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EXAMINER HEARING

Application of M. F. Abraham for a unit agree-)
ment, McKinley County, New Mexico. Applicant,)
in the above-styled cause, seeks approval of)
the Star Lake Unit Area comprising 22,358 acres)
of Federal, State, Indian and Fee lands in)
Townships 18 and 19 North, Ranges 5 and 6 West,)
McKinley County, New Mexico.)

CASE 2819

BEFORE: Daniel S. Nutter, Examiner

TRANSCRIPT OF HEARING

MR. NUTTER: We will call Case 2819.

MR. DURRETT: Application of M. F. Abraham for a unit agreement, McKinley County, New Mexico.

MR. MORRIS: If the Examiner please, I am Richard Morris of Seth, Montgomery, Federici, and Andrews, Santa Fe, New Mexico, appearing on behalf of Shell Oil Company, who will put on the case in support of the application of M. F. Abraham in Case 2819.

MR. NUTTER: Very good.

MR. MORRIS: We will have two witnesses and I ask that they be sworn at this time.

(Witnesses sworn.)

MR. MORRIS: May we have a moment to mark our exhibits?

(Whereupon, Applicant's Exhibits Nos. 1 through 4 marked for identification.)



MR. MORRIS: May we go back on the record?

MR. NUTTER: Yes.

JAMES E. MATTHEWS

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

DIRECT EXAMINATION

BY MR. MORRIS:

Q Please state your name and position.

A James E. Matthews, District Land Agent, Farmington, District, Shell Oil Company, Farmington, New Mexico.

Q Have you previously testified before the Oil Conservation Commission or one of its Examiners?

A No, sir.

Q Would you state briefly what your experience has been in oil and gas land work?

A Been in the oil and gas land work for over sixteen years; spent approximately seven years as a title searcher; two years as a title examiner; approximately five years as a lease man; and approximately eighteen months as the District Land Agent.

Q Has all that time been with Shell Oil Company?

A Yes.

Q How long have you been in the Farmington area, Mr. Matthews?

A Approximately eighteen months.

Q During that time, have you worked with the Star Lake



unit agreement and unit area, which is the subject of this hearing?

A Yes, sir.

Q Generally, Mr. Matthews, what is it that the Shell Oil Company and M. F. Abraham seek by this application?

A Well, we want to seek approval of this exploration unit, the Star Lake unit or Star Lake Unit Area in order to drill an exploratory well. Do you want the depth?

Q If you would refer to what has been marked as Exhibit No. 1 and state to the Examiner what that exhibit shows.

A That exhibit shows the total unit area, comprising 23,959.58 acres.

Q Let me interrupt you right there. Is that the same acreage as was contained in the original application and as contained in the notice given in this case?

A No, sir, it isn't. We made a mistake in our unit outline and we added approximately sixteen, well, 1600 acres.

Q But the information with respect to total acreage as shown on Exhibit No. 1 is correct?

A Yes, sir.

Q What else does Exhibit No. 1 show?

MR. NUTTER: Mr. Morris, the notice of this case depicted that the unit would comprise 22,358 acres, following giving the notice to the newspaper, we received the correction. We understand now that there's 23,959.58 acres in the unit?



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MR. MORRIS: That is correct.

MR. NUTTER: Does the unit consist of acreage in the identical townships for which notice was given?

MR. MORRIS: Yes, it does.

Q (By Mr. Morris) Mr. Matthews, would you state for the record which townships and ranges are involved as shown on Exhibit No. 1?

A There will be -- the unit area will encompass land in Townships 18, 19 North, Ranges 5 and 6 West, New Mexico Principal Meridian.

Q That's in McKinley County?

A McKinley County.

Q What else does Exhibit No. 1 show?

A It will show the different types of acreage. We had one parcel in question at the time the map was made, so the total acreage shown on the exhibit with regard to the Federal land and Indian land will have to be revised.

Q Will you state the correct figures, please?

A Yes, sir. The Federal acreage in the unit is 16,278.08 acres. The total Indian acreage is 1,735.92 acres. State of New Mexico acreage, 1280, and patented land, 4,656.58 acres.

Q We're talking about Indian land here, is this Tribal Indian land?

A This is allotted Indian land.

Q Allotted Indian land only?



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A Yes.

Q Does your Exhibit No. 1 also show the working ownership on a tract-by-tract basis?

A Yes, sir, it does.

Q Who are the working interest owners within the unit area?

A We have M. F. Abraham; a Mr. Koury in Albuquerque; Shell Oil Company; Pan American Petroleum Company; Skelly Oil Company; Sunray DX, I guess, I am sorry, I don't know the correct name; Mabel Miller; Isabel Shanahan; V. S. Rutter; and a Mr. McElvane, Jr., I don't know his first name; and British American Oil Company.

Q Would it be a fair statement to say that Shell Oil Company and M. F. Abraham own by far a majority of the working interest within this unit?

A Yes, sir.

Q What is their percentage of working interest within the unit?

A Actually I didn't figure Shell's and Abraham, but the committed people, the people who have committed themselves to the unit --

Q All right, if you would like to give it that way, give us the amount of the working interest ownership within the unit that has committed itself to the unit agreement.

A We have 83.3 percent working interest owners committed.



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Q Have any working interest owners refused to join the unit?

A No, sir.

Q From looking at Exhibit No. 1, I notice that some of the acreage is shown as open acreage. Would you care to comment on that?

A Yes, sir. There's 120 acres of State of New Mexico land that is open. We had completed our leasing program prior, this land was under lease and when we were doing our leasing, I should say, and there's approximately 935.92 acres of open Indian allotted lands which we've requested a land sale on; but this land was under lease at the time we put our area together, but it has since been surrendered.

Q The amount of open acreage is not substantial, considering the unit as a whole?

A No, sir, it would be less than ten percent.

Q In addition to the working interest owners that you gave by name, there are other working interest owners owning relatively small interests within the unit that you perhaps did not name, is that correct?

A I omitted the name of a Mr. Saylor and Northwest Production Corporation.

Q Also British American owns some interest?

A Well, I listed British American.

MR. NUTTER: Did you mention the Santa Fe Railroad?



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A No, sir, I didn't. The Santa Fe Railroad would have some working interest here.

Q In any event, the Exhibit 1 will speak for itself with regard to the working interest ownership?

A Yes, sir.

Q Now, referring to what has been marked as Exhibit No. 2, Mr. Matthews, what is that instrument?

A That is our proposed, or that is our draft of the proposed unit agreement.

Q Would you comment on the form of that unit agreement, please?

A This is the standard form of the unit agreement required by the Federal lands with provisions required for State lands and Indian lands, Indian allotted lands.

Q That's the Federal form that has been adopted for this particular use for State and Indian lands?

A Right.

Q Are those adaptations indicated in that particular way on this Exhibit No. 2?

A Right. Any departure from the standard Federal form has been underlined in red.

Q Has this unit agreement been submitted to the State of New Mexico for its approval?

A Yes, sir, it has.

Q Were any changes suggested at the time you submitted that?



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A Yes, the State Land Commissioner's Office requested several modifications which have been incorporated in this draft.

Q These changes have been incorporated, but has the unit agreement as it now stands been re-submitted to the State Land Office?

A No, sir, it has not.

Q You intend to do that after obtaining Commission approval, if they see fit to do so?

A Yes.

Q Has the agreement been submitted to the U.S.G.S.?

A Yes, it has.

Q With respect both to Federal lands and to allotted Indian lands?

A Yes, sir.

Q What was the indication from the U.S.G.S. concerning the agreement?

A They approved it with regard to the Federal lands and sent it to the Area Director for his approval of the wording with regard to the allotted lands. If I may, the Area Director or the Branch Realty in Gallup, the Area Director's office has indicated that he approved the language with regard to Indian lands and forwarded it back to Roswell.

Q Is this the Area Director for the Bureau of Indian Affairs in Gallup?

A Yes.



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Q And they have indicated that approval will be given?

A They have indicated their approval, yes.

Q Referring to the unit agreement itself, what formations are unitized pursuant to the agreement?

A All the formations.

Q Who is designated as unit operator in the agreement?

A M. F. Abraham.

Q What is the obligation of the unit operator insofar as the drilling of a well is concerned in this area?

A He is to drill a well to the Cambrian formation or to paying production in any of the unitized substance, or 9100 feet.

Q And that is contained in Section 9 of that unit agreement, that drilling obligation?

A Yes.

Q Has a location been made for the initial well in the unit area?

A You mean staked?

Q No, has a location been determined for the initial well?

A Yes, sir, it would fall in Lot 4 of Section 5, Township 18 North, Range 5 West.

MR. NUTTER: What was that location, Lot 4 of Section 5?

A Yes, sir.

MR. NUTTER: Go ahead.

Q (By Mr. Morris) Assuming, hopefully, approval of the unit agreement, Mr. Matthews, when will that well be commenced?



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A We expect to be drilling it on or before July 31st.

Q Is there some particular reason why you would pick the day of July 31, 1963?

A Yes, sir, we have -- well, the biggest majority of the Federal leases are going to expire on this date, and we would like to have the well drilling in order to hold these leases.

Q Is there any urgency for approval of the unit at any time prior to the date of July 31st?

A Yes, sir. We want the unit, if possible, to be approved by June 30th of this year.

Q Could you state some reason for your hope in that regard?

A Well, it's our company's opinion that we have to have the unit approved at least thirty days before the expiration of the leases.

Q In order that some extensions might be obtained, if necessary?

A Yes, sir.

Q Do you have anything further you wish to add to your testimony?

A I might say that with regard to the discrepancies in the map of the Federal acreage and the Indian acreage, the 480-acre parcel shown in Section 13 that is listed as "Jurisdiction of Bureau of Indian Affairs", we were not able to determine under whose jurisdiction this land would fall; naturally, we set up our exhibit as Indian lands, but investigations have revealed that



this be public domain, and this map will be corrected in this respect.

Q And that would accordingly change the number of acres as shown on the legend on Exhibit No. 1?

A Yes, with regard to the Federal and the Indian, both.

Q Mr. Matthews, have you had under study, and are you completely familiar with the information shown on Exhibits 1 and 2 that have been referred to?

A Yes, sir.

MR. MORRIS: At this time we offer Exhibits 1 and 2 into evidence.

MR. NUTTER: Exhibits 1 and 2 will be admitted in evidence.

(Whereupon, Applicant's Exhibits
Nos. 1 & 2 received in evidence.)

Q (By Mr. Morris) Did you have something further?

A Yes, I might add that of the Santa Fe Railroad land here where they have not indicated that they would join the unit, they tell us that they have never joined a unit so they don't know whether they would or not; but they would certainly cooperate with us in any way.

Q Is there a possibility that a lease might be obtained upon some of those lands?

A Yes, they have indicated they would either join the unit or grant us a lease on their parcels, and we could commit them to the unit.



Q And all working interest owners who have not affirmatively indicated their acceptance of the unit will be contacted and given the opportunity to do so?

A Yes, sir.

MR. MORRIS: That's all we have from this witness. Our other witness, Mr. Hoskins, will testify as to geological data.

CROSS EXAMINATION

BY MR. NUTTER:

Q Mr. Matthews, what percent of the Federal lands are committed as far as working interest is concerned?

A I'm sorry, I took it as a total and I didn't segregate it. I can get you those figures.

Q We would appreciate receiving the percent of each of the types of ownership which has been committed.

A Right.

Q Do you know what percent of the royalty ownership, other than that represented by the United States Geological Survey and the Bureau of Indian Affairs and the State Land Commissioners, have indicated they would go along with this?

A The basic royalty owners?

Q Yes.

A Yes, we haven't contacted -- we have only one other patented parcel with the exception of the Santa Fe, and we have not contacted him.

Q And the Santa Fe is the working owner as well as the



Q Have you heard the testimony of Mr. Matthews immediately preceding you in this case?

A Yes, sir.

Q What is the principal objective of the wells to be drilled in the Star Lake Unit Area?

A The principal objective in the Star Lake Area is the Pennsylvanian Carbonate Section, which we expect to be approximately 1200 feet thick in this area.

Q At what depths do you expect to find that formation?

A We expect to encounter the top of the Pennsylvanian at approximately 7800 feet.

Q And being 1200 feet thick, the bottom would be somewhere around 9,000 feet?

A That's correct.

Q Mr. Matthews previously has testified as to what the obligations of the unit operator are. As you understand the unit agreement, could you amplify on your understanding of the initial well to be drilled and state what depth it will go and some of the details about it?

A The initial unit obligation well, which is to be located in the Northwest Quarter of the Northwest Quarter of Section 5 of 18 North, Range 5 West, N.M.P.M., McKinley County, New Mexico, is intended to drill to 9100 feet for Cambrian, or to completion in unitized substances. I believe this 9100-foot depth or to the Cambrian, whichever first occurs, is adequate to test this unit as



outlined.

Q To your knowledge, Mr. Hoskins, is this the first deep test that has ever been undertaken in this area?

A In this local area, there are no deep tests. The two nearest significant deep tests that test the Pennsylvanian, the principal objective, are the Magnolia Hutchison No. 1 Well, which is located in Section 14, 19 North, Range 3 West, which is approximately 15 miles to the east-northeast; and Shell Wright 4126 which is located -- did I say 15 miles northeast? It's approximately twelve, and the Shell Wright Well is approximately 15 miles to the east-southeast in Section 26, Township 17 North, Range 3 West, N.M.P.M. These are basement tests which have penetrated the Pennsylvanian section.

Q Have these wells that you just referred to afforded to you any control in determining the geology of this unit area?

A Yes. We have continuous profile seismic shooting reflections, seismic control which extends from these wells through the Star Lake area.

Q Now referring to what has been marked as Exhibit No. 3 in this case, would you explain what that exhibit shows?

A This map is labeled a structure contour on the base of the Pennsylvanian. I believe two copies were submitted with the application for the unit. It is on a scale of one inch equals 8,000 feet, and shows the structure as defined by this continuous profile reflection seismic shooting on the base of the Pennsylvanian,



which is the principal objective in the area.

The seismic net in the general Star Lake area is approximately two miles. The reflection can be reliably correlated with this type net, and we believe the contours as shown on the map reliably depict the structural configuration of the base of the objective Pennsylvanian section.

Q Would you briefly describe the geology of the unit area?

A The Star Lake Unit Area is on the general south flank of the San Juan Basin. The regional dip is to the north, slightly northeast, and superimposed on this dip is a broad terrace which we have attempted to encompass within the Star Lake Unit.

Q Are your observations with respect to the geology of this area also set out in what has been marked Exhibit No. 4, previously submitted to the Commission and designated "Geological Report"?

A Yes, I wrote this report. It's a general summary of the stratigraphic section which we expect to penetrate, and a brief description of the structure, the depth of the well.

Q From the study that you have made in this area and the control available to you, Mr. Hoskins, do you have an opinion as to whether the unit area covers the geologic structure of your principal objective?

A Yes, I think it does. As a matter of fact, I drew the outline.

Q Did you either prepare, or are you completely familiar



with the information contained on Exhibits 3 and 4 to which we have referred?

A Yes, sir.

MR. MORRIS: At this time, Mr. Examiner, we offer Shell's Exhibits 3 and 4 in this case.

MR. NUTTER: Exhibits 3 and 4 will be admitted in evidence.

(Whereupon, Applicant's Exhibits Nos. 3 & 4 received in evidence.)

Q (By Mr. Morris) Do you have anything further you care to add to your testimony, Mr. Hoskins?

A No, sir.

MR. MORRIS: That concludes our case.

CROSS EXAMINATION

BY MR. NUTTER:

Q Mr. Hoskins, in your opinion here you have a broad terrace which more or less is encompassed by the outline of the unit area?

A That is correct.

Q You have a certain amount of closure on that terrace?

A Yes, there is a closure within the terrace.

Q The test well will be drilled --

A On the apex of that closure.

Q -- on the approximate peak of that closure?

A Yes.



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

He may be excused.

(Witness excused.)

MR. NUTTER: Anything further, Mr. Morris?

MR. MORRIS: That's all I have.

MR. NUTTER: Does anyone have anything further they wish to offer in Case 2819? 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 the said proceedings to the best of my knowledge, skill, and ability.

WITNESS my Hand and Seal this 3rd day of June, 1963.

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. 2819, heard by me on 5/22, 1963.

[Signature], Examiner
New Mexico Oil Conservation Commission

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