

BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
April 17, 1957

IN THE MATTER OF:

Case No. 1237

TRANSCRIPT OF HEARING

DEARNLEY - MEIER & ASSOCIATES
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3-6691 2-2211

BEFORE THE
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IN THE MATTER OF:

Application of Continental Oil Company for
approval of a non-standard gas proration
unit in the Jalmat Gas Pool, Lea County,
New Mexico, in exception to Rule 5 (A) of
the Special Rules and Regulations for said
pool. Applicant, in the above-styled cause,
seeks an order authorizing a 320-acre non-
standard gas proration unit in the Jalmat
Gas Pool consisting of the S/2 Section 8,
Township 23 South, Range 36 East, Lea
County, New Mexico; said unit to be dedicated
to applicant's Danciger "A-8" Well No. 2
located 660 feet from the South and East
lines of said Section 8.

No. 1237

BEFORE:

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

TRANSCRIPT OF HEARING

MR. PORTER: The Commission will consider next Case 1237.

MR. COOLEY: Case 1237. Application of Continental Oil
Company for approval of a non-standard gas proration unit in the
Jalmat Gas Pool, Lea County, New Mexico, in exception to Rule 5
(A) of the Special Rules and Regulations for said pool.

MR. KELLAHIN: I am Jason Kellahin appearing for the
applicant, Continental Oil Company. We have one witness, Mr.

R. C. Lannen.

R. C. LANNEN

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

DIRECT EXAMINATION

BY: MR. KELLAHIN:

Q Will you state your name, please?

A R. C. Lannen.

Q Are you the same Mr. R. C. Lannen who testified in Case 1236?

A Yes.

Q Are you sworn for this case? A Yes.

Q Mr. Lannen, are you familiar with the application in Case No. 1237?

A Yes, I am.

Q And what does it involve?

A Well, Continental Oil Company requests an exception to Rule 5 (A) of the Special Rules and Regulations for the Jalmat Gas Pool contained in Order No. R-520 in the enlargement of a presently established non-standard gas proration unit of 160-acres consisting of the Southeast Quarter of Section 8, Township 23 South, Range 36 East, to a non-standard unit of 320-acres consisting of the South Half of Section 8, Township 23 South, Range 36 East, New Mexico Prime Meridian, Lea County, New Mexico, to be allocated to its Danciger A-8 Well No. 2.

Q Where is that well located?

A The Danciger A-8 No. 2 Well is located 660 feet from the South and East lines, Section 8, Township 23 South, Range 36 East, NMPM, Jalmat Gas Pool, Lea County, New Mexico.

Q Is it presently producing from the Jalmat?

A Yes, it is. It is producing with a 160-acre allocation.

Q Would you describe how that well is completed?

A Well, the Danciger A-8 No. 2 well was plugged back to 3550 feet and recompleted in 1949 as a Jalmat Gas Pool Gas well, after being completed in the Seven Rivers Formation for oil. It was recompleted in the Yates Formation for an initial potential of 3900 MCF's gas per day. Cumulative gas production to March 1, 1957, was 1,810,700 MCFs, and the proration status as of March 1, 1957, was 19,422 MCFs overproduced with a 160-acre unit allocation.

Q Referring to what has been marked as Exhibit No. 1, will you describe what that shows?

A Exhibit No. 1 is a structure and lease ownership plat showing: 1. the Yates structure contoured on 25 foot intervals; 2. The proposed 320-acre unit circumscribed in red, the existing gas well, the Danciger A-8 No. 2, encircled in red, and offset gas wells and gas units circumscribed in green.

The Danciger A-8 Lease has only the one producing well, the No. 2 gas well. Two other wells were drilled on the lease to the Seven Rivers Formation for oil production in 1937 and 1948, but have been subsequently plugged and abandoned.

Q Now, it is your opinion, Mr. Lannen, that all of the acreage which you now propose to dedicate is productive of gas?

A Yes, it is.

Q And on what do you base that conclusion?

A Well, based on the surrounding gas wells and their acreage allocations, especially the Trebol Federal Y No. 1, located approximately two miles to the north, which has allocated to it the Northwest Quarter of Section 5, Township 23 South, Range 36 East, it is reasonably presumed the entire South Half of Section 8, Township 23 South, Range 36 East is gas productive. This acreage is structurally comparable to the Southwest Quarter of Section 8, Township 23 South, Range 36 East, which is the acreage it is proposed to add to the presently established unit, the Southeast Quarter of Section 8, Township 23 South, Range 36 East to form a 320-acre unit.

Q Mr. Lannen, have you made any study as to the westward extension of gas production?

A Yes, I have.

Q Will you describe that to the Commission please?

A Yes. Referring to Exhibit No. 2, which is a well log, the Danciger No. A-8 No. 2 Well is producing gas from an interval, the bottom of which is 205 feet below the top of the Yates. The top of the Yates is indicated at plus 162 subsea. The producing interval is indicated on Exhibit No. 2 as such.

Q Well, before we go into that, refer to Exhibit No. 2

and describe what that shows?

A Exhibit No. 2 is a radioactivity log of the Continental Oil Company's Danciger A-8 No. 2, showing depth, casing point, producing interval, and formation tops. From this Exhibit it is shown the Danciger A-8 No. 2 Well is producing from within the vertical limits of the Jalmat Pool only.

Q Now, in view of that Exhibit and the preceeding testimony, do you feel that a 320-acre non-standard unit is in the interest of conservation and will prevent waste?

A Yes, I do.

Q And why do you say that?

A Well, in view of the preceeding exhibits and testimony it is requested the order be entered, and from this study that I have made in connection to the westward extension of gas production.

On Exhibit No. 2 we show that the bottom of the producing interval is 205 feet below the top of the Yates, and the top of the Yates is indicated on Exhibit No. 2 as a plus 162 subsea. Subtracting the 205 feet data, which is the gross of the Yates interval, from the plus 162 subsea top of the Yates in the Danciger A-8 No. 2, the Yates being continuous across the lease, indicates gas production to exist to a depth of minus 43 subsea under this lease. This acreage is not allocated to any well.

Now, referring to Exhibit No. 1, the structure plat of the area contoured on the Yates top, there is indicated to be approximately

175 feet of relief westward across the lease from the Danciger A-8 No. 2 Well to the western boundary of the proposed unit.

The lowest structural point of the western boundary of the proposed 320-acre unit is approximately minus thirteen feet subsea, therefore it is reasonable to assume the entire 320 acres as gas productive.

Q Would that be above the gas-oil contact in that area?

A Yes.

Q And is it reasonable to assume the entire 320 acres is gas productive? Would the well, the Danciger A-8 No. 2 well be capable of drainage and produce the acreage dedicated to it?

A Yes.

Q And is that well capable of producing an allowable for a 320 acre unit?

A Yes.

MR. KELLAHIN: We offer in evidence Exhibits 1 and 2 inclusive.

MR. PORTER: Without objection, Exhibits 1 and 2 will be admitted? Any one have a question.

MR. MONTGOMERY: I have some questions.

CROSS EXAMINATION

BY: MR. MONTGOMERY:

Q Mr. Lannen, did I understand you to say that the lowest perforation was 205 feet below the top of the Yates?

A Yes.

Q That would make that well a minus 43 subsea?

A Yes.

Q And did you state that on the zero contour it would be a minus 13 feet?

A No, the westward most boundary of the proposed unit is a minus 13 feet subsea.

Q All right. Then, this low zone that is open in this particular well would be 205 plus 13, would that be right, or a minus 218 feet?

A No, the lower zone is a minus 43 feet subsea.

Q All right, minus 43, so then, there is --

A So we are actually--

Q There is 205 feet of relief from the well to the western portion?

A There is 175 feet of relief across the lease to the western boundary and 205 gross interval below the top of the Yates.

Q That would be the western portion of the lease and a minus 250 feet below sea level?

A How in the world do you get that?

Q Well, you said the bottom perforation of the well was a minus 43 feet?

A Yes.

Q And the relief in the western portion is 175 feet.

A Restate that.

Q I am not trying --

A I can't hear you.

Q You say that the bottom part of the pay is a minus 43 feet?

A Right.

Q In the well. Then, you have 175 feet of relief in the western portion of the unit?

A To the edge of the western portion of the lease.

Q If we add this, we come up with a minus data, where --

A Yes, I see, I understand what you mean.

Q A minus 218. Are you familiar with the established gas-oil contact in that area, or have you established --

A I don't know of any established gas-oil contact in that immediate area other than from our well. Since there is no production directly west of that lease, it is pretty difficult to pin it down, but since we did have gas production to a minus 143 feet in the Danciger well, we expect gas production.

Q You are familiar with the general rule that the gas-oil ratio contact is a minus 150 feet, are you not?

A I have heard it said that it is a minus 50 also.

Q That is what I said.

A Yes.

Q Minus 150.

A Yes.

Q And in this particular area it happens to be a little bit higher, so chances are that that acreage is productive, is probably not productive of gas, the western portion of that unit?

A The only way it could be proved would be to drill it, of course, and test the lower zone out. Our established contact in this well indicates that we have no gas, or rather, no oil at a minus 43, minus subsea depth of 43, and ~~extended across~~ that would show that

we have that same zone open, or the same zone should be present across the entire lease. The lease should be approximately 20 feet, 30 feet on the western side of the same zone we have open now in the No. 2 well.

Q Would it be above or below the established gas-oil contact in the area?

A Well, according to our relief in our No. 2 well, it should be above the gas-oil contact.

Q All right.

MR. MONTGOMERY: That's all.

BY: MR. UTZ:

Q Mr. Lannen, will you tell me whether the Southeast Quarter of Section 8 is within the present boundaries of the Jalmat Gas Pool at this time?

A No, I can't without looking at the map, or checking your nomenclature.

Q Well, would you take my work for it that it is not?

A That it is not in the Jalmat Gas Pool?

Q Yes.

A If it is not in the Jalmat Gas Pool, it is not in any pool.

Q No, I don't believe it is in any pool, only the East Half of Section 8 is in a pool. What would be your recommendation as to how we should take care of the situation? Should we allow this 320 acre unit?

A Extend the Jalmat Gas Pool to include that 160, to include the entire Section 8, because we anticipate drilling a well on Section 8 and allocating 320 acres to it.

Q You are basing your premise of the Southwest Quarter of Section 8 being capable of being productive on the basis of your No. 2 well, the lower perforations on your number two well?

A Yes, and the fact that the Northwest Quarter of Section 5 has been allocated to gas production, and this 160 acres is structurally comparable to the additional 160 acres we are requesting as gas productive, which has been allocated by the Commission.

Q In other words, your intention in that matter is that if we dedicate a dry acreage to that well, we will dedicate dry acreage to your well?

A Not particularly. We try to substantiate the fact that is is gas productive through out Danciger A-8 No. 2 well.

Q Did you state that you were going to drill a well on the North Half of Section 8?

A It is anticipate. We plan to drill it. I can't say that we will drill it.

Q If you were recommending location of that well, where would you recommend it?

A In the Northwest Quarter of Section 8. Northeast, pardon me.

Q Northeast Quarter?

A Yes. Northeast Quarter of Section 8.

Q What would be your reason for recommending a well be drilled in the Northeast rather than the Northwest?

A Structural location, being higher.

Q In other words, you feel --

A Anticipate additional reserves from the higher structural location.

Q You mean you have more confidence in making a better well than you would be in the Northwest?

A Making a better well. We could make a well on the Northwest Quarter. It is customary practice for an oil company to drill in the best structural location, and we would naturally drill up the structure for a gas well.

Q What do you think the possibilities of getting a Jalmat Oil well would be in the Northwest Quarter?

A Very poor. Are you trying to establish the fact that it is oil productive?

Q No, I am trying to draw you out on a-- whether or not the West Half of Section 8 is productive of gas or not. I think we out to have a pretty fair record in that regard.

MR. UTZ: That's all the question I have.

MR. PORTER: Any one else have a question?

MR. MORGAN: I have a question. Do you think the West Half of Section 8 is productive, gas productive?

A Yes, I believe it is.

MR. MORGAN: That's all.

MR. KELLAHIN: I have some questions.

REDIRECT EXAMINATION

BY: MR. KELLAHIN:

Q Mr. Lannen, would you review your -- show on what basis you reach your conclusions. Let's go over it again. There seems to be some confusion.

A Perhaps I went over it a little too rapid. Referring to Exhibit No. 2, our log, well log, the top of the Yates is indicated at a plus 162 feet subsea, and the entire interval, or rather, the gross interval below the top of the Yates, to the bottom of our perforation is 205 feet total. Subtracting the 205 feet of gross Yates interval from the top of the Yates, subsea, of course, in the well, and the Yates being continuous across the lease, it indicates to us a gas production to exist to a depth of minus 43 feet subsea datum under this lease. Now, that's across the lease, from east to west.

Referring to Exhibit No. 1, which is a structure plat of the area contoured on the Yates top. There is indicated to be approximately 175 feet of relief from the Danciger A-8 No. 2 Well westward across the lease, to the western boundary of the proposed unit, which is encircled in red.

MR. KELLAHIN: That is all.

RECROSS EXAMINATION

BY: MR. PORTER:

Q You say across the lease, would that include Section 7 too?

MR. KELLAHIN: You are talking about the proposed unit?

A Yes, the Danciger 8-A Lease. That's the Danciger A-7, B-7.

Q Well, that 7 indicates section --

A It is also B.

Q I see.

A It is a different lease across the entire Section of Section 8. Now, the lowest structure point of the western boundary of the proposed unit, proposed 320-acre unit, is approximately minus thirteen feet, as indicated on the contour map. Therefore, it is reasonable to assume that the entire 320 acres across that Danciger 8-A Lease is gas productive, because we say that gas production exists to a minus 43 subsea datum, and the western boundary is a minus 13, so we have in the Yates approximately 1343, minus 13, or 30 feet of Yates gas production in the Southwest Corner.

REDIRECT EXAMINATION

BY: MR. KELLAHIN:

Q On the basis of those figures then, Mr. Lannen, where would the western limit of the gas production fall? Would it be within or without Section 8?

A It would be to the west of Section 8.

Q About how far?

A In distance?

Q Yes.

A Horizontally?

Q Yes, sir.

A Slightly less than a quarter of a mile.

MR. KELLAHIN: That's all.

RECROSS EXAMINATION

BY: MR. UTZ:

Q Mr. Lannen, what control did you have in drawing these contours, or we will say the zero, twenty-five, and fifty foot contours on the Southwest Quarter of Section 8?

A The only control available to draw that would be the oil wells located in the Northern Half of Section 6, plus dry holes drilled recently in Section 19 not indicated on this plat. Harper drilled it in Section 19, and there is a radioactivity log available with the Yates top.

Q What part of Section 19 was that dry hole drilled it?

A I believe it was in the Southwest of the Northeast Quarter. That's from memory.

Q And do you know what the top of the Yates was on that well?

A No, I don't have the top because I didn't put it on this map. The contours were drawn using the top of the Yates, top of the Yates in that well.

Q In other words --

A It is mechanical contouring across there is what it is.

Q Between the dry hole and the Northeast Quarter of Section 19, and your B-2 Well -- What's the number of the well?

A Danciger 8-A No. 2.

Q You had no control there?

A The only control was that dry hole there, and the wells along -- located in Section 7, or rather, located in Section 5 and 8, and the two oil wells in Section 6.

Q So it would be possible, would it not, for your minus 46 to be at the fault somewhere in the Southeast Quarter, or in the Southwest Quarter and you don't know it?

A It is possible, yes. Only possible, that's all.

MR. UTZ: That's all.

A You didn't ask me if it probable; it could be possible, if someone else drew the contour map and interpreted it differently.

MR. PORTER: Does anyone else have a question of Mr. Lannen? Mr. Cooley.

BY: MR. COOLEY:

Q It seems like a standard question, but is the ownership of the South Half of Section 8 solely owned by Continental Oil Company?

A The ownership is not solely owned by Continental Oil Company, the acreage is operated by Continental Oil Company and owned by partners.

Q It is part of the New Mexico Federal Unit?

A Yes, it is part of the New Mexico Federal Unit.

MR. COOLEY: That's all.

MR. PORTER: Any further questions of the witness? If not, the witness may be excused. Is there anything further in this case? If not, we will take the case under advisement.

STATE OF NEW MEXICO)
)
 COUNTY OF BERNALILLO)

ss

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 that the same was thereafter transcribed into 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 3rd day of May, 1957, in the City of Albuquerque, County of Bernalillo, State of New Mexico.

J. A. Trujillo
 Notary Public

My Commission Expires:

October 5, 1960