are the witness qualifications acceptable?

MR. UTZ: Yes, sir, the witness has been previously
qualified.

- Q (By Mr. Kelly) What does Texaco seek by this application?
- A This is the application of Texaco Inc. for a quintuple tubingless completion for our G. L. Erwin "B" NCT-2 Well No. 3. This well is completed in the North Justis, Fusselman, McKee, Devonian and Drinkard Pools and in the undesignated Waddell Pool. Each zone will be produced through a parallel string of tubing cemented in a common well bore as casing.
- Q What's the present status of the well as far as you are concerned?
- A At the present time this well has been drilled to total depth and each zone has been completed. However, we found upon taking communications tests that we do have communications indicated between three of the zones. We are now in the process of repairing these communications and all of the necessary and completed forms



IVOUEROUE, N. M.

Q Referring to what has been marked as Exhibit No. 1, would you explain that to the Commission?

A Exhibit No. 1 is a plat showing the G. L. Erwin "B"

Lease bordered in yellow, and the subject well circled in red.

The location of this well is 1980 feet from the south line and

330 feet from the east line of Section 35, Township 24 South, Range

37 East. Also shown on this plat are the offset operators and their wells with the appropriate field designations being shown for each of these wells. At the base of the exhibit is a list of the offset operators and their mailing addresses.

Q Has Texaco received administrative approval for any phases of this well?

A Yes, sir. Administrative Order No. NC-1155, date

February 19, 1962, was issued covering a quintuple tubingless completion for Ellenburger, McKee, Fusselman, Devonian, and Drinkard formations. However, upon drilling the well to total depth, we found that the Ellenburger was not productive and therefore we are completing in the Waddell, McKee, Fusselman, Devonian, and Drinkard formations. This will be the first production from the Waddell formation in this area.

Q Would you refer to what has been marked as Exhibit No. 2 and explain that to the Commission?

A Exhibit 2 is a diagrammatic sketch of the quintuple completion installation. A 20-inch hole was drilled to 279 feet;

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DEARNLEY-MEIER REPORTING SERVICE, Inc.

at that point we set 16-inch casing and circulated cement to the surface with 300 sacks. We then proceeded with the 13 3/4-inch hole to 3450 and at that point we set 11 3/4-inch casing, cemented with a total of 1200 sacks, and the top of the cement, by temperature survey, was found to be 2160 feet. We then continued on with a 10 5/8-inch hole to 7395, and at that point we reduced the hole to 8 3/4 and continued on to the total depth of 8540.

Upon reaching total depth, we ran five strings of tubing, four strings of 2 3/8 and one string of 2 7/8. These strings of tubing were set at various depths as shown on the exhibit and cemented with a total of 3624 sacks of cement. The top of the cement was found to be at 3100 feet by temperature survey after the primary cementing operations.

If you will note, in string designated as "V", there were various sliding side doors set at different depths marked on the exhibit, and after the primary cement job we went in and attempted to open these sleeves and attempted to squeeze through these sliding side doors. This was to assure ourselves of complete zone isolation before we even commenced completion operations.

Q Could you tell the Commission the crude characteristics of each zone?

A Yes, sir, the Drinkard formation was perforated through various perforated intervals from 5955 to 6052 feet. These intervals are shown on the exhibit. On potential test dated April 27, 1962, this zone flowed 72 barrels of oil per day through a 15/64-



LBUQUERQUE, N. M.

DEARNLEY-MEIER REPORTING SERVICE, Inc.

inch choke with a tubing pressure of 250 pounds. It was a 31.4 degree API gravity, and the gas-oil ratio was 618 cubic feet per barrel. It's an intermediate sweet crude and the bottom hole pressure is estimated at 2550 psi. This is based on other bottom hole pressures in the area.

The Devonian formation was perforated from 6900 feet to 6908 feet, and we did take a test on this well and it flowed 264 barrels of oil per day on the test. It's an intermediate sweet crude with 36 degrees API gravity and a gas-oil ratio of 700 cubic feet per barrel. The bottom hole pressure is estimated at 2700 feet. Now the Devonian --

MR. UTZ: What was the gravity on that?

A 36. The Devonian, Fusselman, and McKee are the formations we had an indication of communication between on our communications test, primarily between the Devonian and Fusselman. There was some indication that the McKee was in communication, so the potential tests that have been taken on these zones will be re-taken at the time we have repaired all of these communications.

The Fusselman formation was perforated from 6961 to 7,020 feet. It is an intermediate sweet crude with a gravity of 36.8 degrees API and a gas-oil ratio of 500 cubic feet per barrel. The bottom hole pressure is estimated to be 2525 psi. We expect it to flow initially.

The McKee formation was perforated from 8,050 feet to 8,056, and 8,111 to 8,119. It's an intermediate sweet crude with

BUQUERQUE, N. M.

a gravity of 38.7. Estimated bottom hole pressure is 3230 psi. and we expect the gas-oil ratio to be too small to measure.

The Waddell formation was perforated from 8246 feet to 8254 feet. On potential test of April 27, 1962, this zone flowed 105 barrels of oil in 21 hours, or at the rate of 120 barrels of oil per day through an 18/64 choke, with a gas-oil ratio of 1,087 and a gravity of 42.8 degrees. It's an intermediate sweet crude and we estimate the bottom hole pressure to be 2600 psi.

Have the completion techniques that you are using here been previously approved by the Commission on wells located in the area?

Yes, sir, similar techniques were approved by Commission's Order R-2109 dated November 1st, 1961, and this was for our G. L. Erwin "B" NCT Well No. 2; it was proposed to be a quintuple tubingless completion completed in the same manner.

I believe you stated that you expect to have initial flow on all zones?

That is correct.

If you have to artificially lift, can you do that on all zones?

Α Yes, if it becomes necessary, any and all zones can be artificially lifted.

Q Do you expect any corrosion or paraffine problems?

In these zones of completion we do not expect any corrosion or paraffine.



Would you explain Exhibit No. 3?

Exhibit No. 3 is a sonic log on the subject well that has the tops of the formations and perforated intervals marked. I think it's reasonably self-explanatory. I would like to make one comment, that I'm sure the Examiner is aware of the meeting that was held in Hobbs on January 29th of various operators in the North Justis area, concerning the designation of the Waddell formation as a separate reservoir; and the zone that we have perforated and the top of the Waddell as we have picked it is in accordance with what was agreed to that day as to the top of the Waddell. The zone is corresponding with what is considered to be the Waddell in the area.

In your opinion, would the granting of this application Q be in the best interests of conservation and prevention of waste?

Yes, it would.

Were Exhibits 1, 2, and 3 prepared by you or under your direction?

Yes, sir, they were.

MR. KELLY: We move for the introduction of Exhibits 1, 2, and 3.

MR. UTZ: Without objection, Exhibits 1, 2, and 3 will be admitted into the record of this case.

MR. KELLY: That's all we have for the direct.

CROSS EXAMINATION

BY MR. UTZ:

Was this completion squeezed in the manner of your last two or three applications?

Yes, they were, with secondary squeeze treatment. We did find that of all the sleeves installed in the stripping designated as "V", we were only able to actually pump into two of these sleeves. The indications were that we had an adequate cement job from the primary cement job. However, upon completing the zones, we found that we did have communication between these three zones.

What would be your indications that you had an adequate cement job?

In the fact that the sleeves were opened and we could not pump into the sleeves or pump out of the sleeve and pump additional sleeve around the casing. However, certainly that can be indicative of the fact that in the immediate area of the sleeve there was adequate sleeve and it could have been channeling up the hole.

Q What manner do you intend to repair this situation?

We have squeezed the Fusselman perforations and got an indication of cement return into the Devonian perforations, and at the present time they have drilled out cement, have reperforated the intervals and are in the process of recompleting and bringing these zones back in. The indications are now, under the treatment, and we have pressure gauges on all zones with the holes loaded, and we did not have communication after this squeeze job on the Fusselman. I might add that this was, of the several multiple tubinglass

DEARNLEY-MEIER REPORTING SERVICE, Inc.

completions in the area of Southeast New Mexico or Texas we have done, this is the first one we have had serious communication problems on.

Q I believe you stated that this completion was granted for another zone besides the Waddell?

A' The Ellenburger was granted administratively.

MR. UTZ: Are there other questions of the witness?

MR. MORRIS: Yes, sir.

BY MR. MORRIS:

Q Mr. Black, with reference to this Waddell formation that you have explained has been the subject of an industry meeting in Hobbs, has the Commission officially recognized the Waddell as a separate producing formation?

A We were informed by Mr. Ramey in Hobbs that the Commission would not set this as a separate reservoir at this time until there was an actual completion from the Waddell formation. Then at that time they would designate this as a separate reservoir and separate pool.

Q Is this well the first completion in the Waddeli?

A I understand that Amerada State NJ Well No. 1, which is located south of this well, they originally had a hearing, Case Number 2464, and they had a proposed completion in the Waddell. However, they were not able to actually complete from the Waddell so that there is no production from the Waddell formation at this time.



LBUQUERQUE, N. M.

So this would be the first well?

This would be the first completion and production from the Waddell formation.

Then it would be anticipated that the Commission would at some future time establish a North Justis-Waddell Pool, perhaps?

That would be our expectation.

MR. MORRIS: Thank you.

MR. UTZ: Are all the other four zones in designated pools?

Yes, sir, I believe they are.

MR. UTZ: Are there other questions? The witness may be excused.

(Witness excused.)

MR. UTZ: Are there any statements in this case? The case will be taken under advisement.



DEARNLEY-MEIER REPORTING SERVICE, Inc.

STATE OF NEW MEXICO)
) ss
COUNTY OF BERNALILLO)

I, ADA DEARNLEY, Notary Public in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Proceedings 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.

DATED this 9th day of June, 1962, in the City of Albuquerque, County of Bernalillo, State of New Mexico.

NOTARY PUBLIC

My Commission Expires: June 19, 1963.

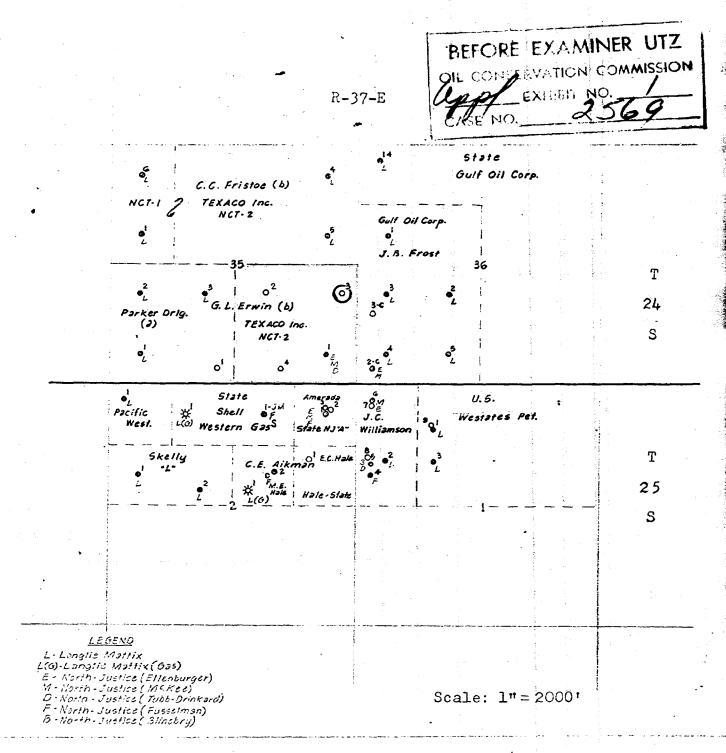
I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No.2.56.9.,

New Mexico Oil Conservation

... Examiner

ALBUQUEROUE, N. PHONE 243.669





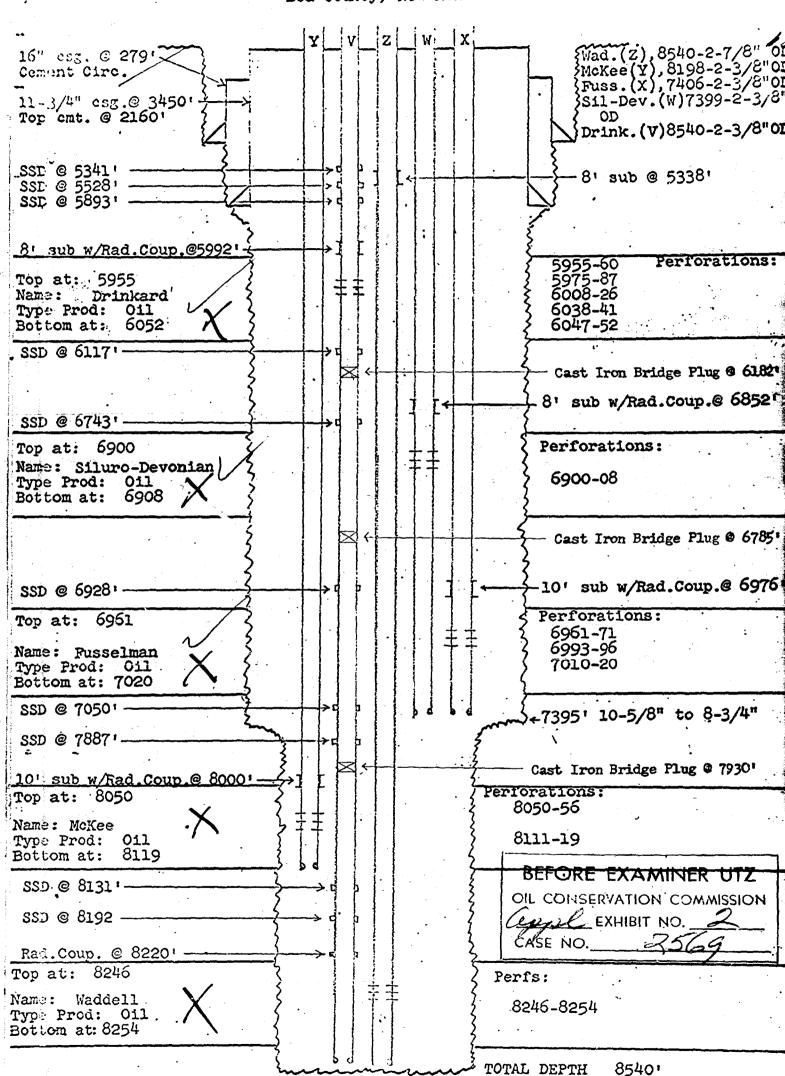
PLAT OF TEXACO Inc. G. L. ERWIN "b" NCT-2 LEASE AND OFFSET LEASES

Lea County, New Mexico
Scale: 1" = 2000'

OFFSET OPERATORS

J. B. Frost - 2106 Tower Petroleum Bldg. - Dallas 1, Texas Parker Drilling Co. - Commerce Bldg. - Houston, Texas Amerada - Drawer D - Monument, New Mexico Western Gas - 1006 Main St. - Hobbs, New Mexico J. C. Williamson - 608 V&J Tower - Midland, Texas Gulf Oil Corp. - P. O. Box 2167 - Hobbs, New Mexico Shell Oil Corporation, Box 1858, Roswell, New Mexico

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NOTE: Cemented down all strings with 3624 sacks of cement, reciprocated "Y" String throughout sement job. Cementing was supplemented by squeezing through Otis Type "A" Sliding Side Doors (330).