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BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
July 1, 1964

EXAMINER HEARING

IN THE MATTER OF: Application of Nearburg &
Ingram and Kincaid & Watson Drilling Company
for a waterflood project, Eddy County, New
Mexico. Applicants, in the above-styled cause
seek authority to institute a waterflood
project in the Square Lake Pool by the injection
of water into the Grayburg formation
through three wells located in Section 6, Township
17 South, Range 30 East, Eddy County, New
Mexico.

Case No. 3070

BEFORE: Elvis A. Utz, Examiner

TRANSCRIPT OF HEARING



MR. UTZ: The next case on the docket is Case 3070.

MR. DURRETT: Application of Nearburg & Ingram and Kincaid & Watson Drilling Company for a waterflood project, Eddy County, New Mexico.

(Whereupon, Applicant's Exhibits 1 through 7, were marked for identification.)

MR. RUSSELL: John F. Russell, Roswell, New Mexico, representing the applicants. I have one witness, Mr. Ingram.

(Witness sworn.)

TOM L. INGRAM, called as a witness, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. RUSSELL:

Q Will you please state your name and where you live and by whom you are employed, in what capacity?

A Tom L. Ingram, Roswell, New Mexico, partner and geological engineer with Nearburg and Ingram.

Q You have previously qualified to testify before the Commission, have you not?

A I have.

Q Are you familiar with the joint application filed in Case Number 3070?

A I am.

Q What do you seek by this application?



A Nearburg and Ingram and Kincaid and Watson Drilling Company, as operators of oil and gas leases in the Square Lake Pool, seek to institute a waterflood project for the secondary recovery of oil and convert presently producing oil wells to injection wells.

Q I'll refer to what has been marked for identification as Exhibit Number 1 and ask you to state what that shows.

A Exhibit Number 1 shows the location of the acreage that we are requesting permission on, which consists of the east half of the northeast quarter of Section 1, Township 17 South, Range 29 East; the north half and the east half of the southwest quarter of Section 6, of Township 17 South, Range 30 east. On this the acreage colored in green is the acreage that we are referring to.

The red circles drawn around the three wells are the wells that we propose to convert to injection wells. The acreage immediately to the north in Section 31 is presently under flood by Texas Company, Incorporated. The acreage in Section 36 to the northwest is presently under flood by N. E. Salsich. The symbol, the diagonal line with the little arrowhead on either end represents the injection wells. The pattern that we propose will follow the standard pattern as established by the other two operators.

Q This plat also shows the wells and leases within two miles



of your proposed injection wells, does it not?

A Right, it does.

Q All wells within that radius are producing from the same formation?

A All wells within the radius of two miles of the proposed injection wells are producing from the Grayburg-San Andres.

Q Will you explain what acreage within the proposed area that Nearburg and Ingram own the operating rights?

A Nearburg and Ingram operate the east half of the west half of Section 6, Township 17 South, Range 30 East. The balance shown in green being the northeast quarter, the west half of the northwest quarter, of Section 6, 17, 30; and the east half of the northeast quarter of 1, 17, 29, operated by Kincaid and Watson.

Q Do each of you propose to operate separately?

A Right; each operator will operate his leases independently. Actually we have made arrangements with the Texas Company to sell pressured water to the two operators.

Q They in turn get their water from the Caprock Water Company, do they not?

A Right.

Q And the flood of Texas Company which is to the north of the proposed one was authorized by the Commission in Case 2940, previously, was it not?

A Right, under Order R-2609.



Q I will refer you to Exhibits 2, 3 and 4 and ask you what they are?

A Exhibits 2, 3 and 4 are the gamma ray neutron logs of the proposed injection wells. The Exhibit Number 2 is the Nearburg and Ingram No. 2 Drewery, located in the southeast quarter of Section 6; Exhibit Number 3, Kincaid and Watson No. 2 Wright Federal located in the northwest quarter of the northeast quarter of Section 6, and the Kincaid and Watson No. 5 Wright Federal located in the northwest quarter of the northeast quarter of Section 6.

Q Is there anything in connection with Exhibits 2, 3 or 4 that you would like to call to the Examiner's attention at this time?

A On Exhibit 2 the geological formations have been indicated and also the producing perforations, or rather in this case the perforations that we propose to inject the water into.

Q Otherwise they're self-explanatory, are they not?

A Yes, sir; they are just the normal gamma ray neutron log.

Q Now, referring to Exhibits 5, 6 and 7, will you identify them?

A Exhibits 5, 6 and 7 are diagrammatic sketches of the well bore in each of the three injection wells, showing the casing, the cement, the tops of the cement, the perforations, plug-back depth and any other pertinent data.

Q What well is Exhibit Number 5?



A Exhibit Number 5 is the No. 2 Drewery, Nearburg and Ingram being the operator. The Exhibit Number 6, Kincaid and Watson No. 2 Wright Federal. Exhibit 7 the Kincaid and Watson No. 5 Wright Federal.

Q Do you propose to inject in the same intervals in each one of those three wells? If not, which well will have different intervals?

A We propose to inject into the existing perforations that are in each well.

Now, there are three perforations in the Nearburg and Ingram No. 2 Drewery; there are six sets of perforations in the Kincaid and Watson No. 2 Wright Federal, and there are five sets of perforations in the Kincaid and Watson No. 5 Wright Federal. Even though there are different numbers of perforations, they cover generally the same productive sands. There has been one stringer in the Kincaid and Watson No. 5 Wright Federal that is perforated which was not productive in the other two wells.

Q A copy of the application and all of the exhibits have been previously furnished to the State Engineer, have they not?

A They have.

Q And you have also furnished them with an analysis of the water to be injected?

A We have. We have also notified the United States Geological Survey of our intentions since these are Federal leases.



Q What is the stage of the producing wells on each of these leases?

A These wells have reached the stripper status.

Q What is the approximate average production per well per day?

A The production has been around two to three barrels per day.

Q In your opinion will the granting of this application result in the recovery of oil which would otherwise be lost, and also protect correlative rights of your area in connection with the flood to the north?

A Yes. We feel that it will, that by injecting water we should be able to recover at least an additional 50 percent more oil.

Q You ask the Commission to retain jurisdiction of this case in order to add additional injection wells under the provisions of Rule 701 as the same may be required?

A We do.

Q What will be the rate of injection?

A The injection rate that we propose initially will be 150 barrels of water per well per day.

Q And will that also be the maximum rate of injection, as far as you know?

A It is possible that during the early stages when the



wells are taking water on a vacuum that it might increase to 200 barrels, but we feel that the 150 will be a fairly good average.

MR. RUSSELL: I would like to move the introduction of Applicant's Exhibits 1 through 7, inclusive.

MR. UTZ: Without objection Applicant's Exhibits 1 through 7 will be entered into the record of this case.

(Whereupon, Applicant's Exhibits 1 through 7 were admitted in evidence.)

MR. RUSSELL: I have no further questions of this witness.

MR. UTZ: All of these wells will be injected through tubing and under a packer, is that correct?

A Yes, sir.

MR. UTZ: And with the packer set Below the known top of the cement on the production string?

A Yes, the packer, I believe, is a minimum of 400 feet below the top of the cement in one well and a maximum of about seven to eight hundred feet below the top of the cement?

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

MR. DURRETT: Yes, sir, I have a question.

CROSS EXAMINATION

BY MR. DURRETT:

Q Mr. Ingram, have you received any response from the flood to the north, or the flood to the northwest in your area?

A No, we have not. The Texas Company flood commenced



May the 9th of this year. Only approximately 27,000 barrels of water have been injected into it. We have felt no response from the Salsich flood as the Number 6 well in the extreme southeast corner was just completed as an injection well within the last 60 to 90 days.

Q I would expect that you would expect a response in the near future?

A Yes, Salsich has been receiving responses up in Section 36, and we feel that we have similar conditions in our area.

Q Will you run over this area with me again, as to which area will be operated by which operator? My recollection is that Nearburg and Ingram will operate the east half of the west half of Section 6.

A That's correct.

Q And that's all of your acreage now, is that correct?

A Right.

Q And then Kincaid and Watson will operate the rest of your area in green, and to go over the description is it the east half of the northeast quarter of Section 1?

A East half of the northeast quarter.

Q That's all of Section 1 that they'll operate?

A Right.

Q On Section 6, the west half of the northwest, and the entire northeast quarter?



A That is correct.

Q One other question; if the Commission would desire to issue two separate orders in this case, in other words, authorizing the flood for each party, you would have no objection to that?

A No objection.

BY MR. UTZ:

Q Have you received any correspondence from the State Engineer since June 12th, which is the date of Mr. Russell's letter wherein he sends the water analyses and the location of the water source wells?

A The operator has not.

MR. RUSSELL: Just verbal, as I recall, from Mr. Irby. I believe his prior letter stated that as soon as he got the water analyses he would have no further objection, which has been furnished to him by my letter in June.

MR. UTZ: Are there any fruther questions of the witness? The witness may be excused.

(Witness excused.)

MR. UTZ: Any further statements in this case? The case will be taken under advisement.



ALBUQUERQUE, N. M.
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Ida Heasley
Notary Public - Court Reporter

I do hereby certify that the foregoing is
a complete record of the proceedings in
the Examiner hearing of Case No. 3070,
heard by me on July 1, 1964.
Edward C. [Signature], Examiner
New Mexico Oil Conservation Commission

