

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 NEARBURG EXPLORATION)
COMPANY, L.L.C., FOR AN UNORTHODOX GAS)
WELL LOCATION, EDDY COUNTY, NEW MEXICO)

CASE NO. 12,286

ORIGINAL

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

BEFORE: MARK ASHLEY, Hearing Examiner

December 2nd, 1999
Santa Fe, New Mexico

OIL CONSERVATION DIV.
99 DEC 16 PM 4:43

This matter came on for hearing before the New Mexico Oil Conservation Division, MARK ASHLEY, Hearing Examiner, on Thursday, December 2nd, 1999, 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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I N D E X

December 2nd, 1999
Examiner Hearing
CASE NO. 12,286

	PAGE
EXHIBITS	3
APPEARANCES	3
APPLICANT'S WITNESSES:	
<u>ROBERT G. SHELTON</u> (Landman)	
Direct Examination by Mr. Carr	4
Examination by Examiner Ashley	13
<u>JERRY B. ELGER</u> (Geologist)	
Direct Examination by Mr. Carr	14
Examination by Examiner Ashley	19
<u>TIM McDONALD</u> (Engineer)	
Direct Examination by Mr. Carr	24
Examination by Examiner Ashley	31
REPORTER'S CERTIFICATE	37

* * *

E X H I B I T S

Applicant's	Identified	Admitted
Exhibit 1	6	12
Exhibit 2	8	12
Exhibit 3	9	12
Exhibit 4	11	12
Exhibit 5	11	12
Exhibit 6	15	19
Exhibit 7	16	19
Exhibit 8	25	31
Exhibit 9A	28	31
Exhibit 9B	29	31
Exhibit 9C	29	31
Exhibit 9D	29	31
Exhibit 9E	29	31
Exhibit 10	29	31

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A P P E A R A N C E S

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 By: WILLIAM F. CARR

* * *

1 WHEREUPON, the following proceedings were had at
2 9:24 a.m.:

3 EXAMINER ASHLEY: The Division calls Case 12,286.

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

7 EXAMINER ASHLEY: Call for appearances.

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 Nearburg Exploration
11 Company, L.L.C., and I have three witnesses.

12 EXAMINER ASHLEY: Any additional appearances?
13 Will the witnesses please rise to be sworn in?
14 (Thereupon, the witnesses were sworn.)

15 MR. CARR: At this time we call Mr. Shelton.

16 EXAMINER ASHLEY: Mr. Carr?

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

20 DIRECT EXAMINATION

21 BY MR. CARR:

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

23 A. Bob Shelton.

24 Q. Where do you reside?

25 A. Midland, Texas.

1 Q. By whom are you employed?

2 A. By Nearburg Producing Company.

3 Q. And what is your position with Nearburg
4 Producing?

5 A. I'm the land manager.

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

8 A. Yes, I have.

9 Q. At the time of that testimony were your
10 credentials as an expert in petroleum land matters accepted
11 and made a matter of record?

12 A. Yes, sir.

13 Q. Are you familiar with the Application filed in
14 this case on behalf of Nearburg?

15 A. Yes.

16 Q. Are you familiar with the status of the lands in
17 the subject area?

18 A. Yes, sir.

19 MR. CARR: Are Mr. Shelton's qualifications
20 acceptable?

21 EXAMINER ASHLEY: Yes, they are.

22 Q. (By Mr. Carr) Initially, would you summarize for
23 the Examiner what it is that Nearburg seeks with this
24 Application?

25 A. Nearburg seeks a nonstandard location for the

1 Morrow-Cemetery Pool and for the Cisco/Canyon North Dagger
2 Draw-Upper Penn Pool based on its desire to drill a Morrow
3 well 510 feet from the north line and 990 feet from the
4 east line of Section 27, Township 19 South, Range 25 East,
5 Eddy County.

6 The unorthodox location is due solely to the
7 basis of the topographic area, because of the North Dagger
8 Draw, which is the draw that that area is named after, and
9 the way the well falls inside and down below that draw at
10 the 660 location, so we moved it north 150 feet to get it
11 out of that drainage area.

12 Q. Have you prepared exhibits for presentation here
13 today?

14 A. Yes, we have.

15 Q. Could you identify what has been marked Nearburg
16 Exhibit 1?

17 A. Yes, it's our Application for the Division, for
18 this case.

19 Q. This was filed seeking administrative approval of
20 this unorthodox location?

21 A. Yes, originally it was filed administratively
22 with the exhibits that are attached to the Application.

23 Q. And it was filed in October of this year?

24 A. That is correct.

25 Q. It was then subsequently set for hearing

1 following discussions with Mr. Stogner?

2 A. That is correct.

3 Q. And what were the reasons that you understand
4 that this matter has come before an Examiner for hearing?

5 A. Mr. Stogner wanted more information concerning
6 the topography of the area.

7 Q. What is the primary objective in this well?

8 A. The primary objective in this well is the Morrow
9 with also as an objective the Cisco/Canyon.

10 Q. And are there special pool rules in effect for
11 the Morrow in this area?

12 A. Yes, there are. The special pool rules are for
13 the Cemetery-Morrow field.

14 Q. And they're old rules and provide simply for 320-
15 acre Morrow spacing; is that correct?

16 A. That is correct, that's correct.

17 Q. Now, in the Cisco/Canyon formation, what pool
18 would the well be located in?

19 A. It's in the Dagger Draw North-Upper Penn Pool.

20 Q. And are there special pool rules in effect for
21 that pool?

22 A. Yes, sir, there are.

23 Q. And what are the spacing requirements for the
24 North Dagger Draw-Upper Penn Pool?

25 A. 160 acres with a 700 per barrel [sic] allowable

1 that you can drill up to four wells on a 160, as long as
2 you don't surpass that allowable, maximum allowable.

3 Q. Okay. Now, initially, I think it would be
4 helpful to explain to the Examiner how it is that Nearburg
5 plans to go about drilling this well.

6 A. We will plan on drilling this well to the
7 Cisco/Canyon and evaluating that formation first. If that
8 formation is apparently productive through testing, then we
9 will stop the well at that point and produce the
10 Cisco/Canyon, and then at a later point after depletion we
11 would go down and set 7-inch casing and be able to drill
12 the well on down to the Morrow.

13 If the Cisco/Canyon is determined not to be
14 productive after testing, then we'll continue drilling the
15 well at that time to the Morrow formation and test it.

16 Q. Let's go to Exhibit Number 2. Would you identify
17 this and explain what it shows?

18 A. This is a Midland map, a locator map of the area.
19 It has been also -- The topographic map done by the
20 geologic survey has been overlain on this to show the
21 location of the original orthodox location 660 from the
22 north and then the 510 location. And we'll demonstrate
23 furthermore topographic evidence how specifically our
24 location, the location of the nonstandard at 510 is just
25 outside the draw far enough to be able to construct it

1 without fear of damage to the location or release of a
2 substance due to flooding as a result of being in the draw.

3 Q. All right, let's go to Exhibit Number 3. Would
4 you identify and review this exhibit for Mr. Ashley?

5 A. This is an ownership map representing Nearburg's
6 position in the area, and it shows offset owners who were
7 noticed under this hearing at the direction of Mr. Stogner.
8 We have wells that penetrated the Morrow formation, among
9 other wells in the area offsetting this location in the
10 east half of Section 22, which is the Nearburg Producing
11 Company B&B 22 Number 1 well. That is the proration unit
12 that we would be moving directly toward 150 feet
13 unorthodox.

14 Then there's a well in the south half of Section
15 23, the Nearburg Producing Company Parino 2-L, and then in
16 the north half of Section 26 the Nearburg Producing Company
17 Morris Arco -- That should be labeled the Number 2 well. I
18 apologize for that; that's labeled the Number 1.

19 All of these wells are operated by Nearburg
20 Producing Company. We are moving unorthodox to the
21 direction of the east half of Section 22. At the request
22 of Mr. Stogner, we noticed all parties who would have an
23 interest in participating in a well, and they're listed
24 also on this exhibit as other working interest owners in
25 the well. You can see that list there. That corresponds

1 with the people that were given notice in this case.

2 Q. Mr. Shelton, the spacing unit for the proposed
3 South Boyd "27" Number 10 well would be the north half of
4 27?

5 A. In the Morrow, that's correct.

6 Q. And the unorthodox location encroaches only to
7 the north?

8 A. That's correct.

9 Q. You're more than a standard setback from the
10 interests in the south half of Section 23?

11 A. That's correct.

12 Q. And you're more than a standard setback from the
13 north half of Section 26?

14 A. That's correct.

15 Q. And after a consultation with Mr. Stogner, you
16 notified -- Even though you operate the east half of 22,
17 correct?

18 A. That's correct.

19 Q. You notified all other working interest owners in
20 the east half of Section 22?

21 A. That is correct.

22 Q. Is all the working interest voluntarily committed
23 to this well?

24 A. Yes, they are.

25 Q. Let's go to the topographic map, which is marked

1 as Exhibit Number 4, and I ask you, really, just to
2 identify this.

3 A. The topographic map, again, is a map done by the
4 USGS. This is an older map. It was done many years ago
5 when they originally did the surveying out here. The
6 stream course has changed slightly. We'll evidence that by
7 further testimony from Mr. McDonald. But this simply sets
8 forth the location of the orthodox legal location and of
9 the proposed unorthodox location.

10 Q. And this basically shows the contours that you
11 superimposed on Nearburg Exhibit Number 2?

12 A. That's correct.

13 Q. And it shows the standard location being in the
14 bottom of the dry creek bed, the Dagger Draw?

15 A. That's correct.

16 Q. Is Exhibit Number 5 an affidavit confirming that
17 notice of this hearing has been provided in accordance with
18 OCD rules?

19 A. Yes, it is.

20 Q. And was notice again in this circumstance
21 provided to all interest owners in the east half of Section
22 22?

23 A. Yes, it was, as required by Mr. Stogner.

24 Q. Will Nearburg call a geological and an
25 engineering witness to review the technical portions of

1 this case?

2 A. Yes, sir, we will.

3 Q. And how soon does Nearburg propose to commence
4 the drilling of this well?

5 A. We had hoped to have already drilled this well as
6 the result of approval of the administrative application.
7 We have a rig that's out there right now drilling wells in
8 this same section, which are Cisco/Canyon wells. We have a
9 contract to drill a minimum of three wells with that rig.
10 It has drilled one already, it's on the second well right
11 now. We expect that to be completed within 15 days, and
12 then we have an obligation to move that rig to another
13 location which would be this one.

14 Q. You therefore request that the order be
15 expedited?

16 A. Yes, we do.

17 Q. Were Exhibits 1 through 5 prepared by you or
18 compiled under your direction?

19 A. They were.

20 MR. CARR: Mr. Ashley, at this time we would move
21 the admission into evidence of Nearburg Exhibits 1 through
22 5.

23 EXAMINER ASHLEY: Exhibits 1 through 5 will be
24 admitted as evidence at this time.

25 MR. CARR: And that concludes my direct

1 examination of Mr. Shelton.

2 EXAMINATION

3 BY EXAMINER ASHLEY:

4 Q. Mr. Shelton, did you just have phone
5 conversations with Mr. Stogner, or did he follow up with
6 any kind of letter to you?

7 A. All of our work was done through Paul Owen at Mr.
8 Carr's firm. He took the application over there with him
9 on several occasions. Then we actually -- You'll see
10 testimony where we went out in the field, we actually took
11 pictures to document the elevations of where the stream
12 channel runs. And we got all that together, we went over,
13 and Mr. Carr -- I mean, Mr. Owen had another meeting with
14 Mr. Stogner, and I was continually updated as a result of
15 these meetings with Mr. Owen and Mr. Stogner.

16 Q. So your administrative application was never
17 denied?

18 A. It was never denied, that's correct.

19 EXAMINER ASHLEY: Okay. I don't have anything
20 further. Thank you.

21 THE WITNESS: Thank you.

22 MR. CARR: Mr. Ashley, I can advise you that
23 following the filing of the administrative application
24 there were telephone conversations with Mr. Stogner,
25 photographs of the site taken. A meeting and a transmittal

1 letter was brought to Mr. Stogner. They were reviewed, and
2 he returned the material to us and said he felt it would
3 better if it were reviewed in the context of a hearing.

4 EXAMINER ASHLEY: Okay.

5 MR. CARR: May it please the Examiner, at this
6 time we call Mr. Elger.

7 JERRY B. ELGER,

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

10 DIRECT EXAMINATION

11 BY MR. CARR:

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

13 A. Jerry Elger.

14 Q. And where do you reside?

15 A. In Midland, Texas.

16 Q. By whom are you employed?

17 A. By Nearburg Producing Company.

18 Q. And what is your position with Nearburg Producing
19 Company?

20 A. Exploration geologist.

21 Q. Mr. Elger, have you previously testified before
22 this Division and had your credentials as an expert in
23 petroleum geology accepted and made a matter of record?

24 A. Yes, I have.

25 Q. Are you familiar with the Application filed in

1 this case?

2 A. Yes, I am.

3 Q. Have you made a geological study of the area
4 which is the subject of this Application?

5 A. Yes, I have.

6 Q. Are you prepared to share the results of your
7 work with the Examiner?

8 A. Yes, I am.

9 MR. CARR: Are Mr. Elger's qualifications
10 acceptable?

11 EXAMINER ASHLEY: Yes, they are.

12 Q. (By Mr. Carr) Let's go to what has been marked
13 for identification as Nearburg Exhibit 6. That is the
14 gross sand isopach on the lower Morrow "B" sand?

15 A. That's correct.

16 Q. Will you review the information on that for the
17 Examiner, please?

18 A. This exhibit shows a two-section area which
19 coincides with the area of the Exhibit Number 4, which is
20 the two-section area of the USGS topographic map. It shows
21 that in these two sections there have been six Morrow
22 penetrations, and each of these wells encountered the
23 Morrow lower "B" section. Some of the wells were
24 productive or indicated productive; those wells are
25 indicated with the orange symbols or the half orange

1 symbols. And if no lower Morrow "B" sand was present, the
2 interval was a shale, no sand present, those wells are
3 indicated by the gray.

4 What we see is that the interpretation is that a
5 stream channel exists through the eastern one-third of
6 Section 27, extending across the southern half into the
7 western half, northwest quarter of Section 22.

8 To date, all of the wells that have penetrated
9 the lower "B" sand look to be probably noncommercial at
10 this -- or of the six penetrations on this map section.

11 The next exhibit, which is Exhibit Number 7, is a
12 Morrow-depth well that Nearburg Producing Company drilled
13 in October of 1996. This well is located in the same
14 quarter section as the proposed South Boyd "27" Number 10.

15 If you look at the -- The sands have been colored
16 yellow on this particular porosity log display, and the
17 sands which are the subject of this isopach, the lower "B",
18 have been identified by the bright highlighted yellow
19 section.

20 Again, the well in the northeast quarter of
21 Section 26, you can see that the lower "B" sands in that
22 particular well are marginal porosity. They're very shaly,
23 the gamma ray is reading very high API units, and the
24 indications are and interpretation is that this well
25 encountered the edge, the western edge, of the lower "B"

1 sand channel.

2 The proposed location in the same quarter section
3 has been situated such that it hopes to encounter a thicker
4 section, a cleaner section, and be more centrally located
5 in the central part of the stream channel where reservoir
6 characteristics and productivity would be enhanced.

7 The South Boyd "27" Number 8 well was drilled to
8 the Morrow, casing was set to accommodate a Morrow
9 completion at some future date, but the current well status
10 is that the well was initially completed in the
11 Cisco/Canyon formation. Therefore, there are no wells that
12 are currently producing in the north half of 27 from the
13 Pennsylvanian Morrow formation.

14 Q. Mr. Elger, if we look at the isopach map -- and I
15 think it might be helpful also to take out Exhibit Number
16 4, the topographic map -- and if we look at moving or
17 drilling a well at another standard location -- all right?
18 -- if we were to, instead of moving the location in the
19 Morrow to the north, if we were to move it to the south,
20 what would that do in terms of the topographic
21 considerations?

22 A. Again, the steep contours on the topographic
23 quadrangle map indicate that you would be moving down
24 deeper into the bottom of the Dagger Draw surface feature.
25 Likewise, if you would move to the east you would be moving

1 into the bottom of that Dagger Draw surface feature.
2 Therefore, the only locations available to maintain the
3 sand quality that we would really like to have in the lower
4 "B" are either to the north or to the west.

5 By moving to the west, you can see that the
6 interpretation, the contouring, you're starting to move
7 towards that South Boyd "27" 8 well, which again we think
8 will be marginally productive from the lower "B" at some
9 future time. So we really hesitate to move in that
10 direction because of the decreasing reservoir
11 characteristics. And also we'd be moving towards two
12 existing Cisco/Canyon producers in the west half of the
13 northeast quarter of that section and thereby incurring
14 additional drainage, you'd be moving more into the drainage
15 radius of those two producers.

16 Therefore, the location -- by moving to the
17 north, we're staying within the confines of what we think
18 is a good reservoir in the Morrow, and we're staying away
19 from the effects of the two wells already in that spacing
20 unit.

21 Q. If you move south or east, you compound your
22 topographic problem, correct?

23 A. That's correct.

24 Q. If you move to the west or to the southwest, in
25 the Morrow you lose reservoir quality, and in the

1 Cisco/Canyon you move toward areas that are being drained?

2 A. That's correct.

3 Q. In your opinion, would approval of this
4 Application and drilling of the proposed well at this
5 unorthodox location be in the best interest of conservation
6 and the protection of waste and the protection of
7 correlative rights?

8 A. Yes, it would.

9 Q. Were Exhibits 6 and 7 prepared by you?

10 A. Yes, they were.

11 MR. CARR: At this time, Mr. Ashley, we would
12 move the admission into evidence of Nearburg Exhibits 6 and
13 7.

14 EXAMINER ASHLEY: Exhibits 6 and 7 will be
15 admitted into evidence at this time.

16 MR. CARR: That concludes my direct examination
17 of Mr. Elger.

18 EXAMINATION

19 BY EXAMINER ASHLEY:

20 Q. Mr. Elger, looking at Exhibit Number 6, the three
21 wells that have the orange hexagonals around them --

22 A. Yes.

23 Q. -- can you explain to me what those numbers are,
24 the blue numbers?

25 A. Yes, the blue numbers are -- The first number is

1 a net sand -- using a porosity cutoff of 8 percent in the
2 lower "B" sand, the first number on the left indicates how
3 much thickness of net feet of porosity greater than or
4 equal to 8 percent. The second number indicates just the
5 overall gross thickness of the lower "B" sand. And those
6 are the values that have been contoured on this map, the
7 gross values.

8 Q. And these three wells are producing from the
9 lower "B" Morrow?

10 A. No, the well in the northwest quarter of Section
11 27 currently is inactive. That well was drilled back in --
12 I want to say in the 1970s, as a Pennsylvanian Morrow test.
13 It was productive at one time from the lower "B" sands, but
14 that well has since been depleted and is now inactive, the
15 status of that well is inactive.

16 We're currently drilling a twin to that well to
17 the Cisco/Canyon. That's the well location located just
18 off to the northwest of that gas well. So that well is not
19 producing from anything.

20 The South Boyd "27" 8, located in the northeast
21 quarter of 27, is the well that we have presented in
22 Exhibit Number 7, the log section, and that well is
23 producing from the Cisco/Canyon.

24 It was drilled and cased across the Pennsylvanian
25 Morrow for completion at some future date, but it has not

1 to date been production-tested or drill-stem tested. We
2 really don't know what we have there. But based on the log
3 characteristics, we think we might have a poor to marginal
4 well.

5 Q. Poor to marginal?

6 A. Poor to marginal, just based on the log
7 characteristics we're looking at on this porosity log.
8 Therefore, we think we can get at the proposed location in
9 the northeast northeast of this same quarter section a much
10 improved reservoir quality in the lower "B" sand section,
11 and that's what our main objective is in this test.

12 Q. Okay. Back to the South Boyd "27" Number 8, you
13 said poor to marginal in the Cisco/Canyon?

14 A. No, it's poor to -- We anticipate that, based on
15 the log characteristics of the Morrow, it would be a poor
16 to marginal Morrow producer, if it were to be completed
17 from that zone. It's currently producing from the
18 Cisco/Canyon, and it's a good well.

19 Q. And the well to the south of that in the
20 southeast quarter?

21 A. The well in the southeast quarter is producing
22 from the Morrow. It has the lower "B" as well as several
23 other sands producing, and the south half of Section 27 is
24 dedicated to the spacing unit for that well.

25 Q. And your proposed well will be Morrow?

1 A. That's correct.

2 Q. Do you have any idea what the drainage radius is
3 for Morrow out there?

4 A. It depends, really, on the reservoir
5 characteristics, on the porosity, the thickness of the pay,
6 the porosity of the pay.

7 In the case of the South Boyd "27" 8, we're
8 looking at porosity in the ranges -- we're looking at 12
9 feet of porosity greater than or equal to 8 percent, out of
10 18 feet of gross thickness. Based on the fact that it
11 looks like it's very shaly, it would probably not drain a
12 very big area.

13 And again, the objective is to really look for
14 improvement in the reservoir quality of this lower "B" sand
15 package by being more centrally located in the channel.

16 Q. And you said that by moving the location to the
17 west at a standard location, you would --

18 A. You would start to move in a direction that's
19 towards this South Boyd "27" 8, which is decreasing
20 reservoir characteristics. I mean, we really don't think
21 that this is going to be a very good producer, just based
22 on the looks of the log, and we really don't want to move
23 in that direction.

24 Plus, that would be moving in a direction where
25 there already are two Cisco/Canyon producers, which is the

1 Strawn secondary objective in this test, and we'd be moving
2 more into the influence of the drainage radius for each of
3 those wells.

4 Q. Can you tell me what the drainage radius would be
5 for those Cisco wells out there?

6 A. I'm not qualified to do that, I couldn't do that.

7 Q. Do you have a witness that will testify to that?

8 A. Mr. McDonald may be able to.

9 Q. Okay. How far would you have to move to the west
10 to get out of this draw? I mean, looking at the topo map
11 on Exhibit 4...

12 A. I think Mr. McDonald will present some
13 testimony --

14 Q. Okay.

15 A. -- some photographs that may answer some of those
16 questions.

17 Q. Okay. So based on your isopach map here, you're
18 looking at somewhere around 40 to 45 feet of --

19 A. That's correct.

20 Q. -- gross pay, gross thickness?

21 A. Gross thickness, correct.

22 EXAMINER ASHLEY: All right. I have nothing
23 further. Thank you.

24 MR. CARR: At this time we call Mr. McDonald.

25 EXAMINER ASHLEY: Mr. Carr?

1 A. Yes, I have.

2 Q. And are you familiar with the site and the
3 characteristics of the site which are the subject of the
4 Application?

5 A. Yes, I am.

6 Q. Are you prepared to share the results of your
7 work with Mr. Ashley?

8 A. Yes, I am.

9 MR. CARR: Are Mr. McDonald's qualifications
10 acceptable?

11 EXAMINER ASHLEY: Yes, they are.

12 Q. (By Mr. Carr) Mr. McDonald, let's go first to
13 what has been marked as Nearburg Number 8, two copies of
14 Form C-102, and I'd ask you to review the significance of
15 these two exhibits.

16 A. These are plats of the proposed location, is the
17 first one, and the second one is of the standard location.
18 And what I want to bring to your attention is the elevation
19 up in the upper right-hand corner. This is the elevation
20 at the proposed location, being 3443, and the elevation at
21 the standard location being 3429, which is a 14-foot drop
22 between the two locations.

23 Q. If we move off to the south, are we experiencing
24 a fairly sharp drop if we would go that way?

25 A. Yes, we are. When we stake these wells, we also

1 shoot a location, we shoot an elevation, 100 feet south of
2 the proposed location. And at that 100 feet south of the
3 proposed location we'd only drop two feet.

4 So basically between the last 50 feet we dropped
5 12 feet, so you basically drop off into the bottom of the
6 draw.

7 Q. Now, the proposed unorthodox location is 14 feet
8 higher than the standard location, correct?

9 A. That's correct.

10 Q. Why is this 14-foot difference significant in
11 this area?

12 A. Well, when you get flooding you get a pretty good
13 flow through this draw. We drilled a well, the Ross Ranch
14 Number 7, south of this where we actually were in the draw.
15 And prior to drilling the well and after building the
16 location we had a good rain and basically washed away a
17 third of our location.

18 Q. Mr. McDonald, could you take out Exhibit Number
19 4, the topographic map?

20 A. Yes.

21 Q. Could you tell us approximately on that map where
22 this well was where you experienced the flooding problem?

23 A. Yes, approximately -- If you see the 27, the
24 section, if you go about a half an inch due south of the
25 27, right in that general area, is where the Ross Ranch

1 Number 7 is.

2 Q. This is where when it rained it washed out part
3 of the location?

4 A. Right. And that location, elevationwise, is
5 actually higher than the standard location at the South
6 Boyd Number 10.

7 Q. And the problem is obviously what? It's an
8 environmental problem?

9 A. Yes, you know, if we're producing with a pumping
10 unit there, we get a big flood through there, we could
11 easily have some serious problems as far as contamination.

12 Q. When you had the problem, the first instance with
13 flooding in the area, what was the status of the well at
14 the time of the flood?

15 A. It was prior to drilling the well, we just built
16 the location.

17 Q. And so at that time there weren't the -- there
18 wasn't the equipment and the other facilities on the site
19 that would have caused the problem if, in fact, it had
20 occurred at a later date?

21 A. That's correct.

22 Q. And the standard location that we're talking
23 about here today would be lower than the unit, the
24 flooding --

25 A. That's correct.

1 Q. Has Nearburg drilled other Morrow wells in the
2 area?

3 A. Yes.

4 Q. Have you directionally drilled other Canyon or
5 Morrow wells in the area?

6 A. Yes, we've directionally drilled both Canyon and
7 Morrow wells.

8 Q. Let's go to what has been marked Nearburg Exhibit
9 10. Would you identify that and review it for the -- Wait,
10 before we do that, we have some photographs -- why don't we
11 go to those next? -- which are Exhibit Number 9. And I
12 think it would be helpful if you would just start with the
13 photograph that's marked 9A --

14 A. Okay.

15 Q. -- and explain what it is that each of these
16 photos show concerning this location.

17 A. All right. 9A, when taking the picture we were
18 standing on the standard location, looking towards the
19 small -- the big -- The first marker you see is the shot
20 point 100 feet south of the proposed location, and the
21 smaller flag that you see right of that is the proposed
22 location.

23 So basically you're looking up the edge of the
24 draw towards the proposed location.

25 Q. And the flag that's farther back is, in fact, the

1 proposed unorthodox location?

2 A. That's correct.

3 Q. Let's go to the photograph which is Exhibit 9B.
4 what does this show?

5 A. That's standing at the proposed location looking
6 northwest -- at the standard location, looking northwest.

7 Q. Okay.

8 A. And it just shows the cut of the draw through
9 that area.

10 Q. And Exhibit 9C?

11 A. Is looking southwest from the standard location,
12 showing that the draw basically continues off in a west-
13 southwesterly direction.

14 Q. 9D?

15 A. Is northeast, looking northeast from the standard
16 location. Again, you see the 12- to 14-foot cut there
17 quite clearly.

18 Q. And then the last picture marked Exhibit 9E?

19 A. That is our proposed location, and you can see
20 that you are certainly out of the draw at that point.

21 Q. Now let's go to the AFEs.

22 A. Okay.

23 Q. Exhibit Number 10, what do these show?

24 A. These are cost estimates to drill a directional
25 Morrow well and the cost estimate to drill a straight

1 Morrow well. And basically what they show is, the
2 directional well will cost us \$115,000 more.

3 Q. So if you, from the proposed unorthodox location,
4 drilled back to a standard location, you're incurring
5 \$115,000 in additional costs?

6 A. That's correct.

7 Q. And what impact would this increase in the costs
8 of drilling have on Nearburg's plans and ability to go
9 forward with the well?

10 A. Well, in our economics it dropped our internal
11 rate of return by about 12 percent, that put us below our
12 cutoff. So Nearburg would probably not drill the well if
13 we had to drill it from a directional well.

14 Q. If you were required to drill a directional well
15 and do it, would reserves be left in the ground that would
16 otherwise be recovered if you were able to go forward with
17 this well?

18 A. Yes.

19 Q. In your opinion, will approval of this unorthodox
20 location prevent waste of hydrocarbons?

21 A. I believe so.

22 Q. Will approval of the Application otherwise be in
23 the best interest of conservation and the protection of
24 correlative rights?

25 A. I believe so.

1 Q. Were Exhibits 8 through 10 either prepared by you
2 or compiled under your direction?

3 A. Yes, they were.

4 Q. Can you testify as to the accuracy of these
5 exhibits?

6 A. Yes, I can.

7 MR. CARR: May it please the Examiner, at this
8 time we would move the admission into evidence of Nearburg
9 Exhibits 8, 9A through 9E and 10.

10 EXAMINER ASHLEY: Exhibits 8, 9A through 9E and
11 Exhibit 10 will be admitted as evidence at this time.

12 MR. CARR: That concludes my direct examination
13 of Mr. McDonald.

14 EXAMINER ASHLEY: Okay.

15 EXAMINATION

16 BY EXAMINER ASHLEY:

17 Q. Mr. McDonald, I'm looking at the photographs.

18 A. Okay.

19 Q. Exhibit 9A, looking more -- the smaller flag,
20 that's the proposed location --

21 A. That's correct.

22 Q. -- the proposed --

23 A. The one that's at the right.

24 Q. -- nonstandard location?

25 A. Right. And the one that's just a stake is

1 actually, it's 100 feet south of the proposed location.

2 Q. And were those two elevations the same, did you
3 say?

4 A. They were two feet different.

5 MR. CARR: Mr. McDonald, you mean the larger
6 stake is due north, not due south, correct?

7 THE WITNESS: That's correct.

8 Q. (By Examiner Ashley) Okay, now wait. You got me
9 lost now.

10 MR. CARR: This picture is from the location
11 looking north.

12 EXAMINER ASHLEY: Okay.

13 MR. CARR: The larger stake is 100 feet due
14 north, not due south. And then the other stake is --

15 THE WITNESS: No, actually the smaller one --
16 This is looking from the standard location north.

17 EXAMINER ASHLEY: Uh-huh.

18 THE WITNESS: So the smaller flag that you see is
19 the proposed location.

20 Q. (By Examiner Ashley) Off to the right --

21 A. That's correct.

22 Q. -- in this picture?

23 A. That's correct.

24 Q. Okay. And the other --

25 A. And the other one is 100 feet due south of the

1 proposed location.

2 MR. SHELTON: Of the unorthodox.

3 EXAMINER ASHLEY: All right.

4 THE WITNESS: Yeah, the unorthodox.

5 EXAMINER ASHLEY: All right.

6 MR. SHELTON: That's north of where you're

7 standing.

8 THE WITNESS: Right.

9 EXAMINER ASHLEY: Okay, and that --

10 THE WITNESS: It's probably 50 feet north of

11 where you're standing.

12 Q. (By Examiner Ashley) Okay, and it's two feet

13 lower than the proposed --

14 A. That's correct.

15 Q. -- unorthodox location?

16 A. That's correct.

17 Q. Okay. Now, the next exhibit, 9B --

18 A. Okay.

19 Q. -- now, we're standing at the --

20 A. We're standing at the standard location, looking

21 northwest.

22 Q. Looking northwest?

23 A. Right.

24 Q. And what's that stake out there, kind of in the

25 right-hand side of the -- upper right-hand corner of this

1 photograph, there's a stake?

2 A. I believe that's marking off a pad at the
3 proposed location.

4 Q. Okay, all right.

5 9C, looking southwest from the original -- Okay,
6 I got that one.

7 Okay, back to the questions that I was asking
8 earlier about moving this location to the west --

9 A. Uh-huh.

10 Q. -- to a standard location, and I had some
11 questions about -- or you had -- or one of the witnesses
12 had commented about moving to the west would affect the
13 drainage in Cisco/Canyon formation?

14 A. Okay.

15 Q. Can you tell me -- give me some more information
16 about the drainage radius in the Cisco/Canyon?

17 A. There's been a lot of studies and a lot of
18 hearings on that subject. Basically, I think the
19 conclusion of the operators in the area are that these
20 wells drain anywhere from 40 to 80 acres, depending on
21 porosity characteristics near the wellbore.

22 Q. And the South Boyd "27" Number 8 is a good
23 Cisco/Canyon location?

24 A. It's a good well. It will be in the -- You know,
25 it could be in the upper end of that.

1 Q. So "upper end" meaning 80 -- it could drain as
2 much as 80 acres?

3 A. Could be.

4 Q. Now, you have to tell me again, the Cisco/Canyon
5 is the secondary objective, the Morrow is the primary
6 objective?

7 A. That's correct.

8 Q. How far west do you think you would have to move
9 to make this --

10 A. Pretty far. That was our concern, you know, when
11 we were out there, that it looked like we would be getting
12 so far west to get a location that we would probably be
13 nonstandard in the Cisco. And you can tell from some of
14 these pictures that it's -- you know, the draw does extend
15 west farther than what's shown on the USGS map. It's made
16 more of a cut to the west over time. I think Exhibit -- I
17 mean picture --

18 Q. Yeah, which one of the pictures --

19 A. -- 9E is looking northwest, and that kind of
20 shows -- you get somewhat of a feel for that.

21 And the southwest is Exhibit 9C.

22 You just basically stay in the cut of the draw as
23 you move that way.

24 EXAMINER ASHLEY: I don't have anything further.

25 Thank you.

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MR. CARR: May it please the Examiner, that concludes our presentation of this case.

EXAMINER ASHLEY: There being nothing further in this case, Case 12,286 will be taken under advisement.

And at this time let's take a recess and reconvene at 10:20.

(Thereupon, these proceedings were concluded at 10:02 a.m.)

* * *

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 12286 heard by me on 12-2 1999
Mark R. Kelly
Examiner
Off. Conservation Division

