BEFORE THE OIL CONSERVATION COMMISSION Santa Fe, New Mexico February 27, 1962

### EXAMINER HEARING

IN THE MATTER OF:

Application of Shell Oil Company for approval of the Emerald Unit Agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Emerald Unit Agreement embracing 1200 acres, more or less, of State lands in Sections 14, 15, 22 and 23, Township 16 South, Range 32 East, Lea County, New Mexico.

BEFORE:

ELVIS UTZ, Examiner

### TRANSCRIPT OF HEARING

MR. UTZ: Case 2498.

MR. MORRIS: Application of Shell Oil Company for approval of the Emerald Unit Agreement, Lea County, New Mexico.

MR. SETH: We have two witnesses.

MR. UTZ: Are there any other appearances in this case? You may proceed.

MR. SETH: Oliver Seth and William Federici for the Applicant.

O. V. LAWRENCE,

called as a witness herein, having been first duly sworn on oath,



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ALBUQUERQUE, N. M. PHONE 243.6691 was examined and testified as follows:

### DIRECT EXAMINATION

### BY MR. SETH:

- Q Would you state your name please, Mr. Lawrence?
- A O. V. Lawrence.
- Q By whom are you employed and in what capacity?
- A The Shell Oil Company, Roswell, Division Land Manager.
- Q Are you familiar with the Application in this case?
- A Yes, sir, I am.
- Q Are you generally familiar with the Emerald Unit Agreement?
  - A Yes, sir.
- Q Would you tell the Examiner please the general description of the area covered and the type of acreage?

A Our proposed Emerald Unit covers 1200 acres of which all of the land is state land, State of New Mexico land. The land covered includes all of Sections 23 and portions of Sections 14, 15 and 22, all in Township 16 South, Range 32 East, Lea County, New Mexico.

Q Approximately how many working interest owners are there in the Unit area?

A There are six working interest owners in this Unit and all have agreed to join the Unit Agreement subject of course to approval of form of the Unit Agreement and the Unit Operating Agreement.



Q And they have not actually executed the Unit Agreement at this point, have they?

A No, sir, they haven't. The agreement has been sent to each company for execution.

- Q You have testified that you don't anticipate any problem in this?
  - A No, sir, I don't.
- Q What about the form, is that a form that has been approved and considered by the Land Office and by the Commission?

A Yes, sir, it is a form that has previously been considered. It is the suggested form of unit agreement by the State Land Office and we have not changed the form in any respect.

- Q Then, we can say that the Land Office has tentatively approved this form?
  - A Yes, sir.
- Q What about the contraction, expansion and participation provisions?

Ment. It is a fixed participation type of instrument, therefore, the participating area is the unit area. In so many words there isn't a contraction provision, however, if the operator does not develop the unit area the agreement may be terminated by the Commission of Public Lands as to all state lands not developed or within a proration or spacing unit. This act of course would be a contraction provision.



Q What	formations	are	unitized?

- A All formations are unitized.
- Q And tell us about the commitment for the first well?
- A Within sixty days after the effective date of the Unit Agreement, a 13,800 Siluro Devonian test is to be drilled on the unit area commenced.
- Q And will the well location be testified to by the geologist?

MR. PORTER: What was that figure again?

A 13,800.

MR. PORTER: Thank you.

- Q (By Mr. Seth) In your opinion, does this Agreement provide that the state will receive its fair share of the recoverable oil?
  - A Yes, sir.
- Q And is it generally in the best interests of the state, in your opinion?
  - A Yes, sir, it is.
- Q Who is to be the operator of the Unit if it is approved?
  - A Shell Oil Company.
- Q Is there anything further on the Agreement that you would like to mention?
- A No, sir, I believe I have covered the form of the Unit Agreement.



That is all the direct. MR. SETH:

MR. UTZ: Are there any questions?

MR. MORRIS: Mr. Seth, would you tell me to what effect your other witness will testify?

MR. SETH: He is a geological witness. Mr. Robinson will testify as to the division of the Unit Agreement.

### CROSS-EXAMINATION

### BY MR. MORRIS:

Mr. Lawrence, is there a provision in the Unit Agree-Q ment requiring Shell Oil Company to submit all reports as required by the Commission and by the Commissioner of Public Lands?

Yes, sir. A

There will be no individual reporting then by individual operators or leaseholders within the unit area?

I believe that is correct, sir. A

> That is all I have of this witness. MR. MORRIS:

MR. UTZ: Are there any other questions? The witness may be excused.

(Witness excused)

### M. L. ROBINSON,

called as a witness herein, having been first duly sworn on oath, was examined and testified as follows:

### DIRECT EXAMINATION

### BY MR. SETH:

Mr. Robinson, will you tell us your name and your



position with the company and your familiarity with the Application?

A My name is M. L. Robinson, I am Division Exploration Manager for Shell Oil Company in Roswell, New Mexico.

- Q Tell us a little bit about your educational qualifications and practical experience?
- A Well, I have got an AB Degree from Princeton University acquired in the year 1950 and I have been employed by Shell Oil Company for approximately eleven years in the exploration aspect of the oil and gas business.
- Q How long have you been concerned with the New Mexico activity?
  - A About five years.
- Q Are uou generally familiar with the geology in the area covered by the proposed application?
  - A Yes, sir.
- Q Have you studied reports and made surveys yourself in this area?
- A Yes, sir, I have directly supervised all work that went into this project.
  - Q Have you studied the seismic work too?
  - A Yes, sir.

MR. SETH: May he testify as a geologist?

MR. UTZ: Yes, sir.

Q (By Mr. Seth) Tell us just briefly a little geological



background on this area, if you would, Mr. Robinson?

The Emerald Unit covers an elongated anticlinal struc-A ture located in the prolific western part of Lea County, some three miles northwest of Maljamar and one mile south of the Anderson Ranch Field and the Anderson Ranch Field is the nearest production in the proposed unit. However, reflection seismic work obtained on approximately a one million grid show an area of local closure on a north-south trending horizontal block which is bounded on both east and west by large faults. This closure appears similar and structurally as high as the closure productivity in the Anderson Ranch Field to the north but is separated by the field. It is by a syncline. We plan to drill a 13,800 foot wildcat to evaluate the Pennsylvania-Silurian carbonate which is producted in the Anderson. In so doing we penetrated the Wolfcamp which are a limestone productive in the nearby Kemnitz field. The first well is located northeast of the northwest of Section 23, Township 16, Range 32 East which is right smack in the middle of the proposed unit.

Q How about the relation of the unit boundaries to the seismic picture that you have, do they fairly include the closures or how would you describe it?

A Yes, sir, the increase of the structure covers the South half of Section 14 and the bulk of Section 23 and I believe that Unit area is neither excessively large or excessively small and fairly includes the indicated structure and potentially



productive area.

- If the unit agreement is approved it will give the Q, operator control of the indicated structure as near as we can tell now, is that right?
  - Yes, sir, that's right. Α
- Do you believe that there is reasonable expectation of production, generally, within the unit area?
  - Yes, sir, I do. There is a good chance.
- Now, will unit operation of this indicated structure lead to the best utilization of reservoir energy and not in the interest and be in the interest of conservation?
  - Yes, sir, I think so. Α
  - Did you mention your zones of completion? Q
- I don't think I did specifically but we of course are Α optimistic that we will get production in of course three zones, Pennsylvania and Wolfcamp and Siluro. Actually what will come to pass, of course, that is where the risk comes in.
- Are there any unusual geological conditions that you expect to encounter in this initial well or in the area?
- No, sir, this ought to be just pretty much a routine A well in a productive area.

MR. SETH: That is all of the direct, Mr. Utz.

MR. UTZ: Are there any questions of the witness?

MR. MORRIS: Yes, sir.



### CROSS-EXAMINATION

### BY MR. MORRIS:

- Q Mr. Robinson, do you have any sort of a structure map to offer to the Commission for its consideration?
  - A Well, I really don't. We submitted one--

MR. MORRIS: Do you have any?

MR. SETH: Do you have any indication on that?

A Yes, sir.

MR. SETH: Maybe we can introduce this.

MR. MORRIS: We would like to have another copy or two of the Unit Agreement.

MR. SETH: We would like to offer as an Exhibit a copy of the Unit Agreement together with the two Exhibits attached to it.

(Whereupon Shell's Exhibit A marked for identification)

### RE-DIRECT EXAMINATION

### BY MR. SETH:

Q Now, refer to Exhibit A, Mr. Robinson, and tell us what that shows.

A Well, that red line shows what we feel to be the increase of the structure and if you will notice it is sort of bounded on the north end and the reason for that of course is that this unit is exactly up against the Anderson Ranch Unit and the syncline which separates the two. The productive area is



about up there where the Township 16 South, Range 32 East is printed on the page.

### CROSS-EXAMINATION

### BY MR. UTZ:

Your anticipated productive area is within the bounds of your red contour?

No, we rather feel it will be larger than the Mississippian structure. As you gentlemen probably know, if you get into the Pennsylvanian production or permian production very frequently it goes beyond the bounds of the indicated closure.

The northeast part of the unit productive area could easily extend outside the unit, could it not?

I don't think so, these two lines actually drawn on these large faults and large faults seem to control even permian Pennsylvanian production. I wouldn't expect it to go probably too much east or west. I would expect it to extend southward.

MR. UTZ: Are there any other questions?

### CROSS-EXAMINATION

### BY MR. MORRIS:

Mr. Robinson, what again does the red line depict, is this a contour on top of the Pennsylvanian?

No, sir, it is a grid with the crest of the structure at the Mississippian level.

Do you have any other data showing the location of the faults in the area that would support your determination of this



### particular structure?

A Yes, sir, there are two dry holes that place it as far as sub-surface goes.

- Q Where are those two dry holes located?
- A Well, one of the dry holes is down here in Section 24 which is kind of off your paper here.

MR. SETH: Could you mark it on Exhibit 1 for Mr. Morris?

- A (Witness complies)
- Q (By Mr. Morris) Could you give just an approximate location on there, please?

MR. SETH: Put the description of the well or the name of the well on that.

A Well, this one kind of falls off the paper, I'm sorry, San Andres Well. It is about over here (indicating). This Continental 1,215 Well up here and they both ran way low and we think pretty well establish with our seismic the binding faults.

- Q Both of which you have marked on Exhibit A?
- A Yes, sir, that one sort of is out of place because the paper isn't big enough.

### CROSS-EXAMINATION

### BY MR. PORTER:

- Q Was that Samedan Well on the northwest edge of the Kemnitz fork?
  - A Probably.



### RE-CROSS EXAMINATION

### BY MR. MORRIS:

Q Mr. Robinson, do you have any seismic information that you can furnish to the Commission for its consideration in this matter which I might add could be withdrawn if Shell feels that that would be necessary?

MR. SETH: Well, the reason we hesitate, we feel it is still confidential. We would submit it for the consideration of the Commission but we would not like to offer it as an exhibit.

MR. MORRIS: We would like to have it on that basis.

MR. SETH: There is no objection to having it on that basis.

A Do you want to look at it right now?

MR. MORRIS: If you could furnish it as an Exhibit in the case and identify it, you would not need to discuss it, Mr. Robinson, and we could return it to you upon disposition in this matter.

MR. SETH: We would not like to offer it as an exhibit because I think it becomes a public record. We certainly would give it to the Commission to consider among its other records in deliberating on this case.

MR. MORRIS: I think that would be agreeable. This will be returned to you, Mr. Robinson. I have no further questions.

MR. UTZ: Are there any other questions of the witness?



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The witness may be excused.

(Witness excused)

Are there any other statements in this case? MR. UTZ: The case will be taken under advisement.



## DEARNLEY-MEIER REPORTING SERVICE, Inc.

FARMINGTON, N. M. PHONE 325-1182

### ALBUQUERQUE, N. M. PHONE 243:6691

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### ALBUQUEROUE, N. M.

### CERTIFICATE PAGE

STATE OF NEW MEXICO )

SS COUNTY OF BERNALILLO )

I, KATHERINE PETERSON, 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.

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New Mexico Cil Conservation Commission

