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SANTA FE, N. M.
PHONE 983-3971

ALBUQUERQUE, N. M.
PHONE 243-6691

BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
June 26, 1963

EXAMINER HEARING

IN THE MATTER OF:)

Application of Union Oil Company)
of California for a unit agreement,)
Lea County, New Mexico. Applicant,)
in the above-styled cause, seeks)
approval of the West McDonald Unit)
Area comprising 2,320 acres of State)
and Fee lands in Township 14 South,)
Range 35 East, Lea County, New)
Mexico.)

Case 2836

BEFORE: Daniel S. Nutter, Examiner.

TRANSCRIPT OF HEARING

MR. NUTTER: We will call Case 2836.

MR. DURRETT: Application of Union Oil Company of
California for a unit agreement, Lea County, New Mexico.

MR. BRATTON: Howard Bratton, appearing on behalf of
the applicant. We have one witness.

(Witness sworn.)

(Whereupon, Applicant's Exhibits Nos. 1 through 3 were marked for identification.)

JOHN PEARSON

called as a witness, having been first duly sworn, testified



as follows:

DIRECT EXAMINATION

BY MR. BRATTON:

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

A My name is John Pearson, employed by Union Oil Company of California, as District Geologist in Roswell, New Mexico.

Q Have you previously testified before this Commission as an expert witness?

A I have.

Q Are you familiar with the West McDonald Unit Area and the matters contained in the application now under consideration?

A I am.

Q Mr. Pearson, Exhibit 1 is the proposed unit agreement for the West McDonald Unit Area. As indicated on Exhibit A, is this an all-state unit with 2240 acres of state land and 80 acres of fee land, is that correct?

A This is correct.

Q Which are the 80 acres of fee?

A The 80 acres of fee are Tract No. 9 in Exhibit A, I believe.

Q So that's 80 acres on the complete west end of the unit, is that right?

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A Right on the edge of the unit.

Q What is your status as to commitment to this unit, Mr. Pearson, of the working interest?

A We have verbal agreement to commit from all of the working interest owners within this unit with the exception of one 80-acre tract, and we have contacted this one 80-acre tract and have not yet received a commitment from them.

Q Which one is that?

A Tract No. 3, Sunray Mid-Continent.

Q That is the 80 acres which be the East Half of the Southwest of Section 8?

A Right.

Q Would the commitment or non-commitment of that affect the effectiveness of the unit operation?

A I don't believe it will.

Q Are you contacting such overriding royalty owners as there are in the area?

A We are contacting the royalty owners, yes.

Q And you are royalty owners too. This proposed unit agreement is the satisfactory standard form of state unit agreement?

A To my knowledge, it is a standard form of state unit, yes.



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Q There are one or two modifications, is that correct, due to the fact that there is an existing well in the area, and the form of those modifications have been agreed upon with the office of the State Land Commissioner?

A This is correct.

Q And subject to those being included, the area has been approved by the Land Commissioner as to form and area, is that correct?

A This is correct.

Q What does the unit agreement call for in the way of a test well?

A The unit agreement calls for the drilling of a 13,700 foot Mississippian well in Section 9, 14 South, 35 East, the Southeast of the Northwest Quarter.

Q It's the Southwest of the Northwest of 9?

A Right.

Q Shown in the Northeast of the Northeast of 17 there is an existing well in the unit area, is this correct?

A This is correct.

Q That is not to be a unit well, is that correct?

A It will not be a unit well.

Q It will be a unit well when production is obtained elsewhere?



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A When production is established elsewhere.

Q Is Union to be the operator of this unit?

A Yes.

Q Turning then to your Exhibits 2 and 3, and actually referring to your Exhibit 3 which is your contour map, briefly state what you have in your Exhibit 2, which is the written report with relation to this contour map.

A Exhibit 3 is a structure contour map, contoured on top of the Strawn, the Lower Pennsylvanian. Substantially it's based on subsurface, that is well data; although we have a considerable seismic information in this region, we do not have a continuous seismic reflection which we can map in this area. Consequently, we are unable to make a seismic structure map. The one producing well shown within the unit outline on this map is producing from the Upper Strawn. Consequently, the structure, as mapped on the top of the Strawn, reflects to a degree the producing potential of this particular reservoir.

The Strawn shelf edge, which is the depositional feature of the basinward slope which separates thick Strawn limestone in the McDonald area, and northward 800 feet more or less from thin basinal Strawn limestone to the south 250 feet forms the south flank of the structure as mapped on Exhibit 3.

Q In your opinion, Mr. Pearson, does the proposed unit



outline make an effective unit for the production of the unit-ized substance which you hope to obtain?

A In my opinion it does make an effective unit for the substances that we hope to obtain.

Q Based upon the limited information which you have available, does this represent a reasonable interpretation of the structure you hope to obtain, the productive structure?

A This is correct. The well information within this region is very limited; consequently this interpretation is based on a great deal of regional information, some detail locally, seismic information and well data, and in my opinion it is a reasonable interpretation of the available information.

Q In your opinion, Mr. Pearson, would the operation of this area under the unit agreement result in the greatest ultimate recovery of oil and gas?

A Yes.

Q Would operations under this unit agreement protect correlative rights in the area?

A Yes.

Q Mr. Pearson, do I understand that the proposed form of this unit agreement calls for commencing your test well by July 10th?

A This is correct.



Q Is there anything further you care to state with respect to these exhibits?

A I might state one thing, that the existing well within the unit was completed at a total depth of 11,500 feet more or less in the Upper Strawn, and we are proposing to drill a deeper test on the proposed unit well to test the Atoka, Morrow and Chester. Consequently, this will be a deeper wildcat within this area.

Q So you would test your Strawn which you reasonably anticipate to be productive, and then go down to the wildcat objectives?

A Correct.

Q Were Exhibits 2 and 3 prepared by you?

A Yes, they were.

MR. BRATTON: We would offer in evidence Exhibits 1 through 3.

MR. NUTTER: Union's Exhibits 1 through 3 will be admitted in evidence.

(Whereupon, Applicant's Exhibits 1 through 3 were offered and admitted in evidence.)

MR. BRATTON: We have nothing further at this time.

MR. NUTTER: Any questions of Mr. Pearson?



CROSS EXAMINATIONBY MR. NUTTER:

Q Mr. Pearson, this structure map on the Strawn is prepared wholly from the wells that you have available to you in this area?

A Not entirely. With the seismic information that we had we could map local dip segments in specific areas, perhaps half a mile range, and hence this data has been honored on the map. We were unable to make a complete seismic structure map because the events that we were mapping, the dip segments were not continuous throughout the area.

Q You have maybe half a dozen or so wells on here which have penetrated into this depth that you can contour on this map?

A This is correct.

Q You are backed up by certain seismic information?

A Right.

Q The big bulge which we see there on the edge of the Strawn which encloses the area which is to be unitized, is that reflected on the seismic information?

A The seismic information indicates a north-south low relief anticlinal trend extending from the south of the map to the north part, which is in turn crossed by the ledge that I mapped early. The interest of the unit is at the intersection

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of the Strawn depositional shelf edge and the deep-seated low anticlinal trend of which we have seismic information.

Q You have a trough running north and south on the west edge and another one running north and south on the east side?

A Correct.

Q Penetrating into this Strawn shelf?

A Right.

Q Are those substantiated by seismic information?

A Insofar as deep reflections, the Devonian, and insofar as shallow reflections are concerned, yes. They are not specifically confirmed at the Strawn level, again, because we lack a Strawn reflection map in these specific areas.

Q This one well, which is completed on the unit, is completed in the Strawn, so it must have penetrated the Wolfcamp. Did that show anything in the Wolfcamp?

A The Wolfcamp limestones and Upper Pennsylvanian limestones and dolomites were porous and had slight shows in them and these we believe are potentially productive if we can reach a higher structural point within the unit.

Q The proposed unit is higher than the well that was drilled?

A We have some rather weak seismic information which would suggest that the proposed location could be higher than



the well that has been drilled to date. Hence the Wolfcamp and the Upper Pennsylvanian are potentialized objectives on this second map.

Q Did the well that was completed go past the Pennsylvanian at all?

A No, it bottomed in the Upper Strawn.

Q I see.

MR. NUTTER: Are there any further questions of Mr. Pearson? He may be excused.

(Witness excused.)

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

MR. BRATTON: I would just like to state that the unit agreement does call for the commencement by July 10th, so we would appreciate any expeditious treatment that the Commission could afford.

MR. NUTTER: We'll try to get it out on July 9th.

MR. PEARSON: Thank you.

MR. BRATTON: Thank you, don't rush.

MR. NUTTER: Does anyone have anything they care to offer in Case 2836? We'll take the case under advisement and call a fifteen-minute recess.

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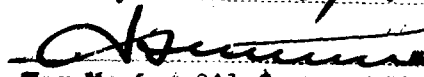
I, ADA DEARNLEY, Court Reporter, do hereby certify that the foregoing and attached transcript of proceedings before the New Mexico Oil Conservation Commission at Santa Fe, New Mexico, is a true and correct record to the best of my knowledge, skill and ability.

IN WITNESS WHEREOF I have affixed my hand and notarial seal this 2nd day of July, 1963.


Notary Public-Court Reporter

My commission expires:
June 19, 1967.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 2836 heard by me on 6/26, 1963.


Examiner
New Mexico Oil Conservation Commission



BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
June 26, 1963

EXAMINER HEARING

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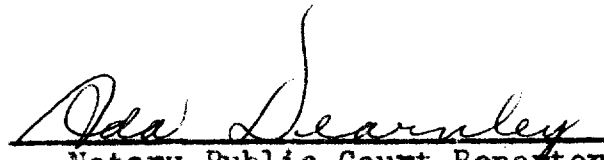
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STATE OF NEW MEXICO)
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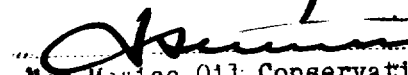
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IN WITNESS WHEREOF I have affixed my hand and notarial seal this 2nd day of July, 1963.


Notary Public-Court Reporter

My commission expires:
June 19, 1967.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 2834. Heard by me on 6/26, 1963.

, Examiner
New Mexico Oil Conservation Commission

