

MR. KASTLER: If the Commission please, my name is Bill Kastler, and I am from Roswell, New Mexico, representing Gulf Oil Corporation. Our witness in this case is Mr. J. L. McGill.

(Witness sworn)

J. L. McGILL

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

DIRECT EXAMINATION

BY MR. KASTLER:

Q Will you please state your name and address?

A I am J. L. McGill, Hobbs, New Mexico.

Q How do you spell McGill?

A Capital Mc, capital G-i-l-l.

Q What is your position, Mr. McGill, and with whom are you associated?

A I'm a petroleum engineer for the Gulf Oil Corporation.

Q Have you previously appeared before the New Mexico Oil Conservation Commission and testified as a petroleum engineer?

A I have not.

Q Will you please outline your educational background and what degrees you have received?

A I attended the A. and M. College at Texas and was graduated from that school in 1950 with a B.S. in geological engineering and a B.S. in petroleum engineering.

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Q Since graduation what has been your experience in the field of geological and petroleum engineering?

A I have been continually employed by the Gulf Oil Corporation since October 3rd, 1950, with the exception of a nine-month period of time with the United States Army during the Korean War. The last seven and a half years have been spent in Roswell, New Mexico in Gulf's production office, where I have performed all phases of production work that pertain to workover, new well completion and dual completions.

Q In your work for Gulf Oil Corporation at Hobbs, New Mexico have you become familiar with the completion and producing equipment as well as the oil well and proposed dual completion well known as J. N. Carson Well No. 6?

A I have.

MR. KASTLER: Are the witness's qualifications admissible?

MR. NUTTER: Yes, sir.

Q Will you please state briefly what Gulf is seeking in its application, Case 2034, oil over gas or gas over oil and in what pay zones?

A On the J. N. Carson C Well No. 6 we have a Blinbry gas completion and we wish to dually complete with the Penrose-Skelly oil zone.

Q Now, Mr. McGill, I wish to call your attention to a lease plat which has been marked for introduction into evidence

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in this case and labeled Exhibit No. 1. Will you state what is shown and indicated on this plat?

A Exhibit No. 1 is a lease plat showing the J. N. Carson C Lease outlined in green and described as being the East Half of the Southeast Quarter of Section 28, Township 21 South, Range 37 East, and the Northeast Quarter of the Northeast Quarter of Section 33 of the same township and range, Lea County, New Mexico.

Q Does Gulf's J. N. Carson C Lease consist of 120 acres?

A That is correct.

Q Is the subject well, Well No. 6?

A It is Well No. 6.

Q How is Well No. 6 indicated on this plat?

A As stated earlier, it has been circled in red.

Q Does this plat also show the offset operators and their wells completed in this area?

A It does.

Q Will you please give the well history of Well No. 6?

A It's located 965 from the East line and 330 feet from the South line of Section 28. It was originally completed on April 16, 1949 in the Ellenburger formation, Brunson Pool, at a total depth of 7500 feet. In July, 1958, it was plugged back and re-completed in the Blinbry Gas Pool and has a plug back total depth of 5971 feet.

Q Is this well now a Blinbry gas producer?



A It is.

Q It's dedicated to a unit?

A That is right. It is the same acreage that comprises the J. N. Carson C Lease.

Q Do you happen to know the Oil Commission order number and date for that unit?

A It was R-1253, dated September 29, 1958.

Q Now, is this well also capable of completion in the Penrose-Skelly Pool?

A Yes, sir, it is.

Q Mr. McGill, have the offset operators been notified of Gulf's application in this case for dual completion?

A They have by copy of this letter of application, all offsets with the exception of the Atlantic Refining, who offset us on the West, who were notified by phone call yesterday afternoon, and I understand have sent a telegram to the Commission.

MR. KASTLER: Mr. Examiner, has a telegram been received from Atlantic relative to this case?

MR. NUTTER: Yes, sir, Atlantic advises they have no objection to the dual completion.

Q I now wish to call your attention to a log which has been labeled Case 2034, Exhibit No. 2. Will you briefly state what is shown on this log pertinent to this case?

A Exhibit No. 2 is a log of the J. N. Carson C No. 6,



showing the perforated intervals in the Blinebry gas pay and the proposed intervals to be perforated in the Penrose-Skelly. The Blinebry is perforated in the interval 5436 to 5652 feet, and it is proposed to perforate the Penrose-Skelly from 3619 to 3712 feet. Upon completion, the Blinebry gas zone flowed on a 15 minute test at the rate of 4,540 MCF of gas per day with 1100 pounds back pressure, and the estimated open flow potential was 7,900 MCF of gas per day.

Q Have you taken any more recent tests than the Blinebry test?

A We have, but I do not have that information here.

Q If desired, could that information be submitted by letter?

A It could be.

Q You have marked on this Exhibit No. 2 the proposed perforations in the Penrose-Skelly Pool.

A It is.

Q But those have not been perforated or tested?

A Those have not been perforated, they're only proposed.

Q I now wish to call your attention to what is marked as Exhibit No. 3, which is a schematic diagram of your proposed dual completion. Referring to Exhibit No. 3, would you please state the proposal in great detail?

A Exhibit No. 3 is a schematic sketch of the proposed mechanical installation for the dual completion. It shows that



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there is 13-3/8 inch casing set at 306 feet, cemented with 300 sacks of cement and circulated to the surface. It has 9-5/8 O.D. casing set at 2900 feet and cemented with 1300 sacks of cement, and the top of the cement behind the 9-5/8 inch casing is at 122 feet as per a temperature survey. The 7 inch O.D. oil string is at 7365 feet and cemented with 700 sacks of cement, whose top is behind the 7 inch casing at 3475 feet as per a temperature survey. Total depth of the well is 7500 feet. It has a plug back total depth now of 5971 feet.

It is proposed that a Baker Model D production packer be set at approximately 3775 feet. This model packer has been used quite extensively by Gulf on other dual completions approved by the Commission. It is planned to use two strings of an OD upset tubing. However, the short string will have machined and beveled couplings having an OD of 2.910 inches. Below the packer, the long string will be bull plugged on bottom and set at approximately 5630 feet and will contain a circulating valve at approximately 5600 feet in the open position for production in the Blinebry. Immediately above the Baker Model D production packer will be a Baker receptacle seal assembly whose primary purpose is to part the long tubing string for any work to be conducted above the packer. With the circulating valve below the packer in the closed position, the Blinebry is effectively and temporarily plugged off. Also to be included in the long string of tubing will be a Baker parallel



tubing string anchor to be set at approximately 3600 feet for anchoring of the short string.

We anticipate a static bottom hole pressure of the Blinebry gas zone to not exceed 24,000 psi, and it is anticipated that the static bottom hole pressure of the Penrose will not exceed 1,200 psi.

Q 1,200?

A That is right.

Q With this proposed Baker Model D production packer, do you anticipate that complete separation between zones would be assured?

A Yes, sir, we do.

Q In the event the proposal is allowed, would Gulf perform all necessary tests and conform with all requirements of the New Mexico Oil Conservation Commission?

A We have and we will.

Q Will you testify as to the relative saving and cost of dually completing this well as opposed to drilling a new well for the Penrose-Skelly production?

A The estimated cost to drill and complete a new well to the Penrose-Skelly oil zone is \$38,000, whereas the estimated cost to dually complete the J. N. Carson C No. 6 in the Penrose-Skelly Oil Pool is \$19,000; therefore, an indicated savings of \$19,000 is offered.

Q In your opinion, Mr. McGill, would the rights of any



royalty owner or offset operator be adversely affected by the granting of this proposal?

A No, I don't believe it would.

Q Were Exhibits 1, 2 and 3 prepared by you or at your direction and under your supervision?

A It was, sir.

MR. KASTLER: I would like to move the introduction of Exhibits 1, 2 and 3. This concludes my testimony.

MR. NUTTER: Gulf's Exhibits 1, 2 and 3 will be admitted. Any questions of Mr. McGill?

MR. PAYNE: No questions.

CROSS EXAMINATION

BY MR. NUTTER:

Q What is the gas-liquid ratio in the Blinebry for this well?

A Sir, I do not have that information, but it can be obtained.

Q What is your expected gas-oil ratio on the Penrose-Skelly?

A I would say, based on other wells completed in the area, it would be on the order of 48,000 to 1.

Q They have been running rather high in there, is that correct?

A That is right.

Q What about the gravity of the Penrose-Skelly?



A We anticipate that to be around 35.2 degrees corrected and that, again, is based on other wells completed in the immediate area.

Q What's the gravity of the liquids in the Blinebry?

A 63.7 degrees corrected, that is actual.

Q When you get home will you furnish us the gas-liquid ratio in the Blinebry, please?

A Yes, sir.

MR. NUTTER: Any further questions of Mr. McGill? You may be excused.

(Witness excused.)

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

MR. KASTLER: No, I haven't.

MR. NUTTER: Does anyone have anything further for Case 2034? If not, we will take the case under advisement and call for Case 2035.

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STATE OF NEW MEXICO)
 : SS
 COUNTY OF BERNALILLO)

I, ADA DEARNLEY, 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 2nd day of August, 1960.

Ada Dearnley
 Notary Public-Court Reporter

My commission expires:

June 19, 1963.

I do hereby certify that the foregoing is
 a correct and true copy of the proceedings in
 the New Mexico Oil Conservation Commission, No. 2034,
 heard by the Commission on 7/27, 1960.

[Signature] Examiner
 New Mexico Oil Conservation Commission

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