

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
STATE LAND OFFICE BLDG.
SANTA FE, NEW MEXICO
25 May 1983

EXAMINER HEARING

IN THE MATTER OF:

Application of Yates Petroleum Cor-
poration for salt water disposal,
Lea County, New Mexico.

CASE
7873

BEFORE: Richard L. Stamets, Examiner

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Oil Conservation
Division:

W. Perry Pearce, Esq.
Legal Counsel to the Division
State Land Office Bldg.
Santa Fe, New Mexico 87501

For the Applicant:

Chad Dickerson, Esq.
LOSEE, CARSON, AND DICKERSON
P. O. Drawer 239
Artesia, New Mexico 88210

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I N D E X

NELSON MUNCY

Direct Examination by Mr. Dickerson	3
Cross Examination by Mr. Stamets	9

E X H I B I T S

Applicant Exhibit One, Documents	4
Applicant Exhibit Two, Map	4

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2 MR. STAMETS: Let's call Case 7873.

3 MR. PEARCE: That case is on the
4 application of Yates Petroleum Corporation for salt water
5 disposal, Lea County, New Mexico.

6 MR. DICKERSON: Chad Dickerson of
7 Artesia, New Mexico, on behalf of the Applicant, Mr. Examiner,
8 and I have one witness, who has already been sworn.

9
10 NELSON MUNCY,
11 being called as a witness and being previously sworn upon his
12 oath, testified as follows, to-wit:

13
14 DIRECT EXAMINATION

15 BY MR. DICKERSON:

16 Q Will you state your name, your occupation,
17 and where you reside, please?

18 A My name is Nelson Muncy. I'm an engineer
19 with the Yates Petroleum Corporation. I reside in Artesia,
20 New Mexico.

21 Q Mr. Muncy, have you previously testified
22 before this Division as an engineer and had your qualifications
23 made a matter of record?

24 A Yes, they have been.

25 Q And are you familiar with the applications

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in this Case 7873?

A. Yes, I am.

MR. DICKERSON: Is Mr. Muncy qualified, Mr. Examiner?

MR. STAMETS: Yes.

Q. Mr. Muncy, maybe for initial purposes it would be helpful for you to, number one, briefly state what Yates seeks in this application, and refer to your exhibit which is marked Exhibit Number Two, and direct the Examiner's attention to the well in question and any other pertinent wells in the area of review.

A. We have prepared Exhibit Number One, which is a 1-inch to 2000 foot scale map. It has the half mile radius circle drawn and it has the 2-mile radius circle drawn, and I think the notable thing about the map is the fact that there are no other wells within the area of review.

Q. And the subject well is indicated where on that exhibit?

A. It's in the center of the small 1/2-mile radius circle.

Q. Okay. Mr. Muncy, please refer to your second page of your Exhibit Number One and describe for the Examiner where and in what fashion Yates proposed to inject water into that well.

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2 A. Okay. The well is presently drilled and
3 abandoned and we have a current well diagram in Exhibit One
4 that depicts the current status of the well and shows all the
5 geological tops.

6 And what we propose to do is to re-enter
7 this well, as Mr. Boneau noted in the previous testimony, and
8 if we're not satisfied that it would be a productive oil well,
9 we'd like to convert it to a disposal well.

10 And in Exhibit One we have the proposed
11 set-up on the way that we'd like to dispose into this well
12 and we would like to inject into what we call the Canyon dolo-
13 mite from 10,378 to 578.

14 MR. STAMETS: Mr. Muncy, will the --
15 will that be -- will there be perforations there or would that
16 be open hole, or what?

17 A. In this well that will be perforations and
18 it will be behind cased pipe with cement behind it, as so
19 noted in the -- in the well injection data sheet in Exhibit
20 One.

21 MR. STAMETS: It shows that you're going
22 to deepen the well to 10,650. Will you be plugging back if
23 that proves not productive?

24 A. Okay, pardon me, I'm thinking about -- I've
25 got the other well mixed up with this one. Let me regress.

1
2 Yes, we do want to deepen this well and we
3 want to inject from 10,378 to 10,578. We have a new TD of
4 10,650, as I have noted there on the schematic, so it would
5 be -- we would have some open zone to inject into there, yes.

6 MR. STAMETS: And are there some ex-
7 isting perforations -- well, no, obviously, if you don't have
8 any casing in there.

9 Will this be a combination of perfora-
10 tions and open hole?

11 A. We will probably, as we've noted there, the
12 injection interval would be from 10,378 -- okay, the injection
13 interval will be from 10,378 to 10,578, and we are going to
14 run casing and perforate it, so it's not going to be the open
15 hole. I'm thinking about the other one and I've got you con-
16 fused here. So --

17 MR. STAMETS: All right, so, well, are
18 we really going to deepen this well to 10,650?

19 A. Okay, the -- the new TD will go to 10,650,
20 and we'll deepen it from the old TD of 10,510. Then we're
21 going to run casing all the way to 10,650 and then perforate
22 it in the interval that we noted, 10,378 to 10,578.

23 MR. STAMETS: All right. So the casing
24 will be set, then, at 10,650 and the perforations will be
25 10,378 to 10,578.

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A. This is correct.

MR. STAMETS: All right, thank you.

Q. Mr. Muncy, what's the estimated volume of water to be injected into this interval?

A. As we so noted on the C-108, from 2000 to 4000 barrels per day.

Q. And what pressures do you foresee as necessary to inject at that rate?

A. We came up with the average injection pressure of 2076 pounds per square inch on the gauge.

Q. Mr. Muncy, would you very briefly summarize the lithology, if you've not done it to your satisfaction, of the proposed injection interval on this Midwest State No. 1 Well, and describe why in your opinion that this water will not migrate either up or down from that interval?

A. Okay. This injection interval is included within the vertical limits of the Saunders Permo-Penn, Upper Permo-Penn Pool, and it's correlative with the Abo Gray 35-1 in Unit N of 36, 14, 33, which is the type well to the field rule, and the proposed injection zone that we talked about will be stratigraphically lower than the oil production zones in the field.

Q. What are the sources of fresh water in this area, Mr. Muncy?

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2 A. Okay, we have noted that the source of
3 fresh water is the Ogallala and it's around 250 feet, and
4 the Chinle lies immediately below that and there is some
5 question or some possibility that there might be some fresh
6 water just below that in the Chinle, and we'd also like to
7 note that both of these aquifers, with respect to this parti-
8 cular application and well, are behind two strings of casing
9 that are both circulated with cement.

10 Q. So for that reason you don't feel there's
11 any danger of communication with this injected water with
12 the fresh water in the area.

13 A. No.

14 Q. What water analyses have you submitted, Mr.
15 Muncy, to reflect the compatibility relatively between the
16 injected water and the formation water in this area?

17 A. Okay, we -- we have listed on our Form C-108,
18 which is included in Exhibit One, four or five well -- or
19 pardon me, six or seven or eight wells there where we propose
20 to take the produced water and inject into this well, and we
21 have those water analyses, if they are available, listed in
22 Exhibit One, and I think it's fair to say that the chloride
23 measurements of the wells would be compatible with the pro-
24 posed injection zone.

25 Q. Does Yates foresee, Mr. Muncy, savings in

1
2 the economics of disposing water in these -- this proposed
3 well rather than by trucking this water?

4 A. Yes, we do. It currently costs in the
5 neighborhood of plus or minus \$1.00 a barrel to have this
6 water hauled off and disposed of commercially, and this would
7 be a great savings, to be able to inject into a disposal well
8 such as this.

9 Q Mr. Muncy, were Exhibits One and Two either
10 prepared by you or under your direction and supervision?

11 A. Yes, they were. They were prepared by me.

12 MR. DICKERSON: Mr. Examiner, at this
13 time I move admission of Yates Exhibits One and Two.

14 MR. STAMETS: These exhibits will be
15 admitted.

16 Are there questions of the witness?

17 MR. DICKERSON: Nothing further.

18
19 CROSS EXAMINATION

20 BY MR. STAMETS:

21 Q Mr. Muncy, did you include actual copies
22 of the water analyses for this exhibit?

23 A. Yes, I did, and they're listed in the back
24 part of Exhibit One. I believe we have one, two, three, four,
25 five, there are six of them.

1
2 Q. Apparently you have six of them and I don't
3 have any of them.

4 A. Okay, I'll trade with you.

5 Q. Okay.

6 MR. DICKERSON: They were, Mr. Examiner
7 filed with the C-108, which should be in the file.

8 MR. STAMETS: I'll see if we --

9 A. I think what we did is we didn't -- in the
10 ones we just handed out we didn't copy the water analyses.

11 MR. DICKERSON: Some of the PI reports
12 on some of the numerous wells in the area.

13 MR. STAMETS: Right. Okay, those are
14 included in the original application and I see no need in
15 duplicating them here.

16 Are there any other questions of the
17 witness?

18 MR. DICKERSON: Nothing further.

19 MR. STAMETS: He may be excused.

20 Anything further in this case?

21 The case will be taken under advisement.

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23 (Hearing concluded.)
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C E R T I F I C A T E

I, SALLY W. BOYD, C.S.R., DO HEREBY CERTIFY that the foregoing Transcript of Hearing before the Oil Conservation Division was reported by me; that the said transcript is a full, true, and correct record of the hearing, prepared by me to the best of my ability.

Sally W. Boyd CSR

I do hereby certify that the foregoing is a complete record of the proceedings in the Examination of Case No. 7873 heard by me on 5-7-83 1983.
Richard P. [Signature], Examiner
Oil Conservation Division

SALLY W. BOYD, C.S.R.
Rt. 193-B
Santa Fe, New Mexico 87501
Phone (505) 455-7409