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1 MR. STAMETS: Case 5115.

2 MR. CARR: Case 5115: Application of Mobil Oil

3 Corporation for a unit agreement, Eddy County, New Mexico.

4 MR. RICHARDSON: Randolph Richardson, Roswell,

5 appearing on behalf of the applicant. We have one witness.

6 MR. STAMETS: Are there any other appearances?

7 (No response)

8 MR. RICHARDSON: The Commission has already been

9 furnished with a copy of our unit agreement, and I would

10 like to hand you geological reports which have been

11 marked Exhibits One through Six. We would like to

12 request that the reports be kept confidential in your

13 file.

14 MR. STAMETS: We will do our best on that. It may

15 be that you would wish to withdraw this exhibit at the

16 end of the hearing and take it with you. I think we can

17 do that.

18 MR. RICHARDSON: We would like that.

19 * * * *

20 EARL CHISHOLM,

21 was called as a witness, and after being duly sworn according

22 to law, testified as follows:

23 DIRECT EXAMINATION

24 BY MR. RICHARDSON:

25 Q Mr. Chisholm, would you please state your name and

1 occupation for the record?

2 A Earl Chisholm, geologist for Mobil Corporation.

3 Q Would you state your education and professional background
4 which would enable you to testify as an expert witness
5 in this case?

6 A I have a bachelor of science degree in petroleum geology,
7 and I have been following that profession for twenty-two
8 years.

9 Q You are employed by Mobil as a geologist?

10 A That's correct.

11 Q Are you familiar with the Corral Draw Unit Area and the
12 matters contained in the application to the Commission
13 for the approval of that unit agreement?

14 A Yes.

15 MR. RICHARDSON: Are the witness's qualifications
16 acceptable?

17 MR. STAMETS: They are.

18 Q (By Mr. Richardson) Is this the form of unit agreement
19 as prescribed by Federal regulations, and has it been
20 recently approved by the Commissioner of Public Lands?

21 A Yes.

22 Q Has the unit area been designated by the United States
23 Geological Survey as an area logically suitable for
24 development under this plan for development?

25 A Yes.

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1 Q Would you please tell the Commission the total number
2 of acres within the unit area and the percentage of
3 State and Federal lands?

4 A The total number of acreage is 19,198.88 acres. The
5 Federal land consists of 14,080, which is 73.34 percent
6 of the unit area. State land of the State of New Mexico
7 consists of 5,118.88, which is 26.66 percent of the unit
8 area.

9 Q Will you please tell the Commission the township and
10 ranges in which the unit is located and the approximate
11 location with reference to the nearest town?

12 A It is in Townships 25 and 26 South, Range 29 East,
13 approximately 24 miles southeast of Carlsbad.

14 Q Mr. Chisholm, would you please refer to the geological
15 reports which have been introduced as Exhibits One
16 through Six?

17 A Yes.

18 Q Was that report prepared by you or by others directly
19 under your control or supervision?

20 A It was prepared by me.

21 Q Would you please review the report going through the
22 series of Exhibits One through Six, and referring to
23 the maps by names, and indicating the significance of the
24 maps and cross sections?

25 A Exhibit One is the written report--

1 Q Please refer to Exhibit Number Two, which is the Morrow
2 structure map, and which is on a one to 8,000 base.

3 A The significance of this map is that it shows a 200 plus
4 foot inclinal closure on the Morrow-- the top of the
5 Morrow structure. This closure is based on geophysical
6 work which showed an incline about two miles wide and
7 about ten miles long. The surface data indicated that
8 there was the possibility of a rather strong, large
9 anticline in this area.

10 There are other structural fields, especially the
11 Carlsbad South Field, which extends up into the Burton
12 Flats area, this is to the northwest. To the east of
13 the unit area, there are several other fields including
14 the Paduca Field, which likewise is a structurally
15 controlled field.

16 We will show that this prospect is stratigraphic
17 as well as a structural possibility for control of the
18 Morrow.

19 We have an east-west cross section referred to as
20 A A Prime, which transgresses the area from east to west.
21 This is a structurally controlled section.

22 The Morrow formation is shown in yellow. There is
23 another major objective in this zone, which is the Atoka,
24 which is shown in blue. We will refer back to the cross
25 section on the Atoka map.

1 Of specific importance in the outlying unit is the
2 study that was made on the porous Morrow sandstones.
3 Please note on the map that the unit outline encompasses
4 roughly the 60-foot isopack of the Morrow sandstone.
5 This was one of the basic considerations for the outline
6 of the unit.

7 The next map of significance is the Atoka carbonate
8 isopack which is an isopack map of the carbonates within
9 the Atoka section.

10 The sandstone field to the northeast of the prospect
11 produces out of this formation, and please note that there
12 are rather thick bands of carbonates existing in that
13 area. This map (indicating) here shows it trending down
14 through the center of the Corral Draw Unit Area.

15 A rather interesting well was drilled seven miles
16 to the north by Skelley Oil Company, and this helped in
17 confirming this map.

18 Note here on the cross section that there is
19 postulated Atoka build-up on the apex of this structure.
20 Stratigraphic studies have shown that the permeability
21 is better developed in this structure.

22 The last geological map is one of the Delaware
23 sand, which we have now changed to one to 4,000 base,
24 but the unit is still outlined. Only the original east
25 dip is shown on this. The Delaware is considered a

1 secondary objective here.

2 Q Will you please tell the Commission your conclusions
3 as to the formations likely to be encountered and the
4 depth of the initial test well in the proposed location?

5 A The formations that will have potential-- that will be
6 encountered will be the Delaware sand; the Wolfcamp
7 formation, which may be limestones or carbonates; the
8 Atoka limestone, which we consider one of our major
9 objectives; and lastly, the Morrow sandstone, which is
10 the deepest possibility we will consider here.

11 Q And you propose to locate the initial test well in what
12 section of the unit area?

13 A We propose it in the southwest corner of Section 14,
14 which is indicated on the map by the red dot.

15 Q And that's in Township 25 South, Range 29 East?

16 A That's correct. And the depth of this well is 14,000
17 feet. The objective will be to test all the Pennsylvanian
18 bed in the Mississippian-Chester shale. The maximum
19 depth will be 14,000 feet.

20 Q Have the other working interest owners within the unit
21 area been contacted?

22 A Yes.

23 Q In your opinion, what percentage of the working interests
24 will be committed?

25 A From about eighty-five to ninety percent.

1 Q And what percentage of the royalty will be committed?

2 A About ninety to one hundred percent.

3 Q Will the operation of this area under the proposed unit
4 plan be in the interest of conservation and the prevention
5 of waste?

6 A Yes.

7 Q Will the different institutions of the state receive
8 their fair share of production if established?

9 A Yes.

10 Q In the event of production, will the correlative rights
11 of all parties of the unit agreement be protected?

12 A Yes.

13 MR. RICHARDSON: I would like to introduce the
14 report in evidence. Do you have any questions of the
15 witness?

16 MR. STAMETS: I have one question, and then we will
17 get back to the exhibit. Did you indicate that you had
18 received preliminary approval from the State Land Office
19 for this unit?

20 MR. RICHARDSON: No, we have not.

21 THE WITNESS: I don't know.

22 MR. RICHARDSON: We have not even filed the
23 application actually.

24 MR. STAMETS: But you have received preliminary
25 approval of the United States Geological Survey?

1 MR. RICHARDSON: Yes. The application to the
2 Commissioner of Lands will go in this morning.

3 MR. STAMETS: Thank you.

4 * * * *

5 CROSS EXAMINATION

6 BY MR. STAMETS:

7 Q How many of these exhibits that you have presented here
8 today are confidential in nature?

9 A I would like to think that the Morrow and Atoka, including
10 the cross sections, would be confidential.

11 Q You mean Exhibit Number Four and Exhibit Number Five?

12 A Yes, and the cross section, which is Exhibit Two; and
13 Exhibit Number Three, the other cross section. So that
14 would be Exhibits Two, Three, Four and Five.

15 MR. RICHARDSON: We could re-submit those in less
16 than twenty days, if you wanted to go that way.

17 MR. STAMETS: Mr. Richardson, I think that will be
18 fine. I believe we have enough information in the
19 original application and the original copy of the unit
20 agreement. Do you have an additional copy of the unit
21 agreement?

22 MR. RICHARDSON: I can give you one. I don't have
23 it with me, but I can send you one.

24 MR. STAMETS: I think we ought to have one marked
25 officially. Let me suggest that you make a copy of the

1 unit agreement available, and it will be marked as
2 Exhibit Number One in the case. And also, I would
3 request that you submit these maps and cross sections
4 within 120 days after the effective date of the order.
5 Would that be acceptable?

6 MR. RICHARDSON: That would be fine. I have found
7 another copy of the unit agreement, and I will now mark
8 it as Exhibit Number One.

9 MR. STAMETS: I believe we will need that.

10 Are there any other questions of the witness?

11 (No response)

12 MR. STAMETS: He may be excused.

13 (Witness excused.)

14 MR. STAMETS: Is there anything further in this case?
15 -- You better ask that we accept Exhibit Number One in
16 this case.

17 MR. RICHARDSON: I would like to introduce a copy
18 of the unit agreement as Exhibit Number One in the case.

19 MR. STAMETS: Without objection, Exhibit One will
20 be admitted into evidence.

21 (Whereupon Applicant's Exhibit One was admitted
22 in evidence.)

23 MR. STAMETS: If there is nothing further, Case 5115
24 will be taken under advisement.

25 * * * *

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C E R T I F I C A T E

I, RICHARD E. McCORMICK, Certified Shorthand Reporter,
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.

Richard E. McCormick
CERTIFIED SHORTHAND REPORTER

I do hereby certify that the foregoing is
a complete record of the proceedings in
the Examiner hearing of Case No. 5115,
heard by me on July 28, 1973.
Richard L. Hunt, Examiner
New Mexico Oil Conservation Commission

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