

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:)

CASE NO. 12,398

APPLICATION OF EOG RESOURCES, INC.,)
 FOR COMPULSORY POOLING, EDDY COUNTY,)
 NEW MEXICO)

ORIGINAL

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

BEFORE: DAVID R. CATANACH, Hearing Examiner

May 4th, 2000

Santa Fe, New Mexico

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This matter came on for hearing before the New Mexico Oil Conservation Division, DAVID R. CATANACH, Hearing Examiner, on Thursday, May 4th, 2000, at the New Mexico Energy, Minerals and Natural Resources Department, Porter Hall, 2040 South Pacheco, Santa Fe, New Mexico, Steven T. Brenner, Certified Court Reporter No. 7 for the State of New Mexico.

* * *

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May 4th, 2000
Examiner Hearing
CASE NO. 12,398

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A P P E A R A N C E S

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FOR THE APPLICANT:

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 By: WILLIAM F. CARR

* * *

1 WHEREUPON, the following proceedings were had at
2 10:54 a.m.:

3 EXAMINER CATANACH: At this time we'll call Case
4 12,398, the Application of EOG Resources, Inc., for
5 compulsory pooling, Eddy County, New Mexico.

6 Call for appearances in this case.

7 MR. CARR: May it please the Examiner, my name is
8 William F. Carr with the Santa Fe law firm Campbell, Carr,
9 Berge and Sheridan. We represent EOG Resources in this
10 matter, and I have two witnesses.

11 EXAMINER CATANACH: Any additional appearances?
12 Will the two witnesses please stand to be sworn in?

13 (Thereupon, the witnesses were sworn.)

14 PATRICK J. TOWER,
15 the witness herein, after having been first duly sworn upon
16 his oath, was examined and testified as follows:

17 DIRECT EXAMINATION

18 BY MR. CARR:

19 Q. Would you state your name for the record, please?

20 A. My name is Patrick Tower.

21 Q. Where do you reside?

22 A. Midland, Texas.

23 Q. By whom are you employed?

24 A. EOG Resources, Incorporated.

25 Q. And what is your position with EOG?

1 A. My title is project landman.

2 Q. Mr. Tower, have you previously testified before
3 this Division and had your credentials as an expert in
4 petroleum land matters accepted and made a matter of
5 record?

6 A. Yes, I have.

7 Q. Are you familiar with the Application filed by
8 EOG in this case?

9 A. Yes, I am.

10 Q. And are you familiar with the status of the lands
11 in the subject area?

12 A. Yes, I am.

13 MR. CARR: Are the witness's qualifications
14 acceptable?

15 EXAMINER CATANACH: Yes, they are.

16 Q. (By Mr. Carr) Would you briefly state what EOG
17 seeks in this case?

18 A. EOG is seeking an order pooling all mineral
19 interests from the surface to the base of the Mississippian
20 Chester formation under the east half of Section 33,
21 Township 16 South, Range 28 East, in the following manner:

22 The east half to form a standard unit for all
23 pools and formations on 320-acre spacing, which would
24 include the Undesignated Crow Flats-Morrow Gas Pool;

25 The southeast quarter to form a standard unit for

1 all pools and formations developed on 160-acre spacing;

2 And the southeast-southeast where the location is
3 to form a standard unit for all pools and formations
4 developed on 40-acre spacing.

5 Q. Mr. Tower, to what well do you propose to
6 dedicate this acreage?

7 A. The Zephyr "33" State Com Well Number 1.

8 Q. Now, there is an existing well on the spacing
9 unit, is there not?

10 A. Yes, there is.

11 Q. And maybe we could refer to Exhibit Number 1, and
12 I'd ask you to identify that.

13 A. Yeah, Exhibit Number 1 is a land plat depicting
14 the 320-acre spacing unit outlined in red and with the
15 location with the red dot. The well that Mr. Carr refers
16 to, an existing well, is in the southeast quarter of the
17 southeast quarter. It's the Mack Energy Aztec State well.
18 It's a Queen gas well out of the Vandagriff Keyes Pool.

19 Q. And at what depth is it completed?

20 A. Approximately 1500 feet.

21 Q. Because of this well, is it necessary to amend
22 the Application before the Division?

23 A. Yes, it is. This particular well, as it turns
24 out, has a 160-acre allocation to it.

25 Q. And how do you propose the Application be

1 amended?

2 A. Just to delete the reference to that pool and to
3 pool just those rights from 3000 foot down to the base of
4 what I mentioned earlier.

5 Q. Okay. So instead of now pooling from the surface
6 to the base of the Mississippian Chester formation, we're
7 requesting that the Application be amended to provide for
8 pooling from a depth of 3000 feet down to the base of the
9 Mississippian-Chester?

10 A. That is correct.

11 Q. Let's continue with Exhibit Number 1. Is there
12 additional information you'd like to point out on this
13 exhibit?

14 A. Again, it shows proration units, the location of
15 the well and the general land ownership within the spacing
16 unit.

17 Q. And what is the primary objective in the well?

18 A. The primary objective is the Morrow formation in
19 the Undesignated Crow Flats-Morrow Gas Pool.

20 Q. Let's go to what has been marked as EOG Exhibit
21 Number 2. Would you identify and review that, please?

22 A. Exhibit Number 2 is a breakdown of the interests
23 that are the subject of the compulsory pooling today, the
24 uncommitted interests. We have approximately 88 percent
25 committed at this time. The remaining interests are Devon

1 Energy Production Company, L.P., with approximately 10-
2 percent and some change there as shown on the sheet, and
3 the remaining interest is the June Johnson Cooper,
4 individual, and also as personal representative of the
5 estate of Todd Johnson, representing approximately two-
6 percent interest.

7 Q. Would you identify Exhibit Number 3?

8 A. Exhibit Number 3 is the drilling cost estimate or
9 AFE for the drilling of this well. It's a 10,100-foot
10 Morrow -- or Morrow-Mississippian-Chester test. The
11 estimated total drilling cost is \$425,100, with our
12 estimate of the completed well cost, \$946,400.

13 Q. Are these costs in line with what is charged by
14 other operators for similar wells in this area?

15 A. Yes, they are.

16 Q. Let's go to what has been marked for
17 identification as EOG Resources Exhibit Number 4. Would
18 you identify and review that, please?

19 A. Yeah, Exhibit Number 4 is a compilation of the
20 various correspondence with the Devon interests. In
21 essence, our contacts started approximately September or
22 October of 1999, and actually I didn't put in here, but
23 prior to that with Pennzoil, who they succeeded to this
24 interest. But this just represents the dealings with Devon
25 and basically will summarize up to this point all the

1 negotiation and discussions leading up to the compulsory
2 pooling.

3 Q. And then let's identify Exhibit Number 5. Are
4 these the documents related to the efforts to obtain
5 voluntary participation from the June Johnson Cooper
6 interest?

7 A. That is correct. In essence, these are the --
8 similar interests, but for the June Johnson Cooper. You'll
9 note the initial contact dealt with -- Enron has drilled a
10 couple wells immediately south of this, and some of the
11 correspondence here was discussions with them on those
12 wells. But the basis for that is our -- I can testify that
13 there have been communications verbally ever since drilling
14 the wells to the south, that we intended to step up here
15 north and drill the Zephyr. And basically, those contacts
16 started approximately September of 1999 in trying to seek
17 some voluntary arrangement.

18 Q. Mr. Tower, in your opinion have you made a good
19 faith effort to obtain the voluntary participation of both
20 Devon and the Cooper interests in this well?

21 A. Yes, I have.

22 Q. Is Exhibit Number 6 an affidavit confirming that
23 notice of today's hearing has been provided in accordance
24 with Oil Conservation Division rules?

25 A. Yes.

1 Q. And are all interest owners who would be subject
2 to a pooling order on this list, and have they been
3 provided notice of the hearing and the Application?

4 A. Yes, they have.

5 Q. Have you made an estimate of the overhead and
6 administrative costs to be incurred while drilling this
7 well and also while producing, if it is successful?

8 A. Yes, we have. We are recommending a drilling
9 well rate of \$5800 and a producing well rate of \$580.

10 Q. And what is the source of these figures?

11 A. The source of this is both Ernst and Young
12 survey, 1999, and primarily several operating agreements.
13 We -- As I mentioned, two wells to the south, and a lot of
14 these same players are in that. We have actual signed
15 operating agreements there and also some additional wells
16 with Chi that carry these same rates.

17 It's also the subject of a previous pooling order
18 -- I don't recall the case -- that was to the south, that
19 was also approved by the Commission, or Division.

20 Q. Do you recommend that these figures be
21 incorporated into any order which results from today's
22 hearing?

23 A. Yes, I do.

24 Q. Were Exhibits 1 through 6 either prepared by you
25 or compiled under your direction and supervision?

1 A. Yes, they were.

2 MR. CARR: Mr. Catanach, at this time we move the
3 admission into evidence of EOG Resources, Inc., Exhibits 1
4 through 6.

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

7 MR. CARR: That concludes my direct examination
8 of Mr. Tower.

9 EXAMINATION

10 BY EXAMINER CATANACH:

11 Q. Mr. Tower, you guys have got about 87-percent
12 interest tied up in this thing?

13 A. That is correct.

14 Q. Okay. And again, you began negotiating with
15 Devon and with the other interest owner, the Cooper --

16 A. Yes.

17 Q. -- back in -- September?

18 A. September or October of 1999, although that was
19 not when the well proposal was sent, but negotiations
20 towards a voluntary agreement with them.

21 And they are also involved in wells being drilled
22 immediately south by Enron and Chi, so they're very
23 familiar with the area.

24 Q. And your April 5th letter basically advised them
25 of the change in well location?

1 A. Yes, we had a -- because of the shallow well and
2 also just some control issues on our wells to the south, we
3 moved the location twice. But all parties were notified --
4 There were previous letter prior to this, as you'll see in
5 there, basically the same well, it was just moved within
6 that southeast quarter, a couple different spots, prior to
7 this.

8 Q. Is that location set at this point?

9 A. Yes, it is. The April 5th letter carries the
10 exact location that's to be drilled, which is 900 feet from
11 the south and 660 feet from the east.

12 Q. Do you anticipate Devon or the other interest
13 owner will sign up --

14 A. I anticipate they will, and my discussions with
15 both of them, although we have nothing signed, is that at
16 that point that we do, we will dismiss them from the order.
17 And I'm hoping that will be the case. However, we have a
18 rig and partners who want to go drill this, so we're moving
19 forward. And hopefully we'll be able to dismiss them, but
20 I have nothing committed at this point.

21 Q. Now, how did you guys determine the 3000-foot
22 depth?

23 A. Primarily, it's the common ownership. You have a
24 different ownership at a couple intervals above 3000. This
25 just simplified the deal. And also, our operating

1 agreement with the current owners will start at 3000 down,
2 so it's just to simplify and have one common owner group.

3 EXAMINER CATANACH: Okay, I have nothing further.

4 MR. CARR: That concludes my examination of Mr.
5 Tower, and at this time we call Randy Cate.

6 RANDALL S. CATE,

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

9 DIRECT EXAMINATION

10 BY MR. CARR:

11 Q. Would you state your name for the record, please?

12 A. It's Randall Cate.

13 Q. Mr. Cate, where do you reside?

14 A. I reside in Midland, Texas.

15 Q. By whom are you employed?

16 A. EOG Resources, Inc.

17 Q. And what is your position with EOG Resources?

18 A. Project reservoir engineer.

19 Q. Have you previously testified before this
20 Division and had your credentials as an expert in petroleum
21 engineering accepted and made a matter of record?

22 A. Yes, I have.

23 Q. Are you familiar with the Application in this
24 case?

25 A. Yes.

1 Q. Are you prepared to present the technical portion
2 of this case to the Examiner?

3 A. Yes.

4 MR. CARR: Are the witness's qualifications
5 acceptable?

6 EXAMINER CATANACH: They are.

7 Q. (By Mr. Carr) Mr. Cate, would you refer to what
8 has been marked for identification as EOG Exhibit Number 7,
9 identify that and review it for Mr. Catanach?

10 A. Yes, Exhibit Number 7 is the Morrow IP rates and
11 the date of completion. It also shows the 320-acre
12 proration unit designated to the Zephyr "33" State Com
13 Number 1 in red.

14 The main purpose of this is to let you know that
15 this play right here in this specific area is very new.
16 You can see the dates on the completions on these wells
17 range -- Almost all of them are either late 1999 or just in
18 the last few months here in the year 2000.

19 Also, you'll see that the range and the IP rates
20 vary from very high, over 8000 MCF a day after frac, down
21 to approximately 500 MCF a day, and that, when we show you
22 the net isopach map, all these wells are within a sand
23 channel fairway, but you're getting a lot of different
24 variation that's causing these extreme differences in IP
25 rates.

1 Q. Let's go to Exhibit Number 8, the structure map.
2 Can you review that?

3 A. Exhibit Number 8 is a structure map on the lower
4 Morrow pick. It has regional dip. It simply shows there's
5 regional dip approximately 100 to 150 feet per mile in
6 basically a south to southeast direction, nothing out of
7 the ordinary here.

8 Q. It simply shows the thinning of the formation?

9 A. Yes, you can -- To the north, as you step north
10 where the Zephyr 33 is and you go updip regionally,
11 typically the Morrow interval isopach will thin, and that
12 increases the chance of missing some of the sands that
13 might occur there.

14 Q. Let's go to the isopach map, Exhibit Number 9.
15 Will you review that?

16 A. This is a net sand isopach on the Morrow. 50
17 gamma-ray cutoff and crossover indicated on the sand is
18 what we used as cutoff basis.

19 As can be seen, the Morrow sand thicknesses range
20 from -- in this channel, shaded in brown that we believe
21 indicates the possibly productive interval -- ranges from
22 approximately 15 feet up to almost 40 feet.

23 We do believe and we are hoping that the channel
24 does trend in a north direction. I would note that in
25 Section 3, which is approximately one mile southeast of our

1 location, this Iron Horse Fed Com, we just got the log in
2 one week ago. And you can see there's a 25-foot thickness
3 there that could easily cause the thick to map a little
4 more east than we have it, thereby, you know, showing the
5 type of risk that we're dealing with here.

6 Q. Let's go now to the cross-section, Exhibit Number
7 10.

8 A. The cross-section is depicted on the structure
9 map. It's a three-well cross-section. It runs from our
10 Amtrack Numbers and 2, it runs from south to north, from
11 left to right. The well to the north, which is the Federal
12 1-27, had no commercial sands, and it -- If you look back
13 at the plat, it's approximately one mile northeast of where
14 we're drilling our separate location.

15 As you can see, the two wells in the Amtrack,
16 which is the section south of the proposed location, if you
17 start with the sands, what we would call the middle Morrow,
18 between the two wells that middle Morrow sand is basically
19 thinned out and was tested noncommercial. And that would
20 be the log in the middle.

21 And the lower Morrow interval is still there, and
22 that was the entire net pay that we could count to grab the
23 well. As you can see, we're dealing with pays in the range
24 of eight to 15 feet in this well, which in the Morrow can
25 come and go very rapidly.

1 Again, we are moving north, the proposed location
2 is moving north towards the well on the cross-section that
3 had no commercial sand and a relatively thin Morrow
4 clastics interval.

5 Q. Mr. Cate, are you prepared to make a
6 recommendation to Mr. Catanach as to the risk penalty that
7 should be assessed against any interest owner who does not
8 voluntarily participate in the well?

9 A. Yes, based on our study it should be the maximum
10 200 percent risk penalty.

11 Q. In your opinion, is it possible that you could
12 drill a well at this location that would not be a
13 commercial success?

14 A. Yes, that's a very good likelihood.

15 Q. Does EOG Resources seek to be designated operator
16 of the well?

17 A. Yes, we do.

18 Q. In your opinion, will granting of this
19 Application and drilling of this well at the proposed
20 location be in the best interest of conservation, the
21 prevention of waste and the protection of correlative
22 rights?

23 A. Yes.

24 Q. Mr. Cate, you're the engineer on this project,
25 correct?

1 A. Yes, I am.

2 Q. And you've been working with Mr. Zinz in
3 developing this prospect?

4 A. Yes, I have.

5 Q. Have you reviewed each of these exhibits?

6 A. Yes, I have.

7 Q. And can you testify as to the accuracy of the
8 interpretation, based on the data available to you?

9 A. Yes.

10 MR. CARR: At this time, Mr. Catanach, we would
11 move the admission of EOG Resources, Inc., Exhibits 7
12 through 10.

13 EXAMINER CATANACH: Exhibits 7 through 10 will be
14 admitted as evidence.

15 MR. CARR: And that concludes my examination of
16 Mr. Cate.

17 EXAMINATION

18 BY EXAMINER CATANACH:

19 Q. Mr. Cate, the target is these two lower Morrow
20 sands that you've got mapped on the cross-section?

21 A. Well, the sand above the lower Morrow, which we
22 kind of missed in this Amtrack 2, the middle log, is also a
23 target. So the whole Morrow interval is the target. Up
24 here it's kind of hard to designate between what's lower
25 and what's upper, but -- So the whole Morrow interval is,

1 yes.

2 But the majority of the production right now that
3 we can see in the trend is coming out of this lower Morrow
4 interval.

5 Q. But are these the only two sands that are present
6 in those wells?

7 A. Yes, this is the entire Morrow clastics interval
8 that is shown here. It's relatively thin in this area up
9 here. We're, I guess, pushing north about as far as you
10 can go.

11 There is a Diamond Mound field which is further
12 north, that does produce out of the Morrow. And again,
13 it's kind of hard for us to tell exactly how this
14 correlates in. But that's another three miles away.

15 Q. Are you able to tie this sand into that other
16 field to the north?

17 A. No, not this exact sand, no. We just know that
18 the Morrow interval does correlate.

19 Q. So you really don't have a lot of well control to
20 the north of where the existing wells are?

21 A. No, we're hoping that the trend continues north,
22 but both the wells -- the closest wells to the north that
23 are about a mile away tested noncommercial Morrow. That's
24 all the well control we have to the north.

25 Q. Are you talking about the wells in Section 29 and

1 27?

2 A. Yes, both those wells.

3 Q. Okay. Are there any secondary targets up the
4 hole?

5 A. The Atoka has produced, very noncommercial, just
6 off of this map to the southwest, and that's really the
7 only other production that I can point to. But again,
8 there's nothing else been found commercial in this area,
9 except for the Queen, as Mr. Tower discussed.

10 EXAMINER CATANACH: Okay, no further questions.

11 MR. CARR: That concludes our presentation in
12 this case.

13 EXAMINER CATANACH: Okay, there being nothing
14 further, Case 12,398 will be taken under advisement.

15 (Thereupon, these proceedings were concluded at
16 11:15 a.m.)

17 * * *

18
19
20 I hereby certify that the foregoing is a
21 complete and correct transcript of the
22 proceedings heard by me on May 4, 1960.
23 *David R. Catanach*
24 Oil Conservation Council
25

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 May 11th, 2000.



STEVEN T. BRENNER
CCR No. 7

My commission expires: October 14, 2002