

1 STATE OF NEW MEXICO
2 ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
3 OIL CONSERVATION DIVISION
4 STATE LAND OFFICE BUILDING
5 SANTA FE, NEW MEXICO

6 18 January 1989

7 EXAMINER HEARING

8 IN THE MATTER OF:

9 Application of Yates Petroleum Corp- CASE
10 oration for an unorthodox gas well 9580
11 location, Eddy County, New Mexcio.

12 BEFORE: Victor T. Lyon, Examiner
13

14 TRANSCRIPT OF HEARING

15 A P P E A R A N C E S

16 For the Division: Robert G. Stovall
17 Attorney at Law
18 Legal Counsel to the Division
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20 Santa Fe, New Mexico

21 For Yates Petroleum Ernest L. Padilla
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I N D E X

RAY BECK

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1 MR. LYON: Call next Case
2 9580.

3 MR. STOVALL: Application of
4 Yates Petroleum Corporation for an unorthodox gas well
5 location, Eddy County, New Mexico.

6 MR. PADILLA: Mr. Examiner, my
7 name is Ernest Padilla, Santa Fe, New Mexico, for the ap-
8 plicant, Yates Petroleum Corporation. I have one witness
9 to be sworn.

10
11 (Witness sworn.)
12

13 RAY BECK,
14 being called as a witness and being duly sworn upon his
15 oath, testified as follows, to-wit:
16

17 DIRECT EXAMINATION

18 BY MR. PADILLA:

19 Q Mr. Beck, for the record would you
20 please state your full name and where you're employed?

21 A Ray Beck, employed with Yates Petroleum
22 Corporation in Artesia, New Mexico.

23 Q What is the scope of your duties with
24 Yates Petroleum Corporation?

25 A I'm Chief Geologist.

1 Q Mr. Beck, have you previously been ac-
2 cepted as an expert geologist in hearings before the Oil
3 Conservation Division and have your credentials been
4 accepted as a matter of record?

5 A Yes, they have.

6 Q Mr. Beck, did you prepared and make a
7 study of certain -- of the area under consideration today?

8 A Yes, I have.

9 Q And you have prepared certain exhibits
10 for introduction here today?

11 A Yes, sir.

12 MR. PADILLA: Mr. Examiner, we
13 tender Mr. Beck as an expert petroleum geologist.

14 MR. LYON: Mr. Beck is quali-
15 fied.

16 Q Mr. Beck, would you briefly tell us what
17 this hearing is about?

18 A Yates Petroleum Corporation requests ap-
19 proval for the unorthodox location of its proposed Slinkard
20 "UR" Federal No. 3 to be drilled 1980 feet from the south
21 line and 990 from the west line of Section 12, Township 20
22 South, Range 29 East, Eddy County. The south half of Sec-
23 tion 12 would be dedicated to the well.

24 Being constrained to drilling a south
25 half 320-acre proration unit in Section 12, the necessity

1 for this nonstandard location is based upon geologic con-
2 ditions existing in two Strawn limestone bioherms in the
3 Burton Flat Strawn East Gas Field.

4 Although the primary objective is the
5 Strawn formation, the well will be drilled through the base
6 of the Morrow formation.

7 Q Mr. Beck, let's now turn to what we have
8 marked as Exhibit Number One and have you identify that and
9 tell the examiner what it contains.

10 A Exhibit Number One is a land plat
11 showing the proposed location as a red spot and its rela-
12 tionship to the surrounding acreage situation.

13 Q What is the proposed proration unit as
14 shown on Exhibit One?

15 A The proration unit is outlined in red
16 and it's the south half of Section 12.

17 Q Can you tell us something about the
18 southeast quarter of Section 12 insofar as your relation-
19 ship with Amoco is concerned?

20 A We obtained a farmout from Amoco to put
21 together the south half proration unit. Amoco had held
22 the lease for many years because it had been suspended due
23 to potash. This way we -- Amoco can't get in on the well
24 and they, instead of taking a working interest, have
25 decided to farm out.

1 Q You've mentioned the potash problems.
2 Is this a potash area in southeast New Mexico>

3 A Yes, sir, there's potash to the south
4 and to the east of us.

5 Q Have you experienced other problems with
6 respect to drilling in southeast New Mexico, at least in
7 this area?

8 A Yes. We drilled a well in the northwest
9 northwest of Section 13. According to the public potash
10 map it didn't look like we were in the potash area but we
11 -- we had to -- we found out from the BLM that they'd
12 prefer us to drill a deviated borehole from the south half
13 of Section 12, so we had to deviate the well from Section
14 12 into the northwest northwest of 13.

15 Q Now, let me summarize this exhibit. The
16 yellow acreage, the acreage shown in yellow is acreage now
17 owned by Yates Petroleum?

18 A Yes, that's true.

19 Q Eventually the southeast quarter will
20 also be marked in yellow, correct?

21 A That's true. When we drill a well and
22 perform our duties under the operating agreement, we'll
23 color that in yellow, too.

24 Q Let's go on to what we have marked as
25 Exhibit Number Two and have you tell the Examiner what that

1 is and what it contains.

2 A Exhibit Number Two is a combined struc-
3 ture and net pay map of the Strawn pay zone. The solid
4 contour lines are structural contours on the top of the
5 Strawn "A" zone. The proposed location is on the north
6 flank of an eastwardly plunging nose and should encounter
7 the Strawn "A" zone at a subsea datum of approximately
8 -7335.

9 You might note that the Odessa Dooley
10 well in the southwest southwest of Section 24, that's to
11 the south, encountered the Strawn "A" zone at -7431 and
12 that the "A" zone made gas and water on a DST and through
13 perforations.

14 Q Okay, this Dooley well is the one way at
15 the bottom of the exhibit, is that correct?

16 A That's true.

17 Q Okay.

18 A Therefore, a well drilled at a standard
19 -- the Strawn "A" was squeezed and the well was finally
20 completed in the Morrow; therefore, to drill a well at a
21 standard location, that is, 1980 from the west line, would
22 be to add some risk in encountering salt water with the gas
23 in the Strawn "A" zone. It's not necessarily true. We
24 don't have enough control to the east to determine that for
25 sure, but it is riskier.

1 The dotted lines on the map are "iso-net
2 pay" contours. Porosity in the Strawn "A" over 4 percent
3 was counted and plotted on the map.

4 The proposed location should encounter
5 about 13 feet of net pay in the Strawn "A". The map indi-
6 cates that a well drilled at a standard location would
7 encounter less net pay or possibly even risk finding no net
8 pay. Thus, a well drilled at the standard -- proposed lo-
9 cation, that is, should encounter sufficient net pay struc-
10 turally high enough on a nose to produce economic reserves
11 of gas from the Strawn "A" zone.

12 Q Let's go on now to what -- to your Exhi-
13 bit Number Three, Mr. Beck, and have you tell the Examiner
14 what that is and what it contains.

15 A Exhibit Number Three is a combined
16 structure and net pay map of the Strawn "B" zone with
17 structure contours on the top of the Strawn "B" zone. The
18 proposed location is on the north flank of a southeasterly
19 plunging nose and should encounter the Strawn "B" zone at a
20 subsea datum of -7480; that is, the borehole should
21 encounter a Strawn "B" zone only 6 feet low to the Yates
22 Eland Well in the northwest northwest of Section 13, which
23 is producing from the Strawn "B" zone now.

24 The dotted lines are "iso-net pay"
25 contours as in Exhibit Number Two. The proposed location

1 should encounter about 13 feet of net pay in the Strawn "B"
2 or only one foot less than what's found in the Yates Eland
3 Well one-half mile to the south, which is producing from
4 the Strawn "B".

5 The map indicates that a well drilled at
6 a standard location would encounter less net pay or pos-
7 sibly even risk finding no net pay; therefore, a well
8 drilled at the proposed unorthodox location should encount-
9 er sufficient net pay structurally high enough to produce
10 economic reserves from the Strawn "B".

11 Q Before we go on to Exhibits Three and --
12 or Exhibit Number Four, do you have anything further con-
13 cerning Exhibits Two and Three, Mr. Beck?

14 A I believe that covers it, the specific
15 questions.

16 Q Okay, let's go on to Exhibit Number Four
17 and tell the Examiner what that exhibit is and what it
18 contains.

19 A Could we hang this up to maybe show you
20 on the wall?

21 Q Mr. Beck, be sure to speak loudly so
22 that the reporter can catch what you're saying.

23 A Exhibit Number Four is a structural
24 cross section going from north to south. The Yates Slink-
25 ard "UR" No. 1, which is producing the Strawn "B" zone and

1 through the proposed location to the Eland Well to the
2 south, producing now from the Strawn "B", and going on down
3 to the Federal Dooley Well, which had a drill stem test in
4 the "A" zone, got oil and water, and they perforated and
5 got oil and water and abandoned to. The "B" zone is tight
6 down there, and they finally made a well in the Morrow and
7 subsequently have plugged it.

8 This cross section shows the correla-
9 tions of Strawn "A" and "B" and how I counted up the net
10 pay for the map.

11 So to summarize, given the dual
12 constraints of 320-acre Strawn gas proration units and
13 south half and north half laydown proration units, the pro-
14 posed nonstandard location is the best allowable location
15 to find both Strawn "A" and Strawn "B" zone gas in the
16 south half of Section 12.

17 Q Mr. Beck, would approval of this appro-
18 val of this application be in the best interest of the
19 conservation of oil and gas?

20 A Yes, it would.

21 Q Can you explain why?

22 A We believe that these locations will
23 give us the best chance get all of the Strawn production
24 from Section 12 and give everyone in the Section an equal
25 chance of sharing in the -- whatever product is found

1 there.

2 Q By giving each one an equal chance to
3 share in the production would that prevent the impairment
4 of correlative rights?

5 A That would prevent the impairment, yes.

6 MR. PADILLA: Mr. Examiner, we
7 tender Exhibits One through Four and we pass the witness
8 for cross examination.

9 MR. LYON: Is there objection?
10 Exhibits One through Four will
11 be admitted.

12
13 CROSS EXAMINATION

14 BY MR. LYON:

15 Q Mr. Beck, this is -- this well is pro-
16 posed for the East Burton Flats?

17 A It's Burton Flats Strawn East Gas Pool.

18 Q Which is an unprorated pool?

19 A Yes, sir.

20 Q Is the north half of Section 12 common
21 ownership with the southwest quarter?

22 A The ownership there is the northwest
23 quarter of 12 and the north half of the southwest quarter
24 is one Federal lease that is HBP by wells drilled in Sec-
25 tion 11, and the south half of the southwest quarter is

1 another, is a different lease. That 80 acres there is a
2 different lease, so we're drilling -- both of these would
3 be communitized into one south half proration unit.

4 Q Did I understand you correctly to say
5 that you consider the southeast quarter to be very ques-
6 tionably productive, possibly unproductive?

7 A Well, there is no control to the east
8 for about six miles so with -- the production goes to the
9 east, so we're kind of stepping out from that standpoint.

10 We really don't know what's out there
11 but -- so we're drilling the less risky locations. It
12 could be that there is production out there but it's just
13 risky to drill right now.

14 Q Is there some reason why you could not
15 use the west half of Section 12 as your proration unit?

16 A Well, sir, management, after looking at
17 the geology, decided that they would like to drill two
18 wells in Section 12, and since we have to drill 320-acre
19 proration units, the only way we could do that was to lay
20 them down.

21 If we went west half that would -- that
22 would put us down just one location in Section 12.

23 Q Do you have any idea how much acreage is
24 productive in Section 12?

25 A Well, sir, I'd right now say that of

1 course the -- the west half is the most shared location but
2 that doesn't mean that there's not production extending all
3 the way to the east half. Like I say, the next well that
4 penetrates the Strawn are in the North Benson Deep Pool,
5 and it's about 6 miles to the west northwest.

6 Q Well, I would be willing to give you the
7 benefit of the doubt that the southeast quarter might be
8 productive if you drilled a standard location. I think
9 when an operator asks for a nonstandard location he raises
10 the question of whether his acreage is productive or
11 whether he's getting an advantage over his offset operator.
12 Of course, you have the offset acreage to the west, so I
13 don't suppose that you would protest.

14 A No, sir, we will not protest. We're the
15 only -- we're the only operators out there and we've got
16 all the production. We're encroaching on ourselves.

17 Q Well, in -- in my view, the one well in
18 the west half of Section 12, would probably complete the
19 development of your acreage.

20 Do you have any rebuttal to that?

21 A Well, sir, like I say, we would like to,
22 if we have to drill 320's at this point, we'd like to get
23 two wells in that section and since the geology favors
24 wells drilled towards the west of that section, that's what
25 we want -- that's why we want to pursue this this way.

1 Maybe some time in the future they might go from 320's to
2 160's. That would -- the pool is rather young and that
3 would be something to determine in the future, though.

4 Right now, given 320-acre spacing, we think that we can do
5 a better job for everybody in our whole section by drilling
6 two unorthodox locations in the laydown 320's.

7 MR. LYON: I have no further
8 questions.

9 MR. PADILLA: If I may, let me
10 ask another question, Mr. Examiner.

11
12 REDIRECT EXAMINATION

13 BY MR. PADILLA:

14 Q Mr. Beck, is the United States govern-
15 ment the common royalty owner on the -- all of this acreage
16 in Sections 11 and 12?

17 A Yes, sir.

18 MR. PADILLA: I have no fur-
19 ther questions.

20 MR. LYON: Any statements?
21 Anything further in this case?

22 MR. PADILLA: Nothing further,
23 Mr. Examiner.

24 MR. LYON: The witness may be
25 excused and we'll take the case under advisement.

C E R T I F I C A T E

I, SALLY W. BOYD, C. S. R. DO HEREBY
CERTIFY that the foregoing Transcript of Hearing before the
Oil Conservation Division (Commission) was reported by me;
that the said transcript is a full, true and correct record
of the hearing, prepared by me to the best of my ability.

Sally W. Boyd CSR

I do hereby certify that the foregoing is
a complete record of the proceedings in
the Examiner hearing of Case No. 9560,
heard by me on Jan 18 1989.

W. S. Boyd, Examiner
Oil Conservation Division