

1 NEW MEXICO OIL CONSERVATION DIVISION

2 STATE LAND OFFICE BUILDING

3 STATE OF NEW MEXICO

4 CASE NO. 10514

5
6 IN THE MATTER OF:7
8 The Application of Enron Oil & Gas
9 Company for compulsory pooling,
Lea County, New Mexico.10
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12
13
14 BEFORE:15
16 DAVID R. CATANACH

17 Hearing Examiner

18 State Land Office Building

19 July 23, 1992

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22 REPORTED BY:23 DEBBIE VESTAL
24 Certified Shorthand Reporter
for the State of New Mexico25
ORIGINAL

A P P E A R A N C E S

FOR THE APPLICANT:

CAMPBELL, CARR, BERGE & SHERIDAN, P.A.
Post Office Box 2208
Santa Fe, New Mexico 87504-2208
BY: WILLIAM F. CARR, ESQ.

I N D E X

Page Number

Appearances

2

WITNESSES FOR THE APPLICANT:

1. PATRICK J. TOWER

Examination by Mr. Carr

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Examination by Examiner Catanach

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2. BARRY L. ZINZ

Examination by Mr. Carr

13

Examination by Examiner Catanach

18

3. RANDALL S. CATE

Examination by Mr. Carr

21

Examination by Examiner Catanach

26

Certificate of Reporter

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1 EXAMINER CATANACH: At this time we'll
2 call Case 10514, Application of Enron Oil & Gas
3 Company for compulsory pooling, Lea County, New
4 Mexico.

5 Are there appearances in this case?

6 MR. CARR: May it please the Examiner,
7 my name is William F. Carr with the law firm,
8 Campbell, Carr, Berge & Sheridan of Santa Fe. We
9 represent Enron Oil & Gas Company. And I have
10 three witnesses.

11 EXAMINER CATANACH: Any other
12 appearances in this case?

13 Will the three witnesses, please, stand
14 and be sworn in.

15 [The witnesses were duly sworn.]

16 **PATRICK J. TOWER**

17 Having been duly sworn upon his oath, was
18 examined and testified as follows:

19 EXAMINATION

20 BY MR. CARR:

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

23 A. Patrick J. Tower.

24 Q. Where do you reside?

25 A. Midland, Texas.

1 Q. By whom are you employed and in what
2 capacity?

3 A. By Enron Oil & Gas Company as a
4 petroleum landman.

5 Q. Have you previously testified before
6 this Division and had your credentials as a
7 landman accepted and made a matter of record?

8 A. Yes, I have.

9 Q. Are you familiar with the application
10 filed in this case on behalf of Enron?

11 A. Yes, I am.

12 Q. Are you familiar with the status of the
13 lands and the subject area?

14 A. Yes, I am.

15 MR. CARR: Are Mr. Tower's
16 qualifications acceptable?

17 EXAMINER CATANACH: He is so qualified.

18 Q. (BY MR. CARR) Mr. Tower, could you
19 briefly state what Enron seeks with this
20 application?

21 A. Enron Oil & Gas Company seeks an order
22 pooling all mineral interests from the surface to
23 the base of the Morrow Formation underlying the
24 north half of Section 1, Township 25 South, Range
25 33 East, in Lea County, New Mexico, for any and

1 all formations or pools developed on 320-acre gas
2 spacing.

3 Q. As to pools developed on 160, what
4 acreage do you desire to have pooled?

5 A. We desire, as to 160 acres, to have the
6 northwest quarter of said section dedicated; and
7 as to 40-acre, the statewide, the drill site
8 being the northeast quarter of the northwest
9 quarter.

10 Q. Have you prepared certain exhibits for
11 presentation here today?

12 A. Yes, I have.

13 Q. Would you refer to what has been marked
14 for identification as Enron Exhibit No. 1,
15 identify this, and review it for Mr. Catanach?

16 A. Exhibit No. 1 is a land plat
17 identifying with the red outline the proration
18 unit to be assigned to the well. The circle
19 denotes the location, which is a standard
20 location, the northwest quarter. The lands
21 involve two federal leases which will be
22 communitized.

23 Q. What is the primary objective in this
24 well? The Morrow Formation?

25 A. The Morrow Formation.

1 Q. Would you review Exhibit 2 and review
2 that for the Examiner?

3 A. Exhibit 2 is a list of the working
4 interest parties that will be involved in the
5 proration unit for the drilling of this well.

6 As you can note, approximately 87.5
7 percent are controlled under a voluntary
8 agreement, operating agreement. It carries a 300
9 percent penalty. The remaining party who is not
10 subject to an operating agreement, is Exxon
11 Corporation. And, in addition, we have found out
12 through Exxon, there's nothing of record, that
13 they have committed this acreage to Millennium
14 Energy Corporation under a separate agreement.

15 Q. At this point in time, all interests in
16 the proposed spacing or proration units are
17 committed to the well except the interest of
18 Exxon and Millennium?

19 A. That is correct.

20 Q. So at this time what percentage of the
21 working interest in the tract is committed to the
22 well?

23 A. In excess of 87.5 percent.

24 Q. 87.5?

25 A. [Nodded.]

1 Q. Could you summarize for Mr. Catanach
2 Enron's efforts to obtain the voluntary joinder
3 of all working interest owners in this tract?

4 A. Yes. Exhibit No. 3 represents copies
5 of various correspondence between Enron Oil & Gas
6 Company and Exxon and Millennium.

7 In addition to this correspondence, we
8 have talked to both companies several times. The
9 most recent conversation took place July 15.
10 Pursuant to Exxon having committed this to
11 Millennium, their folks say their hands are tied
12 to work any kind of voluntary agreement with
13 Enron.

14 Millennium at this point has refused to
15 enter into any kind of voluntary arrangement with
16 Enron due to some problems with the contract they
17 have with Exxon. So therefore we're here seeking
18 the forced pooling order.

19 Q. Is Exhibit No. 4 a copy of an affidavit
20 confirming that notice of today's hearing has
21 been provided to both Millennium and Exxon as
22 required by OCD rules?

23 A. Yes.

24 Q. Mr. Tower, has Enron made an estimate
25 of the overhead and administrative costs to be

1 incurred while drilling the well and also while
2 producing it if in fact it's successful?

3 A. Yes, we have. They're based on the
4 Ernst & Young survey, 1981 survey. We are
5 recommending a drilling well overhead rate of
6 \$6,000 and a producing well rate of \$658.

7 Q. Do you recommend that these figures be
8 incorporated into any order which results from
9 today's hearing?

10 A. Yes, we do.

11 Q. Does Enron seek to be designated
12 operator of this well?

13 A. Yes, we do.

14 Q. Were Exhibits 1 through 4 either
15 prepared by you or compiled under your direction?

16 A. Yes, they were.

17 MR. CARR: At this time, Mr. Catanach,
18 we move the admission of Enron Exhibits 1 through
19 4.

20 EXAMINER CATANACH: Exhibits 1 through
21 4 will be admitted as evidence.

22 MR. CARR: That concludes my
23 examination of Mr. Tower.

24 EXAMINATION

25 BY EXAMINER CATANACH:

1 Q. Mr. Tower, what is the nature of the
2 agreement between Exxon and Millennium?

3 A. I've never seen the agreement, but my
4 understanding -- and this is what Exxon and
5 Millennium have advised me -- it covered several
6 thousand acres in New Mexico. Exxon -- a large
7 farmout to Millennium, and Millennium had
8 commitment to drill numerous wells under this
9 agreement.

10 Apparently they have drilled one or
11 two, but they are not going to proceed with the
12 balance. However, the agreement does not
13 terminate until the end of the year. And as a
14 consequence the acreage is tied up; however,
15 there is no action going on under the agreement.

16 But basically a large farmout, as I
17 understand it. This is just one small piece of
18 it.

19 Q. So Millennium is actually in charge of
20 the acreage?

21 A. That is correct.

22 Q. In control?

23 A. Yes.

24 Q. Have you dealt with Millennium on a
25 one-to-one basis?

1 A. Yes, we have. And there's
2 correspondence in Exhibit No. 3 earlier this year
3 and up through June of this year. We were not
4 aware -- Exxon did not advise us that Millennium
5 was involved in this acreage.

6 In June they put us on notice that it
7 was committed to the Millennium agreement. We
8 were not aware of this, even though I believe it
9 was in January.

10 Immediately we got -- I contacted
11 Millennium, talked to a Mr. Tom Patton, had
12 numerous conversations with him. Immediately
13 upon finding that out, we faxed the Exxon
14 proposal and all correspondence between us and
15 Exxon and had several discussions with Mr. Patton
16 directly to try and resolve it and work out some
17 mutual settlement between Exxon and Millennium.

18 We've had conversations with Mr. Haines
19 with Exxon, who had met with Mr. Patton under the
20 big agreement, during the course of this to try
21 and work out some mutual balance so we could
22 continue with our well. And that was not
23 achieved.

24 Exxon advised that our best course of
25 action was to force pool it, and Millennium

1 advised me the same thing. They both agreed they
2 would not oppose.

3 Q. You don't anticipate Millennium
4 eventually joining?

5 A. No, I don't.

6 Q. But you did offer the -- you did make
7 the offer to Millennium to voluntarily commit
8 their --

9 A. We offered the right to work a farmout
10 agreement, join in the well, we would purchase a
11 term assignment. We offered several options to
12 them.

13 EXAMINER CATANACH: Okay. I have
14 nothing further.

15 MR. CARR: At this time we call Mr.
16 Zinz.

17 BARRY L. ZINZ

18 Having been duly sworn upon his oath, was
19 examined and testified as follows:

20 EXAMINATION

21 BY MR. CARR:

22 Q. Would you state your name and place of
23 residence?

24 A. Barry Lynn Zinz. Midland, Texas.

25 Q. By whom are you employed?

1 A. Enron Oil & Gas.

2 Q. In what capacity?

3 A. Geologist.

4 Q. Have you previously testified before
5 this Division and had your credentials as a
6 geologist accepted and made a matter of record?

7 A. Yes, I have.

8 Q. Are you familiar with the application
9 filed in this case?

10 A. Yes, I am.

11 Q. And have you made a geologic study of
12 the area which is involved in this application?

13 A. I have.

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

16 EXAMINER CATANACH: They are.

17 Q. (BY MR. CARR) Mr. Zinz, have you
18 prepared certain exhibits today which address the
19 risk involved in drilling this well?

20 A. I have done that.

21 Q. Could you refer to what has been marked
22 as Enron Exhibit No. 6, identify this, and review
23 it for the Examiner?

24 A. This is a structure map of the
25 Pitchfork Ranch-Vaca Draw area. It's on the

1 Morrow C sand. And the contour interval is 50
2 feet. And the location of the Hallwood 1-Fed. 1
3 is noted with the orange dot up there.

4 And this is a 15,450 foot Morrow test,
5 located 660 from the north line and 1980 from the
6 west line of Section 1, 23 South -- excuse me, 25
7 South, 33 East, Lea County.

8 Q. How important is structure in making a
9 successful well in this area?

10 A. The purpose of this map is to
11 illustrate the favorable structural position we
12 were trying to obtain with this location. As you
13 get off the structure of Pitchfork Ranch, flank
14 well, or down-dip wells, you encounter water and
15 some sands. So structure is important and is a
16 factor in drilling in this area.

17 Q. Could you now go to your cross-section,
18 which has been marked Enron Exhibit No. 7, and
19 review the information on that exhibit for Mr.
20 Catanach?

21 A. Sure. This is a cross-section, A-to-A
22 prime, and it's noted on your structure map
23 there. And the traverse of the cross-section
24 runs near our location. And the cross-section is
25 hung stratigraphically on what we call the top of

1 the Morrow Clastics.

2 And you can see that the individual
3 sands zones within the Morrow are noted. Also
4 indicated on the cross-section are the individual
5 perforated intervals on these logs. And all of
6 the completion and workover data to the wells are
7 located on the bottom of the cross-section.

8 Now, in this area the Morrow is
9 characterized by channel to fan type deposits.
10 And if you noticed on the cross-section, there's
11 many different zones within these sand intervals
12 perforated, but not all of the perforations are
13 continuous in each zone. So these sands can be
14 lenticular. They kind of come and go through the
15 area.

16 And also of interest in this area with
17 regard to the Morrow is the fact that once you
18 get off the Pitchfork Ranch Field structure, you
19 get away from the field proper, your sands become
20 less homogeneous and you pick up more silicious
21 and lime cement of the sands.

22 So there is a risk as far as finding
23 the sand. And then also if you find it, you're
24 not guaranteed to have a quality reservoir.

25 Q. That's because of variations in both

1 permeability and porosity?

2 A. Yes, sir. That's correct.

3 Q. Enron has drilled a number of wells in
4 this area, have they not?

5 A. That is correct. We've drilled a lot
6 of wells.

7 Q. And have you encountered or completed
8 wells that were not economic successes along with
9 those that you have been able to successfully
10 produce?

11 A. Oh, we have. The cross-section
12 illustrates that. This first well is a
13 noncommercial well. It was actually drilled by H
14 & G, which is Enron. Another company owns the
15 well now. This is a mediocre well, the second
16 well on the cross-section.

17 Our location is going to be located
18 right here between this mediocre well and you do
19 have a good well here. So definitely we're
20 trying to pick up a good well like this one, but
21 the risk does exist with the porosities, the
22 permeabilities, the sands and the structure.

23 Q. Are you prepared to make a
24 recommendation to Mr. Catanach as to the risk
25 that should be assessed against any interest

1 owner who doesn't join in the drilling of this
2 well?

3 A. Yes, sir.

4 Q. And what is that?

5 A. Two hundred percent.

6 Q. Mr. Zinz, did you prepare Exhibits 6
7 and 7?

8 A. Yes, sir.

9 MR. CARR: At this time, Mr. Catanach,
10 I move the admission of Enron Exhibits 6 and 7.

11 EXAMINER CATANACH: Exhibits 6 and 7
12 will be admitted as evidence.

13 MR. CARR: And that concludes my
14 examination of Mr. Zinz.

15 EXAMINATION

16 BY EXAMINER CATANACH:

17 Q. Mr. Zinz, is it?

18 A. Yes, sir.

19 Q. Okay.

20 A. Z-i-n-z. I was going to give her a
21 card.

22 Q. There is a dry hole marker in the
23 northwest-northwest of Section 1. Was that
24 drilled to the Morrow?

25 A. No. That's a shallow well. All the

1 Morrow penetrations, the deep wells are circled.

2 Q. So there have been no wells drilled in
3 Section 1 to the Morrow?

4 A. No, sir.

5 Q. So the main Pitchfork-Morrow field is
6 to the northeast and to the east?

7 A. Yes, sir.

8 Q. Is that correct?

9 A. That's correct.

10 Q. You said the Bell Lake State No. 1, I
11 believe, in Section 2 --

12 A. Uh-huh.

13 Q. -- you said that that was a mediocre
14 well?

15 A. Yes, sir.

16 Q. But that is producing from the Morrow?

17 A. From the Morrow, yes, sir. This well
18 was a poor well. Cum'd something like 2 million
19 out of the Morrow, and then they went back up to
20 the Wolfcamp. And this well is still in the
21 Morrow.

22 MR. CARR: Which well are you talking
23 about, Mr. Zinz?

24 THE WITNESS: The well listed No. 2 on
25 the map on the cross-section is still in the

1 Morrow. That's the Bell Lake 2.

2 Q. (BY EXAMINER CATANACH) The main risk
3 to your location is being off-structure? Is that
4 your opinion?

5 A. I think it's a combination. I think
6 structure is a risk. We definitely need to have
7 a structural advantage. But the big risk is just
8 the sands themselves. The sands come and go.
9 Some of them are channelized. They wander
10 around. Difficult to predict.

11 Also your porosity and permeability in
12 the sands vary. And like I said, once you get
13 off the structure itself -- this is the main part
14 of the structure. Once you go down this
15 direction from the structure, these particular
16 qualities that I've talked about become less easy
17 to predict, and therein lies your risk.

18 EXAMINER CATANACH: I have nothing
19 further.

20 MR. CARR: At this time we call Randy
21 Cate.

22 **RANDALL S. CATE**

23 Having been duly sworn upon his oath, was
24 examined and testified as follows:

25 EXAMINATION

1 BY MR. CARR:

2 Q. Could you state your name for the
3 record, please?

4 A. It's Randall Cate.

5 Q. And where do you reside?

6 A. I live in Midland, Texas.

7 Q. By whom are you employed and in what
8 capacity?

9 A. I work for Enron Oil & Gas as a project
10 reservoir engineer.

11 Q. Have you previously testified before
12 this Division?

13 A. Yes, I have.

14 Q. At the time of that testimony, were
15 your credentials as a reservoir engineer accepted
16 and made a matter of record?

17 A. Yes, they were.

18 Q. Are you familiar with the application
19 filed in this case?

20 A. Yes, I am.

21 Q. Are you familiar with the proposed well
22 in the subject area?

23 A. Yes.

24 MR. CARR: Are the witness'
25 qualifications acceptable?

1 EXAMINER CATANACH: They are.

2 Q. (BY MR. CARR) Now, initially, Mr.
3 Cate, could you identify the proposed well?

4 A. Yes. It's the Hallwood 1-Federal Com.
5 No. 1. Its location is 660 feet from the north
6 line and 1980 feet from the west line of Section
7 1, Township 25 South, Range 33 East, Lea County,
8 New Mexico.

9 Q. Have you prepared an AFE for this well?

10 A. Yes. I worked in conjunction with our
11 drilling superintendent. He actually prepared
12 the AFE.

13 Q. Have you reviewed it?

14 A. Yes.

15 Q. Is that what has been marked as Enron
16 Exhibit No. 7?

17 A. That is correct.

18 Q. Could you review that AFE for the
19 Examiner, please?

20 A. Okay. It shows our anticipated
21 drilling cost and our anticipated completion cost
22 and then a total for the well. Our anticipated
23 dry hole would be the first column, \$1,447,000.
24 If successful and completion is made, we
25 anticipate spending \$545,000 for a total

1 potential well cost of \$1,992,000.

2 Q. Now, are these costs in line with what
3 has been charged by Enron and other operators in
4 this area for similar wells?

5 A. Yes. We have considerable drilling
6 experience in the Pitchfork Ranch proper field,
7 and these costs are basically taken from those
8 other wells.

9 Q. Could you identify for Mr. Catanach
10 what has been marked as Enron Exhibit No. 8?

11 A. I supplied a package of drilling
12 reports that are on our Diamond SM-36 No. 1 well,
13 which is approximately, oh, three-quarters of a
14 mile northeast of our proposed Hallwood
15 location. And the purpose is to show that there
16 is considerable mechanical risk associated with
17 these deep Morrow wells.

18 And I'll summarize it for the record.
19 We basically spent over \$1.2 million trying to
20 add additional Morrow perforations from a
21 plug-back operation from the lowest Morrow pay,
22 which was the Morrow C. We tested first the B
23 sand at perforations 14,994 to 15,028 feet. We
24 found that those were nonproductive,
25 noncommercial, flowed very low amounts of gas.

1 Then we moved up to the Sinatra sand.
2 We set a sand plug over that. Moved up to the
3 Sinatra sand and attempted a completion effort
4 there. We acidized the zone and got no flow, so
5 they ran in with the wire-line to check the
6 plug-back TD, broke through a bridge, immediately
7 had 10,000 of pounds of pressure. It blew all
8 the tools up to the lubricator. The tools
9 disintegrated, fell down the hole.

10 We had to follow up with milling
11 operations, fishing operations. We started this
12 effort in January 91 and finally ended up in
13 November of 91.

14 We could not make a successful
15 completion out of the Sinatra sand. It was a
16 high pressure but no flow rate. So we went up to
17 what we called the A sand and tested it at low
18 flow rates. Then we did fracture-treat it, and
19 we have made a commercial well there.

20 But, in addition to the drilling costs,
21 there's a substantial risk. We did end up
22 spending \$1.2 million in that completion effort
23 on this other well.

24 Q. In addition to the physical risk
25 associated with just the character of the

1 reservoir, then there is a mechanical risk
2 associated with developing the Morrow in this
3 particular area?

4 A. That's correct.

5 Q. In your opinion is there a chance that
6 Enron could drill a well at this location that
7 would not be a commercial success?

8 A. Yes, there's a substantial risk.

9 Q. Do you concur in Mr. Zinz'
10 recommendation that a 200 percent risk penalty be
11 assessed against the operators who do not
12 participate in the drilling of this well?

13 A. Yes, I do.

14 Q. Were Exhibits 7 and 8 prepared by you
15 or have you reviewed them and can you testify as
16 to their accuracy?

17 A. Yes.

18 MR. CARR: At this time, Mr. Catanach,
19 we would move admission of Enron Exhibits 7 and
20 8.

21 EXAMINER CATANACH: Exhibits 7 and 8
22 will be admitted as evidence.

23 Q. (BY MR. CARR) Mr. Cate, in your
24 opinion will approval of this application and
25 pooling of the subject lands be in the best

1 interests of conservation, the prevention of
2 waste, and the protection of correlative rights?

3 A. Yes, it will.

4 MR. CARR: That concludes my
5 examination of Mr. Cate.

6 EXAMINATION

7 BY EXAMINER CATANACH:

8 Q. Mr. Cate, this well that you just
9 referenced, that was a recompletion?

10 A. That's correct.

11 Q. Have you had any similar problems in
12 actually drilling a well?

13 A. Yes. The Diamond Federal No. 8, let's
14 see if we can find that one, this is a well that
15 we drilled, be about two-and-a-half miles
16 southeast. Do you see it in Section 8? It would
17 be the north half of Section 8. That would be 25
18 South and 34 East.

19 And in that drilling operation we
20 experienced, when we got to TD, we experienced
21 liner problems when we set the liner. The cement
22 job did not work well. This well was successful
23 over here. There was gas coming up through the
24 liner. They had to do another squeeze job on
25 it.

1 So typically it's in a completion area
2 that you experience your difficulties. You are
3 sometimes required during drilling, number one,
4 you have to set this 7-3/4 inch or 7-5/8 inch
5 intermediate casing before you enter into the
6 Wolfcamp Formation because it is notorious for
7 very high pressure and very low volumes. But it
8 can cause blowouts in the area.

9 Then you encounter some of the same
10 type of formations all the way down through the
11 Upper Morrow and the Atoka. You can get these
12 high pressure zones that don't have a lot of
13 volume. In order to control those, you set
14 another 5-1/2 inch liner.

15 And then when you get down to the
16 Morrow C, it happens to be a lower pressured
17 zone. So if you have too much mud weight, you
18 can lose circulation into those, into those
19 sands.

20 So there is risk and mechanical
21 problems we've had during both drilling
22 operations and completion.

23 EXAMINER CATANACH: That's all I have.

24 MR. CARR: I have nothing further.

25 EXAMINER CATANACH: There being nothing

1 further, Case 10514 will be taken under
2 advisement.

3 [And the proceedings were concluded.]
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11 I do hereby certify that the foregoing is
12 a complete record of the proceedings in
13 the Examiner hearing of Case No. 10514,
heard by me on July 23 1992.

14 David R. Blank, Examiner
15 Oil Conservation Division
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1 CERTIFICATE OF REPORTER

2
3 STATE OF NEW MEXICO)
4) ss.
5 COUNTY OF SANTA FE)

6 I, Debbie Vestal, Certified Shorthand
7 Reporter and Notary Public, HEREBY CERTIFY that
8 the foregoing transcript of proceedings before
9 the Oil Conservation Division was reported by me;
10 that I caused my notes to be transcribed under my
11 personal supervision; and that the foregoing is a
12 true and accurate record of the proceedings.

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

18 WITNESS MY HAND AND SEAL JULY 29, 1992.
19
20

21 
22 _____
23 DEBBIE VESTAL, RPR
24 NEW MEXICO CSR NO. 3
25