

DIRECT EXAMINATION

BY MR. HINKLE:

Q State your name, please.

A P. E. Mackey.

Q Where do you live, Mr. Mackey?

A Shreveport, Louisiana.

Q By whom are you employed?

A Union Producing Company.

Q In what capacity?

A Geophysicist.

Q How long have you been employed by the Union Producing Company?

A Eleven years.

Q Have you been in charge of the geophysical work for the Union Producing Company for the last several years?

A Yes, sir.

Q What is your official position with them?

A Geophysicist.

Q Are you a graduate engineer?

A Yes, sir.

Q From what school?

A Texas Tech.

Q What year?

A 1941.

Q What degree?

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A Petroleum Engineer, Geophysics option.

Q After your graduation, have you pursued your profession since your graduation?

A Yes, sir.

Q Have you been employed by any other companies other than Union Producing Company?

A Yes, sir, I was employed by Stanolind Oil and Gas in 1941 and '42, and by Seismic Exploration, Inc. in 1945 through 1951, and Union Producing Company from 1951 to the present time.

Q Has your work consisted of any work in Southeastern New Mexico?

A Yes, sir.

Q Are you familiar with the Northwest Lynch Area that's the subject of this application?

A Yes, sir.

Q Are you familiar with the application which has been filed by the Union Producing Company in this case?

A Yes, sir.

Q Did your company make a geophysical survey of this area?

A Yes, sir.

Q When was that survey made?

A 1959 and 1960.

Q Did it cover only this particular area, or did it cover other areas?



A It covered an area immediately adjacent to our proposed unit.

Q Which way?

A All around, all sides.

Q I hand you Union's Exhibit A and ask you to explain what it is and what it shows.

A This is our proposed unit outline. It shows that the unit contains 1160 acres of State land and 1880 acres of Federal land, making a total of 3,040 acres. It also shows the ownership of the leasehold interests by number of tracts, which are the same numbers as shown on Exhibit B attached to the proposed Unit Agreement. Also the serial numbers of the Federal and State leases, as well as the expansion dates.

Q Expiration dates?

A Yes. Except in connection with Tracts 17, 18, 19. These leases are in their extension term by reason of production on lands outside of the proposed unit.

Q Is this the area that you made the geophysical survey of?

A Yes, sir.

Q I believe you stated that you were familiar with the application which has been filed by the Union Producing Company in this case?

A Yes, sir.

Q Do you know whether or not the Union filed an application



with the U.S.G.S. for designation of this area as suitable and proper for unitization?

A Yes, they did.

Q I hand you Applicant's Exhibit B and ask you whether or not that is the approval of the U.S.G.S of the designation of this area?

A Yes, sir. It's a photostatic copy of a letter from the Director of Interior, Geological Survey, Washington, D.C., designating the unit area.

Q In connection with that application, do you know whether or not the Union filed a geological report that is with the application to the U.S.G.S.?

A Yes, sir, they did.

Q I hand you Applicant's Exhibit C and ask you whether or not that is a copy of the report which was filed with the application?

A Yes, it is.

Q Are you familiar with the report?

A Yes, sir.

Q Will you refer to the report, or Exhibit A, and explain in your own words what it shows?

A This is a geological report prepared by A. F. McDade, one of our geologists in Midland, Texas. It gives the location of a proposed unit outline. It also gives the regional geology of the area, the local geology of the area. It also goes into



the Exhibit 1 which is attached to this report.

Q Is there any comment you care to make with respect to the regional geology of the area?

A This area is located 22 miles southwest of Hobbs, New Mexico, and lies in the extreme southeastern portion of the area called the Carlsbad Shelf Area. It is in this area that production has been found immediately west of our proposed unit, in what is known as the Lea Unit, which has several producing formations, two from the Bone Springs, also production from the Devonian and also from the Pennsylvanian.

Q What about the structure that exists and that you found in connection with the survey which you made?

A During the seismic survey, we discovered two seismic anomalies in the area, one being the Lea Unit immediately west of our proposed unit.

Q Did your survey cover the entire area that is now the Lea Unit?

A Yes, sir, it did.

Q Go ahead.

A In addition to this anomaly, we uncovered another anomaly similar to the Lea Unit structure, which is inside the area in which we are proposing our unit.

Q Now refer to Exhibit 1 which is attached to our report which has been identified as Exhibit C, and explain what that shows.

A This is the results of the seismic survey conducted in



our Northeast Lea Unit Area.

Q Is this your interpretation of the result?

A Yes, sir, it is.

Q Did you prepare this map?

A Yes, sir.

Q Go ahead.

A It shows an anomaly with approximately 250 feet of structural closure separated from the Lea Unit by syncline on the west, and also by a down to the north fault on the north and northwest side of the structure. This particular map is contoured on the Mississippian horizon, which we feel reflects the structure at Devonian depth, which is the formation which we propose to drill our well in case this outline is approved.

Q Is this a similar structure in character to the one which was found in the Lea Unit to the west?

A Similar in nature, yes, sir.

Q Does Exhibit C, that is, Exhibit 1 that is attached to Exhibit C, show the proposed location?

A Yes, sir, it does.

Q Where is that?

A 1980 feet from the north line and 660 feet from the east line of Section 17, Township 20 South, Range 35 East.

Q What is the proposed depth of the test well?

A 15,000 feet.

Q And what formations would that depth test?



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A All formations down to and including the Devonian.

Q Do you expect to encounter the same formations in this area that were encountered and proved to be productive in the Lea Unit Area?

A Yes, sir.

Q In your opinion, does the proposed unit outline cover all or substantially all of the subsurface structure anomaly in this case?

A Yes, sir.

Q In the event the unit is approved and the well is drilled and you should get production, in your opinion would the proposed unit cover all or substantially all of the producing area?

A Yes, sir.

Q Any further comments you have to make with respect to the geological report?

A No, sir. The only other comment that I would make, that in this report on page 3 there is a complete list of all the horizons that will be penetrated, and also the lithology analysis of those particular horizons.

Q And the approximate depth that they will be found?

A Yes, sir.

Q Now in connection with the application there was filed a copy of the proposed Unit Agreement. Are you familiar with the Unit Agreement?



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A Yes, sir.

Q Do you know whether or not the form which has been filed is substantially the same as that which has heretofore been approved by the Commission, the Commissioner of Public Lands, and the U.S.G.S, where both Federal and State lands are involved?

A Yes, it's the same.

Q Do you know whether or not the Unit Agreement has been approved as to form by the Commissioner of Public Lands?

A Yes, sir, it has.

Q Was a copy of the report which you have referred to as Exhibit C filed with the Commissioner of Public Lands?

A Yes, sir.

Q In the proposed Unit Agreement, who is designated as the unit operator?

A Jake L. Hamon of Dallas, Texas.

Q Why was Jake Hamon designated as operator, rather than the Union Producing Company?

A In our West Texas-New Mexico area, we have no technical people for drilling and production. Mr. Hamon has had quite a bit of experience in this part of the area; in fact, he has some interest in the Lea Unit Area, and it was felt that he would be the logical one to use as an operator as a partner with us in this venture.

Q Does the Unit Agreement provide for the drilling of the initial test well which you've referred to?



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A Yes, sir.

Q And to the same depth that you've referred to?

A Yes, sir.

Q When is the well to be commenced?

A Within six months of the approval of the unit.

Q Does the Unit Agreement cover all formations, or is it limited to certain formations?

A It covers all formations.

Q Does the Unit Agreement contain the usual provisions with respect to the expansion and contraction of unit agreements?

A Yes, it does.

Q Do you know whether or not all of the lease owners, as shown on Exhibit A, within the proposed unit area have been contacted with respect to joining the unit?

A Yes, sir, they have been contacted.

Q Do you know whether or not they have indicated their willingness to join in the unit?

A Yes, they have.

Q What percentage of the acreage commitment of the entire proposed area do you expect to get?

A 100 percent.

Q They have all indicated a willingness to join in the unit?

A Yes, sir.

Q In the event the unit is approved and the well is



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drilled and you get a discovery in paying quantities, in your opinion would the Unit Agreement be in the interest of conservation and the prevention of waste?

A Yes, sir.

Q In that case, and you should get a discovery, do you believe that it would be in the interest of obtaining the greatest ultimate recovery of oil and gas--

A Yes, sir.

Q -- from the area?

A Yes, sir.

MR. HINKLE: I believe that's all.

MR. UTZ: Do you wish to offer your exhibits?

MR. HINKLE: Yes, I want to offer Exhibits A, B, and C, please.

MR. UTZ: Without objection, Exhibits A, B, and C will be made a part of the record of this case.

(Whereupon, Applicant's Exhibits Nos. A, B, and C admitted in evidence.)

MR. UTZ: Are there questions of the witness? The witness may be excused.

(Witness excused.)

MR. UTZ: You just had one witness? The case will be taken under advisement.

* * * * *



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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 was reported by me in stenotype, and that the same is a true and correct record of the said proceedings to the best of my knowledge, skill, and ability.

WITNESS my Hand and Seal this 24th day of November, 1962, in the City of Albuquerque, County of Bernalillo, State of New Mexico.

Ada Dearnley

NOTARY PUBLIC

My Commission Expires:
June 19, 1963.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 2627, heard by me on *Oct. 24*, 1962.
Shirley D. Meier, Examiner
New Mexico Oil Conservation Commission



DIRECT EXAMINATION

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A Shreveport, Louisiana.

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Q After your graduation, have you pursued your profession since your graduation?

A Yes, sir.

Q Have you been employed by any other companies other than Union Producing Company?

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A Yes, sir.

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Q Does the Unit Agreement cover all formations, or is it limited to certain formations?

A It covers all formations.

Q Does the Unit Agreement contain the usual provisions with respect to the expansion and contraction of unit agreements?

A Yes, it does.

Q Do you know whether or not all of the lease owners, as shown on Exhibit A, within the proposed unit area have been contacted with respect to joining the unit?

A Yes, sir, they have been contacted.

Q Do you know whether or not they have indicated their willingness to join in the unit?

A Yes, they have.

Q What percentage of the acreage commitment of the entire proposed area do you expect to get?

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A Yes, sir.

Q In that case, and you should get a discovery, do you believe that it would be in the interest of obtaining the greatest ultimate recovery of oil and gas--

A Yes, sir.

Q -- from the area?

A Yes, sir.

MR. HINKLE: I believe that's all.

MR. UTZ: Do you wish to offer your exhibits?

MR. HINKLE: Yes, I want to offer Exhibits A, B, and C, please.

MR. UTZ: Without objection, Exhibits A, B, and C will be made a part of the record of this case.

(Whereupon, Applicant's Exhibits Nos. A, B, and C admitted in evidence.)

MR. UTZ: Are there questions of the witness? The witness may be excused.

(Witness excused.)

MR. UTZ: You just had one witness? The case will be taken under advisement.

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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 was reported by me in stenotype, and that the same is a true and correct record of the said proceedings to the best of my knowledge, skill, and ability.

WITNESS my Hand and Seal this 24th day of November, 1962, in the City of Albuquerque, County of Bernalillo, State of New Mexico.

Ada Dearnley
NOTARY PUBLIC

My Commission Expires:
June 19, 1963.

I do hereby certify that the foregoing is a complete record of the proceedings in the Bunker hearing of Case No. 76-72, heard by me on Oct. 24, 1962.

Thos. A. [Signature]
Examiner
New Mexico Oil Conservation Commission

