

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 PETROLEUM)
CORPORATION FOR AN UNORTHODOX INFILL OIL)
WELL LOCATION, CHAVES COUNTY, NEW MEXICO)

CASE NO. 13,045

ORIGINAL

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

BEFORE: WILLIAM V. JONES, JR., Hearing Examiner

August 7th, 2003

Santa Fe, New Mexico

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Oil Conservation Division

This matter came on for hearing before the New Mexico Oil Conservation Division, WILLIAM V. JONES, JR., Hearing Examiner, on Thursday, August 7th, 2003, 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.

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August 7th, 2003
Examiner Hearing
CASE NO. 13,045

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A P P E A R A N C E S

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By: WILLIAM F. CARR

* * *

ALSO PRESENT:

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* * *

1 WHEREUPON, the following proceedings were had at
2 9:28 a.m.:

3 EXAMINER JONES: Next case, let's call Case
4 13,045, which is the Application of Yates Petroleum
5 Corporation for an unorthodox infill oil well location,
6 Chaves County, New Mexico. This is reopened and
7 readvertised and continued from July the 10th.

8 Call for appearances in this case.

9 MR. CARR: May it please the Examiner, my name is
10 William F. Carr with the Santa Fe office of Holland and
11 Hart, L.L.P. We represent Yates Petroleum Corporation in
12 this matter, and I have one witness.

13 EXAMINER JONES: Any other appearances in this
14 case?

15 You may go ahead.

16 MR. CARR: May it please the Examiner, my witness
17 is Tim Miller, and I would ask that the record reflect that
18 Mr. Miller was previously sworn in the immediate preceding
19 case and that his qualifications as an expert witness in
20 petroleum geology have been accepted and made a matter of
21 record before the Division.

22 EXAMINER JONES: Okay, we'll have his credentials
23 and sworn testimony accepted.

24 MR. CARR: Mr. Jones, the Application in this
25 case has a potentially confusing history, and it might be

1 helpful if at the beginning I just briefly summarize how we
2 go to this point today.

3 EXAMINER JONES: Please do.

4 MR. CARR: On the 10th of March this year, Yates
5 Petroleum Corporation filed an administrative application
6 seeking approval of the well location that's before you
7 here today, and in that application there was a sentence
8 that read something like this: It says in the event the
9 well is completed in the Abo formation, it would be
10 governed by the Pecos Slope-Abo Pool Rules. There are
11 special rules governing that Pecos Slope-Abo Gas Pool, and
12 those rules provide that any application for an unorthodox
13 location must go to hearing.

14 Because of that, on the 18th of March the
15 Division wrote Yates and stated the Application was being
16 set for hearing. Following that I conferred with Mr.
17 Stogner. Yates was the original application in the case
18 when the Pecos Slope-Abo Pool Rules were accepted. They
19 were seeking infill locations, there were questions about
20 correlative rights, and that is why when that Application
21 was approved, that special hearing requirement was
22 contained in those rules.

23 And I discussed the matter with Mr. Stogner, and
24 what we did was, we filed an application to amend the Pecos
25 Slope-Abo Pool Rules to delete that requirement and then

1 ask that this application be dismissed and it was.

2 In the meantime while we were waiting to go
3 hearing on the pool rule part of the case, addressing the
4 Pecos Slope-Abo, Yates amended the application and refiled
5 it, and refiled it only for the oil zone, the Pecos Slope-
6 Penn, which is the matter before you today. And when that
7 Application was received, the Division reopened the case
8 and set it back on the docket to address just the
9 Pennsylvanian oil zone. And in the meantime we have
10 continued the case a number of times.

11 It was our hope that the rules would be changed,
12 that we could amend our administrative filing and avoid
13 ever coming to hearing on this, but the change in the Pecos
14 Slope-Abo Pool Rules do it all in an amended application.

15 We have gotten to the point where we are ready to
16 go forward with the well, and so that is the reason we're
17 coming here today to present to you our case on the Pecos
18 Slope-Pennsylvanian Pool. And then if, in fact, as we said
19 at the beginning, in the event the Abo should ever become a
20 target, we would come back to you at that time, and
21 hopefully by that time the rules will have been changed and
22 we could handle that administratively.

23 So what we're here today is, after this long
24 history, we're getting ready to drill the well, and we need
25 to go forward and ask for approval to -- of an unorthodox

1 location in the Penn.

2 The second administrative application, the one
3 just addressing the Penn, the one that's before you today,
4 was set for hearing because the Division felt we needed to
5 present subsurface mapping and cross-sections and discuss
6 this location in greater detail, and that's what Mr. Miller
7 is here to do. Okay?

8 TIM MILLER,

9 the witness herein, having been previously duly sworn upon
10 his oath, was examined and testified as follows:

11 DIRECT EXAMINATION

12 BY MR. CARR:

13 Q. State your name for the record.

14 A. My name is Tim Miller.

15 Q. Mr. Miller, you're familiar with the subject
16 matter of this case?

17 A. Yes, I am.

18 Q. You've made a geological study of the area which
19 is the subject of the Application?

20 A. Yes, I have.

21 Q. Are you prepared to share the results of your
22 work with Mr. Jones?

23 A. Yes, I am.

24 Q. Briefly summarize what it is that Yates seeks
25 with this Application.

1 A. Yates Petroleum seeks approval of an unorthodox
2 infill oil well location in the Pecos Slope-Pennsylvanian
3 Pool for its proposed George Federal "QJ" Well Number 11,
4 to be drilled 2080 feet from the north line and 1350 from
5 the west line in Unit F of Section 26, Township 6 South,
6 Range 25 East.

7 Q. Will this be the second well on the 320-acre
8 west-half spacing unit?

9 A. Yes, it will.

10 Q. The original well on that spacing unit is which
11 well?

12 A. The original well on the spacing unit is the
13 George "QJ" Federal Well Number 10, which is 660 from the
14 south line and 1500 feet from the west line.

15 Q. What rules today govern development of the Pecos
16 Slope-Pennsylvanian Pool?

17 A. The rules that develop this are special pool
18 rules for the Pecos Slope-Pennsylvanian Pool, adopted by
19 Order Number R-11,721-A, dated April 28th, 2003, and they
20 provide for 320-acre oil spacing and authorizes an infill
21 well in the quarter section other than the quarter section
22 containing the original well.

23 Q. And today the George "QJ" Federal Well Number 11,
24 the well that's the subject of this hearing, is the infill
25 well on that spacing unit?

1 A. Yes, it is.

2 Q. Now, you're aware the Application was originally
3 filed for administrative approval?

4 A. Yes.

5 Q. And you heard me summarize the history of how we
6 got here today?

7 A. Right.

8 Q. Would you identify the documents -- just identify
9 them -- that are contained in Yates Exhibit Number 1?

10 A. Okay. Originally submitted on March 10th, 2003,
11 for the unorthodox location in the Pecos Slope-
12 Pennsylvanian Pool and the Pecos Slope-Abo Gas Pool. The
13 document which is Exhibit 1 is the Application letter
14 submitted on March 10th.

15 Q. This is the letter from the OCD setting the
16 original case for hearing, correct?

17 A. Yes, yes.

18 Q. And then behind that are various other letters
19 and orders that simply support the material I reviewed in
20 the opening statement; is that right?

21 A. Yes, they are.

22 Q. Let's just go on to what has been marked as Yates
23 Exhibit Number 2, and I'd ask you to identify that and
24 review that for Mr. Jones.

25 A. Okay, Exhibit Number 2 shows you where our well

1 is going to be drilled in Section 26 in the northwest
2 quarter of 6 South, 25 East. Once again, it is unorthodox
3 because it's 2080 feet from the north, and basically we are
4 proposing to drill this one into this Pennsylvanian-Cisco
5 zone.

6 Q. And this map also shows in the southwest quarter
7 the location of the original well, the George "QJ" Federal
8 Well Number 10?

9 A. Yes, it does.

10 Q. What is Exhibit Number 2?

11 A. Exhibit Number 2 --

12 Q. I'm sorry, Exhibit Number 3?

13 A. Exhibit Number 3 is Yates' acreage colored in
14 yellow, and basically we have all offsetting acreage that
15 we own here. Basically -- it's not on the plat, but the
16 proposed well, the George "QJ" Number 11, will be up in the
17 northwest quarter of Section 26, and again we have all
18 acreage surrounding this George Number 11.

19 Q. The west half of Section 26 is, in fact, one
20 federal lease, is it not?

21 A. Yes.

22 Q. And this well location is unorthodox because it
23 is 100 feet closer to the centerline of the spacing unit
24 than authorized by the special pool rules for the pool; is
25 that right?

1 A. Yes, it is.

2 Q. And the well only encroaches on other acreage
3 dedicated to the well and acreage in which the ownership
4 would be common?

5 A. Yes, it does.

6 Q. There were no affected parties, therefore, to
7 notify of the unorthodox location under the Division Rules?

8 A. No, there weren't.

9 Q. Let's go to Exhibit Number 4, and I'd ask you to
10 first identify it and then review the information on the
11 exhibit for the Examiner.

12 A. Okay, Exhibit Number 4 is a gross isopach of what
13 we call the George-Cisco zone, which is producing in four
14 wells on this plat: the George Number 10 which is in the
15 southwest quarter of Section 26, the George Number 9 which
16 is in the northwest quarter of Section 35, the George "QJ"
17 Federal 2Y, which is in the southeast quarter of Section
18 25, and then the Powers "OL" Deep FE Number 6, which is in
19 the southwest quarter of Section 27. These are the four
20 wells that are producing from this George-Cisco zone in
21 this Pennsylvanian Pool.

22 What you're looking at is a gross isopach or
23 gross thickness map of this carbonate interval in the
24 Cisco. This is a limestone interval, and on subsurface
25 data so far where we are going to position our George

1 Number 11, just gross thickness of the limestone, we will
2 have somewhere in the area of 25 feet or more to -- of
3 thickness of the limestone. This subsurface, datawise,
4 presents that this will be the best spot for the location
5 of this well.

6 Q. And this is your mapping of this interval?

7 A. Yes, it is.

8 Q. And it's based on well-control information?

9 A. Yes.

10 Q. Did you also integrate seismic data into this
11 interpretation?

12 A. Not into this interpretation.

13 Q. Let's go to Exhibit Number 5.

14 A. Exhibit Number 5 is a net porosity cutoff map of
15 greater than 4 percent, and this is the general trend of
16 the way we think this George-Cisco interval trends. Once
17 again, where the George 11 is proposed, these are two-foot
18 contour intervals to be a little more precise so we
19 hopefully can narrow down where this zone goes.

20 Where we are positioning our George Number 11, we
21 will have somewhere between basically 10-plus feet of a net
22 porosity of greater than 4 percent; 4 percent, normally, in
23 carbonates, is kind of the least economic cutoff you can
24 use. If you get 4 percent or better -- you know, of course
25 you'd like to have better, but that's about the lowest that

1 maybe will still produce a good well. So that's basically
2 what this map is projected on.

3 Q. On this map you have traces for two cross-
4 sections, A-A', correct?

5 A. Yes, I do.

6 Q. Let's go to Exhibit Number 6, cross-section A-A',
7 and I ask you to review that for Mr. Jones.

8 A. You might want to have, again, your Exhibit
9 Number 5 out so you can see the trace of the cross-section
10 over the area.

11 Okay, cross-section A-A' basically runs from west
12 to east. Starting on the left-hand side, we go over and
13 start in Section 28, a Yates Petroleum well called the Red
14 Rock "NB" Federal Number 1 in Section 28.

15 What you are looking at in this cross-section,
16 this cross-section is just a cross-section of this George-
17 Cisco interval. Colored in blue is the gross thickness of
18 the interval that was shown on one of the previous
19 exhibits, the gross isopach, and the wells that do produce
20 you have the perforations that are colored in red and
21 marked, and then we also have colored the neutron density
22 porosity crossover in the wells where it does produce from.

23 Starting again on the left-hand side, the Red
24 Rock "NB" Fed Number 1, this is the furthest west of any
25 deep wells that were drilled down through this interval

1 into basement. Up until we drilled the Georges 9 and 10
2 and deepened the old Abo wells of the Powers 6 and the
3 George 2Y, these basically were all Abo wells in this area.
4 There was no deep production, nobody had tested anything
5 deeper below the Abo.

6 You can see in the Red Rock you have the
7 carbonate zone, but you basically don't have any productive
8 porosity in it. It's just basically zero percent.

9 Moving to the right, to the next well, it's the
10 Powers OL Deep Federal Number 6. This was an old Abo well
11 that we deepened to basement. We found the zone. As you
12 can see, it's a little over 10 feet thick, and we have
13 around 6 feet of porosity, neutron density porosity
14 crossover, probably averaging around 8.5 to 9 percent, and
15 it is perf'd out of that zone. It went on production in
16 October of last year, and this is production through May of
17 this year. This is the -- probably as far as the oil goes,
18 the poorest of the wells. It so far has made 1933 barrels
19 of oil, 72 million cubic feet of gas and 1639 barrels of
20 water.

21 Moving on to the next well, which is the George
22 "QJ" Federal Deep Com Number 2Y, this is another old Abo
23 well that we deepened. We found a little thicker interval
24 of the carbonate, thicker interval of the neutron density.
25 We have perf'd in it. It's a little better well.

1 Cumulative production is lower, over 8000 barrels of oil.
2 Gas so far, it's made 102 million. And it's made 53,000
3 barrels of water. It went on production in June of 2002,
4 and this is the production up through May of this year.

5 The cross-section goes through the projected
6 proposed location of the George Federal 11, and we're
7 hoping to encounter the same thickness and hopefully the
8 same neutron density net porosity that we might have in the
9 George 2Y, and then we have better over in the George 10,
10 which is to the right of this.

11 If you move over to the George 10, this was the
12 first well that was drilled out here all the way to the
13 basement. As you can see, it is a very good well. To give
14 you a little history on this well, we completed in this
15 formation. The first two days the well basically made in
16 the area of 2 to 3 million cubic feet of gas per day, never
17 produced a drop of oil. And this may sound biblical, but
18 on the third day it turned around and was flowing 500-plus
19 barrels of oil a day and about 2 million cubic feet of gas.
20 Surprised Yates Petroleum, they've never had a well do this
21 to them.

22 Anyhow, as you can see, it's made, so far, from
23 August of 2001 to May of 2003, 164,000 barrels of oil. It
24 is still flowing, it does not have a pumpjack on it yet.
25 It's made 136 million cubic feet of gas and only 136

1 barrels of water.

2 The next well we drilled out there to the right
3 is the George Number 9. Once again, good carbonate
4 thickness interval. It's got a very good porosity in it,
5 just to tell you where you see the crossover colored, that
6 porosity on that solid line, which is the density curve, is
7 just over the 22-percent mark. Eyeballing just the average
8 porosity, this well has an average of about 18 percent,
9 which is very good. This well will probably surpass the
10 George 10. It is actually the best well out there. Even
11 though it started a little later, in January of 2002, it
12 has made so far 109,000 barrels of oil, 172 million cubic
13 feet of gas, and no water. And once again, this is flowing
14 under its own power so far.

15 The last well on the cross-section is just to the
16 east. You can see where the zone basically thins out.
17 It's the Cottonwood Ranch MK State Number 6. We have some
18 of the carbonate, we have a little development of the
19 porosity, but then this is nonproductive.

20 So this east-west cross-section gives you an idea
21 where the four productive wells are, and the two best wells
22 are the George 9 and 10.

23 Q. Let's go to cross-section B-B', Exhibit Number 7.

24 A. Cross-section B-B' is basically a north-to-south
25 cross-section. Starting on the left-hand side of the paper

1 with Yates Petroleum's Cottonwood Federal Number 5, which
2 was a northeast offset to the original George 10, this
3 disappointed us. We encountered the carbonate interval, as
4 you can see colored in blue, but we had very little
5 porosity development in the well. Otherwise this was
6 uneconomic in this well. It is producing uphole out of the
7 Abo sands.

8 The cross-section, again, runs through the
9 proposed location of the George 11, and we would hope to
10 have porosity, that is, in the next well, which is the
11 George 10, which you have heard about before. The George
12 9, which is to the right, and of course this is moving
13 south southwest.

14 The next well is the Sacra "SA" Com Number 7
15 [sic] in the northeast quarter of Section 34. You can see
16 we're on the edge of this carbonate interval. We only have
17 about eight feet of total thickness of the limestone
18 itself, and basically no porosity in it.

19 Q. And that's the Number 17, right?

20 A. That's the Sacra "SA" Com Number 17.

21 The next well is -- moving to the southeast of
22 the 17, is the Sacra "SA" 21. Again, we encountered the
23 carbonate interval, which is a limestone, but once again no
24 porosity development.

25 The next well is an old well, which is the Five

1 Mile Draw Federal Number 1. This well was drilled in the
2 early 1980s -- or actually, I should say the late 1970s,
3 1979, I think. They drilled it to basement, one of the
4 rare wells out here that Yates Petroleum actually drilled
5 all the way to basement.

6 They found the interval. It is perf'd in there.
7 We think maybe what happened, we apparently had no
8 mudlogging unit on this well. Back then, in the late
9 1970s, early 1980s, most companies, including us, if you
10 drilled Abo wells, you did not have a mudlogger on the
11 well. You drilled to a certain depth, which you thought
12 you could drill through all the Abo sands, then you ran
13 your e-logs and perforated. Apparently this was one of the
14 few wells we thought to take deeper.

15 What we did -- and I think -- we basically, for
16 lack of a more scientific term, screwed up the completion
17 of this interval. We initially didn't -- we perforated it
18 and I think hit it with a light acid job, didn't get much
19 out of it, so we decided to gel-frac it, and I think what
20 ended up probably happening, we still didn't get anything
21 out of it. We probably just plugged up all the
22 permeability in the thing.

23 So that is one well that, looking at it, it has
24 all the earmarks that it should have been a productive well
25 out of this zone, but it doesn't do it. And I think we

1 just -- Back then, of course, we didn't know -- we did not
2 have the data we have now on the George 9 and 10, and we
3 just didn't know what we were -- and not having a mudlogger
4 on it did not help the situation.

5 The last well on the cross-section is the Five
6 Mile Draw LX Federal Com Number 2, which is directly to the
7 west of the Five Mile Draw Number 1 I just got talking
8 about. We did encounter the carbonate, and we actually
9 perforated what you see, very little porosity development,
10 but since this was a relatively new well out there we
11 decided, well, let's just try it. We got a trace of gas
12 out of that one. And you can see why you have a trace of
13 gas, you have very little porosity development. There's
14 just enough in it to say you're right on the edge of
15 probably the trend of this carbonate.

16 Q. Mr. Miller, Yates is proposing to drill this well
17 at an unorthodox location that is just 100 feet from
18 standard location?

19 A. Yes, it is.

20 Q. Could you explain to the Examiners why Yates is
21 proposing to drill this well at this location?

22 A. We are proposing to drill this well at this
23 location on the plats that are the net porosity isopach and
24 the gross isopach.

25 On subsurface data, the best location --

1 Subsurface data says that the best location would have been
2 a standard location of 1980 from the north and 1980 from
3 the west.

4 We have recently, last summer, ran a new, very
5 sensitive seismic technology experiment going on out here,
6 shot a 3-D. And that 3-D has said that the best place to
7 hit this carbonate zone for the best porosity is at 2080
8 feet from the north line, making it 100 feet -- you know,
9 making it unorthodox, as opposed -- Originally we had put
10 it subsurfacewise at 1980.

11 When we analyzed the 3-D data on this new
12 technology we are trying, which is very proprietary right
13 now, it said -- we have come out with three wells to drill
14 on this 3-D seismic. The best one, the first one to drill,
15 is this George Number 11, and the best place to try to hit
16 the porosity zone made us move it 2080 feet -- made us put
17 it unorthodox.

18 So that's why we are putting it -- That's why it
19 is in an unorthodox location, because it is on the new
20 technology, we're trying to see if it's going to work on
21 this 3-D seismic.

22 Q. Mr. Miller, by moving to this unorthodox
23 location, the well only encroaches on property where the
24 ownership is exactly the same as the ownership in the well
25 at that location?

1 A. Yes, it does.

2 Q. And this technology tells you that if you move
3 100 feet, as you're proposing, you will encounter a better
4 section in the reservoir?

5 A. Yes, we will.

6 Q. And by drilling this well at this location, it
7 also affords Yates an opportunity to test this technology?

8 A. Yes, it does.

9 Q. In your opinion, will approval of the Application
10 and drilling the well at the proposed location be in the
11 best interest of conservation, the prevention of waste and
12 the protection of correlative rights?

13 A. Yes, it will.

14 Q. Will it enable Yates to fine-tune the technology
15 it's using to develop this resource in this area?

16 A. Yes, it will.

17 Q. Were Exhibits 1 through 7 prepared by you, or
18 have you reviewed them and can you testify as to their
19 accuracy?

20 A. Yes, they were.

21 MR. CARR: At this time, Mr. Jones, we move the
22 admission into evidence of Yates Exhibits 1 through 7.

23 EXAMINER JONES: Exhibits 1 through 7 will be
24 admitted to evidence.

25 MR. CARR: And that concludes my direct

1 examination of Mr. Jones -- of Mr. Miller.

2 EXAMINER JONES: Of Mr. Miller.

3 MR. CARR: I'll save my questions for you.

4 EXAMINATION

5 BY EXAMINER JONES:

6 Q. Mr. Miller, so the new and proprietary seismic
7 doesn't indicate that you should move the well a little bit
8 to the west?

9 A. No. Like I said, we're trying a new system on
10 this 3-D. Nobody's ever tried it before.

11 Our geophysicist, who -- this is going to strange
12 -- no longer works for us, he went on to what he thought is
13 better place to work, basically, he -- but he's a very good
14 geophysicist -- he thought after serious analysis of the
15 3-D that putting it to make it -- was the best place to see
16 if this technology will work, because what we have done,
17 trying to track down this zone, we have basically drilled
18 -- well, we have drilled two very good wells, the Georges 9
19 and 10.

20 We deepened two old Abo wells, the Powers Number
21 6 and the George 2Y, which are very poor wells, and the --
22 if you look at -- let's just use Exhibit Number 4, or
23 Exhibit Number 5, whichever one you're looking at. I'm
24 looking at Number 4.

25 You see where the proposed location is, George

1 Number 11. The well off to the southeast, the Cottonwood 5
2 -- now this was just on trying to do it subsurfacewise on
3 data -- we struck out, we did not encounter a productive
4 zone.

5 The well over in the northwest quarter of 36, the
6 Cottonwood Ranch MK State Number 6, the same thing. We
7 encountered the limestone, but we did not get any porosity.
8 Struck out there.

9 Sacra 17 in the northeast quarter of 34, same
10 thing: found the carbonate, not the porosity.

11 In Section 35, southwest quarter, the Sacra 21,
12 same thing: found the carbonate, no porosity.

13 And then of course the Five Mile Draw Number 2,
14 which is the southwest quarter of 34, found the carbonate,
15 no porosity.

16 So that's we decided we needed some extra help
17 out here instead of just drilling blind, basically.
18 Subsurface really wasn't doing the trick. We contracted to
19 run a 3-D, and we tried a very new -- what we have come up
20 with, experimental process on the recommendation of our
21 geophysicist.

22 And after that was all said and done and he
23 analyzed it thoroughly, that's basically why the George 11
24 is going where it's going.

25 Q. Okay. And you can afford to run that 3-D seismic

1 and process it to look for these --

2 A. Yes, and like I said, we are basically going to
3 drill three wells out there, and this was the best of the
4 three, to try to see if this technology will work.

5 Q. Okay. The contours, do you draw those by hand,
6 or do you have a computer that draws them?

7 A. They -- I initially draw them by hand, and then a
8 lady scans them. And so they're as close as you can get to
9 my original hand-drawn maps. They're scanned into the
10 computer, and then that's how this is copied.

11 Q. I'm no expert on contouring, but they look pretty
12 good.

13 This well down in -- Five Mile Draw Federal Com
14 Number 1 --

15 A. Yes.

16 Q. -- that kick on your porosity, was that a density
17 or neutron kick or what?

18 A. The -- Okay, the solid curve, that's the density.
19 It goes out to -- It looks like about 13 percent.

20 Q. So that is density?

21 A. Yeah, it's density. And then the other one --
22 You can't really see it on here, but then the curve on the
23 right side would be the dashed line, would be the neutron.

24 Q. So it's crossover?

25 A. Right, it's crossover. And these -- And most of

1 these wells make oil and gas.

2 Q. So that's a gas-effect crossover?

3 A. Yeah, it's a gas-effect, because you do have a
4 gas -- Like I said, the George Number 10, which was the
5 first deep well, you know, in modern times drilled out
6 there, it initially made -- like I told you, the first two
7 days it made 2 to 3 million cubic feet of gas. We had no
8 idea it was going to make oil. Then into the third day of
9 production the oil came up and was flowing over --
10 Actually, I think it flowed close to 550 barrels of oil a
11 day.

12 Q. On the third day?

13 A. On the third day.

14 Q. That was relative permeability effects or what?

15 A. Really don't know. We're still -- We're still
16 studying this. We have our reservoir engineer studying it,
17 and we still have more questions than answers so far.

18 And we're hoping maybe by trying to utilize this
19 3-D technology that we're experimenting with, maybe it will
20 help us track down exactly where the best spots and give us
21 a handle on maybe how big or how small. We think they
22 might be carbonate pods, maybe, in a mid-shelf geological
23 environment.

24 But, you know, there's more questions than
25 there's answers in the zone yet.

1 Q. Okay. And I remember the only water well you got
2 is really unexplained --

3 A. Yeah, the --

4 Q. -- really is not -- probably not coming out of
5 that zone?

6 A. Well, the -- I think, yeah, the water, I think
7 it's George 2Y, we deepened it, we had hole problems while
8 we were drilling it.

9 We actually -- When we went back in, it was
10 caving in on us. We came back and went back into the hole
11 and found out -- we started drilling a twin right beside
12 the old hole, probably not that far apart, apparently got
13 back in the old hole.

14 So to this day there's still an in-house argument
15 where that water is actually coming from, it's actually
16 coming out of the zone or it's coming from uphole or maybe
17 down out of the basement. That's still a question mark.

18 EXAMINER JONES: Okay, that's all the questions I
19 have.

20 Mr. Brooks?

21 MR. BROOKS: No questions.

22 EXAMINER JONES: Thank you very much for all --

23 THE WITNESS: Thank you.

24 EXAMINER JONES: -- the preparation --

25 MR. CARR: And that concludes our presentation in

1 this matter.

2 EXAMINER JONES: -- and for all the -- Mr. Carr,
3 and the Yates Group for all your preparation in these
4 cases.

5 And with that, Case 13,045 will be taken under
6 advisement.

7 Let's call a 15-minute break and come back at 10
8 after 10:00.

9 (Thereupon, these proceedings were concluded at
10 9:57 a.m.)

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16 I do hereby certify that the foregoing is
17 a complete record of the proceedings in
18 the Examiner hearing of Case No. _____
19 heard by me on _____ 19____

20 _____, Examiner
21 Oil Conservation Division
22
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