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BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
November 5, 1969

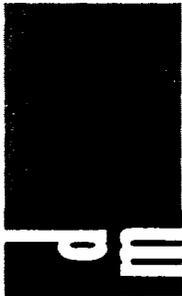
EXAMINER HEARING

IN THE MATTER OF:)

Case No. 3928 being reopened pursuant)
to the provisions of Order No. R-3586,) Case No. 3928
which order established 80-acre spacing)
units for the East Shoe Bar-Devonian,)
Lea County, New Mexico, for a period)
of one year.)

BEFORE: Elvis A. Utz, Examiner.

TRANSCRIPT OF HEARING



MR. UTZ: Case 3928.

MR. HATCH: Case 3928. In the matter of Case No. 3928 being reopened pursuant to the provisions of Order No. R-3586, which order established 80-acre spacing units for the East Shoe Bar-Devonian, Lea County, New Mexico, for a period of one year.

MR. HINKLE: Clarence Hinkle, Hinkle, Bondurant and Christy, Roswell, appearing on behalf of Jake Hammond. We have two witnesses I would like to have sworn.

MR. UTZ: Other appearances in the case? You may stand and be sworn, please.

(Witnesses sworn.)

(Whereupon, Applicant's Exhibits 1 through 6 were marked for identification.)

R. L. SPEARS

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

DIRECT EXAMINATION

BY MR. HINKLE:

Q State your name, your residence and by whom you are employed.

A R. L. Spears, Midland, Texas, Jake L. Hammond.

Q What is your position with Mr. Hammond?

A District geologist.

Q Mr. Hammond is an independent oil operator?

A Yes.

Q Operating in Southeast New Mexico?

A Yes.

MR. UTZ: Spell your last name, please.

THE WITNESS: S-p-e-a-r-s.

Q (By Mr. Hinkle) Have you previously testified before the New Mexico Oil Conservation Commission?

A No.

Q Are you a graduate geologist?

A Yes.

Q Give briefly your educational background and experience as a geologist.

A Graduate from Oklahoma State University in 1951: employed by Sunray Oil Corporation four and one half years: employed by Seaboard Oil Corporation approximately three years at which time they were merged into Texaco Incorporated, and employed by Texaco for approximately ten years: employed by Jake L. Hammond January 1, 1969.

Q During your time of employment with Mr. Hammond, have you made a study of these Shoe Bar-Devonian area?

A Yes, I have.

Q What does that study consist of?

A Consist of subsurface mapping on the Devonian producing formation in the Shoe Bar East Devonian Field and the surrounding fields.

Q Did you participate in the hearing a year ago under which and pursuant to which the order was entered for temporary special pool rules for this field?

A No, I did not.

Q Who testified on behalf of Mr. Hammond at that time?

A Mr. Jim O'Bryan.

Q And is he any longer with Mr. Hammond?

A No longer employed by Mr. Hammond.

Q Have you prepared or has there been prepared under your direction certain exhibits for introduction into this case?

A Yes.

Q Refer to Exhibit 1 and explain what it is and what it shows.

A Exhibit 1 is a general map of the Shoe Bar East Devonian area, Lea County, New Mexico, showing the various

producing fields or abandoned fields in the area of the Shoe Bar East Devonian Field; plus, it shows the leases in the subject area.

Q Do you have any further comments with respect to exhibit?

A No, I don't.

Q Refer to Exhibit No. 2 and explain that to the Commission.

A Exhibit No. 2 is a subsurface structure map of the Shoe Bar East Devonian Field and fields surrounding the Shoe Bar East Devonian Field as contoured on top of the Devonian Formation that is producing in the Shoe Bar East Devonian Field.

Q Have you seen the original structural map that was introduced at the original hearing a year ago in connection with this case?

A Yes, I have.

Q Is this similar to that structure map?

A Very similar. Most of it was taken from this original map.

Q What is the difference between this and the original structure map that was presented at the original

hearing?

A The difference is the tying of the subsurface data that was obtained since the original well -- the discovery well, the State K 33 No. 1 was drilled.

Q Upon what information is this plat made?

A Subsurface and geophysical information.

Q Now, does the plat indicate a faulting condition?

A Yes. It's a normal fault down thrown to the southwest, which is the boundary of the Shoe Bar East Devonian Field.

Q Now, that was shown on the original plat, was it not?

A Yes, it was.

Q In the exact same position?

A The position is changed a little due to the subsurface information obtained, very slightly though.

Q But, this is a correlation of the subsurface information as result of the additional drilling?

A Yes.

Q Now, at the time of the original hearing, how many wells had been drilled?

A One.

Q What well was that?

A That was the State K 33 No. 1, Jake L. Hammond in Section 30.

Q How many wells have been drilled since the original hearing a year ago?

A Four subsequent wells have been drilled.

Q What are those wells? Where are they located?

A The Jake L. Hammond State K 33 No. 2 was drilled as a south offset to the No. 1 K 33, the discovery well; the Jake L. Hammond No. 1 State A 1320, located in Section 31; the Jake L. Hammond State B 2330 No. 1 drilled in Section 31 and west of the State A 1320 and the Humble No. 1 State C J, located in Section 31 and southeast of the Hammond No. 1 State A 1320.

Q Were all those wells completed as producing wells?

A No. Two producers and two dry holes.

Q Which are the dry holes?

A Humble's No. 1 State C J and the Jake L. Hammond B 2330 No. 1.

Q Exhibit No. 2 shows in a dotted line in green. What does that indicate?

A That indicates productive limits of the field.

Q Upon what information is that based?

A Based on the dry holes in the area.

Q What are some of the characteristics of this pool as to whether it's gas solution or whether it's water drive or otherwise?

A This field produces from the Devonian at proximate depth of 13,000 feet. The Devonian in this area is an active water drive reservoir.

Q Do you have any further comments with respect to this exhibit?

A No, I do not.

MR. UTZ: Would you clarify where the Hammond dry hole is?

THE WITNESS: The Hammond dry hole No. 1 B 2330 is located as a west offset to the Jake L. Hammond No. 1 State A 1320. both wells located in the north part of Section 31.

MR. UTZ: The total of three producing wells in the pool at this time?

THE WITNESS: Yes.

MR. UTZ: They all top allowable wells?

THE WITNESS: No, I don't think so.

MR. HINKLE: The next witness will testify as to the production.

MR. UTZ: Are there other questions of the witness? He may be excused.

(Witness excused.)

H. W. SHAW

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

DIRECT EXAMINATION

BY MR. HINKLE:

Q State your name, your residence and by whom you are employed.

A H. W. Shaw, Midland, Texas, employed by Jake L. Hammond.

Q What is your position with Mr. Hammond?

A District production superintendent.

Q Have you previously testified before the New Mexico Oil Conservation Commission?

A I have.

Q And your qualifications as a geologist are a matter of record with the Commission?

A As an engineer.

Q Engineer. Have you made a study of the East Shoe Bar Pool?

A I have.

Q What does that study consist of?

A I will start with our Exhibit No. 3 which shows the oil and gas production of each of the three productive wells by months and also the cumulative production of oil and gas for each of the three wells.

Q The State K 33 No. 1, shown on Exhibit 3, was completed in September, 1968?

A That's correct.

Q And this shows the production through September, 1969?

A Yes, sir.

Q Was the production record available at this time for October?

A The figures for production in October had not yet been accumulated.

Q And on the State K 33 No. 2, it wasn't completed until April, 1969: is that right?

A That's correct.

Q And this shows the production through September of that well?

A Yes, sir.

Q And likewise, on State A 1320 No. 1. it was completed in January of 1969?

A Yes, sir.

Q And shows production through September of this year?

A Yes, sir.

Q What is the status of the production of these wells at the present time?

A The State K 33 No. 1 was completed as a flowing well and in June of 1969. however, it required to put it on the pump. As shown by the production figures the amount of oil produced monthly did increase greatly at the time the well was put on the pump, but since has declined.

The State K 33 No. 2 was completed as a pumping well originally, making a large percentage of water. State A 1320 is the only flowing well in the pool and it is still flowing, although the production rate is decreasing.

This -- these wells have a very low gas-oil ratio in the neighborhood of 250 to 300 cubic feet per barrel, which is out of the ordinary actually with the type of production we have, which is 61 gravity crude oil.

However, we have a very active water drive in the field and the flow rate for the State A 1320 is still in the neighborhood of 385 barrels a day at an Artesian type of flow because we do not have enough gas to actually do the lifting from the reservoir.

MR. UTZ: When was the No. 2 converted to pump?

THE WITNESS: State K 33 No. 2 was put on the pump initially.

MR. UTZ: I thought you said it was completed flowing initially?

THE WITNESS: No. K 33 No. 1 was initially completed flowing.

Q (By Mr. Hinkle) And then put on the pump?

A And then put on the pump.

Q Will any of these wells make their allowable at the present time?

A No, sir. They will not make an 80-acre allowable.

Q Now, refer to Exhibit No. 4 and explain what this is and what it shows.

A Exhibit No. 1 shows the monthly production in barrels plotted against time for each of the three producing wells and on each of those three we have injected a decline

curve to the productive limit.

For the State A 1320 the decline curve shows a total production of 290,000 barrels; for the State K 33 No. 1 a total production of 287,500 barrels; and for the State K 33 No. 2 a total production of 89,000 barrels.

Q Based upon this information have you made a study of the economics of this pool?

A I have. Our Exhibit No. 5 shows the actual well costs of the three producing wells, the average of which is shown at the bottom of the exhibit to be \$290,150 per well.

Exhibit No. 6 shows total costs spent in the area, approximate cost so far, including our State B 2330, which was a dry hole. And, I gave it an estimated cost of \$290,000.00. It probably would be a little more than that actually because we attempted a completion in the Pennsylvanian and then later converted it to a salt water disposal well through administrative order of the Commission.

Just for the four wells the approximate investment so far has been \$1,160,000.00. Using figures that I gave you for total estimated recovery allowable oil from Exhibit No. 5 we show a total estimated recovery of 665,500 barrels and using a figure of two dollars per barrel net after

royalty, taxes and lifting costs, this gives a total revenue for the lease of \$1,331,000.00. After deducting our investment, gives a net profit of \$171,000.00 to the operators for the total field, which is a return on investment over a five-year period of 14.74 percent.

Now, that's a total of 14.74 percent, not that much per year.

Q Now, refer back to Exhibit No. 2, which is a structure plat. Do you agree with the productive limits that are shown on this plat?

A Yes, sir.

Q I believe you have already testified that this is a water drive pool?

A It is.

Q In your opinion will the wells that have been drilled within the productive limits effectively and efficiently drain all the productive area?

A Yes, sir.

Q Why do you say that?

A Well, the State K 33 No. 1 and No. 2 together at the present time are producing approximately 300 barrels of salt water per day and on the pump; so, we know that they are fairly close to the outer productive limit of

the field.

The State A 1320, although it is not making any water at the present time, has a production decline and a slight pressure decline at the surface and with the water drive we feel that with the small productive limit of the field, it will drain the area assigned to it.

Q In your opinion would any greater amount of oil be recovered by going back and drilling the undrilled 40-acre location?

A No, sir.

Q In other words, your testimony is that you will recover as much oil with these wells as if you had drilled them all on 40 acres?

A That is correct.

Q What is your recommendation to the Commission with respect to the temporary special pool rules which have been adopted?

A My recommendation is that the temporary 80-acre spacing, which was ordered a year ago, be continued permanently.

Q In your opinion would that be in the interest of conservation, prevention of waste?

A It would.

Q And would be in the interest of protecting correlative rights?

A Yes, sir.

Q Do you have any further comments?

A No, sir.

MR. HINKLE: I believe that's all.

CROSS EXAMINATION

BY MR. UTZ:

Q Mr. Shaw, do you anticipate any further drilling in this pool?

A No, sir.

Q You don't know whether anybody else --

A So far as we know no one anticipates any.

Humble did drill the diagonal offset to the State A 1320 and the Devonian porosity was below the water level which indicates the limit of the field in that direction.

Our dry hole to the south of our State K 33 No. 2 finds the limit to the south and our geophysical information is what we are using to outline the limits to the north along with a dry hole to the northwest and we do not believe that there are anymore locations which would be productive.

Q With Hammond owning all three wells in the pool, he couldn't very well drain anybody but himself, could he?

A That's correct.

MR. UTZ: Other questions of the witness? He may be excused.

(Witness excused.)

MR. UTZ: Statements in this case?

MR. HATCH: The Commission has received a telegram dated November 4, 1969, re Case 3928. "Getty Oil Company concurs with Jake L. Hammond's proposal that rules provided for the East Shoe Bar-Devonian Pool, Lea County, by Order R-3586."

MR. HINKLE: I might ask him one question here to clarify that telegram.

What is Getty's interest in this pool?

THE WITNESS: Getty is a working interest owner in the pool with Jake L. Hammond as the operator.

MR. HINKLE: And this is a working interest unit in which there are several interested with Mr. Hammond?

THE WITNESS: That is correct.

MR. HINKLE: And Mr. Hammond is the operator of the pool?

THE WITNESS: Yes, sir.

MR. HINKLE: Okay.

MR. UTZ: The case will be taken under advisement.

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