

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. 12,832  
)  
APPLICATION OF YATES PETROLEUM )  
CORPORATION FOR AN UNORTHODOX GAS WELL )  
LOCATION, CHAVES COUNTY, NEW MEXICO )  
\_\_\_\_\_ )

ORIGINAL

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

BEFORE: DAVID R. CATANACH, Hearing Examiner

March 7th, 2002

Santa Fe, New Mexico

02 MAR 21 AM 10:40  
OIL CONSERVATION DIVISION

This matter came on for hearing before the New Mexico Oil Conservation Division, DAVID R. CATANACH, Hearing Examiner, on Thursday, March 7th, 2002, at the New Mexico Energy, Minerals and Natural Resources Department, 1220 South Saint Francis Drive, Room 102, Santa Fe, New Mexico, Steven T. Brenner, Certified Court Reporter No. 7 for the State of New Mexico.

\* \* \*

## I N D E X

March 7th, 2002  
 Examiner Hearing  
 CASE NO. 12,832

	PAGE
EXHIBITS	3
APPEARANCES	3
APPLICANT'S WITNESSES:	
<u>CHARLES E. MORAN</u> (Landman)	
Direct Examination by Mr. Carr	4
Examination by Examiner Catanach	11
Examination by Mr. Brooks	14
Further Examination by Examiner Catanach	15
<u>TIM MILLER</u> (Geologist)	
Direct Examination by Mr. Carr	15
Examination by Examiner Catanach	25
REPORTER'S CERTIFICATE	29

\* \* \*

## E X H I B I T S

Applicant's	Identified	Admitted
Exhibit 1	7	11
Exhibit 2	8	11
Exhibit 3	8	11
Exhibit 4	9	11
Exhibit 5	10	11
Exhibit 6	10	11
Exhibit 7	17	25
Exhibit 8	18	25
Exhibit 9	19	25
Exhibit 10	21	25
Exhibit 11	22	25
Exhibit 12	23	25
Exhibit 13	23	25
Exhibit 14	23	25

\* \* \*

## A P P E A R A N C E S

## FOR THE DIVISION:

DAVID K. BROOKS  
 Attorney at Law  
 Energy, Minerals and Natural Resources Department  
 Assistant General Counsel  
 1220 South St. Francis Drive  
 Santa Fe, New Mexico 87505

## FOR THE APPLICANT:

HOLLAND & HART, L.L.P., and CAMPBELL & CARR  
 110 N. Guadalupe, Suite 1  
 P.O. Box 2208  
 Santa Fe, New Mexico 87504-2208  
 By: WILLIAM F. CARR

\* \* \*

1           WHEREUPON, the following proceedings were had at  
2 11:46 a.m.:

3           EXAMINER CATANACH: At this time we'll call Case  
4 12,832, the Application of Yates Petroleum Corporation for  
5 an unorthodox gas well location, Chaves County, New Mexico.  
6           Call for appearances.

7           MR. CARR: May it please the Examiner, my name is  
8 William F. Carr with the Santa Fe office of Holland and  
9 Hart, L.L.P. We represent Yates Petroleum Corporation, and  
10 I have two witnesses.

11           EXAMINER CATANACH: Are there any additional  
12 appearances?

13           Will the two witnesses please stand to be sworn  
14 in?

15           (Thereupon, the witnesses were sworn.)

16                       CHARLES E. MORAN,  
17 the witness herein, after having been first duly sworn upon  
18 his oath, was examined and testified as follows:

19                               DIRECT EXAMINATION

20 BY MR. CARR:

21           Q. State your name for the record, please.

22           A. My name is Charles Moran.

23           Q. Mr. Moran, where do you reside?

24           A. I reside in Artesia, New Mexico.

25           Q. By whom are you employed?

1 A. Yates Petroleum Corporation.

2 Q. What is your position with Yates Petroleum  
3 Corporation?

4 A. Landman.

5 Q. Mr. Moran, have you previously testified before  
6 the New Mexico Oil Conservation Division?

7 A. Yes, I have.

8 Q. At the time of that testimony, were your  
9 credentials as an expert in petroleum land matters accepted  
10 and made a matter of record?

11 A. Yes, they were.

12 Q. Are you familiar with the Application filed in  
13 this case?

14 A. Yes, I am.

15 Q. And are you familiar with the status of the lands  
16 in the subject area?

17 A. Yes, I am.

18 MR. CARR: Are Mr. Moran's qualifications  
19 acceptable?

20 EXAMINER CATANACH: They are.

21 Q. (By Mr. Carr) Initially, would you summarize for  
22 the Examiner what it is that Yates seeks with this  
23 Application?

24 A. Yates Petroleum Corporation is seeking approval  
25 of our Pay "AYY" well at an unorthodox location of 660 feet

1 from the north line, 330 feet from the west line, in  
2 Section 11 of Township 8 South, Range 26 East.

3 Q. And what acreage are you proposing to dedicate to  
4 the well?

5 A. We propose to dedicate a west-half spacing unit  
6 to the well for all formations to be developed on a 320-  
7 acre spacing unit, and the northwest quarter in the event  
8 of a formation requiring 160-acre spacing.

9 Q. Is one of the formations, 320-acre-spaced  
10 formation, the Undesignated North Foor Ranch-Prepermian Gas  
11 Pool?

12 A. That's what I understand it to be, and the other  
13 one would be the Pecos Slope Abo Gas Pool.

14 Q. What rules govern each of these pools?

15 A. The rule for the Undesignated North Ranch-  
16 Precambrian Gas Pool [*sic*] is governed by the standard  
17 rules of the OCD, and the Pecos Slope-Abo is governed by  
18 the rules for the Pecos Slope-Abo Gas Pool.

19 Q. Those rules were promulgated in 1996 by Order  
20 Number R-9676; is that correct?

21 A. Yes.

22 Q. Rule 5 of those rules provides that any  
23 application for an unorthodox location in the Pecos Slope-  
24 Abo must go to hearing; is that right?

25 A. Yes.

1 Q. Could you review for the Examiner why this  
2 unorthodox location is necessary?

3 A. Our original location that we proposed to drill  
4 was at a legal location of 660 from the north, 660 from the  
5 west. However, upon a surface examination and as shown by  
6 the topo included, there is a ravine there that the BLM  
7 would not allow us to permit a well at that location. They  
8 recommended that we move the well to a location 230 feet  
9 west -- or east of the west line in Section 11.

10 We did not -- We attempted to move it the minimal  
11 distance we could, unorthodox, and we found that the 330  
12 location, we think we can build a location there.

13 Q. You also could not move to the east for geologic  
14 reasons?

15 A. Yes, we could not move to the east for geologic  
16 reasons, which the geologist will testify to.

17 Q. Let's go to what has been marked for  
18 identification as Yates Exhibit Number 1, and I'd ask you  
19 to identify that and review it for the Examiner.

20 A. Exhibit 1 is a plat of the leasehold in the area  
21 around Section 11, identifying the west half of Section 11  
22 as the proposed spacing unit for the 320-acre formations.

23 Q. And it shows the offset operators?

24 A. Yes, it shows the offset operators.

25 Q. And other wells in the area?

1 A. And other wells in the area.

2 Q. What is Exhibit Number 2? Is this your  
3 administrative application?

4 A. Exhibit Number 2 was the well location acreage  
5 dedication plat and C- -- well, I don't remember the exact  
6 C number -- filed with the APD for the well.

7 Q. Mr. Moran, is this what you have as Exhibit  
8 Number 2 in your set of exhibits?

9 A. Okay, I guess it is. Oh, there it is. I was  
10 referring to the original Exhibit 2 in my administrative  
11 application. I apologize.

12 Q. Okay, Exhibit 2 is the administrative  
13 application?

14 A. Yes.

15 Q. And attached to that is the survey that you were  
16 just talking about; is that right?

17 A. Yes, yes.

18 Q. And you're proposing to dedicate to this well  
19 standard spacing units; is that also correct?

20 A. Correct.

21 Q. In this exhibit there is also the topographic  
22 map; is that correct?

23 A. Yes, that is identified as Exhibit 3 to the  
24 administrative application.

25 Q. And --

1           A.    And on that map, in Section 11, you can see a box  
2 where we propose to put the location.  And if you move to  
3 the east of that box you can see that where 660 feet would  
4 be is right in the middle of the ravine.

5           Q.    Is all working interest committed to this well?

6           A.    Yes, all working interest is committed to the  
7 well.

8           Q.    All right, let's go to what has been marked as  
9 Exhibit Number 4.  Would you identify that, please?

10          A.    That is the ownership schedule for the lands  
11 affected by this Application, that being the leasehold  
12 ownership in Section 10, the working interest owners and  
13 the affected wells in the area and the ownership of Section  
14 3 in Township 8 South, 26 East, on an east-half spacing  
15 unit.

16          Q.    Now, if we look at this exhibit and compare it to  
17 the plat which is Exhibit Number 1, does this well location  
18 actually encroach on Section 2?

19          A.    No, it does not encroach on Section 2.

20          Q.    And so what we're doing is, we're encroaching on  
21 the diagonal slightly, Section 3, and to the west on  
22 Section 10?

23          A.    Correct.

24          Q.    Section 10 is operated by who?

25          A.    Section 10 is operated by Yates Petroleum

1 Corporation.

2 Q. Section 3 is operated by --

3 A. By Yates Petroleum Corporation as well.

4 Q. Are there some additional interest owners in  
5 Section 3?

6 A. There are three owners that are non-Yates  
7 entities that are working interest owners in Section 3.

8 Q. That's Roxy Burkfield?

9 A. Roxy Burkfield and Bryan Solsbery and Dean  
10 Solsbery, Jr.

11 Q. What is Yates Exhibit Number 5?

12 A. Yates Exhibit 5 is the affidavit of mailing.  
13 When we were sent to hearing, we had to notify the owners  
14 again that I notified at the administrative hearing, that  
15 we were going to be required to go to hearing.

16 Q. And then what is Exhibit Number 6?

17 A. Exhibit Number 6 is a waiver received from two of  
18 the working interest owners in Section 3, that being Dean  
19 Solsbery and Bryan Solsbery, that was written by their  
20 attorney, and the other waivers attached obtained from the  
21 other working interest owners in Section 10.

22 Q. At this point in time, the only interest owner  
23 who we've not reached an agreement with, really, is Roxy  
24 Burkfield; is that correct?

25 A. That is correct, and I've had conversations with

1 her attorney. I don't know that they object, they just --  
2 They're afraid to do anything.

3 Q. Will Yates call a geological witness to review  
4 the technical portions of the case?

5 A. Yes.

6 Q. Were Yates Exhibits 1 through 6 either prepared  
7 by you, or have you reviewed them and can you testify as to  
8 their accuracy?

9 A. Yes, they were prepared and reviewed by me.

10 MR. CARR: At this time, Mr. Catanach, we move  
11 the admission into evidence of Yates Exhibits 1 through 6.

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

14 MR. CARR: And that concludes my direct  
15 examination of Mr. Moran.

16 EXAMINATION

17 BY EXAMINER CATANACH:

18 Q. Mr. Moran, in Section 3 is there a producing  
19 well?

20 A. Yes, there are, the Percentage "APR" in the  
21 southeast corner of the section, and in the northeast  
22 corner there are the Coronet TI Number 1 and 2, which are  
23 both Abo wells, and in the northwest quarter there's a well  
24 operated by a third party. I don't remember the name of  
25 the well.

1 Q. The well in the southeast quarter of Section 3,  
2 what is that producing from? Do you know?

3 A. Currently, I believe, it's a commingled well. I  
4 think it's producing from both the -- I'd rather let the  
5 geologist answer that.

6 Q. I assume that this Exhibit Number 6, the letter  
7 from the Solsbery interest -- I'm a little curious as to --  
8 it seems to me that they've not objected to this location.

9 A. The conversation I had with Mr. Solsbery's  
10 attorney, upon their advice they had received from -- A  
11 little history may help understand the Solsbery and Roxy  
12 Burkfield interest.

13 Last fall I had to force pool those interests in  
14 the Percentage well after the fact, because they were not  
15 -- there was a family feud going on. The family has  
16 settled the ownership of those minerals, and that is why  
17 they were both represented by attorneys; they were fighting  
18 over who owned the minerals, and the attorneys are not  
19 familiar with oil and gas, per say.

20 MR. BROOKS: I thought I remembered those names  
21 from somewhere. Now I remember where.

22 THE WITNESS: Yes.

23 Q. (By Examiner Catanach) I'm just a little curious  
24 as to their letter. What does it mean when -- "that Yates  
25 will produce ratably from the APR/Percentage well"?

1           A.    The subject of the discussion was whether we  
2 would shut in the Percentage well at their detriment and  
3 produce the Pay well at that unorthodox location, and I  
4 explained that we have an obligation to protect all the  
5 leases in the area because of the ownership, and that we  
6 would produce each one as best we could as a prudent  
7 operator.  And that is what I understood him to mean,  
8 "ratably".

9           Q.    I see.  So the only additional interest owners  
10 that you notified were all in Section 3; is that correct?

11          A.    I only notified the east half of Section 3  
12 because of the established spacing unit, and I notified the  
13 operator of Section 2 as a courtesy.

14          Q.    Okay, within Section 10 the interest -- there are  
15 no additional interests in Section 10?

16          A.    They are owned by various Yates entities that  
17 have signed a waiver to the unorthodox location.

18          Q.    All right.  Now, I guess the well will be drilled  
19 in the northeast quarter -- I'm sorry, the northwest  
20 quarter --

21          A.    Northwest.

22          Q.    -- I assume for geologic reasons --

23          A.    Yes.

24          Q.    -- which will be presented?

25          A.    Yes.

1 Q. Are there any existing Abo wells within Section  
2 11 at this point, do you know?

3 A. I'm not aware of one. I mean, there might -- I  
4 think there was one, possibly, in the east half, but I just  
5 don't remember what that one was.

6 EXAMINER CATANACH: Okay. I have nothing  
7 further, Mr. Carr.

8 Do you have anything?

9 MR. BROOKS: Just one.

10 EXAMINATION

11 BY MR. BROOKS:

12 Q. Section 10 is, from these numbers, I assume --  
13 are those federal leases also?

14 A. Those are federal leases.

15 Q. And Yates owns all the working interest?

16 A. Yes.

17 Q. Or Yates collectively?

18 A. Various Yates entities own the working interest.

19 Q. But Section 3 is fee?

20 A. Section 3 is fee.

21 Q. Okay, so you have different royalty owners in  
22 Section 3, and of course the federal government in Section  
23 1 --

24 A. Correct.

25 Q. -- Section 11.

1                   Okay, thank you.

2                                   FURTHER EXAMINATION

3 BY EXAMINER CATANACH:

4           Q.    Have you ever had a Yates entity object to a  
5 Yates application?

6           A.    Yes.

7           Q.    Really?

8           A.    It gets solved internally.

9                   EXAMINER CATANACH:  I see.  This witness may be  
10 excused.

11                   MR. CARR:  At this time we call Tim Miller.

12                                   TIM MILLER,

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

15                                   DIRECT EXAMINATION

16 BY MR. CARR:

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

18           A.    My name is Tim Miller.

19           Q.    Mr. Miller, where do you reside?

20           A.    I reside in Carlsbad, New Mexico.

21           Q.    And by whom are you employed?

22           A.    Yates Petroleum.

23           Q.    What is your position with Yates?

24           A.    I'm a geologist with Yates.

25           Q.    Have you previously testified before this

1 Division and had your credentials as an expert in petroleum  
2 geology accepted and made a matter of record?

3 A. Yes, they were.

4 Q. Are you familiar with the Application filed in  
5 this case on behalf of Yates Petroleum Corporation?

6 A. Yes, I am.

7 Q. Have you made a technical study of the area  
8 surrounding the proposed well?

9 A. Yes, I have.

10 Q. And are you prepared to share the results of that  
11 work with Mr. Catanach?

12 A. Yes, I am.

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

15 EXAMINER CATANACH: Mr. Miller is so qualified.

16 Q. (By Mr. Carr) Mr. Miller, first would you  
17 identify the primary objective in this proposed well?

18 A. The primary objective in the Pay well is the  
19 deepest producing formation in the area out there, called  
20 the Siluro-Devonian dolomite.

21 Q. The Abo formation is also --

22 A. Yeah, the Abo is the secondary objective. But  
23 our primary purpose for drilling the well is to the Siluro-  
24 Devonian.

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

1 Number 7, the structure map. I'd ask you to review the  
2 information on this exhibit for the Examiner.

3 A. Okay, this is a structure map of the four  
4 sections in the area, and basically what it is is a  
5 structure map on top of the Siluro-Devonian. And  
6 basically, as you see, there is a fault running from the  
7 southwest to the northeast part of the map, and this is  
8 basically known by some seismic data. There's a seismic  
9 line to the south of this, basically, that runs west to  
10 east from the south half of 10 over to 11, so we're  
11 projecting in where this fault may be.

12 As you can see, where the pay well is projected  
13 we would be down the flank of a structural nose. As you  
14 can see, there is not that much control for the Siluro-  
15 Devonian. There is one well in the southwest quarter, the  
16 Railroad State Number 2, of Section. Pecos River Operating  
17 drilled that well recently. The only deep well in Section  
18 3 is our percentage well, and there are three wells down in  
19 Section 10, the Horn 1, the Horn 2 and -- it's hard to see  
20 there, but the Jasper 3 up in the northeast quarter of 10.  
21 There basically are no wells to date drilled in Section 11,  
22 so far.

23 So basically, this is a map showing a fault  
24 running southwest to northeast. We figure our Pay well  
25 will be on the upthrown side. The downthrown side, as you

1 can see on the Horns 1, 2 and 3, they basically all -- the  
2 Horns 1 and 2 are producing out of Strawn sand or basically  
3 what's known as Pennsylvanian sand formation, and the  
4 Jasper 3 right now has been plugged back to the Abo  
5 formation. These were basically uneconomic wells in the  
6 Siluro-Devonian, and they're on the downthrown side of the  
7 fault.

8           The Percentage well, which to date is one of the  
9 best wells out there, as opposed to the Railroad State, is  
10 higher structurally to the Railroad State, and it is  
11 commingled out of two separate formations, the Penn sands  
12 and the Siluro-Devonian.

13           Q.    Let's now go to the isopach map, Yates Petroleum  
14 Corporation Exhibit Number 8.

15           A.    And basically, to me, this signifies why we are  
16 wanting to drill the Pay well at an unorthodox location.  
17 This is a gross isopach of the dolomite, the thickness of  
18 the Siluro-Devonian out there.

19           The Percentage well -- now it's very hard to see  
20 because of that circle -- the Percentage well, which is in  
21 the southeast quarter of Section 3, has a total interval,  
22 total thickness of 74 feet.

23           The Railroad State Number 2 well, which is in the  
24 southwest quarter of Section 2, 660 from the south and  
25 west, has 30 feet maximum thickness.

1           If you move down to the Jasper 3 well, the Jasper  
2 3 and the Horn Number 2 wells were not drilled all the way  
3 through the dolomite, and it's estimated that the Jasper 3  
4 has 130-feet-plus of dolomite, the Horn 2 100-plus, and the  
5 Horn Number 1 does have 220 feet in it.

6           As you go from west to east -- as you can see,  
7 these are the thicknesses of the dolomite -- you are  
8 thinning to the east. And we feel that if we would -- what  
9 the BLM has suggested, forced us to put our pay location  
10 basically to the east of the Railroad State, down in  
11 Section 11, we would be 20 feet or less, or maybe even  
12 nothing, of the dolomite.

13           So the further east you move past that Railroad  
14 State Number 2 well, you have the danger of being totally  
15 out of the dolomite.

16           And if you could stay more towards the west of  
17 it, closer to where the Percentage Number 1 and the Jasper  
18 3 is located, you will still stay, as my map says, maybe  
19 somewhere between 60 and 80 feet of dolomite that still can  
20 be productive.

21           Q.    There's also a trace on this exhibit for a cross-  
22 section, is there not?

23           A.    Right.  Yes, there is.

24           Q.    Let's move on to the cross-section, which is  
25 marked Yates Exhibit Number 9.

1           A.    Okay, this cross-section -- Again, there's two  
2 cross-sections for exhibits. This one is structural cross-  
3 section hung on a subsea depth of minus 1550. Basically it  
4 runs, as you can see on Exhibit 8, it runs from south,  
5 starting on the left of the cross-section, through the  
6 Jasper 3, across the fault, through our Percentage Number  
7 1, which is in the southeast quarter of Section 3, through  
8 the proposed Pay well, and then up and ends up into the  
9 Railroad State Number 2.

10                As you can see over in the Jasper 3, of course,  
11 again, we did not drill all the way through the dolomite.  
12 This interval is colored in blue on all three wells. The  
13 estimated thickness there, like I have on the isopach map,  
14 is 130-feet-plus.

15                You cross the fault and you go up to the  
16 Percentage, the dolomite thins to 74 feet. And as you can  
17 see on the cross-section, we have perms. The dolomite  
18 there is perf'd at 5630 to -36 feet, and is commingled with  
19 the -- what we call Strawn sands up above it in three  
20 separate sand intervals. It has produced as of through  
21 December, 905 million, almost 1 BCF. It's a very good  
22 well.

23                The Jasper well to the left has produced 66  
24 million, and that is basically now -- which I do not show  
25 on the map -- uphole in the Abo. We have a plug set over

1 the perfs in the Strawn, so at this point we're not  
2 producing out of it.

3 The Railroad State Number 2, which has only 30  
4 feet of dolomite and it is directly east of our Percentage,  
5 is perf'd from 5670 to -77 and from 5690 to -96. That is  
6 all they have left in that well, is 30 feet of dolomite,  
7 and as through December it has made, as you can see just  
8 looking at the cum so far, in less than a year it's already  
9 made 750 million, and it still is producing around 2 1/2 to  
10 3 million a day out of the dolomite.

11 This gives you an idea of what the structure is  
12 being designated here, and that -- it seems like the  
13 dolomite that is on the upthrown side of the fault has  
14 better production than what is shown down in the Jasper,  
15 which basically did not test economic for the dolomite.

16 Q. All right. Now, you've reviewed the structural  
17 cross-section, Exhibit 9. Let's go on to the stratigraphic  
18 cross-section, Yates Petroleum Corporation Exhibit Number  
19 10.

20 A. Okay, once again the stratigraphic cross-section  
21 is basically through the same three wells plus the proposed  
22 well, and this just gives you a different view of it, and  
23 this is hung stratigraphically on top of the Cisco  
24 formation to give you a more flatter version of that.

25 You can see, just looking from left to right,

1 starting over at the Jasper well, again you have 130-feet-  
2 plus dolomite, and as we go up through the Percentage we  
3 have 74 feet of dolomite, and it thins going over to the  
4 Railroad State, which again, these cross-sections are  
5 showing that if you would have the location down in Section  
6 11 moved further east than what it is right now, you have  
7 the danger of totally losing the dolomite, thinning out.

8 Q. What is Exhibit 11?

9 A. Exhibit 11 -- and basically, since all three of  
10 them are shown on the map, we can talk about them all  
11 together. Exhibits 11, 12 and 13, these are maps of the  
12 Abo sand intervals in the area.

13 And Yates Petroleum normally groups the Abo sands  
14 into an A interval, a B interval and a C interval, which --  
15 meaning the A interval is really a cutoff from the top of  
16 the Abo, 100 feet down into the Abo, that's -- there's  
17 several sands in there, and we lump them together and call  
18 it an A zone.

19 Same thing with the B, we consider it from below  
20 the A zone, about 150 feet thick, of different sand  
21 intervals. And the C zone is down below that.

22 As you can see on the map, Exhibit 11 would be of  
23 the A zone. Where the Pay well would be situated right  
24 now, we might encounter maybe a maximum of two feet of it.

25 Now, this is a map of the net porosity of the

1 neutron density crossover on the logs with a 9-percent  
2 cutoff. This gives us what we've used in the past, a  
3 better advantage of trying to detect where we would want to  
4 -- when we drill Abo wells, how we spot our locations.

5 The Exhibit Number 12 is an isopach of the net  
6 porosity of the B interval. And once again, you see we're  
7 right on the edge. We -- Basically, my mapping says we  
8 would have no sand for the B interval.

9 The last exhibit, Exhibit 13, is obviously the  
10 best of the three intervals. We're predicting we can  
11 encounter somewhere around 15 feet of the sand in this  
12 interval to be productive.

13 Q. Is the final exhibit a summary of your geological  
14 presentation?

15 A. Yes, it is.

16 MR. CARR: And, Mr. Examiner, that should be  
17 marked Exhibit 14, not Exhibit 12.

18 THE WITNESS: Basically the summary of it is, the  
19 Pay well, the Pay "AA" [sic] Federal Com Number 1 needs to  
20 be at an unorthodox location at least for two reasons.

21 Of course, the first reason is that the  
22 topography out there influences the location. Like Mr.  
23 Moran said, our first location, which would have been  
24 orthodox, at 660 from the north and west puts it right down  
25 in the middle of a ravine.

1           Any location proposed to move it further east of  
2 this location, again, would cause, as shown by the two  
3 cross-sections and the gross isopach thickness map of the  
4 Siluro-Devonian dolomite, to be in danger of basically  
5 thinning out and not encountering any productive dolomite,  
6 as opposed to the thicknesses.

7           Again, the wells -- the Horn 1, which has 220  
8 feet of dolomite; the Horn 2, 100-plus feet; the Jasper 3,  
9 130-feet-plus; the Percentage well, which is to the  
10 northwest of where the proposed pay location is, has a  
11 gross thickness of 74 feet; and the Railroad State Number  
12 2, which basically is north northeast of the Pay location,  
13 is already thinned down to 30 feet.

14           So where we're proposing, at least we think we  
15 have a shot of at least staying -- maybe having the  
16 dolomite still be there between 60 and 80 feet thick.

17           Q.    (By Mr. Carr) Mr. Miller, in your opinion will  
18 approval of this Application and the drilling of this well  
19 at the proposed unorthodox location be in the best interest  
20 of conservation, the prevention of waste, and the  
21 protection of correlative rights?

22           A.    Yes, it will.

23           Q.    Were Exhibits 7 through 14 prepared by you?

24           A.    Yes, they were.

25           MR. CARR: At this time I move admission into

1 evidence of Yates Petroleum Corporation Exhibits 7 through  
2 14.

3 EXAMINER CATANACH: Exhibits 7 through 14 will be  
4 admitted as evidence.

5 MR. CARR: And that concludes my examination of  
6 Mr. Miller.

7 EXAMINATION

8 BY EXAMINER CATANACH:

9 Q. Mr. Miller, have you done any mapping in the  
10 Strawn at this location?

11 A. Not really, no.

12 Q. That is a secondary target?

13 A. That is a secondary target. From what we've seen  
14 so far -- I don't have any, *per se*, thickness maps, any  
15 gross isopachs or structure -- structure sort of mirrors  
16 the structure of the Siluro-Devonian.

17 We have found out by -- we have taken a full-  
18 diameter core in the Horn 2, down through the -- what used  
19 to be called Penn sands, and we think now we've dated it  
20 with a paleo that it is Strawn, and they more act like more  
21 kind of a debris-type sand, because they're a jumble of  
22 limestones, dolomites, igneous rock fragments, granite  
23 washed in there. It's not -- We call it a sand; it's not a  
24 *per se* clean sand, say, like a Morrow sand. It's more of a  
25 mix of different rocks in it.

1 Q. In the Percentage well you do have the Strawn --

2 A. Right, right, that is commingled with the  
3 dolomite.

4 Q. Does that contribute a lot to the well's  
5 production, do you know?

6 A. There's a debate in-house. If you look at the  
7 cross-section it will show you -- it doesn't matter, cross-  
8 section Exhibit Number 10, on the Percentage well there is  
9 -- you can see the blue coloration in there. That's the  
10 dolomite where we are only perf'd out of six feet.

11 Right up above it is a Strawn sand that sits  
12 right on top of the dolomite. And as you can see -- It's  
13 hard to see the crossover, the neutron density, but to the  
14 right of where those perms are you can see kind of a  
15 blackish area. That's averaging around 15-, 16-percent  
16 porosity, which is outstanding for a well like this.

17 We frac'd this well after we initially acidized  
18 and perf'd it. The data is -- Before we frac'd that well,  
19 the dolomite was doing 1.3 million. And then when we  
20 frac'd the well and we got the commingling order, the thing  
21 was doing anywhere from 5 to 6 million.

22 So it's debatable. Did we frac down into the  
23 dolomite and open up more pay? That we really don't know.  
24 I think they're both contributing, but how much, one  
25 towards the other, we don't know for a fact.

1 Q. Is it important for this well to be on the  
2 upthrown side of that fault?

3 A. Yes, I think it is, because the Horns 1, 2 and  
4 Jasper 3, they're on the downthrown side, and we've tested  
5 gas out of the dolomite, but it tested -- was anywhere from  
6 50,000 to about 100,000 a day, just look at that one, and  
7 with some water.

8 That's just not an economic -- producing solely  
9 as Siluro-Devonian dolomite wells.

10 Q. Is there communication across that fault?

11 A. That we don't know.

12 Q. Actually, moving the well to the east would  
13 probably situate you better in the Abo formation. Is that  
14 your --

15 A. Yes, looking at the -- looking at the --- it  
16 probably would, but again our prime target is the Devonian.  
17 We figure we can make more gas out of the Devonian dolomite  
18 than we could the Abo.

19 Basically the Abo right now, in case we strike  
20 out in the dolomite, would be the backup.

21 EXAMINER CATANACH: Okay, I have no further  
22 questions.

23 MR. CARR: That concludes our presentation in  
24 this case.

25 EXAMINER CATANACH: Okay, there being nothing

1 further in this case, Case 12,832 will be taken under  
2 advisement.

3 And we'll adjourn until 1:30.

4 MR. BROOKS: Sounds good.

5 (Thereupon, these proceedings were concluded at  
6 12:18 p.m.)

7 \* \* \*

8  
9  
10  
11  
12  
13 I do hereby certify that the foregoing is  
14 a complete record of the proceedings in  
the Executive Hearing of Case No. BP32  
heard by me on March 7 1962  
David L. Cortland, Examiner  
Oil Conservation Division  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
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 March 15th, 2002.




---

STEVEN T. BRENNER  
 CCR No. 7

My commission expires: October 14, 2002