BEFORE THE
OIL CONSERVATION COMMISSION
MABRY HALL
Santa Fe, New Mexico
June 22, 1960

EXAMINER HEARING

IN THE MATTER OF: Case 1996

Application of Leonard Oil Company for an oil-oil dual completion. Applicant, in the above-styled cause, seeks an order authorizing the dual completion of its Federal Ginsberg Well No. 9, located in Unit D, Section 31, Township 25 South, Range 38 East, Lea County, New Mexico, in such a manner as to produce oil from the Justis-Fusselman Pool and oil from the Blinebry formation adjacent to the Justis-Blinebry Pool through parallel strings of 2 3/8-inch tubing.

BEFORE:

Daniel Nutter, Examiner
Oliver Payne, General Counsel

TRANSCRIPT OF HEARING

Mr. Campbell: I am Jack M. Campbell of Campbell and Russell, Roswell, New Mexico, and I am appearing on behalf of the Applicant, and I have one witness.

(Whereupon, witness was sworn.)

(Whereupon, Exhibits 1 through 3 were marked for identification.)

FOWLER HIX

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

DIRECT EXAMINATION

BY MR. CAMPBELL:

Q Will you state your name, please?

A Fowler Hix.

Q Where do you live, Mr. Hix?

A Roswell, New Mexico

Q By whom are you employed, and in what capacity?

A Leonard Oil Company, General Manager.

Q What are your professional background qualifications, are you an engineer?

A I am a geologist.

Q Geologist. Have you previously testified before the Commission, or one of its Examiners, in your professional capacity?

A Yes.

Mr. Campbell: Are the witness' qualifications acceptable?

Mr. Nutter: Yes, sir.

Q (By Mr. Campbell) Mr. Hix, are you acquainted with the application of Mr. Leonard's Oil Company in this particular case?

A Yes.

Q You prepared that application, did you?

A Yes.

Q I will ask you to refer to that application and which should appear in the original file of the Commission, and ask you

if there are corrections that need to be made for the record on that application?

A Yes, the application, the lower and the upper zone were reversed on the application, and the Fusselman should be the lower. The Blinebry should be the upper zone and, also, at the time this application was made the Fusselman was lower, it's not pumping.

Q Mr. Hix, I am going to refer to what has been identified as Applicant's Exhibit Number 1 in this case, and ask you to state what that is, please?

A Exhibit 1 is a plat of the area in the vicinity of the well, showing the Leonard Oil Company Ginsberg Well No. 9, for which the application for oil completion is being requested, and the offset operators and showing the wells which are completed on their leases.

Q Where is that well situated, for the record?

A It's in 330 from the North line, and 330 from the West line, Section 31, Township 25 South, Range 38 East, Lea County, New Mexico.

Q What formation was that well completed, Mr. Hix, or to what depth was that well drilled?

A The well was drilled to the depth of 6958 in the Fusselman formation.

Q What producing formations were encountered in the drilling of the well?

A The formations, the producing formations, which were encountered with the Blinebry at approximately 5,000 ft. and the Fusselman formation.

Q What was the top, approximately, on the Fusselman formation?

A Approximately 6932.

Q What is the present status of the well with regard to completion in those zones?

A The well has been completed as Fusselman Oil Well now, and has a packer in it which may be used as a geo-completion packer. The Blinebry zone has not been completed, it's not pumping from the Fusselman beneath the packer.

Q And, it is this well you propose to duly complete in the Blinebry and Fusselman formation, is that correct?

A Yes.

Q Mr. Hix, I hand you what has been identified as Applicant's Exhibit Number 2 in this case, and ask you, please, to state what that is?

A Exhibit 2 is a diagramatic sketch of mechanical installation of the proposed oil-dual from the Fusselman and Blinebry formations.

Q Is this well presently completed in the Blinebry?

A No, it is not, sir.

Q Will you briefly describe to the Examiner the method of

completion here, including a general description of the type of packer that you intend to use in this dual completion?

A The well has been perforated 6934 to 6946 in the Fusselman formation, and a Brown retrievable type packer BP-4 packer set at 6892, which is a bridging plug assembly on the top portion of the packer and the well is now completed with this packer at 6892, and one string of tubing in the hole, and it's pumping from beneath the packer. The Blinebry has not been perforated and the second string of tubing has not been installed.

Q At the time of the drilling of this well, did you obtain a log on the well?

A Yes.

Q I will hand you what has been identified as Applicant's Exhibit Number 3 and ask you to state if that is the log you obtained on this well?

A That is the complete set of logs which were obtained.

Q Now, have you obtained some, Mr. Hix, with regard to the bottom hole pressure comparisons in these two zones, and between these two zones in this well, and wells, in the same formations in the general area?

A Yes.

Q Referring, first, to the comparison of the bottom hole pressures, will you recite to the Examiner what information you have concerning bottom hole pressure comparisons?

A Concerning the Fusselman zone, this zone was drilled, tests during the drilling of the well and the bottom hole pressure of the Fusselman in the Ginsberg line No. 9 was 2536, this is taken from a drill stem test. The Hamilton Dome Carlson Federal No. 3, which is in Section 25, referring to the plat, and is located 990 from the South, 1650 from the East line in Section 25. 2537, the bottom hole pressure in the Fusselman in that particular well was 2692.

Mr. Nutter: What was the location of that well again?

The Witness: It's 990 from the South, 1650 from the East line of 25.

Mr. Nutter: That is the No. 3 well?

The Witness: Number 3 well shows 'completed'.

Mr. Nutter: What was the bottom hole pressure?

The Witness: 2692.

Mr. Nutter: That is in the Fusselman?

The Witness: Yes.

Mr. Campbell: The Blinebry zone in the Ginsberg No. 9, we have no bottom hole pressure available on it because we have not completed it, but the Gulf No. 5 of Arnott-Ramsay in Section 36, it's in the Northeast-Northeast with a West offset.

Mr. Nutter: West offset?

The Witness: Yes, the bottom hole pressure of the Blinebry zone was 2270 and then in the Hamilton Dome No. 2 Carlson

Federal, which is a Blinebry tube dual, is located 990 from the South, 660 from the East. No. 2 Well, there, the Blinebry, bottom hole pressure was 2326. Also, the No. 5 Carlson Federal Hamilton Dome, which is just to the West of the No. 3 well, shows a drilling well there with the bottom hole pressure in the Blinebry was 2337. Pan American has a Blinebry dual to the North, but the bottom hole pressure was not available.

Mr. Nutter: Is that No. 5, was that 2327, correct?

The Witness: 2337.

Mr. Nutter: Pardon me.

Q (By Mr. Campbell) Mr. Hix, did you obtain some comparable basis with regard to the gravity of the oil?

A Yes.

Q These formations?

A Yes.

Q Would you give that to the Examiner, please?

A In Leonard Oil Company No. 9, the gravity was 38.8 of the Fusselman. In the Hamilton Dome No. 3 the gravity was 38.5, also, the Hamilton Dome 4 Well, which is 990 from the South and East of Section 25, the bottom hole pressure was unavailable, but the gravity was 38.1.

Mr. Nutter: Those are all Fusselman gravity?

A Yes. In the Blinebry zone, the Gulf No. 5 of Arnott-Ramsay, the gravity was 39. In the No. 2 Carlson Federal Hamilton

Dome, 39.58, and the No. 5 Hamilton Dome, 38.9. Pan American No. 5 State A J, which is a half a mile north of the Ginsberg No. 9, is 39.8.

Mr. Nutter: What is the location of that well?

A Of the Pan American Well?

Mr. Nutter: Yes, sir.

A It's 2310 from the South, 330 from the West of Section 30.

Mr. Nutter: All right.

Q (By Mr. Campbell) Do you have any similar information with regard to gas ratios, Mr. Hix?

A Yes.

Q Would you give those to the Examiner, please?

A The Leonard Oil Ginsberg No. 9 has, in the Fusselman zone, a GOR 481 to 1 in the Fusselman zone. In the Hamilton No. 3 Carlson Federal, 607 to 1, and the No. 4 Carlson Federal, 606 to 1. In the Blinebry zone the GOR is taken from offset wells, the Gulf Arnott-Ramsay, 491 to 1.

Mr. Nutter: What is that Arnott-Ramsay?

A 491 to 1. The Hamilton Dome Carlson Federal, 152 to 1. The Hamilton Dome No. 5 Carlson Federal, 640 to 1. The Pan American State A J No. 5, 441 to 1.

Q Mr. Hix, based upon your knowledge of the geological situation in this area and your information on comparative data relative to the completed wells in the area, is it your opinion that

the upper Blinebry zone and the lower Fusselman zone are two separate sources of supply?

A They are two separate sources of supply.

Q In your opinion, will the completion of your well in the manner illustrated on the diagramatic sketch, as Applicant's Exhibit Number 2, completely segregate the two zones?

A Yes, they will be segregated.

Q Do you feel, in this fashion, that it can be done without waste?

A Yes, there will be no waste.

Mr. Campbell: If the Examiner, please. If the Examiner has any questions concerning the mechanical aspects of this particular packer, I am not acquainted with the theory. We have that Exhibit and we have available a representative of the Company which sells and installs these packers, and he has a model packer here available, and he knows the technique as to the installation and operation of this type of retrievable packer.

Mr. Nutter: It may be Mr. Hix may be able to answer all the questions.

Mr. Campbell: If he isn't, we will be glad to have Mr. Marsh available for testimony here. I would like to offer Applicant's Exhibits 1, 2, and 3, in testimony.

Mr. Nutter: Exhibits 1, 2 and 3 will be entered in evidence. Does anyone have any questions of Mr. Hix?

Q (By Mr. Nutter) You stated that the tubing is presently run to the Fusselman and you are producing the Fusselman at this time?

A Yes.

Q When you go into work on the Blinebry and perforate it, what will be the procedure?

A The packer has a bridging plug assembly in the top portion of the packer and the tubing plug can be dropped down the tubing and seated in the receptacle on the top of the packer where the diagram is shown as 'smaller'. This bridging plug is seated prior to unlocking from the packer with the tubing, and the tubing will be pulled and removed from the hole while the Blinebry is perforated. During this time this tubing plug, which is installed at the top of the packer, will prevent any movement from beneath the packer, or to, or above, or vice versa.

Q Now, when you pull the tubing out, you won't pull this bridge plug assembly and the plug you will drop in, will you?

A No, the bridging plug will remain in place.

Q From the diagramatic sketch, the plug will remain in the packer when the tubing is pulled?

A Yes, only the top, this packer has a JA assembly which you unlatch from the packer.

Q And, then you will go in and perforate the Blinebry and use whatever stimulations are necessary?

A Yes.

Q Then run another string of tube to the Blinebry and string of tubing back into the Fusselman?

A Yes.

Q What does the packer rely on for holding in the casing string, is it set by rotation, is it set by weight?

A It's set by rotation and in setting it down the slips engage the tubing.

Q Engage the casing.

A Casing, I am sorry.

Q What does it have to seal?

A It has a rubber packing above the slips which are pulled and which are expanded.

Q What is the differential that you anticipate between those two zones as far as pressure is concerned?

A The greatest differential is less than 500 pounds between the two, of the bottom hole pressure than the hole pressure of the other zone, and in the method that the well is completed.

Now, would it be producing from beneath the packer, the annulus is filled with mud and there is a greater differential pressure now than there will be any time after completion of the well.

Q You got the hydrostat in the casing sitting on top of the packer at this time?

A Right.

Q Do you anticipate a differential of 500 pounds, possibly, when the Brown BP-4 has rotated and settled and established that differential?

A Yes.

Q Mr. Hix, how many sets of slips does the BP-4 packer have on it?

A One set of slips.

Q Are they pointing up or down?

A Either way they're directly out.

Q I see.

A To hold in both directions.

Mr. Nutter: I see. Any further questions of Mr. Hix? You may be excused.

(Witness excused.)

Mr. Nutter: Mr. Campbell, do you have anything further?

Mr. Campbell: No.

Mr. Nutter: Does anyone have anything further for Case 1996? If not, we will take the case under advisement.

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I N D E X

E X H I B I T S

Number	Exhibit	Marked for Identification	Offered	Received
Appl 3	1- 3		9	9

STATE OF NEW MEXICO)
) ss
COUNTY OF BERNALILLO)

I, Lewellyn Nelson, 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 8th day of June, 1960, in the City of Albuquerque, County of Bernalillo, State of New Mexico.

Lewellyn Nelson
NOTARY PUBLIC

My Commission Expires:

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 1994, heard by me on 6/22, 1960.

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