

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

CASE 10,620

EXAMINER HEARING

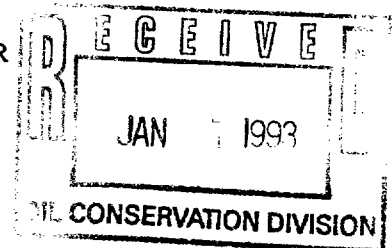
IN THE MATTER OF:

Application of Yates Petroleum Corporation for
downhole commingling, Eddy County, New Mexico

ORIGINAL

TRANSCRIPT OF PROCEEDINGS

BEFORE: DAVID R. CATANACH, EXAMINER



STATE LAND OFFICE BUILDING

SANTA FE, NEW MEXICO

December 3rd, 1992

CUMBRE COURT REPORTING
(505) 984-2244

A P P E A R A N C E S

FOR THE DIVISION:

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FOR THE APPLICANT:

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* * *

I N D E X

Page Number

Appearances

2

WILLIAM F. BONEAU

Direct Examination by Mr. Carr

5

Examination by Examiner Catanach

14

Certificate of Reporter

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* * *

E X H I B I T S

APPLICANT'S EXHIBITS:

Exhibit 1

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Exhibit 2

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Exhibit 3

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Exhibit 4

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1 WHEREUPON, the following proceedings were had
2 at 10:00 a.m.

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7 EXAMINER CATANACH: At this time we're going
8 to call Case 10,620.

9 MR. STOVALL: Application of Yates Petroleum
10 Corporation for downhole commingling, Eddy County, New
11 Mexico.

12 EXAMINER CATANACH: Are there appearances in
13 this case?

14 MR. CARR: May it please the Examiner, my
15 name is William F. Carr with the Santa Fe law firm of
16 Campbell, Carr, Berge & Sheridan.

17 We represent Yates Petroleum Corporation, and
18 I have one witness.

19 EXAMINER CATANACH: Any other appearances?
20 And I believe the witness has already been
21 sworn in, in a previous case.

22 MR. CARR: And have Dr. Boneau's credentials
23 been accepted and made a matter of record as an expert
24 in petroleum engineering?

25 EXAMINER CATANACH: Yes, they have.

1 DAVID F. BONEAU,
2 the witness herein, after having been first duly sworn
3 upon his oath, was examined and testified as follows:

4 DIRECT EXAMINATION

5 BY MR. CARR:

6 Q. Dr. Boneau, would you briefly state what
7 Yates seeks with this Application?

8 A. In this case Yates seeks the authority to
9 commingle Bone Spring and Delaware production in the
10 wellbore of the Yates Pauline ALB State Number 6 well.

11 Q. Could you briefly review for Mr. Catanach the
12 history of this well?

13 A. This well was originally drilled by Santa Fe
14 Energy in 1988 to approximately 15,000 feet.

15 During the drilling, Santa Fe DST'd the
16 uppermost part of the Bone Spring formation and tested
17 some oil on that DST.

18 They completed drilling the well and plugged
19 and abandoned it.

20 In 1992, Yates re-entered the well --
21 obtained the lease, and then Yates re-entered the well
22 with the Bone Spring and the Delaware being the target
23 zones.

24 We really hoped the Bone Spring would be
25 fantastic and we'd have a Bone Spring well, but the

1 Bone Spring turned out to be about a five- to ten-
2 barrel-of-oil-per-day producer.

3 And we also then went and completed four
4 Delaware zones above the Bone Spring, and we are now
5 seeking to commingle those.

6 Actually, we filed for administrative
7 approval to commingle Bone Spring and Delaware, and
8 those papers were filed in September at the time the
9 well was completed, and the result of that filing was
10 that the OCD set this matter for hearing today.

11 Q. Dr. Boneau, if you would refer to what has
12 been marked as Yates Exhibit 1, which is a portion of
13 the administrative filing, and first refer to the plat,
14 and review the information on that plat for Mr.
15 Catanach.

16 A. Exhibit 1 contains 10 pieces of paper, I
17 believe, ten pages, and it's the heart of our
18 administrative application.

19 The first page of Exhibit 1 -- It's marked at
20 the top "Attachment A", but it's a map showing the
21 location of the Pauline well in Unit J of Section 32,
22 23-31.

23 The marking -- Well, there's an arrow
24 pointing to it, and it's in the middle of the map.

25 The writing next to the well location says

1 Santa Fe Energy Sterling Silver, TD 15,034, and that's
2 the original well drilled by Santa Fe. Yates re-
3 entered that well.

4 The well is dedicated only to the 40 acres
5 that are the northwest quarter of the southeast quarter
6 of Section 23.

7 The offset owners are shown on the map, and
8 they include Meridian, who is the present name of El
9 Paso, Phillips also in Section 31, Enron in the north
10 part of Section 32, and Santa Fe Energy to the east and
11 southeast and south.

12 So there are four offset owners. We're
13 talking about federal land here.

14 Q. Okay, let's move to the schematic drawing in
15 Exhibit Number 1, and I would ask you to review for Mr.
16 Catanach how the well is actually physically completed.

17 A. Okay, we're now talking about the schematic,
18 which is the first legal-size piece of paper in Exhibit
19 1.

20 When Santa Fe drilled the well, they set
21 surface and intermediate casing, and they also set
22 seven-inch at 12,000 feet and a liner below that.

23 When they plugged the well, they shot off the
24 seven-inch casing at about 6200 feet and pulled the top
25 of the seven-inch.

1 So Yates re-entered the well and cleaned out
2 plugs, et cetera, down to about 6200 feet, and then
3 tied back in seven-inch casing and cemented that from
4 around 6200 feet up to almost the surface, up to 1200
5 feet from the surface.

6 Then Yates tested the Bone Spring, and we
7 acidized and frac'd the Bone Spring, but it produced
8 only a little, really didn't produce very much.

9 So we went uphole and opened four Delaware
10 zones, and the Delaware zones are listed on this
11 schematic as D1, D2, D3 and D4, and the perforations
12 are shown there. The top perforations are 7511 to
13 7529, and the bottom Delaware perforations are 7868 to
14 7936.

15 You notice this is not really very far above
16 the Bone Spring perforations at 8037 to 8045, so the
17 Delaware is barely a hundred feet above the Bone Spring
18 perforations.

19 Yates acidized and frac'd those Delaware
20 perforations and then installed pumping equipment and
21 pumped the well. And initially it made about 200
22 barrels of oil a day and 200 barrels of water a day,
23 and that's fallen off somewhat.

24 Q. Is the ownership in both of the zones that
25 are being commingled common, both working interest and

1 royalty interest?

2 A. Yes, sir, there's the same interest in the
3 Delaware and the Bone Spring.

4 Q. Have you conducted productivity tests on this
5 well?

6 A. Yes, what we did was complete the well as I
7 described, and at that time we were talking to Mike
8 Williams at the Artesia NM OCD office.

9 And about ten days after we put the well in
10 production, we shut the well in and pulled the tubing,
11 ran a tubing and packer into the well to isolate the
12 Bone Spring, and we swab-tested the Bone Spring
13 formation. It produced at a rate of about 14 barrels
14 of oil per day on that test.

15 And on the basis of that test, we assigned
16 -- it actually was producing 202 barrels a day
17 immediately before that, and we broke down the
18 production into 14 barrels from the Bone Spring and 188
19 from the Delaware.

20 And that test is the basis for our suggested
21 allocation in the commingling.

22 Q. The well is producing water?

23 A. The well is producing water. The well is
24 producing -- has always produced about as much water as
25 oil.

1 And there was a water test -- We got a water
2 rate at that same time, and I believe that was 22
3 barrels of water a day from the Bone Spring and -- by
4 subtraction we then had 178 barrels of water a day from
5 the Delaware.

6 Q. Have you been able to establish production
7 decline curves for these zones?

8 A. At the time we made the administrative
9 filing, we did some calculations based on typical
10 decline curves in order to get a breakdown of reserves,
11 and those calculations are detailed in this Exhibit 1.

12 The -- since that time -- We're talking about
13 September, so the last three or four months we have
14 real production data.

15 And the well has declined, and the actual
16 decline is a little steeper than what was assumed in
17 those calculations.

18 Q. Have you reviewed the bottomhole pressure on
19 each zone?

20 A. The bottomhole pressures are similar in the
21 two zones. They're very close together in the well.

22 The bottomhole pressure in the Bone Spring
23 formation was measured by Santa Fe on their DST, and
24 that was 2941 p.s.i., I believe.

25 The Delaware pressure is almost surely about

1 2800 p.s.i., and that's based on a gradient in this
2 well, and it's also based on a lot of other Delaware
3 experience in the same area.

4 Q. So there shouldn't be a pressure differential
5 that would cause migration downhole between zones?

6 A. The pressures in the zones are very close to
7 start with, and I'm sure they balanced out quickly
8 after production started.

9 Q. Would there be any problem with compatibility
10 of the fluids being produced?

11 A. No, both zones produce sweet oil and sweet
12 gas, and there should be no compatibility problem.

13 Q. Dr. Boneau, let's go to what has been marked
14 as Yates Exhibit Number 2, and I'd ask you to identify
15 that and review this for Mr. Catanach.

16 A. Yates Exhibit Number 2 is a tabulation of the
17 daily production from the Yates Pauline Number 6 well,
18 from initial production on August 23rd of this year
19 through the last day I was in Artesia, which I think
20 was like last Friday.

21 And what it shows is that oil production has
22 declined from -- a few early days were almost 300
23 barrels of oil per day, but around 200 early in its
24 life, and it's declined to where it's now making about
25 75 to 80 barrels of oil per day.

1 Likewise, the water production has declined
2 almost in step with that, and the gas production from
3 the well has declined from about 400 MCF per day to
4 about 100 MCF per day.

5 So at the well making 80 barrels of oil per
6 day, we're talking about five barrels of oil coming
7 from the Bone Spring and 75 barrels of that coming from
8 the Delaware.

9 So we're asking to commingle five barrels of
10 Bone Spring oil with the 75 barrels of Delaware oil.

11 Q. And what is the percentage allocation, do you
12 know, that you're recommending?

13 A. We're recommending that six percent be
14 allocated to the Bone Spring and 94 percent be
15 allocated to the Delaware.

16 Q. Is Yates Exhibit Number 3 a compilation of
17 letters to the Oil Conservation Division, Santa Fe and
18 Artesia Office, and also to the BLM, providing them
19 with copies of the original administrative application?

20 A. Yes, sir, that's what Exhibit 3 is.

21 Q. And is Exhibit Number 4 copies of waiver
22 letters from all offsetting owners?

23 A. Exhibit 4 are waiver letters from each and
24 every one of the offset operators.

25 Q. In your opinion, will approval of this

1 Application result in the increased recovery of oil?

2 A. Yes, sir, approval of this Application is the
3 only reasonable way to produce this five barrels of
4 Bone Spring oil per day. Otherwise, it's going to be
5 gone.

6 Q. In that case, the value of the commingled
7 production will exceed the values of the individual
8 zones?

9 A. Yes, sir, the Bone Spring oil is simply
10 incremental, for-free oil that we can get this way.

11 Q. In your opinion, will approval of this
12 Application be in the best interests of conservation,
13 the prevention of waste and the protection of
14 correlative rights?

15 A. Yes, sir.

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

18 A. Yes, sir.

19 MR. CARR: Mr. Catanach, at this time we move
20 admission of Yates petroleum Corporation Exhibits 1
21 through 4.

22 EXAMINER CATANACH: Exhibits 1 through 4 will
23 be admitted as evidence.

24 MR. CARR: And that concludes my examination
25 of Dr. Boneau.

EXAMINATION

BY EXAMINER CATANACH:

Q. Dr. Boneau, would you recommend that the gas be allocated in the same amount as the oil?

A. Yes, sir, that's our recommendation. We really have no information that's different from that, no solid information that says that, but that's the most reasonable thing to do. That's what I recommend.

Q. Is the well currently being pumped?

A. Yes, the well's being pumped.

EXAMINER CATANACH: Okay, I have nothing further in this case.

MR. CARR: We have nothing further in this case.

EXAMINER CATANACH: There being nothing further, Case 10,620 will be taken under advisement.

(Thereupon, these proceedings were concluded at 11:15 a.m.)

* * *

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 10620, heard by me on December 3, 1992.

David R. Catanach, Examiner
Oil Conservation Division

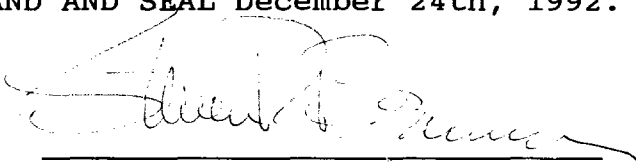
1 CERTIFICATE OF REPORTER

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

6 I, Steven T. Brenner, Certified Court
7 Reporter and Notary Public, HEREBY CERTIFY that the
8 foregoing transcript of proceedings before the Oil
9 Conservation Division was reported by me; that I
10 transcribed my notes; and that the foregoing is a true
11 and accurate record of the proceedings.

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

16 WITNESS MY HAND AND SEAL December 24th, 1992.

17
18 
19 STEVEN T. BRENNER
CCR No. 7

20 My commission expires: October 14, 1994
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