BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
March 3, 1961

IN THE MATTER OF:

Application of Texaco, Inc. for an oil-oil-oil triple completion. Applicant, in the above-styled cause, seeks an order authorizing the triple completion of its A. H. Blinebry (NCT-1) Well No. 13, located in Unit E, Section 29, Township 22 South, Range 38 East, Lea County, New Mexico, in such a manner as to permit the production of oil from the Drinkard Pool, the production of oil from the Blinebry Oil Pool and the production of oil from the Paddock Pool through parallel strings of tubing. Case 2199

BEFORE:

Daniel S. Nutter, Examiner

TRANSCRIPT OF HEARING

MR. NUTTER: Hearing will come to order, please. We would like first of all to recognize Mr. Langdon Taylor, Professor of Petroleum Engineering of the School of Mines, and his class, who are in attendance.

We will hear, first, Case No. 2199.

MR. MORRIS: Application of Texaco, Inc. for an oil-oil-oil triple completion.

MR. WHITE: If the Examiner please, Charles White of Gilbert, White and Gilbert, Santa Fe, appearing on behalf of the applicant. We have one witness to be sworn at this time.

(Witness sworn.)

J. E. ROBINSON, JR.

called as a witness, having been previously duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. WHITE:

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

A J. E. Robinson, Jr.

Q By whom are you employed and in what capacity?

A I am employed by Texaco as Division Proration Engineer.

Q Are you familiar with the subject application in Case No. 2199?

A Yes, I am.

Q Will you briefly state what is sought by the application?

A This is the application of Texaco, Inc. to triple complete its A. H. Blinebry (NCT-1) Well No. 13 as an oil-oil-oil triple from the Drinkard, Blinebry and Paddock Pools with each pool being produced through independent parallel strings of tubing.

Q Give the location of this well.

A The well is located 2310 feet from the North line and 330 feet from the West line of Section 29, Township 22 South, Range 38 East, Lea County, New Mexico.

Q Will you refer to the ownership plat, being Exhibit No. 1, and describe that for the Examiner, please?

A Exhibit No. 1 is a plat showing the location of Well No.

13, which is the proposed triple on our A. H. Blinebry (NCT-1) Lease. The lease is shown by the yellow border, and there are both Blinebry and Drinkard completions offsetting the subject well.

Q Where is the closest Paddock production?

A The closest Paddock production is Texaco's Lockhard No. 3, which is located approximately one and a half miles north of the subject well. The plat also shows the pool designation of all the wells in the immediate vicinity of the subject well along with the names and addresses of all offset operators.

Q Will you refer to Exhibit No. 2 and describe that, please?

A Exhibit No. 2 is a diagrammatic sketch of the proposed triple completion installation.

Q Mr. Robinson, when was this exhibit prepared?

A The exhibit was prepared on January the 23rd, about the time we started drilling this well.

Q What is the status of the well at present?

A The well has reached a T. D. of 7,000 feet, and we are presently testing the Drinkard.

Q As you explain this exhibit will you point out any differences there might be between the actual completion of the well and that as proposed on the exhibit?

A The actual completion of the well will follow the schematic diagram here with a few exceptions, and that being in the number of feet of casing set. They may vary a little bit. We will start off here. We drilled a 17½-inch hole and set 13 3/8-inch casing at 310

feet. The diagram shows that we were going to set it at 300 feet, but we set it at 310 feet and cemented with 400 sacks of cement with the cement circulating to the surface of the ground.

We then went out from under the 13 3/8-inch casing with 12 3/4-inch, and we drilled the 12 3/4-inch hole to 2950 and set 9 5/8-inch casing at 2950 with 2,000 sacks of cement with the cement circulating to the surface of the ground. After we set the 9 5/8 intermediate string we went out from under it with 8 3/4-inch hole and drilled to 6828 and then we reduced the hole size to a 6 3/4-inch and drilled to a T. D. of 7,000 feet. After we reached a T. D. we set a 7-inch liner at 6828, with the top of the liner at 2857. This varies a little bit from my diagram here in that I believe we showed we were going to set the 7-inch liner at bottom at 6830. Actually, we set it at 6828, and the top was at 2857 rather than the 2850 that we show on the diagrammatic sketch.

After we set the 7-inch liner we cemented around the bottom with 400 sacks of cement and then we set a retainer at 2760, and squeezed the top of the liner with 200 sacks of cement. We then ran a gamma ray and a cement bomb log, with the bomb log indicating that we had cement bonded to the pipe from 6828 to 3740 as a result of cementing around the bottom of the liner, and from the top we had cement from 2857 to 3286.

Q Mr. Robinson, in your opinion, does this cement job adequately protect all zones?

A Yes, sir. The cement from the bottom of the liner pro-

tects all three zones that we are proposing to complete in this well.

Q Are you in a position at this time to give the crude characteristics of the zone?

A Yes, sir. We are presently testing the Drinkard. The open hole, 6828, 7,000 feet, was acidized with 3,000 gallons, and after recovering the lode oil the well, in 32 hours, flowed 141 barrels of new oil on a 28/64-inch choke. The gravity was 39.7 and the gas-oil ratio is 4,250 to one with the tubing pressure of 800 pounds. The bottom hole pressure is estimated to be at 2500 pounds. The crude is an intermediate sweet-type crude, and we have no corrosion or paraffin problems existing in the Drinkard.

Q How long do you anticipate this well to flow?

A With the present gas-oil ratio and the experience that we have gained from other wells located in this same area that occupy about the same poiition on the structure, we anticipate that the Drinkard will flow to depletion. However, if it doesn't, we will be able to pump the zone.

Q Will you give the characteristics of the Blinebry, please?

A The Blinebry will be perforated from 5570 to 5670. We are hoping to get a well with a gas-oil ratio below 6,000 to one. However, we expect that will probably be 6,000 or greater. The gravity is 40 degrees, and the bottom hole pressure is calculated to be approximately 2200 pounds. The crude is an intermediate sweet and no paraffin or corrosion problems exist.

Q How long do you anticipate the Blinebry to flow?

A The Blinebry will flow to depletion.

Q If necessary, will you be able to pump this zone?

A Yes, sir, we can pump this zone if necessary.

Q What are the characteristics of the Paddock?

A Well, the Paddock is the dark horse in this application here. It will determine if we make a triple or dual completion. Actually, when we drilled the well we got the control we needed, we thought, to make a Paddock completion, but we took a drill stem test through a 21-foot interval that the other well, Lockhart No. 3, is completed in, and we recovered salt water with a slight show of oil, but we are going to attempt to move up in the formation just a little bit and see if we can't get away from water and make a completion, and if we do we expect a gas-oil ratio to be approximately 1,000 to one, and the gravity will be in the range of 40 to 44 degrees. The crude is sour, and it presents both a corrosion and a paraffin problem.

Q What steps will you take to remedy these problems?

A We will run internally plastic-coated tubing to protect the Paddock. The tubing will be coated with a plastic that is suitable for both corrosion and for a prevention of paraffin accumulating.

Q Again referring to Exhibit No. 2, will you explain what type of equipment you propose to install and at what depth you intend to set the packers?

A We will set a Baker Model D packer at 5600 feet. Then we

will set a Baker Model F packer at 5250 feet. The Baker Model D packer will be set between the Drinkard and the Blinebry, and the Baker Model F packer will be set between the Blinebry and the Paddock, and then we will set a Baker Model FA packer at 5128 feet. We will then take our triple zone flow tube. We will run 2 3/8 flush joint tubing from 5125 to 6800 feet with proper spacing nipples and seals where we can seal off the Drinkard and the Blinebry through the Baker Model D packer. Also, in the bottom of the triple flow tube we will run 3½-inch C.S. high-drill tubing with the proper spacers and seals to seal through the Baker Model F packer at 5250. The triple flow tube will then be lowered and seated into the Baker Model FA packer at 5125 with the upper string consisting of 2 3/8 buttress thread tubing with special clearance collars. After it is seated in, then we will run two other strings of 2 3/8 buttress thread tubing with special clearance couplings and seat into the triple zone flow tube. Thus we can produce each zone independently through separate strings of tubing. The Drinkard will be produced through the inside string as shown here in red. The Blinebry will be produced up through the Baker Model F packer in the annulus between the 3½-inch high drill tubing and the 2 3/8 flush joint tubing. It will go up into the triple zone flow tube and then will be crossed over and be produced on out through the 2 3/8 buttress tubing. Then the Paddock will be -- shown here in green -- will pass up through the triple zone flow tube where it will be produced through another string of 2 3/8 buttress.

Q Then, in other words, all three zones will be completely isolated and produced through independent strings of tubing?

A That's correct.

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

A Yes, sir, they were.

MR. WHITE: At this time we offer Exhibits 1 and 2.

MR. NUTTER: Exhibits 1 and 2 will be admitted.

Q (By Mr. White) After the well is completed, will you submit to the Commission electric logs with the tops marked, packer leakage tests and accurate schematic sketch showing the completed installation in lieu of Exhibit No. 2?

A Yes, sir. I tried to get a log on this well to present at this hearing, but we have not received our finished copies of the log, but after we receive them and get the well completed we will mark all tops, show the correct perforations, and a new drawing showing the actual perforations and the tops and the tops that all casings were set.

MR. WHITE: If the Examiner please, that completes our direct examination.

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

BY MR. PAYNE:

Q Would you give the gravity of the Blinebry crude?

A The gravity is 45 degrees.

Q What do you expect on the Drinkard?

A The gravity on the Drinkard from this well was measured

at 39.7 degrees, corrected to 60 degrees.

Q And on the Paddock you anticipate 40 to 44 degrees?

A Yes, sir. The other Paddock well on our Blinebry 3 has a gravity, I believe, of 44.1 degrees.

Q Mr. Robinson, is this Baker Model F packer a permanent-type packer?

A Yes, sir. All three of the packers are permanent-type packers.

Q Could you give the pressure differentials which you would expect at each of these packers?

A We will have a differential between the Drinkard and the Blinebry of 300 pounds, and then we will have a differential between the Blinebry and the Paddock of 400 pounds. Actually, we took a drill stem test on the Paddock and we had a bottom hole pressure there, initial bottom hole pressure of 1805 pounds, so we would have approximately 400 pounds differential between the Blinebry and the Paddock.

Q Mr. Robinson, do I understand that you are going to flow the Blinebry through the annular space?

A On the bottom of this triple flow tube you will have two strings of tubing, one being the 2 3/8-inch, and then you will have a short string from 1525 to 5255 of 3 1/2-inch high-drill, and we will produce the Blinebry up through this 3 1/2. Actually, it is in the annulus between the 3 1/2 and 2 3/8 up into the triple flow tube where it will be crossed over and produced through the buttress.

Q Do you feel this will provide an efficient flow method?

A Yes, sir.

BY MR. NUTTER:

Q Mr. Robinson, what actual distance is the oil flowing through the annulus between the 3 1/2 and 2 3/8?

A About 130 feet, from 1525; the triple zone flow tube will be sealed in the FA packer. We will set the FA packer at 1525 and then we will flow this Blinebry up about 130 feet before it gets into the triple flow tube and crossed over, and then produced on up through the 2 3/8.

Q Will the 3 1/2 actually go through the Model F, or will it be latched into the packer?

A The 3 1/2-inch will be made up on the triple flow tube, and then it will be sealed into the Baker model F packer.

Q Now, the triple flow tube will be run on the Drinkard string, will it?

A Yes, sir.

Q And the Blinebry string and the Paddock string will be run in and latched into the triple flow tube?

A That's correct. They will be run loose. Actually we could pull either the tubing for the Paddock or the Blinebry, but if we were to pull the Drinkard then we would have to pull the other two strings.

Q You said that you tested a 21-foot interval and recovered salt water. Is the 21-foot interval you tested the equivalent of

5160 to 5180 shown on the schematic?

A Yes, it is.

Q If you make a Paddock completion it will be above 5180?

A I would say, roughly, about 5150.

Q And it is speculative at the present time whether you will get a Paddock well or not?

A It sure is. Actually, this well ran a little bit high to our Lockhart No. 3. We know we are on strike with the other well, but this is one of those instances where even if you get the control you are not always assured of a completion.

Q MR. NUTTER: Any further questions of Mr. Robinson? He may be excused. Do you have anything further, Mr. White?

MR. WHITE: No, thank you.

MR. NUTTER: Does anyone have anything further to offer in this case? Commission will take the case under advisement.

STATE OF NEW MEXICO)
) ss
COUNTY OF BERNALILLO)

I, JUNE PAIGE, Court Reporter, do hereby certify that the foregoing and attached transcript of proceedings before the New Mexico Oil Conservation Commission at Santa Fe, New Mexico, is a true and correct record to the best of my knowledge, skill and ability.

IN WITNESS WHEREOF I have affixed my hand and notarial seal this 8th day of March, 1961.

June Paige
Notary Public - Court Reporter

My Commission expires:

May 11, 1964.

I N D E X

E X H I B I T S

NUMBER	EXHIBIT	IDENTIFIED	OFFERED	ADMITTED
Ex.#1	Location Plat	2	7	7
Ex.#2	Diagrammatic Sketch	2	7	7

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 2199 heard by me on 3/3, 1961.

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

NEW MEXICO OIL CONSERVATION COMMISSION

Examiner Hearing - Daniel S. Nutter

Santa Fe, NEW MEXICO

REGISTER

HEARING DATE March 3, 1961 TIME: 9 a.m.

NAME:	REPRESENTING:	LOCATION:
Lewis	EPNG	Santa Fe
M H Lanning	EPNG	El Paso
Jerry Hackler	"	"
Ed Robinson	Texaco Inc	Midland
Garrett Whitworth	EPNG	El Paso
Hank Lawrence	Atwood & Malone	Roswell
W. J. Sandidge Jr	Pan Am. Pet. Corp	Lubbock Texas
J C Hinkle	Hervey, Dow & Hinkle	Roswell, N.M.
John Hampton	Great Western Drlg Co	Midland
J J Frost Jr	Atlantic Refining Co.	Midland
Roy M. Young	Ohio Oil	Houston Texas
[illegible]	Aztec O & G	Farmington
[illegible]	" "	"
[illegible]		
George R. Hoy	Honolulu Oil Corp.	Midland Texas
Jack C. Bendler	The Ohio Oil Co	Denver City, Texas
[illegible]		Houston Tex

NEW MEXICO OIL CONSERVATION COMMISSION

Examiner Hearing - Daniel S. Nutter

Santa Fe, NEW MEXICO

REGISTER

HEARING DATE March 3, 1961 TIME: 9 a.m.

NAME:	REPRESENTING:	LOCATION:
Nee N Perry Jr	Humble Oil & Ref. Co	Hobbs, N.M.
Jason Kellahin	Kellahin & Fox	Santa Fe, N.M.
Frank E. Irby	State Engr. Off	Santa Fe
R. Lodle	Sinclair Oil & Gas	Roswell NM
Lamar Hunt	E G Redman	Santa Fe
J M Rodgers	Sinclair Oil & Gas Co.	Roswell, N.M.
R L Truchan	Sinclair Oil & Gas Co	Roswell, N.M.
Jack M Campbell	Campbell & Russell	Roswell N M