

BEFORE THE  
OIL CONSERVATION COMMISSION  
Santa Fe, New Mexico  
February 8, 1961

EXAMINER HEARING

IN THE MATTER OF:

Application of Drilling and Exploration Company, Inc. ) Case  
for approval of the Mescalero Ridge Unit Agreement. ) 2179  
Applicant, in the above-styled cause, seeks approval )  
of the Mescalero Ridge Unit Agreement, which unit em- )  
braces 7521 acres of Federal and State lands in Town- )  
ship 19 South, Range 34 East, Lea County, New Mexico. )

BEFORE:

Daniel S. Nutter, Examiner

TRANSCRIPT OF HEARING

MR. NUTTER: Next case, 2179.

MR. MORRIS: Application of Drilling and Exploration Com-  
pany, Inc. for approval of the Mescalero Ridge Unit Agreement.

MR. BRATTON: Howard Bratton, Roswell, New Mexico, appear-  
ing on behalf of the applicant. We have one witness, and I ask  
that he be sworn.

(Witness sworn.)

MR. BRATTON: Before proceeding with the case, in our  
application we stated that Drilling and Exploration Company, Inc.  
would be the unit operator. Actually, El Paso Natural Gas Company  
will be the operator, and we ask our application be amended in that  
respect.

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FOSTER MORRELL

called as a witness, having been previously duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. BRATTON:

Q Will you state your name, occupation, and by whom you are employed?

A My name is Foster Morrell, Roswell, New Mexico, Petroleum Consultant; I represent, in Case 2179, Drilling and Exploration Company, Inc.

Q You have previously testified before this Commission as an expert witness?

A I have.

Q Referring to the application, which is an application for approval of a unit agreement, has this matter been submitted to the United States Geological Survey?

A It has.

Q Has it been approved by the U.S.G.S.?

A The form of agreement proposed in the initial test well, and the unit area, have been approved by the Acting Director of the Geological Survey by a letter of October 13th, 1960.

MR. NUTTER: Mr. Bratton, in amending this application, is it El Paso Natural Gas Company or Products Company?

THE WITNESS: Natural Gas.

Q (By Mr. Bratton) That U.S.G.S. letter is marked as

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Applicant's Exhibit 1?

A That's correct.

Q Have you taken this matter up with the Commissioner of Public Lands?

A We have.

Q Regarding the form of the unit agreement?

A We have discussed the form of the unit agreement with the Commissioner of Public Lands of the State of New Mexico at a conference in Santa Fe November 23rd, 1960. The agreement reached with the Commissioner, and the form filed for approval by the Oil Conservation Commission includes suggestions by the Acting Director of the Geological Survey and the Commissioner of Public Lands.

Q And a copy of the proposed form of unit agreement is marked as Applicant's Exhibit No. 2?

A In that connection I would like to call attention to and confirm the statement that Mr. Bratton has made. Previously, on Page 5 of Exhibit 2, the unit agreement, you will find, under Section 4, the unit operator is named as El Paso Natural Gas Company.

Q Is this a standard form of unit agreement?

A It is. The unit agreement follows the standard Federal form with the latest recommended wording and appropriate references and paragraphs regarding the Oil Conservation Commission and the Commission of Public Lands of the State of New Mexico. The form is essentially the same as others recently approved by the Oil Conservation Commission, including the adjoining Mescalero unit agree-



ment approved August 13th, 1960 by Order R-1763 in Case No. 2060.

Q What is the test well required, Mr. Morrell?

A The initial test well required in Section 9 of the unit agreement is to be drilled to the top of the Mississippian formation on or to a depth not in excess of 14,000 feet.

Q That is a standard participating area, Federal type of unit?

A That's correct. The allocation of production is on the basis of participating areas determined by geological evidence as a basis for royalty, overriding royalty or payments out of production. As between the working interest owners, participation of costs and production is to be on fixed percentages.

Q Referring to what has been marked Exhibit 3, is that a plat of the area in the proposed unit?

A That is true. Before we get off the unit agreement, I might mention, the term of the agreement is for five years from the effective date, said date being the first day of the month following approval by the Director. The Commissioners' approval is also required before the agreement becomes effective.

Q The area of the proposed unit is shown on Exhibit No. 3?

A It is. The Mescalero Ridge unit area is wholly within Township 19 South, Range 34 East, and, for the record, I might describe it as including all of Sections 19, 20 and 21, the S/2 of 22, the S/2 of 23, all of Sections 26, 27, 28, 29 and 30, the NE/4 of 32, the N/2 of 33, and all of Sections 34 and 35. The unit area

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comprises a total of 7,521.08 acres, of which 7,201.08, or 95.75% are Federal lands, and 320 acres even, or 4.25%, are State of New Mexico lands.

Q Referring to Exhibit No. 4, Mr. Morrell, will you explain what that plat shows?

A Exhibit No. 4 is an index map showing the outline of the Mescalero Ridge unit area and its relationship to nearby and existing unit areas. The Mescalero unit is adjoining the Mescalero Ridge to the north, and also on this map is shown the Tonto Deep unit, the Buffalo unit and portions of the West Tonto Unit and Little Eddy, and to the south of the Mescalero Ridge is the presently producing Lea unit, and the deep unit which has been terminated.

Also on this index map is shown a cross-section, indicated by a line at the termination of which are the letters A and A-Prime.

Q Now, referring to your Exhibit No. 5, Mr. Morrell, the seismic map.

A Exhibit No. 5 is a seismic map based on a recent seismic survey of the area conducted by Drilling and Exploration Company, Inc., contoured in time, and represents the structural configuration at the approximate top of the Mississippian formation and delineates a quite attractive anticlinal feature at Mississippian depth. This map was filed with the U. S Geological Survey and is the geologic basis of the survey. The unit outline has been limited by the indicated lowest closing contours between faults.

Q In your opinion, Mr. Morrell, does the seismic information



there indicate that the proposed unit outline covered all of the features involved?

A It does.

Q Now, you referred to a cross-section, and that is your Exhibit No. 6?

A That's correct.

Q Will you explain what that shows?

A Cross-Section A-A Prime shown on Exhibit 6 indicates the relationship of the proposed unit area, the approximate limits of which are indicated by lines on the cross-section in relation to nearby wells that have been drilled to the Mississippian or deeper. This cross-section is from west to east. It might also be mentioned that this cross-section shows the anticlinal feature as indicated by the seismic map within the limits of the proposed unit.

Q Referring now to the interest in the proposed unit and the percentage of control you have in the unit, will you explain that with reference to your Exhibit No. 7?

A Exhibit No. 7 is otherwise known as Exhibit B attached to the Mescalero unit agreement. It shows that the working interest owners involved are the Drilling and Exploration Company, Inc., El Paso Natural Gas Company, Western Natural Gas Company, Pure Oil Company, Charles C. Bankhead, Jr., W. A. Moncrief, Frances W. Hyde, and Frances W. Hyde and The First National Bank of Fort Worth, Texas, Co-Trustees under the will of Clarence E. Hyde, deceased.

Q What lands are committed to the unit and what are not, Mr.



Morrell?

A The summary of the present commitments shows that a total of 97.9% is fully and partially committed acreage. This is broken down by fully committed, being 81.4% and partially committed, 16.5%. We have, at this time, received the refusal to join the unit by Pure Oil Company as to 160 acres of State lands shown as Tract No. 14 on Exhibit B, which represents a total of only 2.1%. The commitment received to date is sufficient to insure adequate control of operations on the unit area.

Q In your opinion, Mr. Morrell, would the granting of this application be in the interests of conservation and protect correlative rights?

A It would.

Q Were Exhibits Nos. 1 through 7 prepared by you or under your supervision in connection with the application made to the U.S.G.S. and the State Land Commissioner?

A Yes.

Q Is there anything else you care to state in connection with this application?

A The applicant agrees to furnish the Commission with an executed, or executed counterpart, of the unit agreement within 30 days after the effective date.

Q Anything else you care to state?

A Supporting letters in Case No. 2179 have been submitted to the Commission by El Paso Natural Gas Company and Western Natural

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Gas Company.

MR. BRATTON: We move the introduction of Applicant's Exhibits Nos. 1 through 7.

MR. NUTTER: Exhibits 1 through 7 admitted into evidence.  
Any questions?

BY MR. PAYNE:

Q Mr. Morrell, does the unit agreement contain a segregation clause to State land as well as Federal land?

A It does.

Q Is there production within the unit area at any other depth?

A Not at this time.

BY MR. NUTTER:

Q Mr. Morrell, this initial test well is contemplated to the top of the Mississippian, is that correct?

A That's correct.

Q I note there are a number of dry holes within the area. Have any been deep tests?

A No.

Q None have gone to the depth of the anticipated first exploratory well?

A No, sir.

Q What will the participating area be based upon in the event production is obtained?

A It will be based upon geologic evidence.





Q Does the unit agreement provide an automatic elimination clause for any acreage that isn't within the participating area within a certain time?

A That's correct.

Q What is the time?

A Time is set forth under Section 2-E, and it would be eliminated at the end of five years from the first day of the month following the effective date of the first initial participating area unless, at the expiration of that five-year period, additional wells are being drilled on a non-participating acreage.

Q On any non-participating acreage?

A Then all non-participating acreage is held, as long as drilling is continued diligently, allowing not more than 90 days between wells on the non-participating acreage.

Q What geological structure is this based on?

A It is based on seismic study of the Mississippian.

Q It would appear from Exhibit 5 that is an extremely faulted area?

A That's right.

Q I was just wondering, with the faults crisscrossing the unit area, where the structure is?

A The principal fault, of course, shown by the cross-section, is the northwest southeast fault on the east. These east-west faults are in the nature of faults off of the main displacement fault. The east fault is definitely proven by the wells that have



been drilled by Ohio on the Lea unit in Section 12, 20 South, 34 East, and a recent well by Sinclair in Section 7, 20 South, 35 East, which showed a displacement of 350 feet or more.

Q That is the fault that more or less compares with the eastern boundary of the unit?

A That's right.

Q And the portion, the unit to the left of this fault on this exhibit is up?

A That's correct.

Q And its downthrust is on the outside of the unit?

A Its downthrust is on the outside, and the indication of this fault, in relationship on Exhibit 5 to the location of the unit on Exhibit 4, and extend that fault south and a little east from the Mescalero Ridge, you will see it coincides with the fault on the eastern portion of the Lea unit.

Q Your main structure would lie between this north-south fault on the east end of the unit and the downthrust of the fault running northeast southwest, and more or less east and west?

A That is the major portion, and you will note on Exhibit 5 there is a heavy line outlining the south portions of Sections 17 and 18. That is up on the north portion of this. That is the Mescalero unit adjoining the Mescalero Ridge.

Q That is the south boundary of the Mescalero unit?

A We are limited there. We just brought the two areas together to coincide as to a common battery.

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Q Where is the proposed first well the be drilled?

A The location hasn't been determined yet. It will be somewhere in the location of the center. Whether it will be 21, 28, 27 or 29 I wouldn't know at this time. It hasn't been determined. There is another feature in 26 and 35 which has some similarity to the Lea unit, and the location might be over in that portion.

MR. NUTTER: Any further questions of Mr. Morrell?

BY MR. PAYNE:

Q Is the automatic elimination provision the same as to State land as it is to Federal land?

A Yes, that's true.

Q It is the same provision as to both?

A And the same as has been approved before. We have the State-recommended provision, segregation of leases, in Section 18-H. The automatic elimination is covered under Section 2-E.

MR. NUTTER: Any further questions of Mr. Morrell? You may be excused. Do you have anything further, Mr. Bratton?

MR. BRATTON: No, sir.

MR. NUTTER: Does anyone have anything they wish to offer in 2179? Take the case under advisement.

Hearing is recessed until 1:30.

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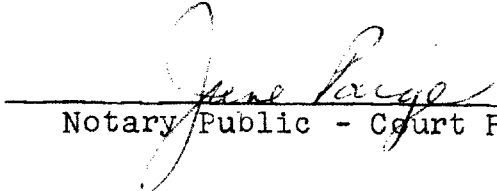
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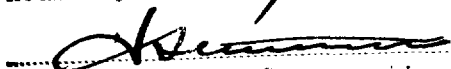
STATE OF NEW MEXICO     )  
                                   )  
 COUNTY OF BERNALILLO    )     ss

I, JUNE PAIGE, Court Reporter, do hereby certify that the foregoing and attached transcript of proceedings before the New Mexico Oil Conservation Commission at Santa Fe, New Mexico, is a true and correct record to the best of my knowledge, skill and ability.

IN WITNESS WHEREOF I have affixed my hand and notarial seal this 16th day of February, 1961.

  
 Notary Public - Court Reporter

I do hereby certify that the foregoing is  
 a complete record of the proceedings in  
 the Executive Hearing of Case No. 2179  
 heard by me on 2/8, 1961.

, Examiner  
 New Mexico Oil Conservation Commission

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E X H I B I T S

<u>NUMBER</u>	<u>EXHIBIT</u>	<u>IDENTIFIED</u>	<u>OFFERED</u>	<u>ADMITTED</u>
Ex.#1	U.S.G.S. letter	3	8	8
Ex.#2	Unit agreement	3	8	8
Ex.#3	Plat	4	8	8
Ex.#4	Index Map	5	8	8
Ex.#5	Seismic Map	5	8	8
Ex.#6	Cross-Section	6	8	8
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