BEFORE THE
OIL CONSERVATION COMMISSION
STATE OF NEW MEXICO
Santa Fe, New Mexico

September 18, 1957

TRANSCRIPT OF HEARING

Case 1310

DEARNLEY - MEIER & ASSOCIATES
INCORPORATED
GENERAL LAW REPORTERS
ALBUQUERQUE, NEW MEXICO
3-6691 5-9546

BEFORE THE
OIL CONSERVATION COMMISSION
STATE OF NEW MEXICO
Santa Fe, New Mexico

September 18, 1957

IN THE MATTER OF:	
Application of Albert Gackle for approval of an oil-oil dual completion in the Jalmat Gas Pool and the South Eunice Pool underlying Section 33, Township 22 South, Range 36 East, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order authorizing an oil-oil dual completion by means of parallel strings of tubing in the Jalmat Gas Pool and the South Eunice Pool underlying Section 33, Township 22 South, Range 36 East, Lea County, New Mexico, for his H. E. Esmond Well No. 3 located 1980 feet from the North line and 660 feet from the East line of said Section 33.	Case 1310

BEFORE:

Mr. A. L. Porter
Mr. Murray Morgan
Honorable Edwin L. Mechem

TRANSCRIPT OF HEARING

MR. COOLEY: Application of Albert Gackle for approval of an oil-oil dual completion in the Jalmat Gas Pool and the South Eunice Pool underlying Section 33, Township 22 South, Range 36 East, Lea County, New Mexico.

(Witness sworn.)

PAUL JOHNSTON

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

DIRECT EXAMINATION

By MR. COOLEY:

Q Will you state your name and position, please?

A Paul Johnston, Superintendent of Production for Albert Gackle, Operator. And I have previously testified before the Commission on other cases, if my qualifications are acceptable.

MR. PORTER: Mr. Johnston's qualifications are acceptable.

A Albert Gackle, Operator, is requesting permission to dually complete, through parallel tubing strings, its H. E. Esmond Well No. 3, located 1980 feet from the north line and 660 feet from the east line of Section 33, Township 22 South, Range 36 East, Lea County, New Mexico. This well is presently producing from perforations within the vertical limits of the South Eunice Pool. Those perforations are 3746 to 3754, 3702 to 3712, and 3662 to 3672. I want to submit as evidence, Exhibit A which is a plat showing the location of the Albert Gackle Esmond lease and the location within the lease of the proposed dual completion and the 40 acre subdivision on which that well is located. That exhibit also shows the offset ownership and the wells that are located on the offset acreage.

I have indicated the South Eunice wells with the letters S. E. beside the wells, and the Jalmat wells with the letter J. beside those. Each of the operators have been notified by registered mail, and I have obtained receipts from each of them. The

Albert Gackle, Operator, Esmond No. 3 Well was commenced on 8-1-57, drilling was completed on 8-20-57, and the first oil was run to the stock tanks on 10-10-57. Initial potential of this well was 60 barrels of oil in six hours, flowing on a choke size of 32-64's with a gas-oil ratio of 2800 to 1. The well is currently producing 37 barrels of oil per day and 5 barrels of water per day. There are two strings of pipe set in this well 9 5/8 which is set at 315 feet with cement circulated, and 7 inch pipe set at 3853 feet with cement circulated. We propose to dually complete this well in the following manner: I want to submit Exhibit B, which is a schematic sketch of the proposed completion. On that sketch I have indicated that the lower perforations will be within the vertical limits of the South Eunice Pool and that the upper perforations that will be produced within the vertical limits of the Jalmat Pool.

We propose to separate the two pools by use of a production packer. Each pool will be produced through a separate string of two-inch tubing.

I want to submit as Exhibit C a copy of the radioactive log of this well. If you will turn to the regular scale portion of the log, I have marked the vertical limits, the upper limits of the Jalmat Pool and the lower limits of the Jalmat Pool, and the upper limit of the South Eunice Pool. The call on the tops of the Yates formation, which I have indicated the Seven Rivers formation, and the

Queen formation have been correlated with the help of Mr. Randall Montgomery of the Hobbs Office of the New Mexico Oil Conservation Commission. Also on that log I have indicated with a solid mark along the right line there the perforations in the South Eunice Pool. You will note that there are two bridge plugs set in that well, one being at 3792 feet, which isolated the lower zones that were perforated, those zones were perforated and treated but we did not recover all of the load oil. Out of those lower zones below the bottom bridge plug we were recovering our load at the rate of four barrels an hour, and the water percentage was 10%.

Next we perforated the interval from 3764 to 76 and treated that interval. There again we did not recover all of the load oil and again we were swabbing load oil at the rate of four barrels per hour with a water cut of 10%. Bridge plug was then set at 3760 feet, the perforations from 3746 to 54, and 3702 to 12 and 3662 to 72 were treated, and the well has been completed from those zones.

I want to point out that all of those perforations are within the vertical limits of the South Eunice Pool. Now the vertical limits of the Jalmat Pool are described as being from the top of the Tansil formation to within 100 feet of the bottom of the Seven Rivers formation. Noting that the top of the Queen, which would be the bottom of the Seven Rivers, is at a depth of 3747 feet, that would place the vertical separation between the Jalmat and the

South Eunice Pool at a depth of 3647 feet in this well. During the drilling of this well several intervals other than those which are now completed within the vertical limit of the South Eunice Pool were encountered, and indicated that they would be oil productive.

Now, Referring to Exhibit C, the following intervals in the Seven Rivers formation, which are within the vertical limits of the Jalmat Pool, that indicated that they would be oil productive are as follows: 3615 to 3622, 3598 to 3610, 3568 to 3580, 3522 to 3532, 3424 to 3434, 3396 to 3405. Other intervals of possible oil production are in the Yates formation and are within the vertical limits of the Jalmat Pool. They are as follows: 3345 to 3351, 3326 to 3338, 3254 to 3262. I want to point out that these intervals in the Yates formation were cored and analyzed by Core Laboratories. These intervals were characterized by favorable residual oil and total water saturations, and the character of production from these intervals will depend upon the results of treating.

Also I want to point out that all of the aforementioned intervals, both in the Jalmat and South Eunice Pools within the vertical limits of the Jalmat and South Eunice Pools, have been analyzed for porosity and total water saturation by the use of electrical and radioactive logging instruments. Also I have personally studied the drilling samples from these intervals and the drilling time log

of these intervals.

It is my personal opinion that any one of the aforementioned intervals within the vertical limits of the Jalmat Pool will be oil productive. However, the character of the production from each interval will depend on the results of treating. It is the opinion of the applicant that the manner and the method proposed for this dual completion is mechanically feasible and practical. The applicant will comply with all the rules and regulations of the New Mexico Oil Conservation Commission to maintain complete separation of the Jalmat and South Eunice production.

Further, we do not feel at present that we could economically justify the drilling of a new well to test the indicated oil productive intervals within the vertical limit of the Jalmat Pool. I want to point out at present it is our plan to separate the vertical limits of the Jalmat Pool and the South Eunice Pool by the use of a bridge plug and then test the indicated intervals within the vertical limits of the Jalmat Pool. It is anticipated that we will obtain a successful completion in the Jalmat Pool and that the well will flow for some time. In that event, we would then separate the vertical limits of the Jalmat Pool and the South Eunice Pool by the use of a production packer and produce each pool through separate strings of two-inch tubing.

In the event that either or both of the completions would require pumping, then proper mechanical devices would be installed to

pump either or both wells. The type of equipment would depend then upon the production problem in the well.

It is respectfully requested that this application be approved, and it is felt that the application is in the best interest of conservation and the protection of correlative rights, and the approval of this application will not affect the interest of the lease holders and royalty owners. That concludes my statement.

MR. PORTER: Does anyone have a question of Mr. Johnston? Mr. Nutter.

CROSS EXAMINATION

By MR. NUTTER:

Q Now, Mr. Johnston, you indicated several specific zones of porosity that you had protected in the Jalmat Pool. Would those be the limitations of the intervals that you would perforate in the Jalmat?

A Those are the intervals in the Jalmat Pool that we have determined that would be possible oil productive zones.

Q You would limit your perforations to the zone that you outlined and described, is that correct?

A That is correct, and I hope to be able to make a top allowable completion from the lowermost three sets of intervals within the Jalmat or within the vertical limits of the Jalmat Pool.

Q Where would you set the packer in the event of a dual completion, Mr. Johnston?

A At approximately 3640 feet. There is a collar located in the casing string at 3646 and we would set the packer above that. The collar falls right on the vertical limits of the two pools.

Q Is the South Eunice a flowing well at the present time?

A Yes, it is.

Q And you anticipate you will get a flowing well in the Jalmat also?

A Yes, I do.

MR. NUTTER: Thank you.

MR. PORTER: Mr. Cooley.

RE-DIRECT EXAMINATION

By MR. COOLEY:

Q Mr. Johnston, is the production packer that you anticipate using of a type previously approved by this Commission?

A Yes. There are two types of packers we could use, one is what we call the common hook wall packer which has been approved. Another is what we term a permanent completion packer which would be a packer Model D retainer packer, a retainer type packer.

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

A Yes.

Q Would you care to offer them in evidence?

A Yes, sir. They were prepared by me.

MR. PORTER: It is your desire to have Exhibits A, B and C admitted into the record in this case?

A Yes, sir.

MR. PORTER: Without objection the exhibits will be admitted.

MR. PORTER: Does anyone else have a question? Mr. Utz.

RE-CROSS EXAMINATION

By MR. UTZ:

Q Mr. Johnston, what do you anticipate the pressure differential across the packer to be?

A In this case I don't feel that there would be any appreciable difference in pressures. In the absence of any specific information, I would not anticipate more than 50 pound differential at the outset.

MR. UTZ: That's all.

MR. PORTER: Any further questions of Mr. Johnston? The witness may be excused.

(Witness excused.)

Does anyone have a statement in the case, anything further?

MR. WALL: J. D. Wall, representing Continental Oil Company. Continental has acreage adjacent to the applicant on the south. Continental has no objection to the proposed dual and recommends that it be approved.

MR. PORTER: Anyone else have a statement? Anything further in this case? We will take the case under advisement.

C E R T I F I C A T E

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 30th day September, 1957.

Ada Dearnley
Notary Public - Court Reporter

My commission expires:

June 19, 1959.