

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. 11,991

APPLICATION OF YATES PETROLEUM)
CORPORATION FOR DOWNHOLE COMMINGLING,)
EDDY COUNTY, NEW MEXICO)

ORIGINAL

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

BEFORE: DAVID R. CATANACH, Hearing Examiner

July 23rd, 1998

Santa Fe, New Mexico

OIL CONSERVATION DIV.
98 AUG -6 AM 7:54

This matter came on for hearing before the New Mexico Oil Conservation Division, DAVID R. CATANACH, Hearing Examiner, on Thursday, July 23rd, 1998, at the New Mexico Energy, Minerals and Natural Resources Department, Porter Hall, 2040 South Pacheco, Santa Fe, New Mexico, Steven T. Brenner, Certified Court Reporter No. 7 for the State of New Mexico.

* * *

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July 23rd, 1998
Examiner Hearing
CASE NO. 11,991

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* * *

A P P E A R A N C E S

FOR THE APPLICANT:

CAMPBELL, CARR, BERGE and SHERIDAN, P.A.
 Suite 1 - 110 N. Guadalupe
 P.O. Box 2208
 Santa Fe, New Mexico 87504-2208
 By: WILLIAM F. CARR

ALSO PRESENT:

MARK W. ASHLEY
 NMOCD Environmental Geologist
 2040 South Pacheco
 Santa Fe, New Mexico 87505

* * *

1 WHEREUPON, the following proceedings were had at
2 11:41 a.m.:

3 EXAMINER CATANACH: At this time we'll call Case
4 11,990, which is the Application of Yates Petroleum
5 Corporation for downhole commingling, Eddy County, New
6 Mexico.

7 Call for appearances in this case.

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

12 I would request that the record reflect that the
13 witnesses have previously been sworn and qualified in the
14 immediately preceding case, that they remain under oath and
15 their qualifications as a landman and engineer remain
16 accepted and a matter of record.

17 EXAMINER CATANACH: That is acceptable, Mr. Carr.

18 MR. CARR: Mr. Catanach, I also would like to
19 call to your attention that there are certain interest
20 owners in Section 6 who we failed to timely notify. We've
21 previously discussed this. Notice has been sent to
22 everyone, and at the end of the hearing we would request
23 that the case be continued for two weeks, at which time the
24 required notice period will have run.

25 EXAMINER CATANACH: Okay.

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CHARLES MORAN,

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

DIRECT EXAMINATION

BY MR. CARR:

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

A. My name is Charles Moran.

Q. Mr. Moran, would you briefly state what Yates
Petroleum Corporation seeks to accomplish with this
Application?

A. We are applying to commingle the Morrow, Atoka
and upper Penn formations in the Martin "ARH" Number 1
well, located 1980 from the south, 1980 from the east, in
Section 27, Township 17 South, 26 East.

Q. Did Yates initially file an administrative
application seeking authorization for this downhole
commingling?

A. Yes, we did.

Q. And were you also advised on this one by the
Division that it didn't meet the requirements for
administrative approval?

A. Yes, we were told it did not meet the
requirements of 303.C- --

Q. Again, there are questions concerning the
difference in pressures in the zones and the potential for

1 crossflow; is that right?

2 A. Yes.

3 Q. Let's go to what has been marked as Yates Exhibit
4 Number 1. Would you identify that and review it for Mr.
5 Catanach?

6 A. This is a land plat centered around Section 27 of
7 Township 17 South, 26 East. It is identifying the spacing
8 unit of the Martin well and the surrounding Morrow-Atoka-
9 upper Penn formation spacing units, surrounding the well.

10 Q. Could you identify from this exhibit the
11 offsetting units that are operated by Yates Petroleum
12 Corporation?

13 A. Yes, the well spacing in Section 21 is operated
14 by Yates Petroleum Corporation, 22 -- both wells in Section
15 22 are operated by Yates Petroleum Corporation. The one
16 identified as the Berry Number 1 in Section 23 is operate
17 by Yates Petroleum Corporation. The well in the north half
18 of Section 26 is operated by Yates Petroleum Corporation.
19 The well in the north half of Section 35 is operated by
20 Yates Petroleum Corporation. And the well in Section 33 is
21 operated by Yates Petroleum Corporation.

22 The only other two wells not operated by Yates
23 Petroleum are the well in the south half of 26; it's
24 operated by a company called Gothic Energy. And the well
25 located in the north half of Section 34 is operated by

1 Western Oil Producers.

2 Q. And it's the interest in Section 26, Gothic
3 Energy, that your attorney failed to timely notify; is that
4 right?

5 A. Yes.

6 Q. Notice has now been provided, however?

7 A. Yes, notice has been provided and sent to them.

8 Q. And to all other offsets who are affected by this
9 Application?

10 A. Yes.

11 Q. Will Yates call a technical witness to review
12 that portion of this case?

13 A. Yes, we will.

14 Q. Could you just briefly identify Exhibit Number 2,
15 please?

16 A. Exhibit Number 2 is just the offsetting wells and
17 the associated operate and the well location, or the well
18 spacing for the well.

19 Q. Were Exhibits 1 and 2 prepared by you?

20 A. Yes.

21 MR. CARR: At this time, Mr. Catanach, we would
22 move the admission into evidence of Yates Petroleum
23 Corporation Exhibits 1 and 2.

24 EXAMINER CATANACH: Exhibits 1 and 2 will be
25 admitted as evidence.

1 MR. CARR: And that concludes my examination of
2 Mr. Moran.

3 EXAMINATION

4 BY EXAMINER CATANACH:

5 Q. Mr. Moran, do you know when that notice was sent?

6 A. It was sent as soon as I discovered that it was
7 not sent properly, and I believe it occurred last week,
8 last Thursday.

9 MR. CARR: It was July the 16th.

10 THE WITNESS: July 16th.

11 EXAMINER CATANACH: So that will give us enough
12 time for 20 days --

13 MR. CARR: Yes.

14 EXAMINER CATANACH: -- for the next August
15 hearing?

16 MR. CARR: Yes, it will.

17 EXAMINER CATANACH: Okay. Are you going to
18 provide --

19 MR. CARR: I will at that time provide a notice
20 affidavit with return receipts and a letter, confirming
21 that the 20-day period was complied with.

22 EXAMINER CATANACH: Sounds good. I have nothing
23 further.

24 MR. CARR: And at this time we would recall
25 Morris Keith.

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MORRIS KEITH,

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

DIRECT EXAMINATION

BY MR. CARR:

Q. Mr. Keith, would you refer to what has been marked Yates Petroleum Corporation Exhibit Number 3, please, and would you identify that?

A. Yes, this is the application sent to the Oil Conservation Division for commingling the Martin well.

Q. Now, this Application, this Form C-107-A, differs from the form that was originally filed with the administrative application; is that right?

A. Yes, sir.

Q. How does this C-107 differ from the application that was originally filed?

A. The pressures -- The original pressure in the Morrow zone has been amended or changed from 1178 to 3476.

Q. And why is that change necessary?

A. That was a procedural difference, and that was an erroneous original pressure that was on the Morrow zone, sent on the original application.

Q. In fact, what was provided with the prior application was the depleted pressure, not the original pressure for the interval; is that right?

1 A. Yes, sir.

2 Q. So you have revised this exhibit?

3 A. Yes, sir.

4 Q. And can you testify that the information set
5 forth on this exhibit is now correct?

6 A. Yes, sir.

7 Q. Could you review the general characteristics of
8 each of the zones you propose to downhole commingle?

9 A. Yes, the bottom zone, the Morrow zone, was
10 originally perforated, tubing to convey perforating, and we
11 immediately measured bottomhole pressure at 3476. Five and
12 three-quarter million, or 5775 MMCF later, we remeasured
13 bottomhole pressure at 1186. So it was a very severely
14 limited Morrow zone that depleted from 3476 to 1186 with
15 less than 6 million feet of gas.

16 The Atoka zone was moved to next. It's extremely
17 low permeable and a tight reservoir. It didn't make any
18 gas on tests, or it made an insignificant amount of gas on
19 tests, about 45 MCFD on an adjusted 24-hour basis.

20 We immediately moved up and tested the upper
21 Penn, which bottomhole pressure indicates that it's both a
22 severely limited reservoir and extremely low perm too, and
23 the pressure on it is less -- just a little bit less than
24 1905 MCFD -- or p.s.i., I'm sorry, p.s.i.

25 Q. All of these zones are capable of only marginal

1 production; is that right?

2 A. Yes, sir.

3 Q. Let's go to what has been marked as our Exhibit
4 Number 4, the wellbore diagrammatic sketch. And using
5 this, could you review for Mr. Catanach how the well is
6 completed and the perforations in each zone?

7 A. Yes, the bottom Morrow zone and the Atoka are
8 both under a common bridge plug at 8250.

9 The Atoka zone was tested for less than a day.
10 It was extremely marginal after an acid breakdown.

11 The upper Penn was perforated and is currently
12 producing right now.

13 Q. And is the upper Penn the only zone in the well
14 that currently is producing?

15 A. Yes, sir. And there's not any potential for any
16 other zone to be added in this well. This is it on this
17 one.

18 Q. What are the recent producing rates for this well
19 from the upper Penn?

20 A. 7-14-98, the Penn made zero oil, zero water, and
21 42 MCF.

22 Q. And what is the date on that, did you say?
23 7-14-98?

24 A. Yes, sir.

25 Q. And is that set out on Exhibit Number 5?

1 A. Yes.

2 Q. And what is Exhibit Number 5?

3 A. Exhibit Number 5 is just a tabular form of the
4 production.

5 You can see the three days there in mid-December
6 of 1997 where the Morrow made its 5.7 million.

7 And then it was allowed to pressure up for a
8 period of about two months there, hoping that something
9 would happen, and then the recompletion phase started.

10 And the last page is the upper -- the last two
11 pages, two and a half pages, is the Strawn production, or
12 upper Penn.

13 Q. Okay. What were the oil, gas and water rates for
14 the last production from the Atoka and the Morrow prior to
15 -- or I guess it's the upper Penn and the Morrow, prior to
16 shutting in the well?

17 A. The Morrow production, zero oil, zero water and
18 41 MCF on 2-5-98.

19 The Atoka is a six-hour test, adjusted to
20 24-hour. No oil, no water, and 45 MCF gas per day.

21 Q. Okay, and what is the BTU content for the gas
22 produced from the upper Penn?

23 A. The upper Penn measures 1212 BTU.

24 Q. Could you review the original pressures
25 encountered in these wells, in each of the -- in this well,

1 in each of the subject formations?

2 A. Yes, the Morrow zone was measured immediately
3 after perforating at 3476.

4 The Atoka zone was not DST'd, nor was it
5 measured, pressure, anytime during operations. However,
6 our geologist assured us that the pressure, you know,
7 adjusted to a common datum is the same.

8 We did a buildup on the Atoka and showed an
9 original pressure of 2100 and a current pressure of 1900,
10 and this occurred about -- I believe about 4 million feet
11 of gas ago.

12 Q. Do you anticipate any crossflow between the
13 formations in this well?

14 A. No, sir. Academically, there may be some
15 crossflow, but permeabilities are so low that I don't
16 believe it would be a significant amount of gas if it were
17 to happen.

18 Q. So to the extent there is any, it's a negligible
19 amount?

20 A. Yes, sir.

21 Q. Is the bottomhole pressure of the lowest zone
22 more than 50 percent of the bottomhole pressure of the
23 highest pressure zone, adjusted to a common datum?

24 A. Yes.

25 Q. And what are those figures?

1 A. I show the upper Penn at .2321 p.s.i. per foot,
2 and the Morrow at 1186 of .1379 p.s.i. per foot.

3 Q. I mean, the crossflow is negligible. Is there
4 any potential for any lost reserves that will result from
5 the downhole commingling?

6 A. No, sir.

7 Q. Do you anticipate any problems with
8 incompatibilities of any fluids in this well?

9 A. No.

10 Q. Let's go to Exhibit Number 6, your decline curve,
11 and I'd ask you to review that.

12 A. Yes, this is a Cartesian production plot, history
13 of the well, and again you can see there leading off the
14 big Morrow that came in with a high pressure and high IP
15 immediately deplete. That purple buildup there from 12-22-
16 97 to 1-26-97 [sic] is a pressure buildup, just a daily
17 reading of the shut-in Morrow zone. And then you can see
18 production was resumed, with the red line being gas
19 production.

20 It immediately depleted, and on 3-25-98 the Atoka
21 and Morrow were both placed under an RBP, and the upper
22 Penn was completed and is currently producing.

23 Q. Will the value of the production after
24 commingling be equal to or exceed the value of production
25 from the formations if produced separately?

1 A. Yes.

2 Q. If commingling is approved, in fact, Yates will
3 be able to produce zones that are currently shut in; is
4 that right?

5 A. Yes.

6 Q. How do you propose to allocate the production
7 between the pools after commingling?

8 A. Because there is no oil production, we've
9 assigned an oil-production allocation the same as gas,
10 simply for record-keeping purposes.

11 And we've got a test, three tests on the zones,
12 on 2-5-98, 3-24-98, 4-27-98, 43.8 percent allocated to the
13 upper Penn, 29.4 percent allocated to the Atoka and 26.8
14 percent allocated to the Morrow zone.

15 Q. In your opinion, will the approval of this
16 Application be in the best interest of conservation, the
17 prevention of waste and the protection of correlative
18 rights?

19 A. Yes.

20 Q. Were Yates Exhibits 3 through 6 prepared by you
21 or compiled under your direction?

22 A. Yes.

23 MR. CARR: At this time, Mr. Catanach, we would
24 move the admission into evidence of Yates Petroleum
25 Corporation Exhibits 3 through 6.

1 EXAMINER CATANACH: Exhibits 3 through 6 will be
2 admitted as evidence.

3 MR. CARR: And that concludes my direct
4 examination of this witness.

5 EXAMINATION

6 BY EXAMINER CATANACH:

7 Q. Mr. Keith, that allocation is based on -- is that
8 based on the latest test that you have from the upper Penn?

9 A. It's based on the test from 4-22-97.

10 Q. 22. That rate is lower at this point?

11 A. Yes.

12 Q. Might it be more accurate to use the current
13 rate?

14 A. Well, sir, this is such a marginal well out
15 there, and the -- what fluctuates the rates is the line
16 pressure, and so we would anticipate that at such time when
17 the line pressure goes down 40 pounds, you can see the
18 production will come back up to a little bit. But we could
19 absolutely adjust it.

20 EXAMINER CATANACH: Okay. I have nothing further
21 in this case, Mr. Carr.

22 MR. CARR: That concludes our presentation, Mr.
23 Catanach.

24 EXAMINER CATANACH: Okay, so we'll continue this
25 case to August 6th, and you'll provide notice --

1 MR. CARR: -- a notice affidavit at that time.

2 EXAMINER CATANACH: Okay.

3 MR. CARR: That's all we have.

4 EXAMINER CATANACH: Okay.

5 (Thereupon, these proceedings were concluded at
6 11:57 a.m.)

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I do hereby certify that the foregoing is
a complete record of the proceedings in
the Examiner hearing of Case No. 1189,
heard by me on July 23 1987.
Daniel M. Catanch, Examiner
Oil Conservation Division

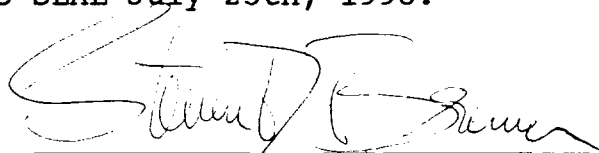
CERTIFICATE OF REPORTER

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 July 25th, 1998.



STEVEN T. BRENNER
CCR No. 7

My commission expires: October 14, 1998