EXAMINER HEARING
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
May 6, 1958

IN THE MATTER OF: Case No. 1434

TRANSCRIPT OF PROCEEDINGS

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EXAMINER HEARING
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IN THE MATTER OF:

Application of Tidewater Oil Company for an oil-oil dual completion. Applicant, in the above-styled cause, seeks an order authorizing the dual completion of its Coates "C" Well No. 11, located 1980 feet from the North line and 1650 feet from the West line of Section 24, Township 25 South, Range 37 East, Lea County, New Mexico, in such a manner as to permit the production of oil from the Drinkard formation adjacent to the Justis-Drinkard Pool and oil from the Justis-Fusselman Pool through parallel strings of tubing.) Case 1434

BEFORE: Daniel S. Nutter, Examiner

TRANSCRIPT OF PROCEEDINGS

MR. NUTTER: We will take next Case 1434.

MR. PAYNE: Case 1434: Application of Tidewater Oil Company for an oil-oil dual completion.

MR. SETH: We have one witness, Mr. Miller.

(Witness sworn.)

ROBERT N. MILLER

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

DIRECT EXAMINATION

By MR. SETH:

Q Will you state your full name, please, Mr. Miller?

A Robert N. Miller.

Q You are employed by Tidewater Oil Company?

A Yes, sir.

Q In what capacity?

A Area petroleum engineer.

Q Do you have your offices where?

A Hobbs, New Mexico.

Q Have you testified at Examiner hearings before this Commission?

A Yes, sir.

Q Are you familiar with Tidewater's application in this present case?

A Yes, sir, I am.

Q Would you state first, please, the location of the proposed well to be completed as an oil-oil dual completion?

A The proposed well is Tidewater's A. B. Coates "C" No. 11, located 1650 feet from the West line and 1980 feet from the North line of Section 24, Township 25 South, Range 37 East, in Lea County, New Mexico.

(Tidewater's Exhibit No. 1 marked for identification.)

Q I will refer you to what has been marked Tidewater's Exhibit No. 1. Does this exhibit show the location of this well under consideration?

A Yes, sir, it does.

Q Is this well being drilled at the present time?

A Yes, it is drilling below 5500 feet right now.

Q Would you please state the casing program that you have set up for this well?

A To date we have set 13-3/8 at 520 feet, cemented to the surface, 9-5/8 casing set at 3349 and cemented to the surface, and we will set 7-inch casing at approximately 7200 feet with sufficient cement to isolate the producing zones.

Q Is that in accordance with the completion practices of other wells in this area?

A Yes, sir, it is.

Q In your opinion is the 40-acre tract reasonably expected to be productive, and if so, in what zones?

A Yes, sir, this well should be productive from both the Drinkard and the Fusselman zones, which are the ones that Tidewater is asking for a dual. We feel that it is productive in the Fusselman by virtue that it is within the horizontal limits of the Justis-Fusselman Pool, which at the present time is the Northwest Quarter of Section 24. We believe it to be productive from the Drinkard because it is offset by Drinkard well Western Natural Wimberley No. 4, which potentialed 1356 barrels of oil per day from the Drinkard, and drill stem test on Tidewater's A. B. Coates "C" No. 7, a due east offset, was 81 barrels of oil in two hours from the Drinkard.

Q This location is not within the present boundaries of the

Justis-Drinkard Pool?

A No, sir, it is not; however, I believe the Commission has on its docket for the regular May hearing to expand the Justis-Drinkard Pool to include the Northwest Quarter of Section 24, by virtue of these two Western Natural wells.

Q What are the east offsets to this well, what sort of a well is that?

A Are you referring to the drill stem test in the Drinkard on the east offset?

Q Yes.

A It is an Ellenburger well, we drill stem tested to the Drinkard and it had 81 barrels of oil in two hours with no water.

Q To refer to the Coates "C" No. 10 well, what is the situation in that well?

A That is an Ellenburger well, no zones were tested in that well, although both the Drinkard and the Fusselman were encountered and had good staining odor in the drilling cuttings.

Q Are there other oil dual completions in this neighborhood?

A Yes, there are three. The east offset, Western Natural Wimberley No. 4, is a dual Drinkard-Wimberley well.

MR. NUTTER: Would that be the west offset?

A Yes. Granted by Order 1122; and the northwest diagonal offset, Western Natural Wimberley No. 3, is a dual Drinkard-Fusselman, granted by Order R-1123; and then the northeast diagonal offset, Tidewater's A. B. Coates "C" No. 8, is a dual Drinkard-McKee

granted by Order R-1041.

(Tidewater's Exhibit No. 2 marked for identification.)

Q Now would you please refer to what has been marked as Tidewater's Exhibit No. 2, and please describe to the Commission the proposed mechanical features of the dual completion.

A We propose to set 7-inch casing at approximately 7200 feet, and we will perforate the Drinkard section at approximately 5875 to 5900, and the Fusselman from 6665 to 6765. There will be a Baker Model "D" production packer set at 6565, and the well will be completed with parallel 2-3/8 EUE strings of tubing.

Q Do you have any particular comment on the type of packer that is proposed to be used?

A This is a permanent-type packer, that is to say, it has to be drilled to be removed from the hole, and it is the same type packer that has been used in other duals in this area with good results.

Q Did you give the inside diameter of the tubing?

A No, sir, that is nominal 2-inch.

Q 2-inch?

A Yes, sir.

Q What about the surface connections?

A The Drinkard zone and the Fusselman zone will have separate flow lines and storage facilities so that normal test or any other tests deemed necessary by the Commission can be taken.

Q If permission is given to complete in this manner, could you give us some comparison of well costs for the Drinkard wel and the Fusselman well?

A Yes, sir, in this area we anticipate that a Drinkard well, a single completion, that is, using 5-1/2 inch casing, would run around $110,000, and that of a Fusselman around $130,000. We estimate that this dual will cost us $165,000 or result in a savings of $75,000.

Q What do you anticipate the gas-oil ratio to be in the Drinkard?

A By other Drinkard wells in the area, we anticipate the gas-oil ratio for the Drinkard to be approximately 1125 cubic feet per barrel. That was determined by a test from our Coates "C" No. 8 Drinkard section.

Q And what about the Fusselman?

A The Fusselman, the two producing wells in the Fusselman, the average gas-oil ratio is 357 cubic feet per barrel. That is the average between Western Natural Wimberley No. 3 and Wimberley No. 4.

Q Is there any significant difference in the gravity of the oil from the two formations?

A Approximately two degrees. The average gravity of the Fusselman oil is some 36 degrees API and that for the Drinkard, approximately 38 degrees API.

Q Would you comment on the relative pressures between the

two zones there?

A From the Western Natural Wimberley well, the bottom-hole pressure at a datum of minus 2800 is 2610, and for the Fusselman at the datum of minus 3900 is 2806, or a differential of 196 pounds, the Fusselman being the high pressure.

Q The difference across the packer would be --

A (Interrupting) 196 pounds.

Q -- somewhere less than 200 pounds?

A Yes.

Q Is that well within the limits of the type of packer that you propose to use?

A Yes, a Baker Model "D" packer will stand many times this differential.

Q Will this method of completion permit packer leakage tests to be taken in a normal manner?

A Yes, sir.

Q In your opinion, will this installation if approved be in the interest of conservation and will protect correlative rights?

A Yes, sir, it will.

Q Do you have any other comments, Mr. Miller, concerning this proposed completion?

A No, sir.

Q Is there anything out of the ordinary in connection with the completion or the formations in this area?

A No, sir, there is not.

Q Do you anticipate any mechanical problems?

A Not from the well being a dual completion, no, sir.

MR. SETH: We would like, if the Commission please, to offer Exhibits 1 and 2.

MR. NUTTER: Is there objection to the introduction of Tidewater's Exhibits 1 and 2? If not, they will be received.

MR. SETH: That's all the direct.

MR. NUTTER: Does anyone have any questions of this witness?

CROSS EXAMINATION

By MR. NUTTER:

Q Mr. Miller, one question. Where do you anticipate that the top of the cement will be after you have cemented this 7-inch piping?

A On our A. B. Coates "C" No. 8, we cemented that 7-inch with 800 sacks of cement in two stages, and found the top of the cement by temperature survey at 2990, which is approximately 400 feet above the shoe in the intermediate string, thereby overlapping by approximately 400 feet, and we anticipate this well will be the same.

Q You would cement with sufficient cement that it would circulate well above the perforations in the Drinkard?

A Oh, yes, sir.

MR. NUTTER: Any further questions of Mr. Miller? If not, he may be excused.

(Witness excused.)

MR. NUTTER: Does anyone have anything further they wish to offer in Case 1434? We will take the case under advisement.

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C E R T I F I C A T E

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 before the New Mexico Oil Conservation Commission was reported by me in stenotype and reduced to typewritten transcript under my personal supervision, and that the same is a true and correct record to the best of my knowledge, skill and ability.

WITNESS my Hand and Seal this 12th day of May, 1958, in the City of Albuquerque, County of Bernalillo, State of New Mexico.

Ada Dearnley
NOTARY PUBLIC

My commission expires:

June 19, 1959.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 1434, heard by me on 5-6, 1958.

New Mexico Oil Conservation Commission, Examiner