

**DEARNLEY-MEIER REPORTING SERVICE, Inc.**

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ALBUQUERQUE, N. M.  
PHONE 243-6691

BEFORE THE  
OIL CONSERVATION COMMISSION  
Santa Fe, New Mexico

EXAMINER HEARING

Case 2864



BEFORE THE  
OIL CONSERVATION COMMISSION  
Santa Fe, New Mexico  
July 24, 1963

EXAMINER HEARING

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IN THE MATTER OF: )

Application of Midwest Oil Corporation for a unit )  
agreement, Lea County, New Mexico. Applicant, in )  
the above-styled cause, seeks approval of the ) CASE 2864  
Custer Mountain Unit Area comprising 11,523.68 )  
acres of State, Federal and Fee lands in Township )  
24 South, Range 35 East, Lea County, New Mexico. )  
-----

BEFORE: Daniel S. Nutter, Examiner

TRANSCRIPT OF HEARING

MR. NUTTER: The hearing will come to order, please.  
The first case will be Case 2864.

MR. DURRETT: Application of Midwest Oil Corporation  
for a unit agreement, Lea County, New Mexico.

MR. BRATTON: Howard Bratton, appearing on behalf of  
the Applicant. We have two witnesses.

MR. DURRETT: Will you have both of your witnesses rise,  
and I will swear them both at the same time.

(Witnesses sworn.)

(Whereupon, Midwest's Exhibit No.  
1 marked for identification.)

J. R. ROWAN

called as a witness, having been first duly sworn on oath, test-  
ified as follows:

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## DIRECT EXAMINATION

BY MR. BRATTON:

Q Please state your name, by whom you are employed, and in what capacity.

A J. R. Rowan, Midwest Oil Corporation, District Landman, Midland, Texas.

Q Are you familiar with the proposed Custer Mountain Unit Area and the matters contained in this application?

A Yes, I am.

Q Have you handled the land matters pertaining to this unit?

A Yes.

Q Referring to Exhibit 1, is that the proposed unit agreement for the Custer Mountain Unit Area?

A Yes.

Q Attached to it is an exhibit showing the lands in the unit area, the ownership thereof, is that correct?

A That is correct.

Q This unit contains a total of how many acres?

A 11,523.68 acres.

Q That includes State, Fee and Federal acreage, is that correct?

A Yes, that is correct.

Q Is Midwest the operator of the unit?

A Midwest is the operator.

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Q What is the test well, Mr. Rowan?

A The test well is projected to the Devonian formation at approximately 15,500 feet.

Q We'll get into the location of that well later with the other witness. Has this unit been approved as to form and area by the U.S.G.S.?

A Yes, it has.

Q Has it likewise been tentatively approved as to form by the State Land Office?

A Yes, it has.

Q What are your percentages of commitment to this unit, Mr. Rowan?

A At the present time we have 84.35 percent of the total acreage involved in the unit committed.

Q That's the working interest?

A That is the working interest.

Q You are working on such fee royalty and overriding royalty as there is?

A Yes.

Q And extending an offer to everybody to join into the unit?

A Yes.

Q In your judgment, will those percentages of commitment be sufficient to give you effective control of the unit operation?

A Yes, they will.



MR. BRATTON: I have no further questions of this witness at this time.

CROSS EXAMINATION

BY MR. NUTTER:

Q What is the percentage of the Federal land?

A 71.191 percent.

Q And State land?

A State land is 16.658 percent.

Q And the fee land would amount to what?

A 12.51 percent.

Q As to the acreage that has actually been committed, the 84 percent, does that lie in one of these three categories, particularly?

A All of the State acreage inside the proposed unit outlined is committed. The 15.65 percent of uncommitted acreage is represented by 1400.49 percent of fee acreage and -- excuse me, I mis-stated that; there's 49. fee and 596 uncommitted, or 5.38 percent of the uncommitted acreage is fee acreage.

Q Does this unit provide for joinders subsequent to the approval?

A Yes, it does.

MR. NUTTER: Any further questions of Mr. Rowan? He may be excused.

(Witness excused.)

(Whereupon, Midwest's Exhibits Nos. 2 through 5 marked for identification.)

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DON MATSON

called as a witness, having been first duly sworn on oath, testified as follows:

## DIRECT EXAMINATION

BY MR. BRATTON:

Q Will you state your name, by whom you are employed, and in what capacity?

A Don Matson. I am employed by Midwest Corporation as District Manager in the Midland office.

Q Will you state briefly your educational and professional qualifications?

A I was graduated in 1952 from Missouri School of Mines with a Bachelor of Science degree in Mining Engineering, Petroleum Engineering option. Employed five and a half years with Magnolia Petroleum Company as a geophysicist, and three years by Midwest as a geophysicist, and the last three years as District Manager.

Q Are you familiar with the proposed Custer Mountain Unit Area?

A Yes, I am.

MR. BRATTON: Are the witness' qualifications acceptable?

MR. NUTTER: They are.

Q (By Mr. Bratton) Now, what type of information is this proposed unit based on?

A Primarily seismic information.

Q That's reflected on your Exhibits 2, 3, 4; 2 and 3 being

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structure maps, and 4 being an isopac, is that correct?

A That is correct.

Q Let's go to No. 2. It shows the proposed unit outline, is that correct, in red?

A That is correct.

Q And the proposed location of the test well?

A That is correct.

Q What is this contoured on and what does it indicate?

A The map is contoured on, as best as we can interpret, a member of the Delaware Mountain Group. We cannot be certain which member because of inadequate velocity control for the area.

Q What does it reflect as to the structure, with relation to the proposed unit outline?

A We believe that it is a fair representation of the Permian structure configuration for the unit area.

Q Does this indicate that the proposed unit area covers the possible productive limits?

A We believe so. We're exhibiting here a low relief anticlinal feature that centers more or less in the center of the proposed unit. That indicates a structural ridge line running in a northwest-southeasterly direction.

Q Is there anything further you care to state in connection with this exhibit?

A Not at this time, no.

Q Let's turn then to your Exhibit No. 3. This is your

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Devonian structure, is that correct, based on seismic work?

A That is correct, as near as we can interpret it to be at or around the Devonian level.

Q What does this indicate?

A We have determined that there is a structural or an anticlinal feature existing, covering essentially Sections 4 and 5, 8 and 9, of 24 South, 35 East, with control closure of approximately 400 feet, with associated faulting on the east side which positions the closure to be on the up-thrown side of the fault block.

Q Are those two fault lines there running northwest-southeast?

A Yes.

Q Does this indicate anything as to the possibilities of production other than the Devonian, as to what you might hope in the Pennsylvanian?

A Well, it suggests a very rapid dip to the south and is more demonstrative on our next exhibit. However, we suspect the importance of this rapid dip should affect some other producing capabilities of this structure.

Q Now turn to your Exhibit No. 4. What does this exhibit reflect?

A Exhibit No. 4 is an isopac map prepared from the Permian to the Devonian, showing the thickness of the sediments just in between these two horizons. If you'll note, there's a rapid thickening of sediments existing to the south of Section 9 down





through Sections 20 and 21. It is in this area we believe there is very good possibilities for potential Pennsylvanian stratigraphic pinch-out production.

Q This is in the general area, as a matter of fact, the Bell Lake Unit is shown to the west, or a portion of it, in the blue outline, and the Antelope Ridge and I believe there's one more unit just been approved right south and east of the Bell Lake?

A That is correct.

Q Basically, you might be hopeful for the same thing, Devonian production, and possibly Pennsylvanian on the flanks, is that correct?

A That is correct.

Q In your judgment does the unit outline contain the possible prospective productive area?

A Yes, it does. I believe so.

Q Does your commitment of the unit give you effective control to where you could operate the unit satisfactorily?

A Yes.

Q In your opinion, will the development of this area by unit operation result in the conservation of the natural resources and the prevention of waste?

A I believe so, yes.

Q Your Exhibit No. 5 is a geological report which goes more into detail as to what you've testified to with respect to these three maps, is that correct?

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A That is correct.

Q But it's, in effect, a narrative outline of that as to what you hope for?

A Yes.

Q Attached to it is a summary of costs indicating, I believe, that the test well would cost \$860,000 if completed as a producer?

A That is correct.

Q And some \$800,000 in the sad eventuality that it might be a dry hole?

A Yes.

Q Were Exhibits 2 through 5 prepared by you or under your supervision?

A Under my supervision.

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

A Nothing at this time.

MR. BRATTON: We would offer in evidence Applicant's 1 through 5, inclusive, and also I'll offer as Exhibit No. 6 the letter from the U.S.G.S. I don't have a copy of the letter from the Land Office approving it, but I just looked at Mrs. Rhea's copy and she assured me she has it. We will offer in evidence Applicant's Exhibits 1 through 6. We have nothing further at this time.

(Whereupon, Midwest's Exhibit No. 6 marked for identification.)



MR. NUTTER: Applicant's Exhibits 1 through 6 will be admitted in evidence.

(Whereupon, Midwest's Exhibits Nos. 1 through 6 admitted in evidence.)

MR. NUTTER: Does anyone have any questions of Mr. Matson?

#### CROSS EXAMINATION

BY MR. NUTTER:

Q Your Exhibit No. 2, which is the contour of the Permian structure, indicates three highs there and only two of them are in the unit; the other is outside the unit, being in Section 11 of Township 24, 35. Is the Permian actually a target in this unit?

A Yes, it is. However, we feel like that in your Delaware Mountain Group, which would be your primary target of your Permian structure, is not necessarily the major trapping mechanism. Your controlling factors are more porosity and permeability development which are very essential in the field. Even though we exhibit a high in Section 11, at the Devonian level we exhibit a low, and since the primary target for the area is Devonian we did not feel like the indicated flattening or closure in Section 11 was of primary importance.

Q I see. Now this dry hole that was drilled by Gulf in Section 15, was that deep enough to penetrate whatever member of the Delaware Group that you have contoured here?

A That I can't be certain of because of the quality of

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data that we had to work from in preparing the Permian map. We were unable to determine just where in the section we were mapping. We had to assume a velocity which we felt like was a fair average velocity for the area. We don't know that the depths represented on the Permian map are accurate, so I cannot say truthfully whether it did or did not penetrate.

Q You only know that this was the structure and you have no idea as to the exact depth then?

A That is exactly right.

Q Well, the contour here being at, say, a minus 300, which is presumably reasonable or it wouldn't have been put on here, would the well have been of sufficient depth to have penetrated a minus 300?

A Yes, because the penetration of the well went beyond a minus 2,000 datum.

Q Was the Permian contour map prepared solely from seismic information?

A Yes.

Q Of course, the Devonian was, too, I imagine?

A That's right.

Q Where is the recent discovery by Skelly of a gas pool in this area somewhere?

A You'll find it in the very extreme southeast corner of your map in Section 20.

Q Down in Section 20. I presume by having received



approval from the U.S.G.S. and the State Land Office of the unit agreement, they've also approved this area that's being shown here by the red line?

A Yes, sir.

MR. NUTTER: Any further questions of the witness? He may be excused.

(Witness excused.)

MR. NUTTER: Do you have anything further, Mr. Bratton?

MR. BRATTON: No, sir.

MR. NUTTER: Does anyone have anything they wish to offer in Case 2864? We will take the case under advisement.

\* \* \*

STATE OF NEW MEXICO     )  
                                  ) ss  
COUNTY OF BERNALILLO    )

I, ADA DEARNLEY, Notary Public 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 said proceedings, to the best of my knowledge, skill and ability.

WITNESS my Hand and Seal this 12th day of August, 1963.

*Ada Dearnley*  
NOTARY PUBLIC

My Commission Expires: I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 2864, heard by me on 7/29/63, 1963.

*James* Examiner  
New Mexico Oil Conservation Commission



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NEW MEXICO OIL CONSERVATION COMMISSION

EXAMINER HEARING

SANTA FE, NEW MEXICO

REGISTER

HEARING DATE JULY 24, 1963 TIME: 9 A.M.

ILLEGIBLE

NAME:	REPRESENTING:	LOCATION:
John O'Kendall	Humble Oil Refining	Denver
Harold P. Morris	Seth, Montgomery, Kierulff & Kierulff	Santa Fe
Paul W. Mary	Humble Oil & Ref Co	Timber Lake
W. H. Stewart	" " " " "	" "
R. L. Shaw	" " " " "	Denver, Colo.
John P. Barber	Marathon Oil Co.	Hobbs
George L. Buckles	George L. Buckles	Marathon, Texas
L. E. Thomas	" " " " "	" "
Don D. Matson	Midwest Oil Corp	Midland
J. P. Ryan	" " " " "	" "
BED F. B. (BUTLER)	Shell Oil Co.	Reswell, N.M.
H. P. Craft	" " " " "	" "
Greg Morrison	Greg Morrison	Tambling, Tex.
J. E. Leavins	Mobil Oil Co.	Albuquerque
William D. Fritz	Mobil Oil Co.	Santa Fe Springs, Cal
Charles J. Little	Ind.	Albuquerque
	Ind.	" "

## NEW MEXICO OIL CONSERVATION COMMISSION

EXAMINER HEARINGSANTA FE, NEW MEXICOREGISTERHEARING DATE JULY 24, 1963 TIME: 9 A.M.

NAME:	REPRESENTING:	LOCATION:
E. F. MOTT James Kellahan Q. D. Cottharp V. T. Lyon	Cities Service Oil Co. Kellahan & Fox Continental Oil Co. "	Hebbes Santa Fe Molokai Roswell
ILLEGIBLE		