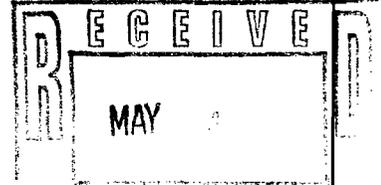


STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION



IN THE MATTER OF THE HEARING)
CALLED BY THE OIL CONSERVATION)
DIVISION FOR THE PURPOSE OF)
CONSIDERING:)
APPLICATION OF YATES DRILLING)
COMPANY)

CASE NO. 11,223

ORIGINAL

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

BEFORE: DAVID R. CATANACH, Hearing Examiner

April 6th, 1995

Santa Fe, New Mexico

This matter came on for hearing before the Oil Conservation Division on Thursday, April 6th, 1995, at the New Mexico Energy, Minerals and Natural Resources Department, Porter Hall, 2040 South Pacheco, Santa Fe, New Mexico, before Steven T. Brenner, Certified Court Reporter No. 7 for the State of New Mexico.

* * *

I N D E X

April 6th, 1995
Examiner Hearing
CASE NO. 11,223

	PAGE
APPEARANCES	3
APPLICANT'S WITNESSES:	
<u>TOBIN L. RHODES</u>	
Direct Examination by Mr. Carr	4
Examination by Examiner Catanach	12
REPORTER'S CERTIFICATE	14

* * *

E X H I B I T S

	Identified	Admitted
Exhibit 1	6	12
Exhibit 2	6	12
Exhibit 3	7	12
Exhibit 4	8	12
Exhibit 5	11	12
Exhibit 6	11	12

* * *

A P P E A R A N C E S

FOR THE DIVISION:

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FOR THE APPLICANT:

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By: WILLIAM F. CARR

* * *

1 WHEREUPON, the following proceedings were had at
2 9:01 a.m.:

3 EXAMINER CATANACH: At this time we'll call Case
4 11,223.

5 MR. CARROLL: Application of Yates Drilling
6 Company for certification of a positive production response
7 pursuant to New Mexico's "Enhanced Oil Recovery Act",
8 Chaves County, New Mexico.

9 EXAMINER CATANACH: Are there appearances in this
10 case?

11 MR. CARR: May it please the Examiner, my name is
12 William F. Carr with the Santa Fe law firm Campbell, Carr
13 and Berge.

14 We represent Yates Drilling Company in this
15 matter, and I have one witness.

16 EXAMINER CATANACH: Any additional appearances?

17 Will the witness please stand to be sworn in?

18 TOBIN L. RHODES,

19 the witness herein, after having been first duly sworn upon
20 his oath, was examined and testified as follows:

21 DIRECT EXAMINATION

22 BY MR. CARR:

23 Q. Will you state your name for the record, please?

24 A. My name is Tobin L. Rhodes.

25 Q. Where do you reside?

1 A. I reside in Artesia, New Mexico.

2 Q. By whom are you employed?

3 A. I'm employed by Yates Drilling Company.

4 Q. And what is your current capacity with Yates?

5 A. I serve as operations manager for Yates Drilling.

6 Q. Mr. Rhodes, have you previously testified before
7 this Division and had your credentials as a petroleum
8 engineer accepted and made a matter of record?

9 A. Yes, I have.

10 Q. Are you familiar with the Cactus Queen Unit and
11 the enhanced oil recovery efforts of Yates Drilling in the
12 unit area?

13 A. Yes, I am.

14 Q. Are you familiar with the current production
15 characteristics of the wells in this unit?

16 A. Yes, I am.

17 MR. CARR: Are the witness's qualifications
18 acceptable?

19 EXAMINER CATANACH: they are.

20 Q. (By Mr. Carr) Initially, Mr. Rhodes, just state
21 what Yates is seeking with this Application.

22 A. We seek certification of a positive production
23 response for the expansion area of the Cactus Queen Unit.

24 Q. And when was the Cactus Queen Unit approved as an
25 enhanced recovery project?

1 A. The expansion of the Cactus Queen Unit was
2 approved by Order R-9075-B-1, dated January 26th, 1993.

3 In Finding 11 of that Order, the expansion area
4 was found to qualify as an enhanced oil recovery project.
5 A copy of that order has been marked as Exhibit 1.

6 Q. Let's go to Yates Exhibit Number 2. Can you
7 identify that and review it?

8 A. Exhibit Number 2 is a copy of the NMOCD Enhanced
9 Oil Recovery Project Certification for the expansion area
10 of the Cactus Queen Unit, dated February 25th, 1994. This
11 certification has an effective date of April 30th, 1993.

12 Q. And when did Yates actually receive a positive --
13 or achieve a positive production response in the expansion
14 area in the Cactus Queen unit?

15 A. A positive production response had occurred in
16 all producing wells by November 1st, 1993.

17 Q. And when did you actually apply for this
18 certification?

19 A. We applied administratively by letter and
20 supporting data on May 19th, 1994.

21 Q. And then this matter has been brought for hearing
22 because it was one of the first cases filed actually for
23 certification of the production response?

24 A. That's correct.

25 Q. Let's go to what has been marked Yates Exhibit

1 Number 3. Would you review this and then identify for the
2 Examiner the portion of the unit that is the subject of
3 this Application?

4 A. Exhibit 3 is a plat showing the Cactus Queen Unit
5 and expansion area.

6 The map identifies all producing and injection
7 wells within the unit area. It also distinguishes between
8 the original area and the expansion area, the expansion
9 area being in Section 34, there to the south of the dotted
10 line.

11 It shows that there are five injection wells,
12 four producing wells in that expansion area.

13 Q. To date, how much has Yates Drilling invested in
14 this enhanced oil recovery project?

15 A. Capital expenditures on the expansion area are
16 approximately \$400,000.

17 Q. Okay, and how does this compare to the estimates
18 that were presented during the earlier hearings for this
19 expansion area?

20 A. I believe they're very close to what we've
21 projected.

22 Q. Has Yates drilled or re-worked all the wells that
23 were originally proposed as part of this EOR project?

24 A. Yes, we have. The Well Number 15 was completed
25 July 30th, 1993, and it's utilized as a producer.

1 All other wells in the expansion area were
2 drilled and completed prior to the formation of the unit.

3 Q. And when did the injection phase of this project
4 actually commence?

5 A. Injection into the expansion area of the unit
6 began during the month of June, 1993.

7 Five wells have been continuously utilized as
8 injection wells, and those wells are wells 7, 9, 10, 12,
9 13. They were identified on Exhibit 3.

10 Q. And how much water has been injected to date?

11 A. Injection totaled 794,623 barrels for the 23 --
12 21-month period from June, 1993, through February, 1995.

13 Individual well volumes range from 64,000 barrels
14 to 235,000 barrels. A five-well average is approximately
15 159,000 barrels per well.

16 Q. All right, let's go to Yates Drilling Exhibit
17 Number 4, the production graph, and I'd ask you to refer to
18 this and then review for Mr. Catanach the recent history of
19 the expansion area.

20 A. Exhibit 4 is a graph of the monthly oil
21 production and water injection for the expansion area of
22 the Cactus Queen Unit.

23 Also included on the graph are highlights of the
24 major milestones of the expansion area.

25 As you can see, production started -- Actually,

1 there were a few months in 1983, but production basically
2 started in the area in 1984.

3 A fairly common-looking decline curve down to the
4 middle of 1993. At that time, in June of 1993, injection
5 started.

6 July 30th of 1993, the Cactus Queen 15 was
7 completed, which it was recently drilled and completed July
8 30th, 1993. That's the first increase that you see on the
9 plot.

10 Two months later you see another increase, and
11 this is a response to injection, or what we believe to be a
12 response to injection.

13 From that point, production has climbed basically
14 on a continuous basis until January of this year.

15 Q. And we hit a low in June of 1993, did we not?

16 A. That's right.

17 Q. And about what rate were we producing at that
18 time?

19 A. June of 1993, we produced 155 barrels.

20 Q. Then after you implemented the project and
21 commenced injection, you saw a response in October of 1993
22 of -- approximately what level was the expansion area
23 produced?

24 A. The production rose to 1161 barrels for that
25 month.

1 Q. And then what is the approximate current rate or
2 most recent rate?

3 A. In January, the area produced 9683 barrels. The
4 last month of production that we have is for February, and
5 that month we produced 8052 barrels.

6 Q. How does Yates Drilling account for the
7 production from the expansion area and pay royalties and
8 taxes on that production?

9 A. Production is accounted for and taxes are paid on
10 a unit basis.

11 Q. And are you equipped so you can separately
12 account for production from the expansion area, as opposed
13 to overall production from the unit?

14 A. Yes, we can. There are two separate batteries.

15 The Well Number 15 actually goes into the battery
16 with the original unit wells, but setup at that battery
17 allows us to isolate that from the other unit wells. So we
18 can totally isolate production in the expansion area from
19 production from the early unit wells.

20 Q. Are you seeing the increase in production
21 throughout the expansion area?

22 A. Yes, every producing well has and continues to
23 respond.

24 Q. Is there any other -- Has anything else occurred
25 that could have caused in fact this increase in production,

1 other than the enhanced oil recovery project?

2 A. No, I do not believe so.

3 Q. Let's go to what has been marked as Yates Exhibit
4 Number 5. Could you identify that, please?

5 A. Exhibit Number 5 is a table showing summary and
6 individual well oil production.

7 The table also lists the location, completion
8 date, the current status of each well, and this includes
9 production from first production through February of this
10 year.

11 Q. And from this production information, it can be
12 established that each of the wells in the expansion area is
13 in fact seeing the -- showing the response to the water
14 injection?

15 A. Yes.

16 Q. What is Yates Exhibit Number 6?

17 A. Exhibit Number 6 is the information that we
18 submitted administratively for approval of the production
19 response.

20 Q. Does Yates request certification of a positive
21 production response now for the expansion area in the
22 Cactus Queen Unit?

23 A. Yes, we do.

24 Q. And does Yates request that, pursuant to the
25 rules and procedures for qualifications of enhanced oil

1 recovery projects for the recovered oil tax rate, that the
2 Division now notify the Secretary of the Taxation and
3 Revenue Department of this certification, effective
4 November 1, 1993?

5 A. Yes, we do.

6 Q. Were Exhibits 1 through 6 prepared by you?

7 A. Yes, they were.

8 MR. CARR: At this time, Mr. Catanach, we move
9 the admission of Yates Drilling Exhibits 1 through 6.

10 EXAMINER CATANACH: Exhibits 1 through 6 will be
11 admitted as evidence.

12 MR. CARR: And that concludes my examination of
13 Mr. Rhodes.

14 EXAMINATION

15 BY EXAMINER CATANACH:

16 Q. Mr. Rhodes, we're just talking about the expanded
17 area under this Application, right?

18 A. That's correct. The original unit area to the
19 north was unitized before the enhanced recovery law became
20 in effect.

21 Q. Okay. The actual date you're asking for is
22 November 1st, 1993?

23 A. Yes, sir, that's correct.

24 Q. Okay. Mr. Rhodes, how do you attribute the rapid
25 response in this waterflood?

1 A. Some of these wells -- We have a high-perm area
2 on the west edge, that's possibly the reaction to the early
3 response. We've seen response in all the wells.

4 I don't think the response came from the wells to
5 the north. That's too far, in my opinion, to see a
6 response down in Well Number 11 or Number 14.

7 Q. But you have seen some response in those wells to
8 the south?

9 A. The Number 11 well is the best-responding well in
10 the expansion area.

11 Q. Okay.

12 A. That well is currently producing approximately
13 150, 175 barrels a day.

14 Q. But all four wells have responded?

15 A. Yes, they have.

16 EXAMINER CATANACH: Nothing further, Mr. Carr.

17 MR. CARR: We have nothing further in this case,
18 Mr. Catanach.

19 EXAMINER CATANACH: There being nothing further,
20 Case Number 11,223 will be taken under advisement.

21 (Thereupon, these proceedings were concluded at
22 9:13 a.m.)

23 * * * I do hereby certify that the foregoing is
24 a complete record of the proceedings of
25 the Examiner hearing of Case No. 11,223
 heard by me on April 6, 1995

David R. Catanach, Examiner
Oil Conservation Division

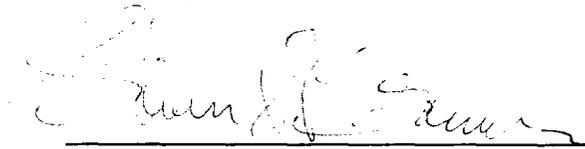
CERTIFICATE OF REPORTER

STATE OF NEW MEXICO)
) SS.
 COUNTY OF SANTA FE)

I, Steven T. Brenner, Certified Court Reporter and Notary Public, HEREBY CERTIFY that the foregoing transcript of proceedings before the Oil Conservation Division was reported by me; that I transcribed my notes; and that the foregoing is a true and accurate record of the proceedings.

I FURTHER CERTIFY that I am not a relative or employee of any of the parties or attorneys involved in this matter and that I have no personal interest in the final disposition of this matter.

WITNESS MY HAND AND SEAL April 13th, 1995.


 STEVEN T. BRENNER
 CCR No. 7

My commission expires: October 14, 1998