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BEFORE THE  
NEW MEXICO OIL CONSERVATION COMMISSION  
CONFERENCE ROOM, STATE LAND OFFICE BUILDING  
SANTA FE, NEW MEXICO

August 9, 1972

EXAMINER HEARING

IN THE MATTER OF:

Application of Anadarko Production  
Company for a waterflood project,  
Lea County, New Mexico.

Case No. 4760

BEFORE: Elvis A. Utz,  
Examiner.

TRANSCRIPT OF HEARING

1 MR. UTZ: Case 4760.

2 MR. HATCH: Case 4760: Application of Anadarko  
3 Production Company for a waterflood project, Lea County,  
4 New Mexico. If the Examiner please, this case was heard  
5 on July 26th, I believe-- rather, July 12th, and due to some  
6 of the evidence that appeared, it was felt that it needed  
7 to be readvertised. In the absence of objections, I would  
8 suggest that an order be issued on the testimony in evidence  
9 that was presented on that date.

10 MR. UTZ: Is there any objection to counsel's  
11 statement on Case 4760?

12 (No response)

13 MR. UTZ: Does anyone have any additional evidence?

14 (No response)

15 MR. UTZ: Case 4760 will be taken under advisement  
16 and an order will be issued based on the July 12th testimony.

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1 STATE OF NEW MEXICO )  
2 COUNTY OF BERNALILLO ) ss

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I, RICHARD E. McCORMICK, a 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 knowledge, skill and ability.

*Richard E. McCormick*  
CERTIFIED SHORTHAND REPORTER

Aug 9 1977  
24760  
*[Signature]*

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BEFORE THE  
NEW MEXICO OIL CONSERVATION COMMISSION  
CONFERENCE ROOM, STATE LAND OFFICE BUILDING  
SANTA FE, NEW MEXICO  
July 12, 1972

EXAMINER HEARING

IN THE MATTER OF:  
Application of Anadarko  
Production Company for a  
waterflood project, Lea  
County, New Mexico.

Case No. 4760.

BEFORE: Richard L. Stamets,  
Examiner.

TRANSCRIPT OF HEARING

1 MR. STAMETS: Case 4760.

2 MR. HATCH: Case 4760: Application of Anadarko  
3 Production Company for a waterflood project, Lea County,  
4 New Mexico.

5 MR. KELLAHIN: Jason Kellahin, of Kellahin and  
6 Fox, Santa Fe, appearing for the Applicant. We have one  
7 witness I would like to have sworn.

8 C. W. STUMHOFFER,  
9 was called as a witness, and after being duly sworn,  
10 testified as follows:

11 DIRECT EXAMINATION

12 BY MR. KELLAHIN:

13 Q Would you state your name, please?

14 A C. W. Stumhoffer, S-t-u-m-h-o-f-f-e-r.

15 Q By whom are you employed and in what position?

16 A Anadarko Production Company, as a petroleum engineer  
17 for secondary recovery in Houston, Texas.

18 Q Have you testified before the Oil Conservation Commission  
19 and made your qualifications as an engineer a matter  
20 of record?

21 A Yes, I have.

22 MR. KELLAHIN: Are the witness' qualifications  
23 acceptable?

24 MR. STAMETS: They are.

25 Q (By Mr. Kellahin) Are you familiar with the application

1 of Anadarko in Case 4760?

2 A Yes, I am.

3 Q Briefly tell us what is proposed by the Applicant  
4 in this case.

5 A In Case 4760, Anadarko Production Company seeks to  
6 institute a waterflood project by the injection of  
7 water into the Penrose-Skelley Pool by the injection  
8 of water through the R.E. Cole Well Number Three  
9 located in the Southwest quarter of the Southwest  
10 quarter of Section 16 and the E. W. Walden Well Number  
11 Six located in the Southeast quarter of the Southwest  
12 quarter of Section 16, Township 22 South, Range 37  
13 East, Lea County, New Mexico.

14 Q Now, referring you to what has been marked Applicant's  
15 Exhibit One, would you identify that exhibit, please?

16 A Exhibit One shows the reference leases that have just  
17 previously been described and the offset water  
18 development under the Penrose-Skelley Unit.

19 Q Now, the Penrose Unit has been approved as a waterflood  
20 project by the Commission, has it not?

21 A Yes.

22 Q Now, the wells circled in red in the northern portion  
23 are those injection wells which have been approved  
24 as injection wells, are they not?

25 A The wells that are circled in red in the North end of

- 1 the unit are proposed water injection wells.
- 2 Q And they have been approved by the Commission?
- 3 A Yes.
- 4 Q Now, the application before the Commission today is  
5 just an extension of the Langlie Mattix-Penrose Sand  
6 Unit, is it not?
- 7 A The application we are proposing, which is initial  
8 waterflood development on the Langlie Mattix-Penrose  
9 Unit, is proposed for waterflooding the Penrose Sand  
10 Reservoir. In this application, we propose to convert  
11 the water injection in the R. E. Cole Well Number  
12 Three located in the Southwest quarter of Section 16  
13 and the E. W. Walden Well Number Six located in the  
14 Southeast quarter of the Southwest quarter of Section 15  
15 for water injection into the Penrose Sand Reservoir,  
16 and it will be in cooperation with the Langlie Mattix-  
17 Penrose water flood project.
- 18 Q Your exhibit also shows a Continental Oil Well located  
19 in the Southeast of the Southeast of Section 15, will  
20 that be an injection well too?
- 21 A Yes, it is proposed to be an injection well, and it  
22 will be converted as part of the lease agreement between  
23 Langlie Mattix.
- 24 Q Would you explain Exhibit Two, please?
- 25 A Exhibit Two is a gamma ray neutron log of the R. E. Cole

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1 Well Number Three showing the zone that is open for  
2 production with a perforation from 3,480 to 3,642.  
3 The exhibit indicates the surface casing setting, the  
4 production casing setting, the cementing, and the  
5 top of the cement at initial completion of the well,  
6 and what we propose to do with the well as a water  
7 injection well. We propose to inject produced water  
8 from a salt water disposal system into these perforations  
9 through plastic coated tubing set in a five and a half  
10 inch casing at an approximate depth of thirty-four  
11 hundred feet. The water will be injected at a rate of  
12 approximately 500 barrels per day at a maximum surface  
13 pressure of 2,250 pounds. We propose that it be  
14 open to the surface and filled with injection water so  
15 we can detect any leakage of the Packer.

16 Q Will the water be treated?

17 A Yes.

18 Q Is this the same water that is being used in the other  
19 water floods to the South?

20 A Well, it is comparable water, it's not the same, but  
21 it is comparable.

22 Q Have you had any problems in using that water for  
23 injection purposes?

24 A No, we have not.

25 Q Will your other well be completed in the same manner

1 which you have discussed here?

2 A Yes. I refer you to Exhibit Three which shows it will  
3 be completed in the same manner, except that it will  
4 be injection into an open hole instead of through  
5 perforation.

6 Q But it will be under coated tubing?

7 A Yes, sir.

8 Q And you will leave the annulus open to the surface?

9 A That is correct.

10 Q Now, this application is for the injection of water  
11 into the Penrose-Skelley Pool, is that the same  
12 formation as the Langlie Mattix-Penrose?

13 A No, it is not.

14 Q What is the difference?

15 A The Langlie Mattix also includes the bottom one hundred  
16 feet of the Seven-Rivers and Queen formations.

17 Q Are your wells open in the Grayburg?

18 A Yes, they are.

19 Q Do you want to inject into the Grayburg as well as  
20 into the Penrose?

21 A Yes, we would like to.

22 Q Insofar as injection into the Penrose is concerned, it  
23 will be offset to your Langlie Mattix-Penrose Sand Unit?

24 A Yes.

25 Q Were Exhibits One through Three prepared by you?

1 A Yes.

2 MR. KELLAHIN: I would like to offer Exhibits  
3 One, Two, and Three.

4 MR. STAMETS: Any objections?

5 (No response)

6 MR. STAMETS: They will be admitted in evidence.

7 (Whereupon Applicant's Exhibits One through Three  
8 were admitted in evidence.)

9 Q (By Mr. Kellahin) Will the approval of this application  
10 result in your recovery of oil that would not otherwise  
11 be recovered?

12 A Yes.

13 Q Would the correlative rights of the various operators  
14 offsetting your acreage be protected?

15 A Yes, sir.

16 I would like to add that we are operating under  
17 a proration unit and under Rule 701, we would like  
18 to request administrative approval for additional  
19 conversion on this particular acreage so we could  
20 divert other wells on this acreage.

21 MR. KELLAHIN: That's all I have.

22 CROSS EXAMINATION

23 BY MR. STAMETS:

24 Q Under 701, is it your understanding that basically  
25 there would be two separate floods here even though

1 they might be called the same thing?

2 A Yes.

3 Q And there would be no transfer of allowables?

4 A No, we can't physically do that.

5 Q And would you have a cooperative water flood in the  
6 Langlie Mattix-Penrose Sand Unit?

7 A Yes, sir.

8 Q I wish you would run over the last of your testimony  
9 again concerning the difference between the Langlie  
10 Mattix-Penrose Sand Unit flood and the surrounding  
11 flooding and what you propose here.

12 A In the Langlie Mattix, the Langlie Mattix Oil Pool is  
13 producing horizontally and it is defined as having  
14 the lower one hundred feet of the Seven-Rivers which  
15 is not productive in this area. The Queen formation  
16 which includes the Penrose Sand Unit, all the wells  
17 are completed in the Penrose Sand and it does not  
18 penetrate the Grayburg. The well we are proposing to  
19 water inject is in the Penrose-Skelley Pool, and the  
20 producing formation is designed as the Queen formation  
21 which includes the Penrose and the Grayburg formations.  
22 We would like to have permission to inject into the  
23 Penrose Sand as well as into the Grayburg.

24 Q Are the completed wells both Penrose and Grayburg?

25 A Yes, sir.

1 Q So any oil which might be driven to the producing  
2 wells by the injection wells in the Langlie Mattix-  
3 Penrose Unit would be producible through the producing  
4 wells?

5 A Yes.

6 Q And I presume they are open to the Grayburg as well?

7 A Yes, and under the Grayburg. If the Grayburg proves  
8 successful, we will expand the waterflood into the  
9 Grayburg on a cooperative basis.

10 MR. STAMETS: Are there any other questions of  
11 this witness?

12 (No response)

13 MR. STAMETS: If not, he may be excused.

14 (Witness excused.)

15 MR. STAMETS: Is there any additional testimony  
16 in this case?

17 MR. KELLAHIN: No, sir.

18 MR. STAMETS: Any statements?

19 (No response)

20 MR. STAMETS: Case 4760 will be taken under  
21 advisement.

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