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BEFORE THE  
NEW MEXICO OIL CONSERVATION COMMISSION  
Santa Fe, New Mexico  
January 22, 1969

EXAMINER HEARING

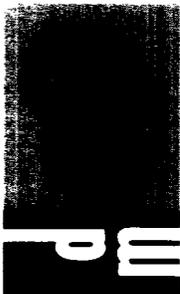
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IN THE MATTER OF: )

Application of Phillips Petroleum )  
Company for a waterflood project, )  
Lea County, New Mexico. )

) Case No. 4035  
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BEFORE: Elvis A. Utz, Examiner.

TRANSCRIPT OF HEARING



MR. UTZ: Case 4035.

MR. HATCH: Case 4035, application of Phillips Petroleum Company for a waterflood project, Lea County, New Mexico.

MR. KELLAHIN: If the Examiner please, may the record show the same appearance, and the fact that the witness has previously been sworn.

MR. UTZ: Yes.

(Whereupon, Applicant's Exhibits Numbers 1 through 5, inclusive, were marked for identification.)

W. J. MUELLER

called as a witness by the Applicant, having been previously duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q Would you state your name, please?

A W. J. Mueller.

Q Are you the same Mr. Mueller who testified in the two preceding cases?

A Yes, sir.

Q Mr. Mueller, in Case 4035, will you state briefly what Phillips Petroleum Company proposes?

A Phillips here seeks authority to institute a waterflood

project on its Philmex Lease by injection of water into the Philmex No. 5, located in Unit N of Section 27, Township 17 South, Range 33 East, in the Maljamar Grayburg-San Andres Pool, Lea County, New Mexico.

Q Referring to Exhibit Number 1, would you identify that exhibit?

A Exhibit Number 1 is a plat of the area outlining in red again the Phillips Philmex Lease, showing the two wells that are currently producing on this lease in the Maljamar Pool, the Philmex Nos. 5 and 6 in the south half of the southwest quarter of Section 27.

Q What is the present status of the Philmex Well No. 5?

A This is currently a producing well of about 10 barrels per day magnitude.

Q Is the Philmex Lease offset by a waterflood project?

A Yes, the Philmex lease is offset to the west and north by waterflood projects, the one to the west being the Pennzoil Maljamar Waterflood Project that was approved by Commission Order R-3129, in October of 1966; and in the fall of 1968, Pennzoil obtained an Administrative Approval WFX-295 for conversion for the Phillips State C 1 Well located in Unit L of Section 27, and offsetting our Philmex Well No. 6 to the north.

Q How are the offset injection wells shown on your

Exhibit 1?

A The offset injection wells are shown as brown circles, and the producing wells are shown as brown triangles.

Q Now, referring to what has been marked as Exhibit 2, would you identify that exhibit?

A Exhibit Number 2 is a production graph in barrels of oil per month for Phillips Philmex Lease, and the three offsetting leases to this Philmex production.

Q Does that exhibit reflect a response to the waterflood project offsetting the Philmex Lease?

A Yes, it shows that all of these leases have shown some response since June of 1968.

Q In your opinion, does this indicate that Phillips must take some action at this time to protect itself in connection with these waterflood projects?

A We feel that, yes, to protect correlative rights, we should flood in cooperation with the offset operator, and the conversion of Philmex No. 5 would fulfill a standard five spot pattern, including the area in question.

Q Now, referring to what has been marked as Exhibit Number 3, would you identify that exhibit?

A Exhibit Number 3 is our proposed installation of Philmex No. 5 for injection, and shows two and three-eighths-inch

tubing at 4,230 with a Johnston packer, and the current perforated intervals that exist in the well in the open-hole interval.

Q How will that well be completed? Will you run a plastic-lined tubing?

A We are negotiating for a contract from Pennzoil, who has offered to sell us pressured water, and this is fresh Ogalalla water, and we had not planned to use plastic coating in the tubing, because I do not believe Pennzoil is using it.

Q You will be injecting fresh Ogalalla water?

A Yes.

Q What volume of water will you be injecting?

A These wells take in the neighborhood of 300 barrels of water initially, but then taper on down to a hundred or 150-barrel range.

Q What pressure will you anticipate using?

A Pressure initially is under 2,000, but then rapidly rises to 2300 or above. And Pennzoil, the water they have offered us, their injection station delivers water at 2500 pounds.

Q And you anticipate you will get that at an offsetting well?

A Yes, current negotiations are to pick up injection at their injection Well No. 13.

Q What volume of water are you presently producing from this No. 6 Well?

A From the No. 6 Well?

Q Do you have that information?

A Yes. Currently, the No. 6 Well is producing about 25 to 30 barrels of water a day.

Q Would this water be re-injected on your waterflood project?

A No, sir, probably not on ours. In the agreement we are negotiating with Pennzoil, we will buy pressured water from them, and then we will deliver our produced water back to their injection station, and they are going to select certain wells in their flood for the injection of produced water. They do not want to mix the waters.

Q So all you will use on your injection well will be fresh water, and you will not re-inject produced water in this well?

A This is right.

Q Referring to what has been marked as Exhibit Number 4, would you identify that exhibit?

A Exhibit Number 4 is an east-west cross-section through Phillips Philmex No. 5 and 6 into the Pennzoil Phillips State No. 13, and its west offset, the State 9X. This cross-section

shows the same injection intervals we propose in Philmex No. 5, or the producing intervals in our Philmex No. 6, and also encompasses the injection intervals in the Pennzoil Phillips State No. 13, west offset to Philmex No. 6.

Q You will actually be injecting into zones other than those in which the offsetting wells are injecting, will you not?

A Yes, the San Andres open-hole interval in our Philmex No. 5 is open, whereas in the Pennzoil Phillips State No. 13 has not been perforated.

Q Now, referring to what has been marked as Exhibit Number 5, would you identify that exhibit?

A Exhibit 5 is a PGAC radiation log, gamma ray neutron log of Philmex No. 5, showing its perforated and open-hole intervals which we would plan to inject water into.

Q Were Exhibits 1 through 5 prepared by you or under your supervision?

A Yes, sir.

Q Mr. Mueller, in your opinion, will the approval of this waterflood project result in the recovery of oil that would not otherwise be recovered?

A Definitely. Our experience in the Maljamar Field on other flood injecting with other offset operators have seen a secondary recovery in the neighborhood of 50 per cent to 100

per cent of primary, so this would anticipate an increased recovery on our Philmex Lease here from these two wells in the vicinity of from 40,000 to 80,000 barrels of oil.

Q Is approval of the application essential to the protection of the correlative rights of Phillips Petroleum Company?

A Yes, sir.

Q Will it be to the benefit of the correlative rights of the offsetting operators?

A Yes. In fact, Pennzoil has requested that we also convert this well to fulfill their pattern and keep pressure built up.

MR. KELLAHIN: At this time, I would like to offer in evidence Phillips' Exhibits 1 through 5, inclusive.

MR. UTZ: Exhibits 1 through 5 will be entered into the evidence.

(Whereupon, Applicant's Exhibits Numbers 1 through 5, inclusive, were admitted in evidence.)

MR. KELLAHIN: That is all I have on direct examination.

CROSS EXAMINATION

BY MR. UTZ:

Q Mr. Mueller, did you state how you were going to handle

the annulus?

A I don't remember if we did or not. We would fill it with an inert fluid, with a pressure gauge.

Q The location of this well is shown at the bottom here of Exhibit 3, and is the correct location to the best of your knowledge?

A Yes, sir.

MR. UTZ: Any other questions? The witness may be excused. Are there any statements? The case will be taken under advisement.

The hearing is adjourned.

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STATE OF NEW MEXICO     )  
                                  )    ss.  
COUNTY OF BERNALILLO    )

I, SAMUEL MORTELETTE, Court Reporter in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Hearing before the New Mexico Oil Conservation Commission was reported by me, and that the same is a true and correct record of the said proceedings, to the best of my knowledge, skill and ability.

*Samuel Mortelette*  
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COURT REPORTER

I do hereby certify that the above is a true and correct copy of the transcript of the hearing held before the New Mexico Oil Conservation Commission on January 22, 1969.  
4035  
*Samuel Mortelette*  
New Mexico Oil Conservation Commission