BEFORE THE
OIL CONSERVATION COMMISSION
JANUARY 22, 1959

IN THE MATTER OF APPLICATION OF TIDEWATER OIL COMPANY, CASE 1584

TRANSCRIPT OF HEARING

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IN THE MATTER OF:
Application of Tidewater Oil Company to commingle the production from several separate oil pools from two separate leases. Applicant, in the above-styled cause, seeks an order authorizing it to commingle the production from the Fusselman Pool on its Coates "D" Lease comprising the SE/4 SW/4 of Section 24, Township 25 South, Range 37 East, Lea County, New Mexico, with the commingled production of all intermediate grade crudes on its Coates "C" Lease comprising the E/2 and the SE/4 NW/4 and the NE/4 SW/4 of said Section 24. Applicant further requests permission to commingle the sour crudes produced from the Drinkard and other formations on both of the aforesaid leases.) Case 1584

BEFORE:
Daniel S. Nutter, Examiner.

TRANSCRIPT OF HEARING

MR. NUTTER: We will take Case 1584.

MR. PAYNE: Case 1584: Application of Tidewater Oil Company to commingle the production from several separate oil pools from two separate leases.

MR. SETH: Mr. Miller is the witness.

(Witness sworn.)

ROBERT N. MILLER

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

DIRECT EXAMINATION

BY MR. SETH:

Q Would you state your name, please?

A Robert N. Miller.

Q And by whom are you employed and in what capacity?

A Area Petroleum Engineer in Hobbs, New Mexico, for Tidewater Oil Company.

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

A Yes, sir.

Q Have you previously testified as a witness before the Commission, expert witness?

A Yes.

MR. SETH: May he so testify?

MR. NUTTER: Yes, sir; please proceed.

Q (By Mr. Seth) Would you please state, Mr. Miller, what leases the application of Tidewater in this case is concerned with?

A It concerns Tidewater's 400-acre A. B. Coates "C" Lease and a 40-acre A. B. Coates "D" Lease, both on Section 24, Township 25 South, Range 37 East, Lea County, New Mexico.

Q What are the producing formations on these leases; would you list those?

A On the Coates "C" Lease, it would be the Langlie-Mattix, the Drinkard, the Fusselman, the Montoya and the McKee, the Ellenberger and the Blinebry. On the Coates "D", it would be

the Drinkard and Fusselman at the present time.

Q Has Tidewater previously procured a CTB Order with regard to these two leases?

A Yes, sir.

Q Was that Order Number 32?

A Yes, sir.

Q Would you state briefly what that provides, not in detail, what does it provide?

A The Order provides that the Justis-Fusselman production from the A. B. Coates "D" Lease and the Justis-Fusselman production from the A. B. Coates "C" Lease could be commingled into the Justis Pool, the Justis-Fusselman tank battery. The Justis-Drinkard production from the Coates "D" Lease and Justis-Drinkard production from the Coates "C" Lease could be commingled in a Justis-Drinkard tank battery located on Coates "C" Lease; that the Ellenberger production from the Coates "C" Lease could be commingled with the Ellenberger production from the Coates "D" Lease into a Justis-Ellenberger battery located on Coates "C" Lease.

Q And the production from each zone on both leases would be run into the common tank battery?

A From that pool.

Q That would be treated as one lease?

A Yes, sir.

MR. NUTTER: In other words, that sets up three tank

batteries for the two leases, one tank battery for Fusselman and one Drinkard and one tank battery for Ellenberger, is that right?

A Yes, sir.

MR. NUTTER: Thank you. Excuse me.

Q (By Mr. Seth) Did Tidewater thereafter make further application for commingling of production on the "C" Lease?

A Yes, they did.

Q Was that in Case Number 1550?

A Yes, sir.

Q Would you refer to Order R-1297, please, and tell us briefly what that provides and how that relates to the CTB Order?

A That provides that Tidewater could commingle production from the Ellenberger, McKee, Fusselman and Montoya production as well as Blinebry if it proves to be intermediate grade crude.

Q Not too fast, run through it again.

A It provides for the commingling of oil from the Ellenberger, McKee, Fusselman and Montoya zones.

Q You are speaking about the "C" Lease?

A Yes, sir, as well as Blinebry production if it is intermediate grade crude for all wells presently completed or hereafter drilled on the Coates "C" Lease, and that we were authorized to commingle the Drinkard and Langlie-Mattix production as well as Blinebry production if it proved to be sour crude from all wells presently completed or hereafter drilled on the Coates "C" Lease.

Q The only separation was by grade of crude?

A That's right.

Q The intermediate and sour grades?

A Yes, sir, as against the sour grade.

Q And the reason for the Blinebry being stated as such at the time, there was no Blinebry well on this lease?

A It was not known what the pipeline would classify this crude when the well was completed. It was provided also that the production from each pool would be separately metered prior to commingling, and the meters, of course, would be checked for accuracy.

Q Now, would you relate this Order to the CTB Order?

A The primary difference being that the CTB Order allows for commingled production by the same pool between the A. B. Coates "C" and "D" Leases, while Order R-1297 authorized the commingling of zone production after prior metering on the A. B. Coates "C" Lease.

Q Now, would you please state the purpose of the application in this case we are considering now. Do you have a diagram there?

A Yes, sir.

MR. SETH: Would you mark this One, please.

(Marked Applicant's Exhibit 1 and 2 for identification.)

Q (By Mr. Seth) Perhaps you can more easily explain the

purpose of this present application by reference to what has been marked Applicant's Exhibit Two. First, state, if you would, what Exhibit Number Two is?

A Exhibit Two is a proposed flow diagram of the way we would make surface facilities to carry out our application, which in a sense is bringing the Coates "D" Justis-Fusselman production and the --

Q Refer to the diagram. Where does that come into the flow?

A The Coates "D" Fusselman is shown as blue. The series of lines are flow lines.

Q In the upper right hand corner of the exhibit, is that right?

A That is right. The lowermost horizontal line about the center of the drawing on the right hand side, there is a heavy blue line which represents the flow line of the A. B. Coates "D" Well Two, Fusselman. This well's production enters into a three-phase metering separator where the free water is extracted. The oil is measured, comes out the dump line and enters into a dump line of the A. B. Coates "C" Fusselman zone separator. This is, the A. B. Coates "C" Fusselman Wells are shown by dark red lines into the Fusselman production separator for the A. B. Coates "C". This oil is mixed and then passes to the zone meter for the Fusselman production.

The application also deals with Justis-Drinkard production.

The orange line back over here on the center of the drawing, the horizontal line on the center of the drawing on the right side is shown in orange, that is the flow line of the Coates "D" Two Drinkard which goes into a three-phase metering separator where the free water is extracted. The oil is measured and dumped into the dump line of the A. B. Coates "C" Drinkard wells shown as dark green lines. This production passes then to a treater where the water is extracted and dumps into stock tanks for passage to the pipeline.

Q The upper flow lines on Exhibit Two, they represent the existing commingling under the order issued in Case 1550, is that right?

A These lines on the upper part of the drawing are flow lines. They have very little to do with the order. The order has to do with the zone meters shown in the lowermost part of the drawing, which are labeled "Zone Meters". That is where the production from the Ellenberger, the McKee, the Montoya and the Fusselman are measured prior to being commingled and passing to our surface tank on to the LACT Unit to the pipeline.

Q Essentially, this application asks for permission to commingle the Coates "D" production with the Coates "C"?

A Yes, sir.

Q And commingle that out to the LACT Unit, is that correct?

A Yes, sir. It provides for the commingling of the

Fusselman from the "D" and Drinkard from the "D" with that same production from the "C" and pass through a zone meter with the Fusselman and to be commingled through the LACT Unit, as far as the Fusselman is concerned, and pass into stock tanks.

Q Referring to Exhibit Two, would you explain it a little more in detail, the installations there of this metering separator, how is that marked?

A The metering separators are found as circles listed on top "D2" and the appropriate zone underneath.

Q What type of separator?

A Those are BS & W three-phase metering separators.

Q Is the same true for the Drinkard?

A Yes, sir, it is an identical separator.

Q Any other installations following the flow lines from the right to left across that?

A You want me to keep strictly with the Fusselman-Drinkard production?

Q Yes.

A The third circle from the left is a Fusselman separator. It is a conventional production separator manufactured by Union Tank Company. The second circle from the left is your Drinkard production separator which is a conventional Union separator.

Q Where does the Drinkard commingled production go on the flow sheet?

A It goes through a Murdock Heater Treater. The water is extracted and the pipeline oil is dumped into three 500-barrel, conventional stock tanks.

Q Now, the same on your Fusselman?

A The Fusselman production goes to a Garrett Type "A" one-barrel dump meter and the dumps and the oil, corrected to 60 degrees Farenheit, is recorded. The oil them passes into the manifold where it mixes with the Montoya, McKee and Ellenberger oil production from the A. B. Coates "C" Lease which has been, each zone which has been previously metered in the same manner. From there it passes into a surge tank or -- depending on what you are doing with the meters. If they are production, they will go to the surge tank, and it passes to an A. O. Smith skid-mounted PD meter.

Q Now, am I correct in stating that the Commission felt it was necessary that an additional application be made in order to commingle the Coates "D" oil with the Coates "C" oil as commingled, is that essentially it?

A Essentially, my understanding was the Commission felt that a hearing was necessary in order to determine where the oil would go after it passes through the zone meters. In other words, they felt under CTB-32, Tidewater was granted authority to commingle the Fusselman production down to this point there and the Drinkard down to this point there (indicating).

MR. NUTTER: Explain "this point here".

A I'm sorry, the original point would be the inlet on the Garrett type A one-barrel meter for the Fusselman; and, as far as the Drinkard is concerned, they are conventional stock tanks. It was the Commission's feeling that another hearing would be necessary in order to pass the commingled Fusselman oil from the A. B. Coates "C" and "D" Leases into the same line with oil from the Montoya, McKee and Ellenberger zones.

MR. SETH: I believe that is all that we have.

MR. NUTTER: Anyone have any questions of Mr. Miller? Mr. Payne.

CROSS EXAMINATION

BY MR. PAYNE:

Q Mr. Miller, my understanding is the only intermediate grade crude you have on the Coates "D" Lease is Fusselman?

A No, sir.

Q What else do you have on the "D" Lease?

A That is all on the "D" Lease, yes, sir, that is all at this time.

Q If this application is granted, I assume you realize that it merely permits you to commingle, as far as intermediate grade crudes are concerned, the Fusselman on the "D" with the already commingled production of intermediate grade crudes on the "C"; so if you find another intermediate grade crude on the "D", you are still not going to have authority to commingle that with the commingled production on the Coates "C" Lease?

A Yes, sir, that is correct.

MR. SETH: Yes, we realize that.

Q (By Mr. Payne) Have you determined whether the Blinebry is sour or intermediate?

A There was a sample analyzed four days ago, I believe it is, Mr. Payne. It had .51% Sulfur content sour. Due to the border line of the test and the fact the well had produced 21 barrels of overload oil, the Texas-New Mexico Pipeline desired that we take another sample and analyze it.

EXAMINATION BY MR. FISCHER:

Q These blocks up here above your row of tests for regular production separators in that line of Drinkard, Fusselman and McKee --

A Yes, sir.

Q -- those are the headers, in other words, for the Drinkard, where your green line comes in?

A Yes, sir, that is the header.

MR. FISCHER: That's all.

EXAMINATION BY MR. NUTTER:

Q All of these circles, Mr. Miller, running across the center portion of the exhibit labeled "Drinkard", "Fusselman", "Montoya", "McKee" and "Ellenberger" are all conventional separators?

A Yes, sir.

Q Now, the circles over to the far right "D2 Drinkard" and "D2 Fusselman" are metering separators?

A Yes, sir.

Q The oil passing from these metering separators from the Drinkard metering separators is commingled with oil from the conventional separator on the Drinkard "C" Lease?

A Yes, sir.

Q And passes into the treater?

A Yes, sir.

Q What is the quality of this oil prior to being treated?

A I didn't mention it, but the three-phase metering separator knocks out the free water. If you have an election, ? of course, it will pass through your treater. There will be a sampler, a small sample will be drained each time it dumps and the drain out will be taken and that deducted from the pipeline oil that passes through this meter.

Q It will be possible to determine the actual quality of the oil from t h e two leases prior to the time it is commingled?

A On the "D2" it will. As far as the quality of the oil is concerned there will be monthly well tests made on each of these wells.

Q Is the ownership of Coates "D" and Coates "C" common throughout?

A Yes.

Q And the working interest and overriding royalties, if any there be?

A Yes, sir. I might say the reason for the three-phase metering separator, we discussed with the Commission, they felt under Rule 309 it wouldn't be necessary if the royalty and working interest were common, it wouldn't be necessary to meter. However, these are Federal Leases. They are under a different basic lease number. Under USGS regulations, it is required you meter oil from one lease to another lease prior to taking it away from that lease. Even though the meters are located on the Coates "C" Lease, they felt if the flow line was one continuous tube it satisfied their purpose for that ruling. That is the reason we have the three-phase metering separators listed for the "D" Two production. I believe that is 23313 or something like that.

Q Does the Fusselman oil go through a treater prior to the time it is put in the surge tank in the LACT system?

A No, sir, not at the time it makes pipeline oil, at this time.

Q The two large circles at the botom of the exhibit just above the block labeled "LACT" are your test tank and surge tank, is that correct?

A That is correct.

Q (By Mr. Fischer) Mr. Miller, how do you test your McKee - Montoya Oil separately from each well?

A It passes through a -- these headers are so built, if you will refer to drawing number two which is, I mean, it's a

rectangular drawing marked "Number Two".

Q Yes.

A As oil passes, take your left flow line, the one on the left, as oil passes up it can be diverted down through your lower header leg, depending upon the arrangement of your three plug valves as shown on the drawing.

Q Are they manually operated plug valves?

A They are at this time. These pass the oil, if you so desire to test, you close the upper plug valve, open the middle plug valve and leave your lower plug valve open. Flow is diverted into the lower header leg and passes through the four-inch line which would be the first horizontal line down from your rectangles for your headers.

Q Yes, sir.

A This flow goes into the separator marked "Ellenberger test".

Q I have that. The ones on the other would be in the grader test?

A Yes, sir.

Q How many wells do you have, or how many different zones or wells in each zone, producing on the two leases?

A At the present time?

Q Total Ellenberger, total McKee, total Drinkard?

A There are eight Ellenberger wells, four Drinkard wells, two Montoya wells, two Fusselman wells, five Drinkard wells.

Q Twenty-one different sets of producing zones, not different but, in other words, 21 different tests?

A I didn't add them up. Yes, sir, I believe we have 21 wells now.

Q (By Mr. Payne) One Blinebry, is that all you have?

A One Blinebry at this time, yes, sir.

Q (By Mr. Fischer) At the present time you could test each well once a month?

A Yes, sir. Since you have test facilities for intermediate grade crudes and test facilities for sour grade crudes, they could be considered. I mean, you could consider those as different batteries. We anticipate there will be a total of 23 wells going through the intermediate grade crude at this time, that is neglecting the Blinebry.

MR. NUTTER: Mr. Miller, to summarize this, is this an application to commingle commingled production?

A Yes, sir. We looked hard for another word for commingling so we wouldn't have to repeat ourselves.

MR. NUTTER: Any other questions? If not, he may be excused.

(Witness excused.)

MR. SETH: We would like to offer our exhibits.

MR. NUTTER: Without objection, Tidewater's Exhibits One and Two will be entered into evidence in this case.

(Whereupon the documents heretofore marked Applicant's Exhibits One and Two were received in evidence.)

MR. NUTTER: Does anyone have anything further in Case 1584? We will take the case under advisement.

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STATE OF NEW MEXICO)
) ss
COUNTY OF BERNALILLO)

I, JOHN CALVIN BEVELL, Notary Public in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Hearing before the New Mexico Oil Conservation Commission was reported by me in Stenotype and reduced to typewritten transcript by me; that the same is a true and correct record to the best of my knowledge, skill and ability.

WITNESS my Hand and Seal this 24th day of January, 1959, in the City of Albuquerque, County of Bernalillo, State of New Mexico.

ILLEGIBLE

John Calvin Bevell
NOTARY PUBLIC

My Commission Expires:

January 24, 1962

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 1584 heard by me on 1-22, 1959.

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