

BEFORE THE
OIL CONSERVATION COMMISSION
STATE OF NEW MEXICO

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TRANSCRIPTION OF HEARING

CASE NO. 297

August 7, 1951  
(DATE)

BEFORE THE  
OIL CONSERVATION COMMISSION  
STATE OF NEW MEXICO

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In re: In the matter of the application  
of Aurora Gasoline Company for an order  
authorizing an unorthodox well location  
and approval of a water-flooding program  
for secondary recovery in the NE/4 of  
Section 34, Township 22 S, Range 37 E,  
NMPM (Penrose Skelly pool), Lea County,  
New Mexico.

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(See transcript in Case 269 and 270 for register  
of attendance and appearances.)

MR. SHEPARD: The next case is Case 297.

(Mr. Graham reads the Notice of Publication.)

MR. MADOLE: If it please the Commission, the purpose of this application is for an approval of an unorthodox drilling location, primarily for the purpose of determining the feasibility of a water-flood program. The details of a water-flood program in the event that the well reveals sufficient data to justify the water-flooding program will be presented to the Commission at a later date because it is premature at this time to present a complete water-flood program. The wells drilled on this Penrose-Skelly pool have not been cored sufficiently to determine the feasibility of a water-flood program. In this well is to be put down for the sole purpose of running full cores in the sand to determine that possibility. Under the contract of the Aurora Gasoline Company and Mr. Willingham, the owner of the adjacent property, in the event that the water-flood program proves feasible, Aurora Gasoline Company is to purchase this adjacent land. In the event that the water-flood program does not prove feasible, then the 40 acre tract on which the well is applied for will be returned to Mr. Willingham. The determination of whether or not the well will be used as an in-pit well in the event of a successful water-flooding program will of course depend upon the complete water flooding program to be presented to the Commission at a later date. They have made applications for an allowable for this well in the event it proves capable of production.

To be allocated by the Commission as it sees fit. But in no event will the five wells on the northeast quarter receive more than the existing four wells at this time. It can be divided as the Commission sees fit in that manner. Mr. Shier is our witness.

JACK SHIER,

having been first duly sworn, testified as follows:

DIRECT EXAMINATION

By MR. MADOLE:

Q Will you please state your name?

A Jack Shier.

Q What is your position with the Aurora Gasoline Company?

A I am in charge of the West Texas operation operating out of Midland.

Q What is the primary business of the Aurora Gasoline Company?

A They are refiners, primarily.

Q Is it true that you have entered into a contract for the purchase of the properties of J. E. Willingham which will be identified in this case?

A Yes.

Q And that this well is primarily an exploratory well for the purpose of determining the feasibility of a water-flood program?

A That is correct.

Q You are not a qualified geologist or petroleum engineer, are you?

A No, sir.

(Witness excused.)

G. D. SIMON,

having been first duly sworn, testified as follows:

DIRECT EXAMINATION

By MR. MADOLE:

Q Mr. Simon, state your name to the Commission.

A G. D. Simon.

Q Have you previously testified before the Commission?

A No, sir.

Q Will you please state your qualifications and previous experience?

A I am a graduate of the University of Pittsburg, the Petroleum Engineering Department, 1943, and completed approximately seven years of drilling and production experience with the Texas Company. And I am now employed with the Consulting Firm of DeChicchis in Midland Texas.

Q Are you a registered engineer in the State of Texas?

A Yes, sir.

Q Have you had occasion to make a study of this proposed project of the Aurora Gasoline Company?

A Yes, sir, I have. I began the preliminary study for water-flood there and I am now working with the Earlangher Engineering Company out of Tulsa, who are to prepare a formal reservoir study of this water-flood project as soon as the well for which we are making application has been drilled and cored.

Q What is the purpose of this well for which you have made application?

A The primary purpose of this well is to core the Penrose-Skelly Field in order that sufficient laboratory and associated flood tests can be conducted in order to determine the feasibility of water-flooding the Penrose-Skelly Field.

Q The Aurora Gasoline Company is the owner of the 40 acre tract on which the application is based?

A That is correct.

Q Do you have a map showing the lands owned by Willingham in this area?

A Yes, sir.

Q In the event that water-flooding proves feasible, would you state to the Commission what your proposal is with reference to the water-flooding program and the lands included therein?

A At this time we are proposing to drill the subject well in the northeast quarter of Section 34, Township 22S, Range 37E, Penrose-Skelly Field. This particular well will be applicable to the northeast quarter of Section 34. And at this time it is somewhat impossible to give any definite plan for water-flood spacing. That will have to be entirely dependent upon the core analysis which we hope to make from the diamond coring recovery.

Q Do you propose to make the information from the drilling of this well available to the other owners in the immediate area for the purpose of instituting a comprehensive water-flooding program in that area?

A Yes, sir.

MR. MADOLE: Any other questions the Commission would like to hear with reference to it?

BY MR. GRAHAM:

Q Where will the water be obtained?

A At the present time we have three possible sources of water. The first source will be your Rustler formation at approximately 1,134 feet. We hope to make this our source formation as it has proved very efficient in other water-flood projects in Ward County, Texas. Should however, this formation fail to give us the necessary amount of water which we desire, we intend to explore the Santa Rosa Sands at approximately 735 feet, and also the Fresh Water Sands in the neighborhood of 300 feet.

MR. MADOLE: Before any water-flooding program is undertaken, the entire program will be further submitted to the Commission before any injection of water of any type in the formations upon which the application is based, is that true?

A That is correct. We intend to submit to the commission a complete and detailed report of our core analysis and proposed injection program.

Q And request approval of the same before any water-flooding program is instituted?

A That is correct.

MR. GRAHAM: What contact has been made with these other owners in the pool?

MR. MADOLE: Let's have Mr. Shier. Isn't it true that the

matter has been discussed with Skelly, with Humble, and with Shell, and no opposition has been voiced. In fact they are deeply interested in the project. Is that not correct?

MR. SHIER: That is correct. They were all interested in it.

MR. SPURRIER: There are representatives of both companies here. Shall we ask them if they have any comments?

MR. MADOLE: We would be glad to have them.

MR. GRAHAM: What about the attitude of the mineral interest holders?

MR. SHIER: I didn't hear the question.

MR. GRAHAM: What seems to be the attitude of the royalty owners?

MR. SHIER: The companies we mentioned are in most cases owners of the royalties. As far as the mineral owners are concerned, they are scattered from coast to coast. This property has been in production many, many years.

MR. SPURRIER: Do any of the offset operators have any comments to make on this water-flooding, any questions?

MR. CAMPBELL: May I ask Mr. Simon a question? What was the original source of the reservoir energy in the pool?

MR. SIMON: It was a solution gas-drive nature.

MR. CAMPBELL: No water?

MR. SIMON: Well, at the present time the wells are down to stripper production and there is no water being produced on the subject lease.



MR. CAMPBELL: Are you going into this venture on the assumption the wells in that field will not fully drain the reservoir?

MR. SIMON: Well that is a pretty difficult question. We are going at it with the approach of a water-flood program and the object would be to recover all the oil which hasn't been produced through primary means.

MR. SHEPARD: Anyone else?

MR. GRAHAM: Roughly, what is the production history of that pool, of that area. It has gradually gone down?

MR. SIMON: Yes, that is correct.

MR. SHIER: It has come down to where it is just stripper production. I think it is about 5 barrels.

MR. SIMON: The lease we are interested in at the present time averages between 3 to 5 barrels per day.

MR. GRAHAM: That is a characteristic of that entire pool of which you are flooding only a part?

MR. SIMON: Well, generally speaking, the pool is on decline at the present time and what has not already reached the stripper stage should be reached in the not very near future. I would say offhand some of the wells are still flowing. But those that are still flowing still make, I would say, less than 10 barrels per day.

MR. GRAHAM: Our records show that that pool is declining and needs lift.

MR. SHIER: That is what we want to do.

MR. MADOLE: Any water-flooding program which is afterwards submitted to the Commission, necessarily any water-flooding injected into the formation, will prove of benefit to all operators in the pool. Is that not true to a certain extent?

MR. SIMON: That is correct. The chances are the offset operators will feel the benefits of the water flood and perhaps of a more outstanding nature will be the information we will learn from water-flooding in that particular area, which could be very helpful to other operators in associated areas.

MR. SHEPARD: Any further questions. If not, you will be excused.

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STATE OF NEW MEXICO     )  
                              : SS.  
COUNTY OF BERNALILLO   )

I HEREBY CERTIFY that the foregoing and attached transcript of proceedings in Case No. 297 before the Oil Conservation Commission, taken on August 7, 1951, is a true and correct record of the same to the best of my knowledge, skill and ability.

DATED at Albuquerque, this 28 day of August, 1951.

E.E. Mason  
REPORTER

MR. SPURRIER: Let the record show that the following letter was introduced and made a part of the record in Case 297. It is a letter from the Skelly Oil Company dated August 3, 1951, in re case 297.