

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 NONSTANDARD SPACING)
AND PRORATION UNITS, CHAVES COUNTY,)
NEW MEXICO)

CASE NO. 13,968

ORIGINAL

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

BEFORE: DAVID K. BROOKS, Jr., Hearing Examiner

August 23rd, 2007

Santa Fe, New Mexico

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This matter came on for hearing before the New Mexico Oil Conservation Division, DAVID K. BROOKS, Jr., Hearing Examiner, on Thursday, August 23rd, 2007, 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

August 23rd, 2007
Examiner Hearing
CASE NO. 13,968

	PAGE
EXHIBITS	3
APPEARANCES	3
APPLICANT'S WITNESSES:	
<u>WILMER BRIGGS</u> (Landman)	
Direct Examination by Mr. Carr	4
Examination by Examiner Brooks	11
<u>GEORGE H. FREEMAN</u> (Engineer)	
Direct Examination by Mr. Carr	13
Examination by Examiner Brooks	22
REPORTER'S CERTIFICATE	24

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E X H I B I T S

Applicant's	Identified	Admitted
Exhibit 1	6	11
Exhibit 2	9	11
Exhibit 3	10	11
Exhibit 4	15	22
Exhibit 5	16	22
Exhibit 6	17	22
Exhibit 7	18	22
Exhibit 8	19	22
Exhibit 9	20	22
Exhibit 10	20	22

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A P P E A R A N C E S

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 8:18 p.m.:

3 EXAMINER BROOKS: We'll call Case Number 13,968,
4 Application of Yates Petroleum Corporation for nonstandard
5 spacing and proration units, 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 in
10 this matter, and I have two witnesses.

11 EXAMINER BROOKS: Would your witnesses stand to
12 be sworn please? State your names for the record, please.

13 MR. FRAME: George Frame.

14 MR. BRIGGS: Wilmer Briggs.

15 EXAMINER BROOKS: Please swear the witnesses.

16 (Thereupon, the witnesses were sworn.)

17 WILMER BRIGGS,

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

20 EXAMINER BROOKS: You may proceed.

21 DIRECT EXAMINATION

22 BY MR. CARR:

23 Q. Please state your full name for the record.

24 A. My name is Wilmer Briggs.

25 Q. Mr. Briggs, where do you reside?

1 A. Carlsbad, New Mexico.

2 Q. And by whom are you employed?

3 A. Yates Petroleum.

4 Q. What is your current position with Yates
5 Petroleum?

6 A. I'm a landman.

7 Q. Have you previously testified before this
8 Division?

9 A. No, I have not.

10 Q. Could you summarize your educational background
11 and work experience for Mr. Brooks?

12 A. Okay. I have come to work for Yates Petroleum
13 Corporation since December of 2006. For approximately a
14 year and a half I was self-employed, and before that I was
15 a contractor to the Department of Energy as a project-
16 control specialist on the WIPP site for 12 years.

17 Q. Since coming to work for Yates, have you been the
18 landman responsible for their Chaves County, New Mexico,
19 properties?

20 A. Yes, I have.

21 Q. Are you familiar with the Application filed in
22 this case?

23 A. Yes, I am.

24 Q. Are you familiar with the status of the lands in
25 the area that's the subject of this Application?

1 A. Yes, I am.

2 MR. CARR: We tender Mr. Briggs as an expert in
3 petroleum land matters.

4 EXAMINER BROOKS: So qualified.

5 Q. (By Mr. Carr) Mr. Briggs, let's refer to Exhibit
6 Number 1 --

7 A. Yes, sir.

8 Q. -- the land map, and I'd ask you to review the
9 status of the lands in this area for Mr. Brooks.

10 A. What we have here is a -- this is a sectional map
11 of Chaves County, and we have in the center of the page, if
12 you look at Section Number 1, that particular area is
13 outlined in yellow, meaning that it is a partially leased
14 area from Yates Petroleum. That is actually in Township 10
15 South, 24 East, and that is Section 1.

16 Right above that is -- in 36, that's 9 --
17 Township 9 South, 24 East, and it is Section 36 -- the fact
18 that it's fully highlighted with yellow is for a fully
19 leased area for Yates Petroleum.

20 The smaller sliver right between those two
21 sections is the area we're talking about. This is just a
22 correctional area where the land was surveyed out and there
23 was a little bit of land there that needed to be neither 36
24 nor 1. It's divided into four lots, and the two that we're
25 speaking about is 3 and 4, which makes up the west half of

1 that little sliver.

2 Erma 3 is indicated, the well that's going to be
3 associated with this is indicated on this map, and it is up
4 in the northwest quarter of Section 1, and it has a little
5 3 right there with some line underneath it there.

6 Q. Now Mr. Briggs, what Yates is seeking is an order
7 simply combining portions -- those two lots in that little
8 sliver of land with the acreage south of there in Section
9 1?

10 A. That's true.

11 Q. We're seeking -- What are the nonstandard units
12 that we're seeking? What are the size of those units?

13 A. Okay, the size, okay. A nonstandard spacing and
14 proration unit containing 184.63 acres, comprised of lots 3
15 and 4 of irregular Section 36, Township 9 1/2 South, Range
16 24 East, and lots 3 and 4 ^{and} of the south half, northwest
17 quarter, irregular Section 1 for all formations developed
18 on 160-acre spacing.

19 Q. Okay.

20 A. That was what your question was?

21 Q. Yes. And then we're also seeking an additional
22 nonstandard unit. How large is that?

23 A. Okay, an additional nonstandard spacing and
24 proration unit containing 52.06 acres comprised of lot 3 of
25 irregular Section 36 and lot ³ of irregular Section 1.

1 Q. And both of these would be dedicated to the Erma
2 Well Number 3 that you've --

3 A. Erma 3, yes, sir.

4 Q. And that well is proposed at a standard location?

5 A. Yes, sir.

6 Q. How deep do you intend to drill that well?

7 A. It will be about 4775 feet.

8 Q. And what formations are you going to test?

9 A. We'll be going down to the Precambrian.

10 Q. Okay. What is the character of the land in these
11 subject sections?

12 A. Section 36 is -- in 24 East, is state land.
13 Section 36, 9 1/2 South and 24 East is state land. Section
14 1 in Township 10 is fee land.

15 Q. Now in the Erma well you will have other interest
16 owners, other --

17 A. Yes, sir, there's two other interest --

18 Q. And have they voluntarily committed their
19 interest to --

20 A. We have all working interests signed up to an
21 AFE, so everybody is committed to the well.

22 Q. And what are the primary formation objectives in
23 the well?

24 A. Okay, the primary is the Abo formation. We could
25 be looking at the Wolfcamp.

1 Q. Okay. And we have this 52.06 unit, and that --

2 A. That will take care of that, yes, sir.

3 Q. -- and that's just in case we get a San Andres
4 oil well; isn't --

5 A. Yes, sir.

6 Q. -- that right?

7 Has this acreage been the subject of a prior OCD
8 hearing?

9 A. Yes, sir, Order Number 12,087, Case Number
10 13,154, was dealt with back on November 7th of 2003.

11 Q. And basically this order created a nonstandard
12 unit for formations on 320 and on 160 and 40 --

13 A. That's right.

14 Q. -- for a well drilled over in what is the
15 equivalent of the northeast quarter of 1?

16 A. It was the Erma 2, which is up in the northeast
17 quarter of that Section 1.

18 Q. And is a copy of this prior order included in
19 Yates' exhibits as Exhibit Number 2? Is that right?

20 A. Yes, sir.

21 Q. The acreage to the north in Section 1 -- I'm
22 sorry, in Section 36 in 9 South, 24 East, has that acreage
23 been developed?

24 A. Yes, it has, by Yates.

25 Q. So if this little sliver of land is going to be

1 developed, it's going to have to be developed either stand-
2 alone or combined with the acreage to the south; is that
3 right?

4 A. Combining it with Section 1 is it's last
5 opportunity if it's going to be dealt with, probably.

6 Q. Will Yates call an engineering witness to discuss
7 the drainage and related issues concerning this
8 Application?

9 A. Yes, sir.

10 Q. Is Yates Exhibit 3 an affidavit confirming that
11 notice of today's hearing has been provided to affected
12 parties in accordance with Division Rules?

13 A. Yes, sir.

14 Q. And to whom was notice given?

15 A. The State of New Mexico, we contacted all our
16 working interests and our royalty interests and our
17 overriding royalty interest owners in both Section 36 and
18 Section 1.

19 Q. Okay. And so everyone that could be affected has
20 been identified?

21 A. Yes, sir.

22 Q. Including the State of New Mexico?

23 A. Yes, sir.

24 Q. Were Yates Exhibits 1 through 3 prepared by you
25 or compiled at your direction?

1 A. Yes, sir.

2 MR. CARR: At this time, Mr. Examiner, we would
3 move the admission into evidence of Yates Exhibits 1
4 through 3.

5 EXAMINER BROOKS: Okay, 1 through 3 are admitted.

6 MR. CARR: And that concludes my direct
7 examination of Mr. Briggs.

8 EXAMINER BROOKS: Okay, you'll have to bear with
9 me. You went rather rapidly, and I'm still kind of jaded
10 from that last case.

11 THE WITNESS: All right.

12 (Laughter)

13 EXAMINER BROOKS: It takes me a minute to get
14 back into these more normal --

15 MR. CARR: I think it's fasting all morning that
16 did it to you.

17 EXAMINATION

18 BY EXAMINER BROOKS:

19 Q. Okay, I understand that this situation was
20 created by the existence of this Township 9 1/2 --

21 A. Yes, sir.

22 Q. -- that's a small sliver.

23 A. Uh-huh.

24 Q. And you are seeking to create a -- two units.
25 One is a 160-acre equivalent that would include the

1 northwest quarter of Section 1 and lots 3 and 4 of
2 Section -- Is this Section 1 of Township 9 1/2 South? Is
3 that --

4 A. It would be Township 10 South, 24 East, Section
5 1, yes.

6 Q. Okay. Now are there section designations in this
7 Township 9 1/2 south, or is that just lot designations?

8 MR. CARR: No, that is section --

9 THE WITNESS: -- 36.

10 MR. CARR: -- thirty- -- that's right, that --

11 EXAMINER BROOKS: Okay, so that's Section 36 --

12 MR. CARR: -- of Township 9 1/2 South.

13 Q. (By Examiner Brooks) Right, and that's in
14 between Section -- that's north of Section 1 of Township 10
15 South and south of Section 36 of Township 9 South?

16 A. Right.

17 Q. Okay, so what you're seeking to do is combine --
18 well, the first unit you're seeking to combine the
19 northwest quarter of Section 1 of 10 South with the -- with
20 lots 3 and 4 of Section 36 of 9 1/2 south?

21 A. Right.

22 MR. CARR: Correct.

23 Q. (By Examiner Brooks) And that was how much --
24 that was what acreage?

25 A. 184.63 acres.

1 Q. 184.63 acres. And the other unit you're creating
2 is a 40-acre equivalent unit, which would be the northeast
3 of the northwest of Section 1, or that's lot 3 of Section
4 1 --

5 A. That's --

6 Q. -- northeast of northwest equivalent --

7 MR. CARR: Right.

8 THE WITNESS: Yes.

9 Q. (By Examiner Brooks) -- plus lot 3 of 36, 9 1/2
10 south?

11 A. Right, and that would be 52.06 acres.

12 Q. 52.06 acres. And you're drilling the well where
13 the 3 is located in lot 3 of Section 1, Township 10 South?

14 A. Right.

15 EXAMINER BROOKS: Okay, I think I've got it
16 straight now. I believe that's all I have for this
17 witness.

18 MR. CARR: Thank you. At this time we'd call
19 George Freeman.

20 GEORGE H. FREEMAN,

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

23 DIRECT EXAMINATION

24 BY MR. CARR:

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

1 A. George Freeman.

2 Q. Mr. Freeman, where do you reside?

3 A. Artesia, New Mexico.

4 Q. By whom are you employed?

5 A. Yates Petroleum Corporation.

6 Q. And what is your position with Yates?

7 A. I'm a senior reservoir engineer.

8 Q. Have you previously testified before the New
9 Mexico Oil Conservation Division?

10 A. Yes.

11 Q. At the time of that testimony, were your
12 credentials as an expert in petroleum engineering accepted
13 and made a matter of record?

14 A. Yes, they were.

15 Q. Are you familiar with the Application filed in
16 this case on behalf of Yates?

17 A. Yes, sir.

18 Q. Have you made an engineering study of the area
19 that is involved in this Application?

20 A. Yes, I have.

21 Q. And are you prepared to share the results of that
22 work with Mr. Brooks?

23 A. Yes.

24 MR. CARR: Are Mr. Freeman's qualifications
25 acceptable?

1 EXAMINER BROOKS: They are.

2 Q. (By Mr. Carr) Mr. Freeman, primary objectives in
3 this well are what?

4 A. We're going to test the Abo and the Wolfcamp
5 formations --

6 Q. But the --

7 A. -- primarily the Abo.

8 Q. It's most likely to be productive?

9 A. Yes, that's true.

10 Q. All right, let's go to Exhibit Number 4, and I'd
11 ask you to identify that for Mr. Brooks and then explain
12 what it shows.

13 A. Okay, this is a set of six net-pay isopachs on
14 six productive sands in this area. The first three are the
15 Abo A, B and C sands, and the second three are the Wolfcamp
16 A, B and C sands. These show the net-pay thickness through
17 this area, and these illustrate how the sands are
18 continuous across the Section 1 in the area where the Erma
19 3 will be drilled, and they continue across the correction
20 section, Number 36, and into Section 36 of 9 South and 24
21 East.

22 They also show a trace of a cross-section through
23 the wells in the area.

24 Q. Basically summarize what they show in terms of
25 the general Abo and Wolfcamp trends in this particular --

1 A. Yes.

2 Q. -- region.

3 A. Well, like I said, the Abo sands and the Wolfcamp
4 are continuous through this area, and they run more or less
5 north and south, meandering back and forth, and that they
6 are continuous between the location of the Erma 3 and the
7 correction section.

8 Q. Now let's go to Exhibit Number 4, the cross-
9 section.

10 A. Okay. Now this is --

11 Q. Go ahead.

12 A. Okay, yeah, this is a cross-section --

13 EXAMINER BROOKS: The cross-section is Exhibit
14 Number 5, right?

15 MR. CARR: I'm sorry, it is --

16 THE WITNESS: Number 5.

17 MR. CARR: -- Exhibit Number 5.

18 EXAMINER BROOKS: Okay.

19 THE WITNESS: Okay --

20 EXAMINER BROOKS: I think we ought to wait till
21 we get it unfolded. Let the record reflect that I'm better
22 at folding maps than our Technical Examiner is.

23 You may continue.

24 THE WITNESS: Okay. This is a cross-section
25 running generally northwest to southeast from point A to

1 A', between -- it starts at the Summers Number 2 in the
2 north of Section 36 and then goes to the Harvest Number 2,
3 the Harvest Number 4, the Harvest Number 3, then shows the
4 proposed location of Erma Number 3, and then runs to the
5 Delhagen Number 1 and then to the Adell Number 1.

6 Q. (By Mr. Carr) And what does the color-coding on
7 this indicate?

8 A. Okay, the sands are highlighted in yellow, tend
9 to be productive sands in the zones that I mentioned
10 before, the Wolfcamp A, B and C and the Abo A, B and C.
11 The perforations are indicated alongside the log traces.
12 And also the neutron density crossover, indicating the
13 presence of gas, is highlighted in orange.

14 And the geologist's picks of these individual
15 layers are correlated across from one log to the next.

16 Q. And basically this exhibit establishes the
17 continuous nature of the sands across this --

18 A. That's right, they continue across all of these
19 -- between all of these wells.

20 Q. Let's go to the table, Exhibit Number 6.

21 A. Okay, this is a table of typical reservoir
22 properties for the Abo formation in this area, and it --
23 well, the primary parameter of interest is the
24 permeability, which averages .05 millidarcies in the Abo
25 sands. It's a tight-gas sand.

1 Q. All right, let's go to the next exhibit, Exhibit
2 Number 7, which is the first of two production curves --

3 A. Yes.

4 Q. -- and I'd ask you to identify Exhibit 7 and
5 review it for Mr. Brooks.

6 A. Okay, this shows a model of the drainage radius
7 for a typical well, which I've used the Harvest 3 as a
8 typical well for this area.

9 Q. And where is that located?

10 A. That is in Section 36 of 9 South, 24 East --

11 Q. Okay.

12 A. -- and that is the -- it's in the southeast
13 quarter.

14 Q. And what does this show?

15 A. Okay, this shows the drainage radius in feet
16 versus the years of production of this well. It shows that
17 the drainage radius increases as production continues in
18 time.

19 The circles on this plot represent standard
20 spacings. For example, the far right dot is for a radius
21 that would include 640 acres, and the next one towards the
22 left is for 320 acres, and the third from the right is for
23 160 acres.

24 And this shows that you would expect a well to
25 drain 160 acres in a little over five years.

1 Q. So even though this is a tight reservoir, the
2 Erma 3 will be able to drain the dedicated acreage-plus?

3 A. Yes, given enough time it could drain even a
4 whole section.

5 Q. Okay. Let's go to Exhibit Number 8. What is
6 this?

7 A. Okay, and this is a continuation of this model
8 showing how the production rate for the typical well would
9 decrease in time.

10 And there are two curves shown. The blue curve
11 is for a well in an infinite reservoir, which -- or one
12 that does not have boundaries within the area that has been
13 drained up to that time. The magenta curve that's
14 underneath it is for a reservoir that had a circular
15 barrier that enclosed 160 acres.

16 So if that reservoir was limited to 160 acres, we
17 would expect the rate to decrease when the pressure
18 disturbance encountered that barrier, and the rate would
19 decrease according to this magenta line.

20 Q. Now you've modeled this based on the offsetting
21 well --

22 A. Yes, the Harvest 3.

23 Q. Do you anticipate that the Erma Well Number 3
24 that you're proposing will perform in a fashion similar to
25 this?

1 A. Yes. It's our expectation and hope that it
2 would.

3 Q. As such, it clearly drain 160 acres plus the
4 additional acreage from the correction section?

5 A. Yes, it could drain more than 160 acres.

6 Q. All right, let's go to Exhibit Number 9. What is
7 this?

8 A. Okay, this is a repeat of a previous plat. This
9 is the isopach of the Abo B sand, and on this there's --
10 the location of the Erma 3 is labeled with a small circle,
11 and there's a larger circle drawn around the Erma 3,
12 centered on it, and this larger circle encloses 160 acres
13 drainage area.

14 And what I'm showing here is that this circle
15 includes much of the correction section, the thin sliver of
16 Section 36, and also includes part of the Section 36 of 9
17 South, 24 East.

18 Q. Okay, let's go to Exhibit 10. How does this
19 differ?

20 A. Okay, this is also the same isopach plat on the
21 Abo B sand. In this case we've also labeled a hypothetical
22 well location inside the correction section, that if a well
23 was drilled in the correction section it would be
24 approximately there. That's 1980 feet from the west line.

25 And then the 160-acre circle is centered on the

1 hypothetical well in this correction section, and this
2 shows that that drainage area would include the location of
3 the Erma 3 and, in fact, would overlap with the drainage
4 area of the Erma 3 to a considerable extent so that either
5 well would drain that same area.

6 Q. Mr. Freeman, if this Application is not granted
7 and the nonstandard spacing units are not corrected -- or
8 created, is it fair to say that the Erma Number 3 well
9 would drain the correction section, and the owners of that
10 acreage would not share in the well?

11 A. That's correct.

12 Q. And it also would be true that to propose and
13 drill a well in that correction really would be an
14 unnecessary well, would it not?

15 A. That's correct.

16 Q. In your opinion will the granting of this
17 Application and the drilling of the Erma 3 as proposed be
18 in the best interests of conservation, the prevention of
19 waste and the protection of correlative rights?

20 A. Yes, it would.

21 Q. And were Exhibits 4 through 10 prepared by you or
22 compiled under your direction?

23 A. Yes, I worked with Yates' geologists to prepare
24 these isopachs and cross-sections, and I approve their
25 content.

1 MR. CARR: At this time, Mr. Examiner, we would
2 move the admission into evidence of Yates Exhibits 4
3 through 10.

4 EXAMINER BROOKS: 4 through 10 are admitted.

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

7 EXAMINATION

8 BY EXAMINER BROOKS:

9 Q. Okay, this is based on -- this drainage study is
10 talking about gas, right?

11 A. Yes, sir.

12 Q. This is based on -- this drainage study is
13 talking about gas, right?

14 A. Yes, sir.

15 Q. And this is gas prospect in the Abo?

16 A. Yes, sir.

17 Q. Okay. Now the 40-acre unit, you didn't have any
18 evidence specifically related to that. Is that just a
19 protective, in case this proves to be an oil prospect?

20 A. Yes, we really do not expect to encounter oil
21 there, but for completeness we wanted to include that.

22 EXAMINER BROOKS: I believe that's all the
23 questions I have. I'm not going to ask you to explain
24 these formulas you used in your modeling. They look too
25 complicated for me to get through.

1 MR. CARR: We were afraid you'd catch something
2 in there.

3 That concludes our presentation.

4 EXAMINER BROOKS: Thank you. If there's nothing
5 further, then Case Number 13,968 will be taken under
6 advisement.

7 (Thereupon, these proceedings were concluded at
8 2:42 p.m.)

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I hereby certify that the foregoing is
a complete record of the proceedings in
the Examiner hearing of Case No. _____
heard by me on _____

18

_____, Examiner
Oil Conservation Division

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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 August 29th, 2007.



STEVEN T. BRENNER
 CCR No. 7

My commission expires: October 16th, 2010