

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. 11,377
)
APPLICATION OF NEARBURG)
EXPLORATION COMPANY)
_____)

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

ORIGINAL

BEFORE: MICHAEL E. STOGNER, Hearing Examiner

September 7th, 1995

Santa Fe, New Mexico

This matter came on for hearing before the New Mexico Oil Conservation Division, MICHAEL E. STOGNER, Hearing Examiner, on Thursday, September 7th, 1995, 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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September 7th, 1995
 Examiner Hearing
 CASE NO. 11,377

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* * *

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* * *

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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By: W. THOMAS KELLAHIN

* * *

1 WHEREUPON, the following proceedings were had at
2 9:31 a.m.:

3 EXAMINER STOGNER: Next case that I'll call is
4 11,377.

5 MR. CARROLL: Application of Nearburg Exploration
6 Company for an unorthodox gas well location, Eddy County,
7 New Mexico.

8 EXAMINER STOGNER: Call for appearances.

9 MR. KELLAHIN: Mr. Examiner, I'm Tom Kellahin of
10 the Santa Fe law firm of Kellahin and Kellahin, appearing
11 on behalf of the Applicant, and I have three witnesses to
12 be sworn.

13 EXAMINER STOGNER: Are there any other
14 appearances in this matter?

15 Will all three witnesses please stand to be sworn
16 at this time?

17 (Thereupon, the witnesses were sworn.)

18 EXAMINER STOGNER: Mr. Kellahin?

19 MICHAEL M. GRAY,
20 the witness herein, after having been first duly sworn upon
21 his oath, was examined and testified as follows:

22 DIRECT EXAMINATION

23 BY MR. KELLAHIN:

24 Q. Mr. Gray, for the record would you please state
25 your name and occupation?

1 A. Michael M. Gray. I'm a consulting independent
2 landman, currently employed by Nearburg Exploration
3 Company.

4 Q. And where do you reside, sir?

5 A. Amarillo, Texas.

6 Q. Mr. Gray, on prior occasions have you testified
7 before the Division as a petroleum landman?

8 A. Yes.

9 Q. Pursuant to your employment by Nearburg, have you
10 made a study of the offset operatorship with regards to
11 those spacing units towards which this unorthodox location
12 encroaches?

13 A. Yes, I have.

14 Q. So you're knowledgeable about those entities and
15 individuals?

16 A. Yes.

17 Q. In addition, have you been involved with the
18 Bureau of Land Management in trying to find a surface use
19 location for this well in the south half of 21 that
20 satisfies their criteria for well locations?

21 A. Yes, I have.

22 MR. KELLAHIN: We tender Mr. Gray as an expert
23 petroleum landman.

24 EXAMINER STOGNER: Mr. Gray is so qualified.

25 Q. (By Mr. Kellahin) Let me have you turn to

1 Exhibit 1, which is the locator map, Mr. Gray, and identify
2 for the Examiner the spacing unit that's involved in this
3 case.

4 A. The spacing unit is the south half of Section 29,
5 Township 17 South, Range 27 East, Eddy County, New Mexico.

6 Q. The principal objective of this well is to
7 attempt to obtain production out of the Morrow formation?

8 A. That's correct.

9 Q. And this would be on statewide 320-acre spacing,
10 is it not?

11 A. Yes, sir.

12 Q. Standard well locations for wells at this depth
13 in this area for Morrow would be 1980 from the end line and
14 660 from the side boundaries?

15 A. Yes, sir, that's correct.

16 Q. Let's turn to Exhibit Number 2 and identify for
17 the Examiner what you're showing on Exhibit Number 2.

18 A. Exhibit Number 2 shows the drilling unit, being
19 the south half of Section 29, along with the offsetting
20 ownership towards which this unorthodox location is
21 encroaching.

22 MR. KELLAHIN: Mr. Examiner, Exhibit Number 7 is
23 our certificate of notification.

24 Q. (By Mr. Kellahin) Did you assist me in preparing
25 the list of parties to be notified in this case, Mr. Gray?

1 A. Yes, sir, I did.

2 Q. And as a result of that notification, are you
3 aware of any opposition by any of those offset interest
4 owners to the granting of this Application?

5 A. No.

6 Q. Let's turn to the topographic map and discuss the
7 items of concern to the Bureau of Land Management insofar
8 as Nearburg's attempts to locate surface use for the well.
9 Let's take a moment and identify for the record Exhibit 3.
10 What is that, sir?

11 A. This is a topographic map with a stippled area
12 which is an attempt to exhibit the areas along contour
13 lines of the BLM's concern.

14 Q. In your opinion, does this topographic map
15 accurately and correctly depict the relationship of these
16 surface items within the south half of Section 29?

17 A. Yes, sir.

18 Q. There is a red dot. What does that show?

19 A. That's the proposed location.

20 Q. And why is it at the 750 from the east line and
21 1400 feet from the south line of this section?

22 A. When we met the BLM personnel, or the individual,
23 Mr. Barry Hunt from the Carlsbad Office, we originally had
24 attempted to stake a well at a location 1980 from the south
25 and 1980 from the east line.

1 Q. That would have been a standard location --

2 A. Yes, sir.

3 Q. -- would it not?

4 A. Yes, sir, on this section.

5 Q. Would Mr. Hunt approve a standard location in the
6 southeast quarter of Section 29?

7 A. No, sir.

8 Q. What is the available location for you in that
9 quarter section that satisfies Mr. Hunt's criteria?

10 A. We -- Mr. Hunt was concerned, very concerned,
11 with the draw that you can see running through from a
12 northwest-southeast direction, approximately, through the
13 center of the section and into the southeast quarter.

14 We went to the east side of the section and he,
15 through his visual surveying of the topography, told us
16 that the 750-foot location was as far west as we could go.

17 Q. So despite what may be depicted on this display
18 in terms of the area in the southeast quarter that is not
19 stippled --

20 A. Yes, sir.

21 Q. -- as far west as you could go in the section was
22 Mr. Hunt's requirement that you be no farther than 750 from
23 the east line of the section?

24 A. That's correct.

25 Q. What is the status of having that APD approved by

1 the BLM?

2 A. I believe it's been approved, but I'm not --
3 honestly, I'm not sure.

4 Q. But insofar as surface use is concerned, you're
5 knowledgeable about Mr. Hunt's requirement that this well
6 be located as specified on this display?

7 A. Yes.

8 MR. KELLAHIN: That concludes my examination of
9 Mr. Gray.

10 We move the introduction of his Exhibits 1, 2 and
11 3.

12 EXAMINER STOGNER: Exhibits 1, 2 and 3 will be
13 admitted into evidence at this time.

14 EXAMINATION

15 BY EXAMINER STOGNER:

16 Q. For the record, who would be the leasee of record
17 in the north half of 29 of this section? Do you know?

18 A. No, sir, I don't know that.

19 Q. How about the north half of 32?

20 A. No, sir, I'm not aware of that either.

21 Q. On Exhibit Number 3 you have a stippled area, but
22 over there on the west side, you have that dashed line?

23 A. Yes, sir.

24 Q. What does that represent?

25 A. That represents the -- Mr. Hunt with the BLM was

1 very concerned with the drainage and floodplain issues
2 along the west side of that -- or along either side of that
3 draw and to the east, and that represents an approximation
4 of his restrictions on drilling along the west side of that
5 draw.

6 MR. KELLAHIN: He would have approved a well
7 farther west than the stippled line, right?

8 THE WITNESS: Yes, sir, I believe he would have.

9 MR. KELLAHIN: All right.

10 Q. (By Examiner Stogner) Okay. So the boundary to
11 the east, as opposed to an arbitrary line -- which looks
12 like what he put in there -- that paralleled the draw over
13 on the eastern side, did he give you a contour; is that
14 correct?

15 A. No, sir, the map is -- The topo map represents,
16 after we spotted the well at the -- along that contour, the
17 -- we simply stippled the area of the contour. It does not
18 represent what he visually sighted on the ground, nor -- He
19 did not give us permission to go any further west on the
20 ground.

21 Q. And this was just drainage only, past the
22 archeological --

23 A. We have had an archeological survey done, and
24 there were no archeological sites on the location or on the
25 proposed road.

1 Q. No other well sites in the south half of this
2 section?

3 A. No, sir.

4 EXAMINER STOGNER: I don't have any other
5 questions of this witness, Mr. Kellahin.

6 You may be excused.

7 MR. KELLAHIN: Call Jerry Elger, Mr. Examiner.

8 JERRY B. ELGER,

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

11 DIRECT EXAMINATION

12 BY MR. KELLAHIN:

13 Q. Mr. Elger, for the record would you please state
14 your name and occupation?

15 A. Jerry Elger. I'm a petroleum geologist employed
16 by Nearburg Producing Company in Midland, Texas.

17 Q. On prior occasions have you qualified as an
18 expert in the field of petroleum geology?

19 A. Yes, I have.

20 Q. Pursuant to your employment by Nearburg, have you
21 made an investigation of the geology insofar as this
22 particular well is concerned?

23 A. Yes, I have.

24 MR. KELLAHIN: We tender Mr. Elger as an expert
25 petroleum geologist.

1 EXAMINER STOGNER: Mr. Elger is so qualified.

2 Q. (By Mr. Kellahin) Let's start with Exhibit
3 Number 3, Mr. Elger, which is the topo map. And when we
4 look at the BLM criteria, there is a portion of the
5 southwest quarter which would form part of this spacing
6 unit that apparently is available for a well location.
7 Would a well located in the southwest quarter be suitable
8 geologically for you?

9 A. No, it would not.

10 Q. So your primary objective is to have a well in
11 the southeast quarter of Section 29?

12 A. That is correct.

13 Q. And you would have preferred a standard location,
14 would you not?

15 A. Yes.

16 Q. Let's turn to Exhibit 4, then, and look at some
17 of the geologic data that you have analyzed. And I think
18 it will help if you'll start with the cross-section and
19 first of all identify for us the middle Morrow interval and
20 then the lower Morrow interval that form the basis for the
21 following two displays.

22 Describe for us the cross-section with emphasis
23 on those two potential productive intervals.

24 A. This is a stratigraphic cross-section hung on the
25 top of the lower Morrow. There's -- it identifies two --

1 Perforations in each -- in the Morrow sand within each of
2 these wellbores has been shaded red in the depth column.

3 You'll see that one of the wells, which is the
4 Amoco Federal Z, which is the second from the right, is
5 perforated only in the early middle Morrow sand package,
6 and that well had produced 2.2 BCF of gas. Therefore, we
7 isopach'd that particular sand throughout the local area to
8 develop a sense as to where this sand was developed and
9 where it was absent.

10 Likewise, in the early lower Morrow, you'll see
11 that a well in Section 29, which is the far left side of
12 the cross-section, was perforated in the early lower
13 Morrow, and that also was a gas well.

14 And then the well on the far right-hand side at
15 A', which is the Pan Am Trigg B Fed Number 1, also was
16 perforated in that same equivalent package, the early lower
17 Morrow sand package, and that well cum'd 3.8 BCF.

18 Therefore, we identified it as a package which was
19 commercial in this area and which we focused our mapping
20 efforts to determine again the geometry of where that sand
21 was present and absent.

22 Q. All right. Let's turn, then, to the two
23 isopachs, and I think it may help us if you'll unfold both
24 of them, and we'll look at Exhibit 5, which is the early
25 lower Morrow map, as well as look at Exhibit 6, which is

1 the middle Morrow map.

2 A. Both of these isopachs have been overlaid on top
3 of a structure map, which is developed on the top of the
4 lower Morrow, which is the datum for the cross-section.

5 Q. When we look at Exhibit 5, with attention to the
6 southwest quarter of 9, would any well location in the
7 southwest quarter be suitable?

8 A. For 29? No.

9 Q. Yes, sir. And why is that?

10 A. Because we don't believe the sand is developed in
11 the southwest quarter.

12 Q. So as you concentrate on the southeast corner on
13 Exhibit 5 for that particular sand interpretation, what
14 forms the basis for your location of a well in the
15 southeast quarter of Section 29?

16 A. Well, the well control in Section 20 and 29 to
17 the north and the presence of the sand in Section 4 to the
18 south and then the presence of the sand across a portion of
19 33 and 34 indicates to us that there's a channel system
20 that's oriented across Section 29 and is concentrated
21 primarily in the east half of Section 29.

22 Q. Describe for us how productive that particular
23 sand has been in some of these wells that are shown on
24 Exhibit 5.

25 A. Well, as I've already mentioned, the well in

1 Section 34 that was perforated in the sand interval has
2 produced 3.8 BCF.

3 Q. The closest penetration to your proposed location
4 resulted in a well that produced what?

5 A. That well was not commercial in this sand
6 package. They flowed -- They attempted to complete out of
7 this Morrow sand package, plug back to the Cisco and flowed
8 a half a million a day out of a Cisco sand.

9 The well in Section 20 -- There's two wells in
10 Section 20. The well in the south half of Section 20 made
11 less than a quarter of a BCF. It was perforated in this
12 sand as well as other sands. And the well in the north
13 half of Section 20 made 5.2 BCF. It was perforated in this
14 sand as well as other sands.

15 Q. How would you characterize the level of risk with
16 regards to attempting to obtain commercial production out
17 of this sand member of the Morrow?

18 A. Very high.

19 Q. Let's turn to the next exhibit, Exhibit 6, when
20 we look at the lower Morrow. This would be the middle
21 Morrow, I'm sorry. Interpret this map for us.

22 A. Okay. Again, we have a sand system where a
23 number of wells are producing, we've identified as being
24 productive in this sand interval.

25 One of those wells is located in the south half

1 of Section 27. It's perforated with other Morrow sands and
2 has cum'd in excess of 7.5 BCF.

3 The well that's on the cross-section in Section
4 33, again, is this Amoco Federal Z Gas Com Number 1. It
5 was perforated only in this particular sand, from eight
6 feet of sand, and it cum'd 2.2 BCF.

7 If you'll notice in Section 34, which the well in
8 Section 34, the Pan Am Trigg B Fed Number 1, which is at A'
9 on the cross-section, has a thick sand package developed in
10 this interval, but was not commercial from -- There's a
11 drill stem test across this sand. It recovered only 136
12 feet of drilling mud and was never -- apparently the sand
13 was tight at that location.

14 Q. How would you assess the level of risk involved
15 in attempting to obtain commercial production out of this
16 particular middle Morrow sand?

17 A. Again, there's a high risk level because you
18 don't know exactly where the porosity will develop within
19 this system.

20 We feel like the system, again, is a channel
21 oriented east-west, and will be present at the proposed
22 location in the southwest quarter of Section 29.

23 Q. Does the BLM-approved location provide a suitable
24 opportunity, based upon your interpretation, for the
25 drilling of a well to the Morrow in an attempt to obtain

1 production from these two different sand members?

2 A. Yes, it does.

3 Q. Have you and Mr. Tim McDonald, the Nearburg
4 engineer, investigated the practicality of directionally
5 drilling this well from the surface location to a
6 bottomhole target that's consistent with your first pick of
7 a bottomhole target?

8 A. Yes, we have.

9 Q. Do you -- Can you conclude that it is practical
10 and economic to directionally drill this well to a
11 bottomhole target that has a better opportunity for you
12 than the surface location?

13 A. Because of the risk, we feel it's not economic.

14 Q. Will approval of this application, then, Mr.
15 Elger, afford the opportunity to potentially produce gas
16 production out of the Morrow that might not otherwise be
17 recovered?

18 A. Yes.

19 MR. KELLAHIN: That concludes my examination of
20 Mr. Elger.

21 We move the introduction of his Exhibits 4, 5 and
22 6.

23 EXAMINER STOGNER: Exhibits 4, 5 and 6 will be
24 admitted into evidence.

25 Mr. Kellahin, did we admit Exhibit Number 7 last

1 time?

2 MR. KELLAHIN: No, sir, we didn't, and I need to
3 do that, Mr. Examiner.

4 EXAMINER STOGNER: Okay, and let's see. And we
5 did 1, 2 and 3, right?

6 MR. KELLAHIN: Yes, sir.

7 EXAMINER STOGNER: Okay, Exhibit Number 7 will
8 also be admitted into evidence at this time. So that
9 covers all the exhibits so far.

10 EXAMINATION

11 BY EXAMINER STOGNER:

12 Q. Mr. Elger, your Application was for all
13 formations from the top of the Wolfcamp to the base of the
14 Morrow.

15 Are there any Atoka, Strawn or Wolfcamp potential
16 in this area?

17 A. There is some potential for each one of those.
18 Of course, they're more of a serendipity type of
19 objectives. And whether they would be oil or gas, again,
20 that's -- It could be either.

21 Q. But is there any Wolfcamp or Atoka production in
22 this --

23 A. Well, the well in Section 4 to the south -- I
24 believe it's in the east half of Section 4 -- I'm sorry,
25 the well in the west half of Section 4 was a Wolfcamp

1 producer that was subeconomic.

2 Q. Was it Wolfcamp oil or gas?

3 A. Oil.

4 Q. Oil. But all the wells that had production out
5 there, that you have indicated here, is all Morrow tests?

6 A. They're all primarily Morrow, but some of those
7 wells have produced gas from the Cisco formation, Cisco
8 sand, silty sand section that's typically perforated and
9 frac'd, and it's kind of a high-risk secondary backup zone.

10 Q. Okay. Now, in the advertisement also, in my
11 research in doing this ad, I show that you are within a
12 mile of the Logan Draw-Morrow Gas Pool, which is a Morrow
13 Gas pool; you're also within a mile of the Red Lake-
14 Pennsylvania Gas Pool, there again being a Pennsylvania gas
15 pool.

16 It covers those areas, like you said, the Cisco
17 and --

18 A. Uh-huh.

19 Q. -- the Strawn and the Canyon?

20 A. Yes.

21 EXAMINER STOGNER: Okay.

22 I don't have any other questions of your
23 geologist, Mr. Kellahin.

24 You may be excused.

25 MR. KELLAHIN: Mr. Examiner, I call Tim McDonald.

1 EXAMINER STOGNER: Mr. McDonald is so qualified.

2 Q. (By Mr. Kellahin) What is your opinion, sir?

3 A. My opinion is, the additional cost concerning the
4 risk of the two Morrow objectives is prohibitive. The
5 additional cost would be 17 to 20 percent higher to drill
6 the directional well. Based on the reserves in this area,
7 we don't feel that's a good economic alternative.

8 Q. If you were closer to established Morrow
9 production that would reduce the risk, then it may become
10 more practical to consider a directionally drilled well,
11 would it not?

12 A. That's right.

13 Q. In this area of high-risk Morrow exploitation,
14 the surface location, while not your first choice, is still
15 suitable, and the cost savings realized from a vertical
16 well in this instance is the only feasible way in which to
17 drill the well?

18 A. That's correct.

19 MR. KELLAHIN: That concludes my examination of
20 Mr. McDonald.

21 EXAMINER STOGNER: I have no other questions of
22 Mr. McDonald.

23 MR. KELLAHIN: That concludes our presentation,
24 Mr. Examiner.

25 EXAMINER STOGNER: Does anybody else have

1 anything further in Case 11,377 at this time?

2 If not, then this case will be taken under
3 advisement.

4 (Thereupon, these proceedings were concluded at
5 10:18 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. 11377,
heard by me on 7 September 19 95.

Michael E. Starn, 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 September 10th, 1995.


 STEVEN T. BRENNER
 CCR No. 7

My commission expires: October 14, 1998