BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
December 11, 1959

EXAMINER HEARING

IN THE MATTER OF:	)	
	)	
Application of Texaco Inc. for an oil-oil dual completion.	)	Case 1830
IN THE MATTER OF:	)	
	)	
Application of Texaco Inc. for an oil-oil dual completion.	)	Case 1831

TRANSCRIPT OF HEARING

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IN THE MATTER OF:

Application of Texaco Inc. for an oil-oil dual completion. Applicant, in the above-styled cause, seeks an order authorizing the dual completion of its United Royalty "A" Well No. 3 located in Unit F, Section 19, Township 24 South, Range 38 East, Lea County, New Mexico, in such a manner as to permit the production of oil from the Dollarhide-Queen Pool and the production of oil from the Dollarhide-Drinkard Pool through parallel strings of tubing. Case 1830

IN THE MATTER OF:

Application of Texaco Inc. for an oil-oil dual completion. Applicant, in the above-styled cause, seeks an order authorizing the dual completion of its United Royalty "A" Well No. 4, located in Unit K, Section 19, Township 24 South, Range 38 East, Lea County, New Mexico, in such a manner as to permit the production of oil from the Dollarhide-Queen Pool and the production of oil from the Dollarhide-Drinkard Pool through parallel strings of tubing. Case 1831

BEFORE:

Mr. Daniel S. Nutter, Examiner

TRANSCRIPT OF HEARING

MR. NUTTER: We will take next Case 1830.

MR. PAYNE: Case 1830: Application of Texaco Inc. for an oil-oil dual completion.

MR. WHITE: If the Examiner please, Charles White of Gilbert, White and Gilbert, appearing on behalf of the Applicant,

Texaco Inc. If it please the Examiner, we would like to consolidate the cases for the purpose of the hearing.

MR. NUTTER: Is there objection to consolidation of the Cases 1830 and 1831?

MR. PAYNE: For the purposes of taking testimony?

MR. WHITE: That's right.

(Applicant's Exhibits 1-A through 4-A, and 1-B through 4-B marked for identification.)

MR. WHITE: May the record show that the Exhibits 1-A through 4-A are in reference to Case 1831; and Exhibits 1-B through 4-B are in regard to Case No. 1830.

JOSEPH E. ROBINSON, JR.

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

DIRECT EXAMINATION

BY MR. WHITE:

Q Mr. Robinson, will you state your full name, please?

A Joseph E. Robinson, Jr.

Q By whom are you employed and in what capacity?

A Texaco Inc. as a petroleum engineer in our Midland Division Office.

Q Have you previously testified as an expert witness before the Commission or its Examiners?

A Yes, sir.

Q Will you briefly state what the purpose of the two

applications are in Cases 1830 and 1831?

A The purpose of this application is for dual oil-oil permits for Texaco's "A" United Royalty Well No. 3 and Well No. 4. The purpose of this hearing is to gain permission to develop the Queen formation in wells that we consider to be prospective.

Q These two reservoirs have been previously dualed in this area?

A No, sir, they haven't.

Q Will you refer to what's been marked as Exhibit 1-A and Exhibit 1-B and explain those two exhibits to the Commission, please?

A Exhibit 1-A is a plat of the area showing Texaco's United Royalty "A" lease outlined in yellow, with the proposed well to be dually completed circled in red. The two plats are identical, with the exception that one plat has a Well No. 4 circled and the other plat has Well No. 3 circled.

It shows that Texaco's United Royalty "A" Wells 1 and 2 are completed in the Dollarhide-Queen Pool. Presently Texaco's Wells 3, 4 and 5 on the United Royalty "A" lease are completed in the Dollarhide-Drinkard Pool. It also indicates the offsetting leases with the wells as noted on the legend as to what they are completed in.

You will note that on Wells No. 3 and 4, we are not offset by Queen production other than our United Royalty Well No. 1, which is an offset to Well No. 4. But these, the Queen pay in

these locations is considered to be productive.

Q Will you now refer to what's been marked Exhibits 2-A and B and explain those diagramatic sketches?

A Exhibit 2-A is a schematic diagram sketch showing the proposed dual completion installation. United Royalty "A" Well No. 4 has 13-3/8 inch casing set at 352 feet with the cement circulated; the 8-5/8 inch casing was set at 3250 with the cement circulated. The well was drilled to a total depth of 6855 feet, with 5-1/2 casing set at total depth and cemented with 400 sacks of cement. The calculated top of the cement is at 5200 feet. The well is completed in the Drinkard formation through the perforated intervals 6626 to 6670, and 6704 to 6726. The well is currently flowing approximately 40 barrels of oil per day and four barrels of water per day, with a gas-oil ratio of 2533 cubic feet per barrel.

When the long string was cemented, we did not cement it with a sufficient amount of cement to cover the proposed completion in the Queen pay. What we propose to do is to perforate the 5-1/2 casing at 4,000 feet, establish circulation, and cement with 150 sacks. Then we will follow up with block squeezes by perforating at 3770 below the Queen pay, and block squeeze with 50 sacks of cement. Then we will perforate at 3680 and block squeeze with an additional 50 sacks of cement. We then plan to perforate the Queen from 3696 to 3702, and 3710 to 3726, and 3731 to 3760. We will set a Baker Model "D" Permanent Production Packer at 6540; we will

run a combination string of 2-1/16 inch O.D. Hydril tubing to 3690, and then from 3690 to 6600, we will run 2-3/8 inch O.D. upset tubing to produce the Drinkard pay through this combination string. We will then run a string of 2-1/16 inch Hydril to 3690 and latch it into a Baker parallel latching sub which will be located at 3690.

Exhibit No. 2-B is also a diagramatic sketch showing the proposed dual completion. It is identical with the Exhibit 2-A for Well No. 4, with the exception of some of the perforations and the depths. The 13-3/8 inch casing was set at 389 feet, with cement circulated. The 8-5/8 inch casing was set at 4245 with the cement circulated. It was drilled to a total depth of 6875 with 5-1/2 inch casing set at 6875 with 400 sacks. The calculated cement top in this well is at 5200 feet, also. As in the other case, the well was also cemented with insufficient cement to cover the Queen pay, and therefore we plan to perforate the 5-1/2 casing at 4,000 feet and cement with 150 sacks, and then follow up with block squeezes of 50 sacks each at 3785 and 3695. We will then perforate 3707 to 3714, 3720 to 3736, and 3740 to 3773 through selected perforations. We will set a Baker Model "D" Permanent Type Production Packer at 6530. We will run a combination string of 2-1/16 inch O.D. Hydril set at 3700 and 2-3/8 O.D. upset tubing from 3700 to 6600 to produce the Drinkard formation through. We will then run a string of 2 and 1/16th inch Hydril to be set and latched into a Baker parallel latching sub at 3700 feet from which we will produce the Queen pay through.

Q Will you state to the Examiner the characteristics of these crudes and in so doing refer to Exhibits 3-A and B?

A Exhibit 3-A is the production characteristics for Well No. 4. The Queen zone has a sour-type crude. It has a weighted gas-oil ratio from our two Queen wells of 1624 cubic feet per barrel. It has an API gravity corrected at 60 degrees of 34 degrees with a bottomhole pressure of 450 pounds.

The Drinkard zone has an intermediate sweet-type crude with a gas-oil ratio in Well No. 4 of 2533. It has a gravity of 38 degrees and a bottomhole pressure of 779 pounds.

Exhibit 3-B is for Well No. 3 and it is identical to Exhibit 3-A with the exception that for the Drinkard zone the gas-oil ratio is 1780 cubic feet per barrel for Well No. 3. Since the Queen zone is a sour crude and is corrosive, in the past we have had a corrosion inhibitor program and we intend to start out initially treating the Queen pay with corrosion inhibitors. We will have a chemical pump and inject a corrosion inhibitor down the tubing casing annulus where it will be circulated and pumped to the surface.

The Drinkard zone has an intermediate sweet type crude. We have conducted coupon tests in the past and have had little, if any, corrosion, and we do not expect to have any corrosion in these wells in the future. However, we will continue with our coupon testing and should corrosion start occurring, we will then use an inhibitor squeeze-type program to alleviate any

corrosion problems.

Q Now will you refer to your radioactive logs marked 4-A and B, and explain them, please?

A Exhibit No. 4-A is a radioactive log of Texaco's United Royalty "A" No. 4. It has the top of the Queen pay marked at 3696, and the bottom of the Queen marked at 3760, with the proposed selective perforations in red. It also shows the top of the Drinkard to be at 6626, and the bottom of the Drinkard at 6726, with the perforations that are presently open in the Drinkard pay.

The Exhibit 4-B is also a radioactive log of Well No. "A" 3. The top of the Queen pay is marked at 3707 feet, with the bottom of the Queen at 3773, with also our proposed selected perforations. The top of the Drinkard is also marked at 6619 and bottom of the Drinkard is at 6671. On these two proposed duals, it is anticipated that both wells, the Queen formation will be produced by pumping. We do not expect either zone in either well to flow.

Q Were these exhibits prepared by you or under your direction?

A Yes, sir, they were.

MR. WHITE: We offer Exhibits 1-A through 4-A, and 1-B through 4-B inclusive, at this time.

MR. NUTTER: Exhibits 1-A through 4-A, and 1-B through 4-B will be entered in evidence.

MR. WHITE: That's all the testimony we have of Mr.

Robinson on direct.

MR. NUTTER: Does anyone have any questions of Mr. Robinson?

MR. FLINT: Are there any paraffin problems in either of these zones?

A No, sir, not to my knowledge.

MR. NUTTER: The witness may be excused.

(Witness excused.)

MR. NUTTER: Do you have anything further, Mr. White?

MR. WHITE: No, sir, not at this time.

MR. NUTTER: Does anyone have anything for Case 1830 or 1831? We'll take the cases under advisement.

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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 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.

DATED this 26th day of December, 1959, in the City of Albuquerque, County of Bernalillo, State of New Mexico.

Ada Dearnley
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. 1830-1831 heard by me on 12-11, 1959.

....., Examiner
New Mexico Oil Conservation Commission