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BEFORE THE

NEW MEXICO OIL CONSERVATION COMMISSION

Santa Fe, New Mexico

March 26, 1969

EXAMINER HEARING

IN THE MATTER OF:)

Application of Curtis)
Hankamer for a unit)
agreement, Eddy County,)
New Mexico.)

Case No. 4081

BEFORE: Elvis A. Utz, Examiner

TRANSCRIPT OF HEARING

OFFICE 000

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MR. UTZ: Case 4081.

MR. HATCH: Case 4081, application of Curtis Hankamer for a unit agreement, Eddy County, New Mexico.

MR. HUNKER: I am George H. Hunker, Jr., attorney of Roswell, New Mexico, representing Curtis Hankamer. I have one witness, and five exhibits. My witness is Mr. Marshall.

MR. UTZ: Any other appearances?

(Witness sworn.)

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

MR. HUNKER: Mr. Examiner, I would like to make an opening statement, if I may. As the attorney for Curtis Hankamer, of Houston, Texas, I have done all of the documentation of the unit agreement, the unit operating agreement. I have managed all of the conferences with the U.S.G.S. I have handled the matter of unitization, as far as the State Land Office is concerned, and I am thoroughly familiar with the unitization, and it is for this reason that I am making this statement.

My witness is slightly hard of hearing, and I ask that you be exceedingly careful in your questioning of my witness, and be sure that he hears any questions that you may ask him.

Curtis Hankamer proposes to unitize 9,672.53 acres of land in Township 26 South, Range 29 East, and in Township 26 South, Range 30 East. This proposed unit area is on the state line, and it is approximately 30 miles south and twelve miles east of the city of Carlsbad. The unitized substances as defined in the proposed unit agreement are all hydrocarbons occurring 1,000 feet below the top of the Delaware limestone. There will be testimony with regard to the precise point at which the unit becomes operative.

In the unit area, there are 1,152.76 acres of state land, 8,518.77 acres of federal land. An application has been filed with the United States Geological Survey for a designation of this unit, and the designation has been granted. Application has been made to the Commissioner of Public Lands for approval of the unit, and it has been approved as to form by the Commissioner.

The unit agreement is a standard form of unit agreement, modified only to satisfy the State Land Commissioner with regard to the matters that concern him.

A test well will be drilled starting early in April to test rocks of the Devonian Age, but not in excess of 16,000 feet.

At this time, I'd like to qualify my witness,

Mr. Marshall.

JOSEPH W. MARSHALL

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

DIRECT EXAMINATION

BY MR. HUNKER:

Q Would you state your name, your occupation, and residence?

A I am Joseph W. Marshall, an exploration consultant. My residence is in Midland, Texas.

Q Have you ever testified before the Oil Commission?

A I have not.

Q What are your educational qualifications? What have you studied, Mr. Marshall?

A I entered the Shenandoah Conservatory of Music, Winchester, Virginia. I received a Bachelor of Science Degree in Geology from the University of North Carolina in 1946. I took advanced courses from the University of Missouri in Petroleum Geology, and summer field method courses. In addition, I took graduate courses at the University of North Carolina in Petrography, Mineralogy, and Sedimentation.

During the course of time that I was employed by a major company, they provided me with opportunity to take

additional graduate courses at the University of Oklahoma, in Management, in the usage of the computer in the petroleum industry. That is the extent of my education.

Q What has your professional experience been, Mr. Marshall?

A While in school, I worked for the United States Geological Survey. After completion of my academic requirements, I accepted a position in the engineering division of the Panama Canal. My experience in the petroleum industry, starting in the year 1947 with Amerado Petroleum in Midland, Monument, and Big Lake, Texas, Monument, New Mexico. My next experience was with Lone Star Gas Company in Dallas, Colorado City, Eastman, Texas, and Roswell, New Mexico. The final thirteen years of my experience was with Sunray DX Oil Corporation, as a Senior and District Geologist in Roswell, and as Southwest Exploration Geologist in Midland, and Chief Structural Geologist in Tulsa. I have had approximately one and a half years experience as an exploration consultant in Midland, Texas.

MR. HUNKER: Are the qualifications of the witness satisfactory to the Examiner?

MR. UTZ: Yes, they are.

Q Mr. Marshall, referring to Exhibit Number 1, will

you tell the Examiner what this is?

A That is a geological report on the proposed Brushy Draw Unit, Eddy County, New Mexico.

Q Does this contain your recommendations for the drilling of a test well in this area?

A It does.

Q Attached to this report, have you prepared certain other maps, and if so, will you refer to the structure map on the top of the Delaware Sands, referred to as Exhibit Number 2, and tell the Examiner what it represents?

A The structural map, Exhibit 2, on the top of the Delaware, LaMar limestone, contoured on the contoured interval of ten feet, and shows the productive wells, and wells that tested the immediate vicinity of the proposed unit. The productive wells are from the Upper Bell Canyon Sandstones of the Delaware Mountain Group. This structural map shows a broad nose with a minor closure.

Q Is all of the production in this area above 1,000 feet below the top of the Delaware Sands?

A It is.

Q Referring to Exhibit Number 3, will you tell the Examiner what this exhibit represents?

A Exhibit Number 3 is a structural map on the top of

the Devonian limestone, and was constructed to conform in general with several known interpretations of the seismic structure at what is believed to be in the Devonian event on the seismic records.

Q Did you prepare both Exhibits 2 and 3?

A I did.

Q Referring to Exhibit Number 4, would you explain to the Examiner what this exhibit shows?

A Exhibit Number 4 is a shot point map furnished by Sunray DX Oil Company, now Sun Oil Company, DX Division. This map shows simply the density and distribution of shot point lines, within the Brushy Draw area.

Q Was it used in the construction of Exhibit Number 3?

A It was. I will put it this way, the map, Exhibit Number 3, was a result of the interpretation made of these lines.

Q Has this map been furnished, this shot point map been furnished to you by Sunray DX?

A It has with their permission.

Q Is this company joining the unit?

A Yes, sir.

Q Referring to Exhibit Number 5, will you tell the Examiner what this exhibit is?

A Exhibit Number 5 is a copy of a sonic gamma ray log on the Curtis Hankamer No. 1 Federal, a wildcat well located in Section 13, Township 26 South, Range 29 East, Eddy County, New Mexico. This well shown on Exhibit Number 2 is a discovery well of the Brushy Draw Delaware Bell Canyon field, located 660 from the south and 1,980 to the west of the Section mentioned.

Q Was this the log that was used to pick a point from which unitization could begin?

A It was. I would add that the point on this log is at a depth of 3,125 feet, the top of the Delaware section. The unitization would be in effect at 1,000 feet below this point, at a depth of 4,125 feet, shown on the log.

Q You are familiar with the area involved in the unit, is that correct?

A I am.

Q Does this contain substantially all of the geologic feature that is involved in this area?

A It does.

Q In the event of the discovery of oil or gas in this area, will unitization permit the production and development of the area in the interest of conservation and in preventing waste?

A It certainly will.

Q With regard to efficient operations and economical operations, do you have any comment to make for the Commission?

A The horizons in the Brushy Draw Unit are primarily Devonian reservoirs. Secondary reservoirs are the Cherry Canyon and Brushy Canyon sand of the Lower Delaware Group, the Bone Springs limestones and sandstones, the Wolfcamp limestones, and the Tritle zones, where present, the Strawn limestone, and the sands of the Atoka and Morrow sections. All of these horizons are over 1,000 feet above the Delaware sand production of the Brushy Draw field, as I illustrate in Exhibit 5.

In answer to your question, the expected production in the Delaware Basin area is primarily gas, which this unit should contribute to.

Q Have you seen cost estimates with regard to this test well?

A Yes, sir.

Q Approximately how much will it cost to drill and complete a gas well in this area?

A Approximately \$850,000.

MR. UTZ: That is to what, 16,000?

THE WITNESS: Yes, sir.

Q In the event this area is unitized, is it your opinion that maximum recovery will be achieved through unitization?

A Yes, sir.

MR. HUNKER: I have no other questions. I would like to offer Exhibits 1 through 5.

MR. UTZ: Without objection, Exhibits 1 through 5 will be entered into the record of this case.

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

CROSS EXAMINATION

BY MR. UTZ:

Q Mr. Marshall, have you made a location of the initial well at this time?

A Yes, sir, the proposed location is in the southeast quarter of Section 19, Township 26 South, Range 30 East, of the New Mexico Prime Meridian which falls in Eddy County, New Mexico.

MR. UTZ: Any other questions of the witness? You may be excused. Any statements? The case will be taken under advisement.

I N D E X

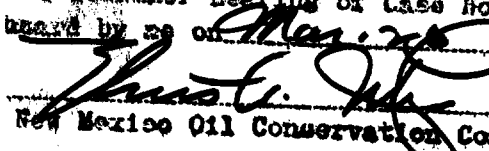
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| <u>EXHIBITS</u> | <u>MARKED</u> | <u>ADMITTED IN EVIDENCE</u> |
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STATE OF NEW MEXICO)
)
 COUNTY OF BERNALILLO) ss.

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.


 COURT REPORTER

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 4081 heard by me on May 2nd 19 69.
 Examiner
 New Mexico Oil Conservation Commission