BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

IN THE MATTER OF:

CASE 1815

TRANSCRIPT OF HEARING

NOVEMBER 24, 1959

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IN THE MATTER OF:

CASE 1815 Application of Leonard Oil Company for an unorthodox gas well location. Applicant, in the above-styled cause, seeks an order authorizing an unorthodox gas well location in the Jalmat Gas Pool at a point 2310 feet from the North and East lines of Section 21, Township 25 South, Range 37 East, Lea County, New Mexico. Applicant proposes that said well serve as the unit well for a non-standard gas proration unit in the Jalmat Gas Pool consisting of the E/2 NW/4 and W/2 NE/4 of said Section 21.

BEFORE:

Elvis A. Utz, Examiner.

TRANSCRIPT OF PROCEEDINGS

MR. UTZ: The hearing will come to order. Case 1815.

MR. PAYNE: Case 1815. Application of Leonard Oil Company for an unorthodox gas well location.

MR. CAMPBELL: Jack M. Campbell, Campbell & Russell, Roswell, New Mexico, appearing on behalf of the applicant. We have one witness.

(Witness sworn)

FOWLER HICKS,

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

follows:

DIRECT EXAMINATION

BY MR. CAMPBELL:

Q Will you state your name, please?

A Fowler Hicks.

Q Where do you live, Mr. Hicks?

A Roswell, New Mexico.

Q By whom are you employed and in what capacity?

A Leonard Oil Company as general manager.

Q Have you previously testified before this Commission or one of its Examiners?

A No, sir.

Q Will you give the Examiner a brief resume of your educational and professional background?

A I graduated from Texas Technological College at Lubbock with a B. S. degree in geology in 1950. Directly after graduating, I went to work for Urice Drilling Company in the capacity of roughneck and relief driver. In 1952 I went to work for Permean Engineering Company as a logging engineer. Duties consisted of running well samples and some core analyses as well as gas analyses of drilling mud. In 1954 I went to work for El Paso Natural Gas as a geologist. Work consisted of well setting as well as some well completion work on gas wells. Went to work for Leonard Oil Company in 1956 as production superintendent. Duties consisted of supervising the drilling, completion and producing of both oil

and gas wells. Since February of this year, I have been general manager for Leonard Oil.

MR. CAMPBELL: Are the witness' qualifications as a geologist and production engineer acceptable to the Examiner?

MR. UTZ: Yes, sir.

Q Mr. Hicks, are you acquainted with the Leonard Oil Company's Lanehart lease?

A Yes, sir.

(Whereupon, Applicant's Exhibit No. 1 was marked for identification.)

Q I hand you what has been identified as Applicant's Exhibit No. 1 in this case, and ask you to state what that is, please?

A Exhibit No. 1 is a portion -- a plat of a portion of Township 25 South, Range 37 East, Lea County, New Mexico. On this plat the Leonard Oil Company's non-standard proration unit consisting of the Lanehart lease is encircled in red with the well which we propose, and our unit well encircled in red, and the Jalmat gas wells are encircled in green.

Q It appears, Mr. Hicks, that this is a non-standard proration unit in the Jalmat Gas Pool. By what Order of the Commission was this non-standard proration unit approved originally?

A By NSP Order No. 19, dated 10/20/1954.

Q Now, referring to the plat, Exhibit 1, will you point out to the Examiner the oil wells presently situated on this unit?

A The oil wells presently on this unit are the No. 1 Well and the 1-A Well located in the SW/4 of the NE/4; our No. 2 Well, in the SE NW, and our No. 3 Well, in the NE NW, all of Section 21.

Q And where is the gas well for this unit presently situated?

A The gas well is in the NE NW as our Lanehart No.4, NW NE, our Lanehart No. 4, which is the present unit well.

Q Mr. Hicks, I notice that there are two oil wells situated in the SW/4 of the NE/4 of Section 21. Will you explain that situation?

A The No. 1 well was originally drilled in 1956. And we drilled our 1-A well in an effort to make an oil -- a better oil well on that 40-acre tract, and since then we have had two oil wells on the forty acres.

Q And you have been producing two oil wells for one 40-acre unit allowable within the limitations of gas-oil ratio restrictions in the Jalmat Gas Pool, have you?

A Yes, sir.

Q Where is that Lanehart 1-A well located with regard to distances from section lines?

A It is located 2310 feet from the East line and 2310 feet from the North line of Section 21.

Q It was situated as a 330 foot oil well location originally, was it?

A Yes, sir.

Q When was this Lanehart 1-A well completed?

A It was completed in October of 1955.

(Whereupon, Applicant's Exhibit No. 2 was marked for identification.)

Q Mr. Hicks, I hand you what has been identified as Applicant's Exhibit No. 2 in this case, and ask you to state what that is, please?

A Exhibit No. 2 is a gamma ray neutron log of the Lanehart No. 1-A well.

Q Will you refer to that log, please, and state how the Lanehart No. 1-A was completed as an oil well?

A The well was drilled to a total depth of thirty-one forty-three. And during the drilling of this well, seven-inch casing was set at twenty-seven fifty-seven. Upon reaching thirty-one forty-three, a five and a half inch liner was installed in the well and cement circulated on the line. Then the well was perforated from three thousand ninety-four to thirty-one ten, treated with ten thousand gallons of sand oil. After recovery of load oil, the well tested three million four hundred thousand cubic feet of gas and a small amount of oil per day. Since we were attempting to make an oil well out of it and this is tested as a gas well above a hundred thousand to one, we set a packer at twenty-nine ten, and perforated from twenty-eight ninety-four to twenty-nine zero six. Treated with ten thousand gallons

of sand oil, after recovery of load oil, tested three hundred and eighty-five thousand cubic feet of gas per day and eleven barrels of oil, this well was produced from this zone from then until October of this year.

Q What did you do with the well in October of this year?

A In October of this year we received permission from the Oil Conservation Commission in Hobbs to pull the tubing and re-arrange the packer so that out tubing perforations were below the packer which was set at twenty-nine ten, so that we could produce the zone from three thousand ninety-four to three thousand one hundred ten, so that we could test that zone.

Q And did you test that zone after that recompletion?

A Yes. We ran a four point back pressure test on the zone.

(Whereupon, Applicant's Exhibit No. 3 was marked for identification.)

Q I hand you what has been identified as Applicant's Exhibit No. 3, and ask you to state what that is, please?

A Exhibit No. 3 is a multipoint back pressure test on the Lanehart 1-A Well, showing the absolute potential as four million five hundred and seventy-five thousand cubic feet per day.

Q Was that multipoint test filed with the Commission?

A No, it has not been filed with the Commission. It was only taken to get the information to request that this well be changed to the unit well.

Q And what does that represent with regard to the gas production?

A It reflects that there was a four point run in the test. It reflects that the absolute potential is four million five hundred seventy-five cubic feet per day.

Q Did you take a one point back pressure test or calculate the deliverability on the basis of one point back pressure test on this well?

A We took one point within this multipoint test and calculated the deliverability from this test.

(Whereupon, Applicant's Exhibit No. 4 was marked for identification.)

Q I refer you to what has been identified as Applicant's Exhibit No. 4, and ask you to state what that is?

A Exhibit No. 4 is a calculated deliverability take from this four point back pressure test showing a deliverability of one million one hundred and forty-one thousand cubic feet per day.

Q Based upon the testing that you have done on this well, do you believe that this well may reasonably be expected to make what has been the normal unit allowable for this hundred and sixty-acre tract?

A Yes.

Q What is the present unit well on this hundred and sixty-acre non-standard unit?

A The present unit well is our Lanehart No. 4, which is

shown on Exhibit No. 1.

Q And what do you propose to do with that well if this application is approved?

A We propose to recomplete it as an oil well in the Jalmat Pool.

Q Will you state what you will do with regard to that well?

A That well is completed in a similar manner to the well in question. In other words, it is producing from beneath the packer from open hole zone at approximately thirty-one hundred feet. And there is an oil producing zone at about twenty-nine hundred feet, which we propose to pull the packer and produce from the upper zone as an oil well.

Q Mr. Hicks, what you are seeking, then, by this application is approval of the unorthodox well location for your Lanehart 1-A well, and its designation as the unit well for this non-standard proration unit, is that correct?

A That is correct.

Q You will then have four oil wells and one gas well on this unit?

A Yes.

Q Will all of those oil wells be produced as oil wells within the limiting gas-oil ratio provided by the Jalmat Gas Pool Rules?

A Yes.

MR. CAMPBELL: That's all the questions I have at this time.

CROSS EXAMINATION

BY MR. UTZ:

Q Mr. Hicks, did I understand you to say that the Lanehart 1-A well was completed in the twenty-nine hundred foot zone as well as the thirty-one hundred foot zone?

A Both. It was originally perforated in the lower zone and after testing, and it tested as a gas well, we completed it in the -- at twenty-eight ninety-four to twenty-nine zero six. And the method of producing it was producing it with a packer set at twenty-nine ten below the upper perforations, and the tubing perforations were above the packer, so that the packer had the lower zone shut off. It was produced that way until October of this year.

Q That was the 1-A Well?

A That's the 1-A Well, yes, sir.

Q How is it producing now, --

A It is not --

Q -- or how do you propose to produce it?

A We propose to produce it -- this is the installation that is in it now. A packer set at twenty-nine ten with the tubing perforations below the packer, so that we can produce it from three thousand ninety-four to thirty-one ten. At present, it is not being produced. The No. 1 Well is being utilized as the oil

well, and this well is shut in at the present time.

Q You've got me a little confused here. Your packer is set at twenty-nine ten?

A Yes, sir.

Q And you propose to produce it with perforations below the packer?

A Yes, sir. That's the installation that is in it now after we received permission from Hobbs to put this installation in it, so that we could test the gas zone in the lower part of the zone.

Q So you will be producing gas from the thirty-one hundred foot zone?

A Yes, sir.

Q And the twenty-nine hundred foot zone is the oil zone in this area?

A Yes, sir.

Q And all your other wells on this tract, all the Jalmat oil wells are producing from the twenty-nine hundred foot zone?

A They are producing from above this thirty-one hundred foot zone. They are stringer-lens like affairs which you can't follow from well to well each time.

Q It is a rather unusual situation to have the oil above the gas, isn't it?

A Well, if it were within the same sand body it probably

would be, but there is quite an interval from three thousand foot there to twenty-nine fifteen, which there are several shale breaks in there which are impermeable. We are not within the same sand body on these two completions.

Q However, both zones are within the vertical limit, presently designated limit of the Jalmat?

A Yes, sir, they are within the vertical limit of the Jalmat Pool.

Q What was the deliverability on your No. 4 Well?

A The last calculated deliverability on our No. 4 Well, I don't have the exact figure, but it was in the vicinity of the same deliverability of this, possibly slightly higher.

Q And the reason you are asking for this unorthodox location is so that you can dedicate another forty acres to an oil well?

A Yes, sir.

Q And the No. 4 Well was producing gas from the thirty-one hundred foot zone?

A Yes, sir.

Q And you now are going to produce oil from the twenty-nine hundred foot zone?

A Yes, sir.

MR. UTZ: Are there any other questions?

QUESTIONS BY MR. PAYNE:

Q Mr. Hicks, if your proposed recompletions of your No.

4 Well were unsuccessful as an oil well, if it turns out unsuccessful, --

A Yes, sir.

Q -- then you propose to dedicate eighty acres to each of these wells, I presume?

A Either that or produce -- shut one in -- and produce the hundred and sixty acre allowable from the other well.

MR. PAYNE: Thank you.

MR. UTZ: Are there any other questions of the witness?

MR. CAMPBELL: I would like to offer Applicant's Exhibits 1 through 4 in evidence.

MR. UTZ: Without objection, they will be received.

(Thereupon, Applicant's Exhibits Nos. 1,2,3,4 were received in evidence.)

MR. UTZ: The witness may be excused.

(Witness excused)

MR. UTZ: Any other statements to be made in this case? The hearing will adjourn until one-thirty.

STATE OF NEW MEXICO)
) ss
COUNTY OF BERNALILLO)

I, J. A. Trujillo, 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 by me, 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, the 17th day of December, 1959, in the City of Albuquerque, County of Bernalillo, State of New Mexico.

J. A. Trujillo
NOTARY PUBLIC

My Commission Expires:

October 5, 1960

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 1815, heard by me on Nov. 24, 1959.

Examiner
New Mexico Oil Conservation Commission