

BEFORE THE  
OIL CONSERVATION COMMISSION  
FEBRUARY 25, 1959

IN THE MATTER OF:

APPLICATION OF NEARBURG & INGRAM, CASE 1608.

TRANSCRIPT OF HEARING

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IN THE MATTER OF:

Application of Nearburg & Ingram for approval of a unit agreement. Applicant, in the above-styled cause, seeks an order approving its Square Lake Deep Unit Agreement embracing 4,317 acres, more or less, of federal lands in Townships 16 and 17 South, Range 30 East, Eddy County, New Mexico.

CASE NO. 1608

BEFORE:

E. J. Fischer, Examiner.

TRANSCRIPT OF HEARING

MR. FISCHER: The next case on the docket will be Case 1608.

MR. PAYNE: Case 1608: Application of Nearburg & Ingram for approval of a unit agreement.

MR. CHRISTY: Sim Christy, of Hervey, Dow & Hinkle, for the Applicant, Nearburg & Ingram. I'd like to mention to the Commission in connection with the application in paragraph six that the actual formal request for approval by the Geological Survey has been made by an application filed February 12. That has changed since the filing of the application.

MR. PAYNE: Thank you, sir.

MR. CHRISTY: We have one witness.

(Witness sworn.)

MR. FISCHER: Please proceed.

T O M L. I N G R A M, a witness called by and on behalf of the Applicant, being first duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. CHRISTY:

Q Would you please state your name, address and occupation?

A Tom L. Ingram, Roswell, New Mexico; partner in Nearburg & Ingram.

Q Have you previously testified before this Commission as an expert on geological matters?

A I have.

Q Are you familiar with the matters contained in the application in Case 1608 and the matters there in question?

A I am.

MR. CHRISTY: Does the Examiner have any questions as to the witness's qualifications?

MR. FISCHER: No, sir, proceed.

Q (By Mr. Christy) Now, please briefly explain to the Commission the purpose of the application and what is sought by it?

A The purpose of the application is to obtain approval for the formation of a unitized area for the purpose of drilling a deep well. Since production has been obtained within the proposed unit area for the Grayburg and San Andres horizons of the Square Lake Pool, it is proposed that the Square Lake Deep unit

include all formations below the base of the San Andres. For the purpose of defining this datum, it shall begin at the top of the Glorieta sand as has been encountered at 4285 feet in the Yates Number Three Evans located in the Northwest quarter of the Northeast quarter of Section Five, Township 17 South, Range 30 East.

Q What is the proposed unit area covered by the unit agreement, giving legal description and total acreage?

A Acreage covered by the unit is all located in Eddy County, New Mexico. With reference to the New Mexico Prime Meridian in Township 16 South, Range 30 East, all of Section 26, all of Section 33, all of Section 34, all of Section 35 and in Township 17 South, Range 30 East, it would be the west half of Section 3, being lots 3 and 4, south half of the northwest quarter and the southwest quarter, all of Section 4, being lots one, two, three and four, the south half of the north half and the south half, the east half of Section 5, being lots one and two, south half of the northeast quarter and the southeast quarter of Section 8, the north half of Section 9, a total of 4,316.93 acres.

Q Are you familiar with other unit agreements which have been previously approved by the Commission?

A Yes, sir, I am.

Q Is the unit agreement in the present application in substantially the same form as other unit agreements previously approved by the Commission?

A It is.

Q Does the unit agreement provide for the drilling of a test well, and, if so, briefly describe this for us?

A This agreement provides that a test well shall be drilled to a depth sufficient to test the Devonian formation. The sequence of sediments and anticipated depths are as follows, beginning at the surface: Triassic, 470 feet; the Salado, the Yates at 1350 feet; the Queen at 2200 feet; the San Andres 2900 feet; Glorieta 4300 feet; Drinkard Sand 5800 feet; Abo 6400 feet; Wolfcamp 7400 feet; Pennsylvanian 9100 feet; Mississippian 11,250 feet; Woodford 11,750 feet; and Devonian 11,800 feet.

Porosity zones that are prospective pay zones are below the regular field pay are expected in the Glorieta, Abo, Wolfcamp, Pennsylvanian and Devonian.

The most favorable location for the subject test is in the Northwest quarter of the Southeast quarter of Section 33, Township 16 South, Range 30 East. We feel a depth of 12,000 feet should be adequate to test the Devonian.

The unit agreement provides that within six months after the final approval of the unit agreement, the well shall be commenced.

Q I believe I forgot to ask you, all of these lands are Federal lands?

A Yes, sir.

Q Have you had approval by all of the royalty, overriding royalty and working interest owners?

A The unit agreement has been filed with the royalty owner, the Federal Government. It has been consented to or ratified by 96 percent of the working interest owners and in excess of 82 percent of the overriding royalty owners.

Q Now, referring to Exhibit A, which I believe is a Plat map of this area, I ask you to identify it and explain it briefly?

A Exhibit A is a plat map showing by section, township and range the proposed unit; the unit boundary is located with a dashed line. Also shown are Federal lease owners, royalty title holders, the tract numbers referred to in schedule "B" and also the proposed location.

Q Do you have a seismographic appraisal of this area?

A I do.

Q Is that Exhibit B?

A It is.

Q Would you please explain that briefly to us?

A As previously stated, Exhibit B is a seismograph map of the unit area. Structural data for this map is based on reflection seismograph work performed by Globe Geophysical Company and Republic Exploration Company. It depicts the attitude of sedimentary beds at the Devonian horizon. This work, based on a constant velocity, has delineated a nosing of approximately four miles long and one mile wide trending in a northeast-southwest direction.

Now, as the Lower Permian and Pennsylvanian facies are changing rapidly in this area from limes to sands and shales as you move in a southern direction, the velocities through these beds will also change in that direction. Therefore, we feel to properly evaluate the area, it would be necessary to use some sort of a gradient credit velocity.

In doing that, you would have a northward tilting of the map which would lower the northern portion of the anomaly, raise the southern end and probably result in a closure.

Because of this, we have included slightly more acreage on the southern portion of the map than would normally be included if you were using a closing contour.

Q Does the proposed unit area cover all the geological features involved?

A Yes, sir, it does.

Q In the event of the discovery of oil or gas in paying quantities on the unitized area, would the unit agreement permit the producing area to be developed and operated in the interest of conservation and the prevention of waste of the unitized substances?

A It would. Should commercial production be discovered, the unitized operation will assure an orderly development program based on structural position, if the development and operation would be conducted in accordance with plans that have the joint approval of Federal and State authorities.

Q In your opinion, are the boundaries of the unitized

area large enough to obtain control of the prospect itself?

A Yes, sir.

Q Do you feel these boundaries are too large?

A No, sir, I don't.

Q Turning to the unit agreement, does it contain a plan for further development?

A Yes. Paragraph 10 of the unit agreement provides that after completion of the first well as a producer that within six months the plan of approval will be submitted.

Q That is a particular plan of approval in this lease?

A Yes, sir.

Q What is the term of the unit agreement?

A The term of the unit is for a term of five years plus various extensions granted by the Director of the Geological Survey or production in the commercial quantities.

Q In your opinion, would the approval of the unit agreement afford the protection of correlative rights and be for the best interest of the State of New Mexico?

A Yes. Under this agreement correlative rights would be protected, and should State lands later be added to the unit, the State of New Mexico will receive its fair share of oil and gas based on its interest in all participating areas.

Q I believe Nearburg & Ingram have been designated Unit Operator under this agreement?

A Yes, sir.

Q You testified you were one of the partners?

A Yes, sir.

Q As Unit Operator, does your partnership realize should the Commission approve the application it will still be necessary for you to comply with other rules of the Commission, such as filings, notices, reports, making tests, etc.?

A Yes, sir.

Q Do you understand as Unit Operator any approval by the Commission would be contingent upon your filing fully executed counterparts of the approved unit agreement with the Commission?

A Yes, sir.

Q Now, was Exhibit A and I believe Exhibit B prepared by you or under your direction and supervision?

A They were.

MR. CHRISTY: We ask the unit agreement itself be marked as Exhibit C and we offer in evidence Applicant's Exhibits A, B and C.

MR. FISCHER: Without objection they will be so submitted.

MR. CHRISTY: That is all we have from this witness.

MR. FISCHER: Any questions of the witness? Mr. Payne.

CROSS EXAMINATION

BY MR. PAYNE:

Q Mr. Ingram, would you have any objection to a

provision in the order that said expansion of unit would be contingent upon approval by the Secretary and Director of the Oil Conservation Commission administratively?

A No, sir.

MR. PAYNE: Thank you.

EXAMINATION BY MR. NUTTER:

Q Is there another unit in existence in this area that covers the shallow formation?

A Not a shallow formation. The Square Lake project is not unitized, to my knowledge, there is a deep unit south of it. However, it is not in conflict with this.

Q Now, this unit covers hydrocarbons starting at what depth?

A Well, it is approximately 4,000 feet.

Q From there on down, is that right?

A Yes.

MR. NUTTER: That is all I have.

MR. CHRISTY: I believe that is below the present producing horizons?

A Well, the top of the Glorieta sand is below the producing horizons.

MR. FISCHER: Any other questions of the witness?

EXAMINATION BY MR. FISCHER:

Q Mr. Ingram, what do you believe to be the effective closure on this structure?

A That is slightly a difficult question to answer due to the lack of velocity information that we have. It could be as high as four or five hundred feet. There are other areas that you have this sort of situation where later development you have sufficient velocity control to show that much closure.

Q I believe you said a well had been drilled in Section Five of 17, 30?

A Yes, sir.

Q Would you give me the location of that?

A In the Northwest quarter of the Northeast quarter.

Q Do you have the total depth that well reaches, please?

A No, sir, I do not. It went into the Abo formation which was topped at 4,285 feet.

Q It was dry and abandoned on completion, is that right?

A Yes, sir.

Q What will be your primary objective in this initial test well?

A The Devonian is the primary objective with other possibilities being in the other formations, the Glorieta, Abo, Wolfcamp and Pennsylvanian.

Q One other thing I didn't get: You expected the top of the Devonian at 11,800, is that correct?

A 11,800 feet.

Q What is the effective depth of this unit agreement?

A 12,000 feet.

