

NEW MEXICO OIL CONSERVATION COMMISSION

EXAMINER HEARING

SANTA FE, NEW MEXICO

Hearing Date DECEMBER 19, 1991 Time: 8:15 A.M.

NAME	REPRESENTING	LOCATION
KEITH LOGAN	BTA OIL PRODUCERS	MIDLAND
William L. Dan	Danphel, Dan, Eugene, Dan	Junta TX
DAN KELLY/KEVIN KANE	Citation Oil & Gas Corp.	Odessa, TX
Diese fly	Yates Pet Corp	Artesia NM
Robert Hart	Texaco E+P	Hobbs, NM
James Bruce	Hughes Law Firm	Albu. NM
CRAIG AMBLER	Samuel Harty Tr Assoc	Denville, Co.
W. Kellerman	Kellerman Kellerman Ambler	Santa Fe
DAVE BONEAU	YATES PETROLEUM	ARTESIA, NM
Robert Bullock	YATES PETROLEUM	Artesia, NM
J. DAVID OVERTON	MEWBOURNE OIL CO	MIDLAND, TX
PAUL HADEN	MEWBOURNE OIL CO.	" "
JERRY ELGER	Nearburg Prod. Co.	Midland, TX
Dave Cromwell	Coquina	Midland
Tom Waller	Coquina	Midland
Sealy Gavin	Coquina	Albu.

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NAME	REPRESENTING	LOCATION
DANEN RICCIARDI Sean Gavin Chris Wolfarth MARSHALL MUNSSELL William Cobb	YATE'S PET Cogitina Oil Corp Presidio Exploration PRESIDIO EXPLORATION ✓ ✓	ALTESIA Midland Denver, CO DALLAS, TX ✓ ✓
Continuation of Hearing Dec. 20, 1991		ABR.
Gregory H. Gardo Reed H. Meek Steve Klein Ben Sargent Joel Levine Mike Tumbaugh Sarah Smith Charles Putsch Bill TRAWIN Kate M. COLE	CONOCO S Conoco Conoco Conoco Gas Company of New Mexico Williams Prod. Co Gas Co. of NM Unocal " " " " Bryan	OKC OK OKC OK OKC OK OKC Albq. Albq. FARMINGTON. SDZ

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NEW MEXICO OIL CONSERVATION DIVISION
STATE LAND OFFICE BUILDING
STATE OF NEW MEXICO
CASE NO. 10417

IN THE MATTER OF:

The Application of Coquina Oil Corporation for an unorthodox gas well location, Eddy County, New Mexico.

BEFORE:

MICHAEL E. STOGNER
Hearing Examiner
State Land Office Building
December 19, 1991

REPORTED BY:

DEBBIE VESTAL
Certified Shorthand Reporter
for the State of New Mexico

ORIGINAL

A P P E A R A N C E S

FOR THE NEW MEXICO OIL CONSERVATION DIVISION:

ROBERT G. STOVALL, ESQ.

General Counsel
State Land Office Building
Santa Fe, New Mexico 87504

FOR THE APPLICANT:

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Albuquerque, New Mexico 87103-1216
BY: SEALY H. CAVIN, JR., ESQ.

FOR THE PROTESTANT:

CAMPBELL, CARR, BERGE & SHERIDAN, P.A.
Post Office Box 2208
Santa Fe, New Mexico 87504-2208
BY: WILLIAM F. CARR, ESQ.

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1 EXAMINER STOGNER: The hearing will
2 come to order. Call the next case, No. 10417.

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

6 EXAMINER STOGNER: Call for
7 appearances.

8 MR. RICHARDS: Mr. Examiner, I'm Sealy
9 Cavin with the law firm of Stratton & Cavin in
10 Albuquerque. I represent Coquina Oil Corporation
11 today, and I have two witnesses to call.

12 EXAMINER STOGNER: Any other
13 appearances?

14 MR. CARR: May it please the Examiner,
15 my name is William F. Carr with the law firm,
16 Campbell, Carr, Berge & Sheridan of Santa Fe. I
17 represent Nearburg Producing Company, and I have
18 one witness.

19 EXAMINER STOGNER: Any other
20 appearances?

21 Will all three witnesses, please, stand
22 and be sworn at this time.

23 (The witnesses were duly sworn.)

24 EXAMINER STOGNER: Is there any need
25 for opening statements, Mr. Carr or Mr. Cavin?

1 MR. CARR: Not for me.

2 MR. CAVIN: No.

3 EXAMINER STOGNER: Mr. Cavin, you may
4 proceed.

5 MR. CAVIN: The first witness for
6 Coquina will be Mr. Dave Cromwell.

7 DAVID W. CROMWELL

8 Having been duly sworn upon his oath, was
9 examined and testified as follows:

10 EXAMINATION

11 BY MR. CAVIN:

12 Q. Mr. Cromwell, I first ask for you to
13 state your name, address, employer, and
14 occupation.

15 A. My name is David Cromwell. I lived in
16 Midland, Texas. I'm a consulting geologist
17 retained by Coquina Oil Corporation.

18 Q. Have you previously testified before
19 the Division?

20 A. Yes, sir.

21 Q. And have your qualifications as a
22 petroleum geologist been made a matter of record
23 with the Division?

24 A. Yes, sir.

25 Q. Are you familiar with the geology of

1 the proposed well and the area surrounding such
2 well?

3 A. Yes, sir.

4 Q. Are you familiar with the application
5 filed in this case on behalf of Coquina?

6 A. Yes, sir.

7 MR. CAVIN: Mr. Examiner, we tender Mr.
8 Cromwell as an expert witness in petroleum
9 geology.

10 EXAMINER STOGNER: Are there any
11 objections, Mr. Carr?

12 MR. CARR: No objections.

13 EXAMINER STOGNER: Mr. Cromwell is so
14 qualified.

15 Q. (BY MR. CAVIN) Mr. Cromwell, would you
16 briefly state what applicant seeks by this
17 application.

18 A. This applicant seeks to drill an
19 unorthodox location, I refer to you Exhibit No.
20 1, at 990 feet from the north side and 990 feet
21 from the east side of Section 34, Township 19
22 South, Range 25 East, the 320-acre proration unit
23 being the north half of Section 34. This would
24 be an unorthodox location.

25 There has been a well drilled in that

1 north half section that is currently produced and
2 is now depleted and will be plugged shortly.

3 EXAMINER STOGNER: Is that that No. 1
4 well?

5 THE WITNESS: Yes, sir. It's
6 approximately 990 -- 1990 feet out of the north
7 and west line in Tract G of that -- or I'm sorry,
8 in Tract F of that 640-acre unit.

9 EXAMINER STOGNER: Thank you, sir.

10 Q. (BY MR. CAVIN) Now, Mr. Cromwell,
11 before I get into the geology, I'd like to you
12 ask a few basic questions regarding land and
13 operational matters which are pertinent to the
14 application. In this regard I first refer you to
15 Exhibit 2 and ask you to describe that and the
16 pertinent wells and locations on that exhibit.

17 A. Yes, sir. You have Exhibit 2 in front
18 of you, which is a proration, or 320-acre spacing
19 unit map, that I have prepared from data I have
20 gathered from our land department, Coquina's land
21 department, as well as from previous cases in
22 front of the ODC (sic) here.

23 And if you'll note, I have color-coded
24 the Morrow tests with the pink color. And I have
25 triangle locations outlined in the -- for

1 potential orthodox locations within those
2 proration units. And I have outlined the
3 specific proration units as outlined with the
4 dark, dashed line around each of the proration
5 units.

6 If you'll note, Nearburg has the
7 acreage to the north of our proration unit, or
8 proposed proration unit, which would be the
9 southwest corner of Section 27.

10 American National Petroleum
11 Corporation, ANPC, which is the parent company of
12 Coquina Oil, has 100 percent of the acreage in
13 the southeast corner of 27. And Nearburg has the
14 northeast diagonal offset as well as the east
15 diagonal offset acreage to us. My employer,
16 American National Petroleum, has 100 percent of
17 the proposed drill site, being the north half of
18 Section 34.

19 I would like to also illustrate on this
20 map at one time that within a mile-and-a-half of
21 our proposed unorthodox location, Nearburg has
22 drilled four unorthodox locations. I'd like to
23 bring those to your attention at this time.

24 The first one being in the southwest
25 quarter of Section 23 to the northeast of us.

1 The Nearburg No. 1 Farino 23-0 well was drilled
2 1200 feet from the west line and 1500 feet from
3 the south line of that proration unit.

4 The second location, the Nearburg No. 1
5 Morris 26-E well, was drilled 990 feet from the
6 short end of that proration unit and 1900 feet
7 from the long side of that proration unit.

8 The third well I'd like to point out,
9 and the direct northeast offset to us, the
10 Nearburg No. 1 Boyd State 26-M in the southwest
11 quarter of Section 26, was drilled 750 feet from
12 the west line and 1200 feet from the south line
13 of that spacing unit.

14 And the fourth well I'd like to point
15 out is down to the southwest in Section 35, the
16 south half of that proration unit, Nearburg
17 drilled the No. 1 Gulf Federal, which was
18 originally set up to be 660 from the west line
19 and 660 feet from the south line.

20 And because they had to abandon that
21 original well as junk, they drilled the 1-Y which
22 was moved 100 -- nearly 100 feet to the north and
23 ended up being 735 feet from the south line to
24 that section.

25 So as you see, sir, we have four

1 unorthodox locations within a mile-and-a-half of
2 our proposed locations. We have many spacing
3 units within this area, and we also have some dry
4 holes indicated.

5 Q. Would you also indicate on the map
6 where an orthodox location would be in that north
7 half of Section 34?

8 A. Yes, sir. If you'll note, those
9 triangles I have delineated in the north half of
10 Section 34 would be the proposed orthodox
11 locations if the unit as proposed is a lie-down
12 320-acre spacing unit.

13 Q. Okay. You mentioned that ANPC owns
14 this. Can you tell us a relationship between
15 Coquina and ANPC?

16 A. Yes, sir. Coquina was purchased by
17 American National Petroleum Company several years
18 ago. And now Coquina acts as a wholly-owned
19 subsidiary of American National Petroleum.

20 Q. Am I correct, the proposed well is a
21 Morrow test?

22 A. Yes, sir. It will be approximately a
23 9500-foot Morrow test.

24 Q. And what do you estimate the cost of
25 this well will be?

1 A. The estimated cost, completed cost,
2 will be roughly \$750,000.

3 Q. Okay. And what depth do you propose to
4 to drill that to?

5 A. We intend to drill it slightly greater
6 than 9500 feet.

7 Q. And in addition to the Morrow
8 formation, can you tell us what your secondary
9 objectives are?

10 A. The secondary objective in here is Yeso
11 formation. If you'll also take a look at this
12 map, you'll notice that there are three oil
13 productive zones in the east half of our
14 proration unit. That's from the Yeso at
15 approximately a little less than 3,000 feet.

16 Those two wells only penetrated 3,000
17 feet, and they did not test the Morrow formation
18 at 9500 feet.

19 Q. Does Coquina or ANPC own 100 percent of
20 the operating rights in the north half of Section
21 34?

22 A. Yes, sir.

23 Q. And would you state for the Examiner
24 again how unorthodox this location is that you're
25 proposing?

1 A. This location would be approximately
2 990 feet closer to the east line of the section
3 than an orthodox location would be.

4 Q. Okay. Could you describe the land
5 situation to the north, northeast, and east of
6 the proposed proration unit?

7 A. Yes, sir. As I've previously
8 mentioned, the area is either owned or operated
9 by Nearburg or American National Petroleum.

10 Q. Okay. So just to make certain of this,
11 it's correct that Nearburg Producing Company is
12 the only offset operator or lease owner other
13 than Coquina to the north, northeast, and east?

14 A. Yes, sir.

15 Q. Now, is it your understanding that
16 notice has been properly provided to Nearburg?

17 A. Yes, sir.

18 MR. CAVIN: Mr. Examiner, at this time
19 I would note that Exhibit 3 is our affidavit
20 indicating that the notice provisions of Division
21 Rule 1207 have been complied with. Exhibit 3
22 also indicates the name and adress of each
23 interested person to whom such receipt -- I'm
24 sorry, to whom such notice was sent and provides
25 a copy of the proof of receipt.

1 Q. At this point I would like to get into
2 geologic considerations which dictate this
3 unorthodox location. And I'd ask that you refer
4 to Exhibit 4.

5 A. Exhibit 4 is a general information map
6 that I have prepared. Once again the Morrow
7 productive wells are circled and highlighted with
8 an orange color. Those are the productive wells,
9 I stress, once again.

10 Underneath those wells we have the
11 cumulative production as of 1/1/91 for those
12 wells. And also on this map you will note that
13 there are some blue circles, and our engineering
14 staff will get into that a little later in the
15 testimony. But these circles illustrate the
16 calculated drainage area from the wells that are
17 in our immediate vicinity.

18 Also on the map for purposes of
19 illustration I have color-coded the
20 cross-sections, which I have put up on the wall,
21 and I will show you those in a minute. But
22 basically just to give you an idea that I have
23 looked at all of the wells or they are on the
24 cross-section in the immediate vicinity of our
25 proposed location.

1 We'll have the three cross-sections.
2 We'll have the east-west cross-section. We'll
3 have the north-south cross-section. And we'll
4 have the cross-section entitled C-C prime that
5 will include the acreage to the south of our
6 proposed location.

7 Q. Mr. Cromwell, it appears there's been a
8 good deal of Morrow activity in this area. Could
9 you summarize that for the Examiner?

10 A. Yes, sir. As this map and the previous
11 exhibit illustrate, there have been at least two
12 Morrow wells drilled in approximately every
13 section in and around the proposed location.

14 Q. It also appears that you've spent a
15 good deal of time working this area?

16 A. Yes, sir.

17 Q. At this point I'd refer you to Exhibit
18 5, which is a structure map, and ask if you'd
19 describe and explain that for Mr. Stogner.

20 A. The structure map I've prepared is
21 entitled, "The Structure Map on the Top or Lower
22 Morrow Interval," which is a fairly common marker
23 to map on in this area as well as the Morrow.
24 This is the top of the Lower Morrow interval.

25 MR. CAVIN: Would the record note that

1 Exhibit 8 came down.

2 MR. STOVALL: Dipped to the south; is
3 that right?

4 MR. CAVIN: The south, that's right.

5 THE WITNESS: That's very good. Yes,
6 sir. That's very good. The regional dip is
7 towards the south and southeast, as this map
8 illustrates. And basically all I want to show on
9 this exhibit is that we will be down-dip from a
10 depleted well, the Pan Canadian No. 1, which
11 Coquina drilled in 1974, and up-dip to the Boyd
12 State well, which will be a northeast diagonal
13 offset to us.

14 So, in other words, we would be
15 structurally located in between those two wells.
16 And part of the point of this exhibit that I will
17 tender is that the Morrow production is more or
18 less stratigraphically controlled and not
19 necessarily structurally controlled.

20 Q. So it appears you could do better
21 structurally at least by moving closer to the Pan
22 Canadian well, but I suppose you have some
23 reasons for not doing that?

24 A. Yes, sir, other geological reasons and
25 engineering considerations will illustrate the

1 fact that we do not necessarily need to be up-dip
2 to have better production.

3 Q. Okay. At this time I'll refer you to
4 Exhibit 6 and ask that you explain that, Mr.
5 Cromwell.

6 A. Exhibit 6 is an isopach map of the
7 Middle Morrow sand, the clean sand. And this is
8 a -- Middle Morrow sands are roughly a 200-foot
9 thick interval beneath the Morrow limestone and
10 above the Lower Morrow marker.

11 This interval, as I mentioned, is
12 approximately 200 to 250 feet thick. And I've
13 gone through and used the gamma ray cutoff of 50
14 API units to delineate the clean sand in there in
15 that area.

16 And in doing so, I have isopached that
17 interval and have come up with the area that's
18 indicated by the isopach and is highlighted by
19 the yellow outline color.

20 Q. Okay. So if I understand you
21 correctly, the most important geologic
22 consideration for this well in your opinion is
23 the thickness and quality of the Morrow sands?

24 A. Yes, sir. There are -- the thickness
25 and quality are very critical to the key success

1 or commerciality of any well that's drilled in
2 this area.

3 And this interval, as I mentioned,
4 encompasses approximately up to 12 different
5 Morrow -- different Morrow pay sands that can be
6 productive in the area and has been testified by
7 Nearburg's consultant in previous cases, namely
8 9568, that was used in the Morris No. 1 26-E
9 unorthodox exception location.

10 But in any event, I agree with that
11 testimony that the Morrow locations -- and I'm
12 going to illustrate that with these
13 cross-sections -- Morrow sands are lenticular and
14 indeed stratigraphic traps.

15 Q. If thickness were your only
16 consideration, you would be trying to locate the
17 well within the 40-foot contour line; is that
18 correct?

19 A. Yes, sir, that is correct.

20 Q. But apparently you've got some reason
21 why you don't want to move it into the sweet?

22 A. The reason I decided not to move it
23 into the thicker portion of that sand interval is
24 that there is a dry hole that was drilled in
25 1953, I believe, in an encountered thick sand.

1 And that well was the Stanlind No. 1 Lakewood.

2 If you don't mind, we'll go on to look
3 at exhibit -- just a minute. Let me see which
4 exhibit that's on.

5 Q. Perhaps you could explain your aversion
6 to the dry hole.

7 A. I refer you now to Exhibit 7, which is
8 a structural cross-section north-south through
9 the area. And that includes the dry hole
10 immediately to the south of our acreage and the
11 Coquina well that was drilled some ten years
12 later on that acreage and then includes the wells
13 to the north.

14 And as I mentioned before, this well
15 encountered good, thick, clean sands, but it
16 lacked sufficient porosity and permeability. In
17 fact, when they ran a drill stem test over this
18 interval while they were drilling it and they had
19 gas to service it, only 47 Mcf a day. And the
20 shut-in pressure was 1800 pounds, which is
21 considerably less than you would expect at the
22 depth of 9400 feet.

23 However, they did try to make a
24 completion in this well after they drilled on
25 down and tested the Ellenberger at 10,500 feet.

1 They acidized it twice, and they frac'd it
2 twice. And then they squeezed it off and
3 re-perforated it. And they still did not make a
4 commercial well.

5 So the point of this illustration is to
6 demonstrate that even though you may not have --
7 even though you have clean Morrow sands, they may
8 not necessarily be productive; that there could
9 be some separation either in the transmissivity
10 of the formation or in the porosity
11 characteristics, which would affect the pressure
12 considerations between the two wells.

13 As I mentioned, this well was drilled
14 in 1953, the Stanlind No. 1 Lakewood. And then
15 some 15 years later, Coquina came in up-dip to
16 that well and encountered roughly the same
17 sand -- I call it the same sand anyway -- in
18 their well and perforated it. And that well made
19 2.5 Bcf before it was depleted.

20 Q. Do you want to go ahead?

21 A. Exhibit No. 8 is a cross-section
22 east-west through the same area. And it includes
23 the nearest offset production, which is the
24 Nearburg No. 1 Boyd State well, which was
25 completed in this sand right in here. And it has

1 made a little over 1 Bcf in the two-plus years
2 that it has been producing.

3 And that well is down-dip to the
4 Coquina No. 1 Pan Canadian well. And this is
5 another example, illustration that even though
6 the sands may correlate the same, they may not
7 necessarily be pressure connected.

8 Also illustrated is that there are
9 several other sands in the wells both to the east
10 and to the west of us and that they do not
11 necessarily correlate from well to well.

12 As noted, the Nearburg No. 1 Boyd State
13 26-M well had little a less than 20 feet of
14 porosity and permeability, and it made a very
15 commercial well and, as I mentioned, has produced
16 over 1.1 Bcf. And we estimate that the reserves
17 will be at least another 700 million cubic feet
18 of gas.

19 Other wells in the area, for example to
20 the south, this cross-section illustrated on
21 Exhibit No. 9, the structural cross-section C-C
22 prime, is a structural cross-section. And it
23 illustrates the wells to the south, one of them
24 being -- two of them Nearburg wells in Section
25 35, one of them being the No. 1 Huber well, which

1 has made six-and-a-half Bcf from a nice, thick
2 sand as illustrated here.

3 And then in the direct north offset to
4 that well in fact did not even complete in that
5 same sand but produced from two separate sands
6 that I correlate as being overlying and
7 underlying the producing zone in the well to the
8 north.

9 And this is an illustration of the very
10 lenticular nature of the Morrow sands. I'm sure
11 the Examiner is very well familiar with the
12 heterogeneous nature of the Morrow sand
13 development.

14 Depositionally, it's a fluvial deltaic
15 system that has been oftentimes deposited in
16 near-shore pyrrolic conditions, and these sands
17 have been subjected to numerous and slight minor
18 transgressions and regressions that have affected
19 the porosity and permeability.

20 Q. Mr. Cromwell, is it your opinion that
21 the proposed well will facilitate your efforts to
22 prove up location in the southeast quarter of
23 Section 27?

24 A. Yes, sir. We're hoping that this
25 location, depending on the success of it, will

1 create an opportunity for us to drill another
2 well in the southeast quarter of Section 27 with
3 which Nearburg would have 50 percent operation --
4 I mean 50 percent ownership.

5 Q. Okay. Mr. Cromwell, is it your opinion
6 as a petroleum geologist that the unorthodox
7 location which is proposed is necessary to allow
8 Coquina to produce its fair and equitable share
9 of the Morrow gas reserves underlying the north
10 half of Section 34?

11 A. Yes, sir.

12 Q. Is it also your opinion that this
13 unorthodox location is necessary to reduce the
14 risk to an acceptable level which will justify
15 drilling of this well?

16 A. Yes, sir. One of the reasons that we
17 were oriented to the sands in the well where we
18 have is because we have two dry holes, one to the
19 northwest of us and one to the southeast of us,
20 and we wanted to stay as far away from that as
21 possible.

22 Q. Okay. And then on the -- obviously you
23 want to stay away from the Pan Canadian No. 1
24 well?

25 A. Yes, sir. As testimony by our engineer

1 will demonstrate, we want to stay outside of the
2 drainage radius circle that that well has
3 created.

4 Q. As well as keep your distance from the
5 Boyd State well?

6 A. Yes, sir.

7 Q. Is it your opinion that this unorthodox
8 location is necessary for Coquina to achieve a
9 reasonable rate of return on this well?

10 A. Yes, sir.

11 Q. Do you see any problem with
12 uncompensated drainage of lands to the north,
13 northeast, or east of the proposed location?

14 A. No, sir, I don't.

15 Q. Are there any characteristics of the
16 Morrow formation in this area which support your
17 conclusion that there will not be any
18 uncompensated drainage to the northeast or east
19 of the proposed location?

20 A. Well, as I mentioned, the Morrow is
21 very lenticular and there are up to 12 different
22 sands that can be productive in this area and
23 that we feel that we will encounter sufficient
24 sands to make this a commercial well.

25 Q. Is this consistent with the position

1 that Nearburg has taken in the past on some of
2 these unorthodox locations?

3 A. I believe so, yes, sir.

4 Q. I want to refer you back to Exhibit No.
5 2 and just make sure we understand the situation
6 on the unorthodox locations. Would you go over
7 those once again for me?

8 A. The unorthodox locations that exist
9 within a mile-and-a-half of our proposed
10 unorthodox locations are approximately four.
11 They are the Nearburg No. 1 Parino 23-L in
12 Section 23, which was drilled 1200 feet from the
13 west line of the section and 1500 feet from the
14 south line.

15 The second well is the -- going in
16 order to the south -- is the Nearburg No. 1
17 Morris 26-E well, which was drilled 990 feet from
18 the west line and 1980 feet from the north line
19 of that proration unit.

20 The third well, the Nearburg, No. 1
21 Boyd State 26-M, was drilled only 750 feet from
22 the west line of the section and 1200 feet from
23 the south line of that section.

24 And the fourth well, the Nearburg No. 1
25 Gulf Y Federal, was drilled only 660 feet from

1 the west line of that section and 730 feet from
2 the south line of that section.

3 Q. Okay. Now, on this Nearburg -- or I
4 should say the Boyd State 26-M well in Section
5 26, is it true that well was even commenced
6 before the unorthodox location was approved?

7 A. Yes, sir. Reading from the testimony
8 that was on that particular case, yes, sir,
9 that's true.

10 Q. In light of all these unorthodox
11 locations, does it surprise you a bit that
12 Nearburg is here today opposing you on yours?

13 A. Yes, sir, it does surprise me.

14 Q. Mr. Cromwell, is it your opinion that
15 the granting of this application will be in the
16 interest of conservation, the prevention of
17 waste, and the protection of correlative rights?

18 A. Yes, sir.

19 Q. Is it your opinion that the granting of
20 this application will afford Coquina the
21 opportunity to produce without waste its just and
22 equitable share of the oil and gas in the
23 affected pool and thereby protect its correlative
24 rights?

25 A. Yes, sir.

1 Q. Mr. Cromwell, were Exhibits 1 through 9
2 prepared by you or under your supervision or
3 direction?

4 A. They were.

5 Q. Can you testify as to the accuracy of
6 such exhibits?

7 A. Yes, sir.

8 MR. CAVIN: Mr. Examiner, I would move
9 for the admission of Exhibits 1 through 9.

10 EXAMINER STOGNER: Exhibits 1 through 9
11 will be admitted into evidence at this time.

12 MR. CAVIN: Mr. Examiner, that
13 concludes my direct examination of Mr. Cromwell.

14 EXAMINER STOGNER: Thank you.

15 Mr. Carr, your witness.

16 EXAMINATION

17 BY MR. CARR:

18 Q. Mr. Cromwell, if we could go to your
19 Exhibit No. 1.

20 A. Yes, sir.

21 Q. The acreage shaded in yellow is the
22 only acreage in the area that American National
23 Petroleum Company or Coquina currently has an
24 ownership interest in; is that correct?

25 A. No, sir. They've also got acreage up

1 in Section 16 in 19-25, which I have not
2 colored.

3 Q. Other than that, anything else?

4 A. No, sir.

5 Q. Now, I believe your testimony was that
6 you own the acreage due north of the proposed
7 location, or at least operate that; is that
8 right?

9 A. Yes, sir.

10 Q. That the only party toward whom you are
11 moving this well location is Nearburg. They have
12 the interest in the north half of 35; correct?

13 A. Yes, sir.

14 Q. And in the south half of Section 26?

15 A. Yes, sir.

16 Q. Now, if we look at Section 26, do you
17 know if that's a state or federal lease?

18 A. Section 26?

19 Q. Uh-huh.

20 A. It appears to be a state lease.

21 Q. And in Section 35 do you know what that
22 is?

23 A. It appears to be a federal lease.

24 Q. So there would be different royalty
25 owners under each of those tracts you would

1 assume that would have an interest in --

2 A. I'm not really qualified to answer
3 that, but -- I would not answer that.

4 Q. You don't know?

5 A. No, sir, I don't. It would be
6 speculation on my part.

7 Q. So all you're testifying to now is not
8 who has interest in production from those tracts,
9 but just simply who's the operator?

10 A. Yes, sir.

11 Q. You indicated that because of the
12 unorthodox locations you were surprised that
13 Nearburg objected; is that what I understood?

14 A. Yes, sir.

15 Q. When you operate a property, you also
16 look out for the other interest owners in the
17 property, do you not?

18 A. Yes, sir.

19 Q. And if someone is drilling a well at an
20 unorthodox location, gaining an advantage on your
21 acreage, you have to consider that, wouldn't you?

22 A. Yes, sir.

23 Q. And if you had a well that was
24 offsetting you at an unorthodox location and you
25 operated the north half of 35, wouldn't you think

1 you should make a determination as to whether or
2 not there are interests in the north half of 35
3 that might be drained?

4 A. Yes, sir.

5 Q. There's no unorthodox location in 35,
6 is there?

7 A. Oh, yes, sir. You mean in the north
8 half of 35?

9 Q. Yes, sir.

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

11 Q. And your well is only half the setback
12 from the common boundary between your spacing
13 unit and the north half of 35 as required by
14 rule, isn't it?

15 A. Yes, sir.

16 Q. Do you think it would be surprising
17 that they wouldn't come in and object in that
18 circumstance just because of other unorthodox
19 locations in the pool?

20 A. If I could take the liberty, Coquina
21 gave a waiver of an unorthodox location for the
22 well that was drilled in the north half of
23 Section 26.

24 Q. Let's look at that. That's the Boyd
25 State No. 1; correct?

1 A. No. The north half, the Morris well.

2 Q. In the North half of 36. What about
3 the Boyd State well that is in the south and west
4 of 26 --

5 A. Yes, sir.

6 Q. -- did Coquina give a waiver on that
7 one?

8 A. No, sir, they did not. In fact, they
9 asked for a continuance on that case, and they
10 were turned down without any representation.

11 Q. Now, you did receive notice of the
12 hearing, did you not?

13 A. Yes, sir.

14 Q. You're not saying that the hearing took
15 place and you didn't have an opportunity to
16 appear?

17 A. They asked for a continuance, and they
18 did not show up, no, sir.

19 Q. Did you seek a de novo hearing in that
20 case to again pursue your claim at a later date?

21 A. What do you mean by that de novo
22 hearing? I'm sorry.

23 Q. Are you aware of any subsequent
24 hearings on that application?

25 A. No, sir, I'm not. I was not with the

1 company at that time.

2 Q. If we look at the proposed location in
3 the Boyd State No. 1, the diagonal offset to the
4 northeast, in fact you're closer to that common
5 intersecting corner than Nearburg is to you;
6 isn't that right?

7 A. I'm sorry, sir. I was looking at
8 Exhibit 2. Now go ahead.

9 Q. If we just look at the southwest of
10 26 --

11 A. Okay.

12 Q. -- and in relationship to your proposed
13 location --

14 A. Okay.

15 Q. -- you're actually closer to the
16 Nearburg acreage than they are to you with the
17 Boyd State; isn't that right?

18 A. No, sir. They're 750 feet off that.
19 If you'll look at Exhibit No. 2, I believe I've
20 delineated the footage. They're 750 feet from
21 the west line.

22 Q. On a diagonal access how close are you
23 to the corner, to the northeast corner of 34; do
24 you know?

25 A. Well, it would be a simple mathematical

1 equation, but it would certainly be more than 990
2 feet.

3 Q. How close would Nearburg be to that
4 corner; do you know?

5 A. No, sir.

6 Q. So to actually determine who's closer
7 to that point, if that's significant, we'd have
8 to do those mathematical calculations; is that
9 correct?

10 A. Yes, sir.

11 Q. When the Boyd State was drilled, they
12 were stepping out onto the fringe of the
13 formation over on the east, were they not?

14 A. I would have to look at that geology to
15 determine that. If you want to -- I've got a
16 copy of that case if you'd like to go into that.

17 Q. Do you know if the Hilliard well in the
18 north half of 35 was drilled before or after the
19 Boyd State?

20 A. I've got that right up here in this
21 cross-section.

22 A. The Hilliard well was drilled before.

23 Q. Before?

24 A. Yes, sir.

25 Q. Was the well due north, the one in the

1 south -- I think it's a Coquina well in the
2 southwest of 27? *Dickman*

3 A. The ~~Boyd~~ state?

4 Q. Yes. *m.s.*

5 A. Yes, sir.

6 Q. Was that drilled before?

7 A. Before which well?

8 Q. Before the Boyd State.

9 A. Yes, sir, it was.

10 Q. Now, when the Boyd State was drilled --
11 have you reviewed the information on that well?
12 You obviously have?

13 A. Yes, sir.

14 Q. When you constructed the isopach map,
15 did you incorporate information from that well
16 into your interpretation?

17 A. Yes, sir. That's illustrated on the
18 exhibit.

19 Q. In fact, if we look at your isopach, is
20 this constructed from well control information
21 only?

22 A. Yes, sir.

23 Q. Is there a date on this? 6/91?

24 A. Yes, sir.

25 Q. This is your work?

1 A. Yes, sir.

2 Q. This was then not constructed for the
3 purpose of this hearing?

4 A. No, sir.

5 Q. What does the yellow on this exhibit
6 indicate?

7 A. The yellow just indicates the thicker
8 trend area of that sand interval.

9 Q. And that is one of the things you're
10 looking for when you propose a location?

11 A. Yes, sir.

12 Q. Is it fair to say that when you have a
13 thicker sand interval like that that basically,
14 if I'm looking at the north half of Section 34,
15 it suggests that perhaps the place to really
16 drill a well if there -- even before any
17 production -- would actually be over in the
18 northeast quarter as opposed to the northwest?

19 A. Yes, sir.

20 Q. Better part of the reservoir is to the
21 east?

22 A. Yes, sir, I believe that it is. Yes,
23 sir.

24 Q. The reservoir also extends over onto
25 the north half of Section 35, does it not?

1 A. Yes, sir. I believe it does.

2 Q. And that a well at the proposed
3 location will drain some reserves from Section
4 35; isn't that right?

5 A. That will be answered in a few minutes
6 by our expert engineer.

7 Q. When you said that you anticipate and
8 it was your testimony that there would be no
9 uncompensated drainage from the east --
10 uncompensated for drainage from the east; was
11 that your testimony?

12 A. Yes, sir.

13 Q. And what did you base that on?

14 A. I based that on my engineer's drainage
15 radius calculations.

16 Q. So you're thinking that we should
17 address that to the engineering witness?

18 A. Yes, sir.

19 Q. Do you have any idea how much of the
20 reservoir or well at the proposed location might
21 drain?

22 A. We'll get into that. That will be
23 illustrated with his exhibits.

24 Q. I just want to know what you're
25 testifying to. I'll talk to the engineer when he

1 gets up.

2 A. Okay. What would you like to know from
3 me?

4 Q. I just want to know what you're basing
5 your opinion that there would be no uncompensated
6 drainage.

7 A. I was basing my opinion from his work.

8 Q. Okay. Then I'll ask him questions on
9 that. That's all I'm trying to do.

10 A. Okay.

11 Q. When you talk about the dry hole, the
12 Pan Canadian No. 2, I think it is, the Stanlind
13 well in the southeast portion --

14 A. Excuse me. Could you point which well.

15 Q. I think it's the well you talked about
16 being drilled and not being a producer that
17 you're trying to get away from.

18 A. No, sir. That's not the well. That's
19 just a shallow.

20 Q. Okay. Which well?

21 A. This one here.

22 Q. So that well is in the --

23 EXAMINER STOGNER: Which one?

24 THE WITNESS: We're looking at the Pan
25 Canadian well that's drilled 1980 feet from the

1 south line and 660 from the east line of Section
2 34. The one that has a circle around it.

3 MR. STOVALL: In the north half there
4 behind your arrow that says, "Proposed Location"?

5 THE WITNESS: No, sir. To the south.

6 MR. CARR: Right above the number 34
7 feet on your exhibit --

8 THE WITNESS: The one that's in the
9 southeast quarter of Section 34.

10 MR. STOVALL: Southeast quarter, okay.

11 Q. (BY MR. CARR) Now, how have you
12 determined that that in fact was a dry hole? Was
13 that your work, or is that something --

14 A. That is my work based on the completion
15 attempt that was attempted, the completion that
16 was attempted in that well.

17 Q. And it was not a successful well;
18 correct?

19 A. No, sir.

20 Q. And did you review the scout tickets on
21 that?

22 A. Yes, sir.

23 Q. It was drilled with freshwater, was it
24 not?

25 A. Yes, sir.

1 Q. Was there any suggestion in the
2 material that you reviewed that in fact there
3 might have been formation damage due to the way
4 the well was drilled and completed?

5 A. It's possible.

6 Q. And if that occurred -- and I'm not
7 suggesting one way or the other that it did --
8 but if that occurred, then there would be no
9 reason to move away from it?

10 A. Well, if that occurred, then Nearburg,
11 when they drilled their unorthodox location in
12 the southwest quarter of Section 35, could have
13 drilled further to the north, closer to that
14 well, if they felt the same way.

15 Q. Do you happen to know what factors went
16 into Nearburg's determination to locate in 35?

17 A. No, sir.

18 Q. When I look at your isopach maps, this
19 doesn't -- and I've looked at some, but I'm
20 always in the dark -- it doesn't seem to suggest
21 a channel. Is this an isopach map that would
22 suggest to you that there is a void channel
23 running through here, or is this a different kind
24 of a deposition?

25 A. Are you talking about a fluvial system

1 now, or are you talking about a marine?

2 Q. I'm talking about whether or not we
3 have a more blanket-type deposit as opposed to a
4 channel running through the area. Your isopach
5 doesn't look like what I've seen before for
6 this.

7 A. I'm sorry.

8 Q. What you're looking for is thick sand?

9 A. Yes, sir.

10 Q. And that's what you've shown as yellow?

11 A. Yes, sir.

12 Q. And if a well at the proposed location
13 drained the thick sand around it, they would be
14 draining from the north half of 35 in the yellow
15 area?

16 A. I'm not -- I'm just basing my data
17 information, if I answer that question, on what
18 our engineer has done.

19 Q. Okay. You don't see a well completed
20 in 35 in the area you've shaded yellow, do you?

21 A. No, sir.

22 Q. If you did move to the south, you would
23 encounter thicker pay based on your
24 interpretation; correct?

25 A. Yes, sir.

1 Q. Now, if we go to your Exhibit No. 4, we
2 have drainage areas indicated on this exhibit.
3 These were prepared by your engineer, were they
4 not?

5 A. The drainage areas were, yes, sir.
6 This is a joint exhibit. I prepared the other
7 information.

8 Q. If you drilled the standard location
9 1980 from the east line and 660 from the north
10 line, you would be in Section 34. You would be
11 outside that drainage area, wouldn't you?

12 A. Say that again, sir.

13 Q. A well drilled, based on your Exhibit
14 No. 4, 1980 from the east, 660 from the north,
15 would fall outside that blue drainage area on
16 this exhibit, would it not?

17 A. Just barely.

18 Q. And it would fall within the yellow
19 shaded area on your isopach?

20 A. Yes, sir.

21 Q. And if you drilled a well at that
22 location, you would be able to produce remaining
23 reserves in the north half of 34, wouldn't you?

24 A. No, sir. We felt we would be drained
25 at that location.

1 Q. You'd be drained by your own well at
2 that location?

3 A. Yes, sir.

4 Q. And then we're going to ask the
5 engineering witness what is left to be drained
6 and whether or not there would be drainage from
7 the adjoining section that Nearburg operates?

8 A. That's correct.

9 MR. CARR: That's all I have.

10 EXAMINER STOGNER: Mr. Sealy,
11 redirect?

12 FURTHER EXAMINATION

13 BY MR. CAVIN:

14 Q. Just so we make sure, because I think
15 this is an important point, you do not -- I'm
16 referring to Exhibit 6. Could you discuss the
17 Man well, the Pan Canadian well, the Lakewood
18 Federal, the Gulf Federal, the Boyd State, and
19 then your proposed location so it's very clear
20 why you're selecting this location
21 notwithstanding the fact that you could get
22 within that 40-foot contour line.

23 A. As I mentioned earlier, I believe that
24 even though thick, clean sand is important and a
25 consideration when locating a well, it is not

1 necessarily the only criteria that one should
2 use.

3 And because of the fact that you have a
4 dry hole, I believe a bona fide dry hole in the
5 southeast quarter of Section 34, and you have a
6 dry hole in the southwest quarter of Section 27,
7 that you want to locate sufficient distance away
8 from those dry holes for whatever reason they
9 were dry.

10 Q. I asked you earlier, but I would ask
11 you again, what are the characteristics of the
12 Morrow formation in this area which lead you to
13 believe geologically -- give me the geologic
14 characteristics, and we'll get -- as far as the
15 engineering drainage impact from Mr. Waller
16 later -- but the geologic characteristics that
17 make it unlikely that there's a permeability
18 connection between the Nearburg State 26 -- Boyd
19 State 26-M well and the Coquina Pan Canadian No.
20 1 well. And in fact certainly if you thought you
21 were draining that Pan Canadian No. 1 well or if
22 there's a permeability connection, you would not
23 be drilling this location?

24 A. That's correct.

25 Q. Can you explain the geologic

1 characteristic?

2 A. Well, basically I feel that you've got
3 several different potential pay zones in this
4 area at this particular location and that any one
5 of those could be productive at this location
6 because the Morrow is essentially a stratigraphic
7 trap and these lenticular sands, each and every
8 one can act as a separate entity as a productive
9 reservoir.

10 Q. Is this consistent with the position
11 Nearburg took in Case 9568?

12 A. Yes, sir, I believe so.

13 Q. And that case was concerning the Morris
14 26-E well; is that correct?

15 A. Yes, sir.

16 MR. CAVIN: I have no further
17 questions.

18 EXAMINER STOGNER: Mr. Carr, do you
19 have any?

20 MR. CARR: Just to follow up on that.

21 FURTHER EXAMINATION

22 BY MR. CARR:

23 Q. Mr. Cromwell, if I understand what Mr.
24 Cavin said, is it your testimony that your
25 proposed location really is not going to be in

1 the same producing sand or body as the Boyd
2 State; is that what --

3 A. Well, I believe that they could be.
4 It's possible that they could be in the same
5 zone.

6 Q. Well, were you suggesting there was
7 something that -- some sort of a barrier between
8 the north half of --

9 A. Well, I would hope -- I don't know that
10 there is, but I would hope there will because the
11 Boyd State well is draining our acreage.

12 Q. Well, we're talking about some zone
13 then, I guess, other than what we're talking
14 about in this case?

15 A. This map is a generalized map of the
16 total Middle Morrow section, which I re-emphasize
17 encompasses about 250 feet, and it encompasses
18 several different sands. And so that my idea is
19 to stay within the general trend.

20 It's like the Mississippi River.
21 You've got different sands within that fluvial
22 plain, and you want to stay in the general trend
23 of the river system. You don't want to get off
24 to the side where there is less sand
25 development. So you want to stay within that

1 general sand trend to increase your potential for
2 success.

3 And, you know, I know as Nearburg's
4 expert testimony that was delivered by Lou
5 Missulo in the other two cases, he felt that the
6 Boyd State 26-1 was not the same sand as the
7 Coquina No. 1 Pan Canadian.

8 And I feel that they may be or they may
9 not be. But they certainly can correlate in the
10 same stratigraphic position within the Morrow
11 interval.

12 Q. It was your testimony that the Boyd
13 State is draining reserves from the Coquina
14 tract?

15 A. Yes, sir.

16 Q. And that's based on your information,
17 not the engineering witness?

18 A. No. That is based on the engineer's
19 information.

20 Q. So you really don't know. You're just
21 assuming that the engineer is telling you
22 correctly?

23 A. Yes, sir.

24 MR. CARR: That's all.

25 EXAMINATION

1 BY EXAMINER STOGNER:

2 Q. Point of clarification. When I look at
3 your Exhibit No. 6, which is the isopach map of
4 the Middle Morrow sands --

5 A. Yes, sir.

6 Q. -- and I'm referring now to Exhibit No.
7 8, is this particular lens or particular sand
8 zone in which you're mapping, and I'm pointing
9 now on your proposed location the second yellow
10 mark?

11 A. Let me -- I'm probably not explaining
12 this very well. But here's the top of the Middle
13 Morrow clastics, and here is the top of the Lower
14 Morrow marker.

15 MR. STOVALL: Excuse me. The top of
16 the clastics is the blue line that's shown on
17 that Exhibit 8?

18 THE WITNESS: Yes, sir. And then the
19 lower marker I have illustrated by this
20 correlation line. What I'm doing, I'm mapping
21 several sands within this interval. I'm not just
22 mapping this sand. I'm mapping all of the clean
23 sand within this interval.

24 MR. STOVALL: Two hundred feet you're
25 talking about there?

1 THE WITNESS: Yes, sir. So I'm not --
2 that map is an illustration of the cleanliness of
3 several different sands within this 200-foot
4 interval. It's not any one particular sand.

5 Q. (BY EXAMINER STOGNER) That blue line,
6 there again Exhibit No. 8, you call that the top
7 of the Middle Morrow clastics and not the top of
8 the Morrow clastics?

9 A. I call it the top of the Morrow
10 clastics, which others have called the Middle
11 Morrow interval. I think I'm fairly consistent
12 with that designation. I'm sorry if I've
13 confused you.

14 Q. Oh, I'm getting there.

15 A. Is there something else that I could
16 illustrate for you?

17 Q. You have a structure map, Exhibit No.
18 5, which shows the top of the Lower Morrow. And
19 then --

20 A. No. That is this marker right here.

21 MR. STOVALL: How is that marker
22 labeled? Is there wording on that?

23 THE WITNESS: It says, "Top of Lower
24 Morrow."

25 Q. (BY EXAMINER STOGNER) Now, does the

1 top of the Morrow clastics, does it parallel your
2 structure map, if you had a structure map, of the
3 Middle Morrow?

4 A. Yes, sir. I think this cross-section
5 you can see. This is a structural cross-section,
6 hung on a minus sub-sea datum. And you can see
7 the correlation lines do approximately parallel
8 one another.

9 EXAMINER STOGNER: Okay.

10 MR. STOVALL: I'm always safe asking
11 geologic questions because I can plead
12 ignorance.

13 EXAMINATION

14 BY MR. STOVALL:

15 Q. Looking at your Exhibit 6, your
16 isopach, you've got these little thick pods. But
17 my understanding of the Morrow -- is that
18 generally a channel deposit in this area?

19 A. Well, it's generally a channel deposit
20 as well as an off-shore marine bar sequence.
21 You've got a system, a clastic sequence, that's
22 developed very near a shoreline. Sometimes it's
23 marine, and sometimes it's fluvial.

24 Q. Okay. And the area that you're
25 showing -- and this is getting real localized

1 here as opposed to an area -- would you call this
2 specific interval that you're mapping here --
3 which would it be more of, a channel or --

4 A. I believe it would be more of a marine
5 deposit because it is oriented more or less
6 parallel to the structural alignment.

7 Q. Is that kind of line of deposit --
8 again, I'm not using real geologic terms -- but
9 kind of, say, west-by-southwest kind of
10 north-by-northeast -- it appears there might be a
11 trend along, say, starting down from Section 5,
12 in the lower left-hand corner of Exhibit 6 --

13 A. Yes, sir.

14 Q. -- going up through Section 25 --

15 A. Yes, sir.

16 Q. -- is that kind of a general
17 depositional direction?

18 A. Yes, sir. That's how I have mapped it.

19 Q. The pods you've described are the areas
20 where there's been a greater deposition of sands?

21 A. Clean sand, yes, sir.

22 Q. Clean sand, okay.

23 EXAMINER STOGNER: Are there any other
24 questions?

25 MR. STOVALL: Yes, I've got one other

1 area.

2 Q. (BY MR. STOVALL) Looking at your
3 Exhibit No. 2 -- we've looked at the Nearburg
4 unorthodox locations -- it appears to me, first,
5 who drilled the well on the north half of 35?
6 Did Nearburg drill that well?

7 A. I don't know the exact history of
8 that. I think Hilliard drilled it, and then
9 Nearburg bought it or -- I'm not familiar with
10 the exact history of it -- but Nearburg operates
11 it now.

12 Q. It's your opinion Nearburg didn't
13 actually drill the location?

14 A. No, sir.

15 Q. It appears to me, if I look at the
16 trend here, that Nearburg has got wells on that
17 line that goes down, particularly the 34-35 line
18 and runs north-south --

19 A. Yes, sir.

20 Q. -- that they've got wells that start at
21 an unorthodox location in Section 23, 1200 feet
22 east of that line --

23 A. Yes, sir.

24 Q. -- and move closer to that line as they
25 come down; is that correct?

1 A. That's the general trend, yes, sir.

2 Q. Do you think there's a reason for that?

3 A. I don't know, sir.

4 Q. I mean, based on your geology?

5 A. I would say I have no geological
6 evidence to support that. No, sir.

7 MR. CAVIN: It is consistent with the
8 geology in the prior cases, at least for the
9 wells in 26, I would say; is that --

10 THE WITNESS: I'm sure that Nearburg
11 may show this testimony when their geologist
12 presents, but they probably -- or they had mapped
13 it in the past that they have a trend that is 90
14 degrees to mine.

15 And the reason that they wanted to
16 drill where they did in the extreme western half
17 of their two proration units is that they felt
18 that they could --

19 MR. CARR: I'm going to object. This
20 witness has previously stated he didn't know why
21 they had selected the location in the southwest
22 of 35. And unless a foundation is laid and he
23 can demonstrate that he knows why Nearburg made
24 these decisions, I don't think he should
25 speculate.

1 MR. STOVALL: I asked him if he had a
2 geologic reason for those lines.

3 THE WITNESS: I have reviewed the case
4 for the two wells that were drilled in Section
5 26. The case -- why the exception was in 35, I
6 have not. But I have reviewed the two wells that
7 were drilled in 36 and read through the testimony
8 that was presented here.

9 MR. CAVIN: 26.

10 THE WITNESS: In 26, yes, sir.

11 MR. STOVALL: And Nearburg's geological
12 conclusions appear to be different from yours as
13 you read that?

14 THE WITNESS: Yes, sir.

15 MR. STOVALL: That's all I need to
16 know.

17 EXAMINER STOGNER: Are there any other
18 questions of Mr. Cromwell at this time?

19 MR. STOVALL: I have none.

20 EXAMINER STOGNER: If not, he may be
21 excused.

22 Mr. Cavin, do you want to continue?

23 MR. CAVIN: At this time we'll call Tom
24 Waller.

25 THOMAS J. WALLER

1 Having been duly sworn upon his oath, was
2 examined and testified as follows:

3 EXAMINATION

4 BY MR. CAVIN:

5 Q. Mr. Waller, would you, please, state
6 your name and occupation for the Examiner.

7 A. Yes. My name is Tom Waller. I reside
8 at 2305 Sinclair in Midland. I'm a petroleum
9 engineer and presently an engineering consultant
10 for Seay and Associates acting as agent for
11 Coquina.

12 Q. Have you previously testified before
13 the Division in your capacity as a petroleum
14 engineer?

15 A. No, I have not.

16 Q. Can you describe your educational
17 background?

18 A. I have a bachelor of science degree in
19 petroleum engineering from Louisiana State
20 University, and I'm a Registered Professional
21 Engineer, registered in the state of Texas.

22 Q. And could you describe your work
23 experience?

24 A. From 1966 -- I'm sorry, from 1960 to 66
25 I was with Superior Oil Company as general field

1 engineer, duties included drilling, production,
2 and reservoir engineering.

3 From 1966 to 80, a 14-year period, I
4 was with Texas Pacific Oil Company in all phases
5 of engineering, including drilling, production,
6 reservoir engineering, and property evaluations.
7 I held the positions of senior staff engineer,
8 district engineer, regional engineer, and finally
9 general manager of engineering.

10 I left them when Sun Oil Company
11 purchased the company and joined H & G Oil
12 Company as senior vice president of operations,
13 responsible for all drilling, production, and
14 engineering activity.

15 After that I was associated with a
16 small Midland independent road and oil company,
17 responsible for all of their operations. And
18 since that time, beginning in 1987 I've been an
19 engineering consultant, working primarily with
20 independent producing companies, banks, private
21 investors, trusts, and estates.

22 Q. Okay. Are you familiar with the
23 Permian Basin in southeastern New Mexico?

24 A. Yes, I am.

25 Q. Are you familiar with the proposed well

1 and the area surrounding such well?

2 A. Yes.

3 Q. Specifically are you familiar with the
4 application filed in this case on behalf of
5 Coquina?

6 A. Yes, I am.

7 MR. CAVIN: Mr. Examiner, I would
8 tender Mr. Waller as an expert witness in
9 petroleum engineering.

10 EXAMINER STOGNER: Are there any
11 objections?

12 MR. CARR: No objections.

13 EXAMINER STOGNER: Mr. Waller is so
14 qualified.

15 Q. (BY MR. CAVIN) Mr. Waller, initially I
16 would refer you to what's marked as Coquina
17 Exhibit 10 and in doing so, I would ask that you
18 refer to Coquina Exhibit 4, which has already
19 been admitted. I'd ask if you'd explain that for
20 Mr. Stogner.

21 A. Exhibit 10 is simply a data sheet that
22 I prepared to show the calculations of drainage
23 radii for the Morrow wells in the Cemetary area.

24 The basic equation, which utilizes the
25 bottomhole pressure, bottomhole temperature,

1 specific gravity, and "Z," or gas deviation
2 factor, is simply the ideal gas law in which we
3 change gas volumes at reservoir conditions to
4 volumes at atmospheric conditions or vice versa.

5 I then applied this to the individual
6 well particular parameters of porosity,
7 thickness, water saturation, and actual produced
8 gas volume as of, I think it was mid-1991, the
9 volumes that had been accumulated by the well
10 shown on Exhibit 4 at that time, thereby
11 generating the shown drainage of radius for each
12 well.

13 Again, calling your attention to
14 Exhibit 4, which shows these drainage radii, I
15 might point out that all of these wells are in
16 the latter stages or approaching the latter
17 stages of depletion. We're not dealing with new
18 production here. In fact, several of them are
19 almost at the economic limit and the existing
20 well in the Coquina acreage is already depleted.

21 None of these wells will approach a
22 320-acre drainage, which is set up by the
23 proration unit. And as evidenced by the areas
24 shown on the Exhibit 10, on the lower portion of
25 each well, I have the acres that yet shows to be

1 drained.

2 And also it points out an area in the
3 northeast quarter of Section 34, an undrained
4 area, that in my opinion would not otherwise be
5 drained since the Coquina well is at its economic
6 limit. And apparently, there's still -- there
7 are still reserves within that north half of the
8 section.

9 Q. Okay. Could I get you to refer to
10 Exhibit 11. You were referring to Exhibit 4 now?

11 A. I was recalling that from memory.

12 Q. Okay. Before I do that, though, just
13 based on the calculations you made on Exhibit 10,
14 is it your opinion as a petroleum engineer that
15 these wells do not have a drainage radius equal
16 or approximate to 320 acres?

17 A. That is correct. Using the log
18 parameters that were calculated on each specific
19 well, none will drain 320 acres.

20 Q. Okay. So I would assume it would be
21 your opinion, again as petroleum engineer, that
22 it would not be reasonable to assume such
23 drainage radius in this area?

24 A. That's correct, in this particular
25 area.

1 Q. Are you comfortable -- can you tell us
2 about these calculations you made, and I take it
3 these are standard engineering calculations?

4 A. They're generally-accepted
5 highly-theoretical calculations that are utilized
6 in reservoir engineering.

7 Q. Okay. Can you tell me where you got
8 the information, the variable information in the
9 case in which you based your calculations on
10 Exhibit 10?

11 A. As far as the log-derived parameters,
12 they were furnished me by Mr. Cromwell.

13 Q. Okay. At this point I'd refer you to
14 what's marked as Coquina Exhibit 11 and ask that
15 you identify and explain that.

16 A. Exhibit 11 is an exhibit that shows the
17 proximity of the proposed location to the
18 offsetting Nearburg -- Boyd State 26-M to the
19 northeast and the depleted Coquina Pan Canadian
20 No. 1 to the southwest.

21 Again, based on the general recoveries
22 in the area, our most optimistic estimate of
23 recoverable reserves at our proposed location is
24 at best 3.5 Bcf, which is shown in the red circle
25 in Exhibit 11. Our conservative reserve estimate

1 is in the neighborhood of 1.5 Bcf, which is shown
2 as the blue circle in Exhibit 11.

3 We feel that our actual drainage radius
4 will probably fall between the two circles
5 thereby in my opinion not infringing on the well
6 in Section 26.

7 Q. Now, I'm sure you can't say with any
8 certainty, but would you be surprised if the Pan
9 Canadian No. 4 well would actually draw beyond
10 that red circle you've drawn?

11 A. It's highly unlikely that we would
12 realize reserves in excess of 3 to 3.5 Bcf.

13 Q. Okay. Can you describe the drainage
14 radius that you've prepared for the Boyd State
15 well again and also what the blue circles mean?

16 A. Yes. As of the time that we did these
17 calculations, the Boyd State well had drained 1.1
18 Bcf, which is represented by the blue circle.

19 Based on P-over-Z reserve estimates,
20 decline estimates, P-over-Z versus cum and also
21 rate-time declines, we're estimating that the
22 ultimate recovery of the Boyd State will probably
23 be in the neighborhood of 1.8 Bcf, which is
24 represented by the yellow circle.

25 Q. Okay. It appears, again when I looked

1 at the Pan Canadian No. 4 well, that even on your
2 most optimal scenario that that's a very slight
3 infringement on Section 35 and also on 27,
4 although of course you own 27, and no
5 infringement on Section 26?

6 A. That's correct.

7 Q. That's correct?

8 A. Yes.

9 Q. Okay. So would it be your opinion that
10 the proposed well will not result in any
11 uncompensated or certainly not any unusually high
12 uncompensated drainage from the lands to the
13 north, northeast, or east?

14 A. Yes, it is. I think any infringement
15 would be very minimal.

16 Q. And isn't it true that there's almost
17 always some infringement on almost any location?

18 A. I think generally, yes.

19 Q. If you believe that a Morrow well would
20 drain 320 acres, it would seem unreasonable for
21 you to drill at this location; is that correct?

22 A. That's right.

23 Q. Have you made a specific study
24 regarding the Morrow reservoir characteristics
25 for the proposed well and surrounding area?

1 A. Yes, I have.

2 Q. And again you relied on the data of Mr.
3 Cromwell?

4 A. That's correct.

5 Q. And you have confidence in this data?

6 A. Yes, absolutely.

7 Q. Why did you do this reservoir analysis?

8 A. Primarily I did it to determine if
9 there were any undrained -- if there was an
10 undrained area in the existing lease that would
11 yield economic reserves and a location -- also
12 try to select a location or recognize a location
13 that would optimize recovery of these reserves
14 without infringing on any offset operator.

15 Q. What conclusions did you reach
16 regarding whether sufficient reserves could be
17 developed from an orthodox location?

18 A. I think it would enhance the risk by
19 moving closer to the drainage circle of the Pan
20 Canadian No. 1, which is not producing anymore.
21 It's uneconomical. And also the dry hole that
22 Mr. Cromwell had pointed out to the south.

23 Q. Have you considered the reserves which
24 you could recover at an orthodox location versus
25 the reserves at an unorthodox location?

1 A. I really did not because my scope was
2 to try to find the optimal location for draining
3 the reserves that would not normally be drained
4 on the Coquina acreage.

5 Q. Okay. So I take it it's your opinion
6 that Coquina should be allowed to drill at the
7 unorthodox location proposed?

8 A. Yes.

9 Q. Assuming this unorthodox location is
10 approved, do you think a production penalty is
11 appropriate to compensate for drainage?

12 A. I personally don't. I really don't
13 think there would be -- well, I think any
14 infringement would be absolutely minimal.

15 Q. Could you tell the Examiner why you
16 believe that a penalty is inappropriate in this
17 case?

18 A. Again, because if infringement would
19 occur, then I think it would be reasonable to
20 discuss it. But assuming that we will not
21 achieve our maximum expectations, which is 3.5
22 Bcf, I think our drainage radius will fall within
23 our own lease lines.

24 Q. If a penalty is imposed, how would this
25 in your opinion affect Coquina's decision to

1 drill based on the gas market and the price of
2 gas?

3 A. I think my recommendations from an
4 economical standpoint would be not to drill.

5 Q. Okay.

6 A. The cost of the well is such that I
7 don't think it can stand very much of a penalty.

8 Q. Mr. Waller, is it your opinion as a
9 petroleum engineer that the granting of this
10 application would be in the best interest of
11 conservation, the prevention of waste, and the
12 protection of correlative rights?

13 A. Yes, I do.

14 Q. And, Mr. Waller, is it your opinion
15 that the granting of this application will afford
16 Coquina the opportunity to produce without waste
17 its just and equitable share of the gas in the
18 affected pool and thereby protect its correlative
19 rights?

20 A. Yes, I do.

21 Q. Mr. Waller, were Exhibits 10 and 11
22 prepared by you or under your direction?

23 A. Yes, in conjunction with Mr. Cromwell.

24 Q. Okay. Can you testify as to their
25 accuracy?

1 A. I believe they are very accurate.

2 MR. CAVIN: Mr. Examiner, I would move
3 for the admission of Exhibits 10 and 11.

4 EXAMINER STOGNER: Are there any
5 objections?

6 MR. CARR: No objections.

7 EXAMINER STOGNER: Exhibits 10 and 11
8 will be admitted into evidence.

9 MR. CAVIN: That concludes my direct
10 examination.

11 EXAMINER STOGNER: Thank you, Mr.
12 Cavin.

13 Mr. Carr, your witness.

14 EXAMINATION

15 BY MR. CARR:

16 Q. Mr. Waller, is the Boyd State well in
17 the southwest of 26 the best well in the pool?

18 A. No, sir, it's not. The best well in
19 the pool is a well that has a cumulative of 6 Bcf
20 and, actually 6.5 Bcf, located in the south half
21 of Section 3. And that is a very anomalous well
22 from the standpoint of recovery.

23 Q. Are there other wells that are better
24 than the Boyd State in the field other than the
25 one you just mentioned?

1 A. No, sir, there are not.

2 Q. Okay. What is the ultimate Bcf that
3 you're attributing to the Boyd State No. 1 well?

4 A. 1.8 Bcf.

5 Q. 1.8?

6 A. Yes.

7 Q. And this well in Section 3 has what in
8 terms of cumulative recovery?

9 A. 6.5 Bcf.

10 Q. Can you estimate how many acres you
11 believe based on your Exhibit No. 11 the Boyd
12 State is actually going to drain?

13 A. Yes, sir. If you will refer to, yes,
14 Exhibit 11, the Boyd State will ultimately drain
15 220 acres.

16 MR. CAVIN: I think that's Exhibit 10.

17 THE WITNESS: I'm sorry.

18 Q. 220 acres?

19 A. Yes, 220 acres as the ultimate
20 recovery.

21 Q. 220 acres.

22 A. And presently it appears they have
23 drained 128 acres.

24 Q. When I talked to Mr. Cromwell, I was
25 having trouble understanding the formation. I

1 want to ask you what your understanding of it
2 is. Is the Morrow in the area of a number of
3 stringers, or is it more a blanket deposit?

4 A. The Morrow may be a blanket deposit,
5 but it exhibits sweet spots. In other words,
6 there is different quality of reservoir
7 development in that there is porosity and
8 permeability that occur in sporadic areas.

9 Granted, you can probably correlate a
10 single zone many miles across, but you can
11 actually have three producing reservoirs within
12 that one zone that are not pressure connected.

13 Q. Does it vary over relatively short
14 distances?

15 A. Yes, sir, it does.

16 Q. If that's the case, isn't it possible
17 that there could be some reservoir variations,
18 substantial reservoir variations, between your
19 existing well in the north half of 34 and the
20 proposed well location in 35?

21 A. Yes.

22 Q. You really won't know what you get in
23 that proposed location until you actually drill
24 it?

25 A. Actually we hope there is a

1 permeability difference. If there were not, then
2 the well in the Pan Canadian No. 1 should still
3 be producing economically.

4 Q. What factors did you utilize in
5 determining the drainage area for your proposed
6 well?

7 A. I used -- I actually looked at the
8 thicknesses that Mr. Cromwell gave me. And based
9 on known water saturations in the area, we came
10 up with volumetric reserves and compared that to
11 recoveries in this immediate area.

12 Q. Were you using figures that you got
13 from the Pan Am Canadian No. 1, or were these
14 that you had extrapolated from other data?

15 A. Well, we used the production figures,
16 of course, from the Pan Canadian No. 1, also the
17 irreducible water saturations, the basic connate
18 water saturations, which carried -- which are
19 consistent throughout the area.

20 Q. Is it possible when you drill at this
21 location, in fact you'll have a better well than
22 you had projected on Exhibit No. 11?

23 A. A better well than 3.5?

24 Q. Uh-huh.

25 A. I think it would be highly unlikely.

1 Q. That is possible; is that not true?

2 A. It's always possible.

3 Q. In a reservoir like the Morrow, that
4 varies location to location; you really don't
5 know?

6 A. Right. And we could have a lot worse
7 well too.

8 Q. And if you have a better well, that
9 would then, of course, extend that drainage area?

10 A. Absolutely. The two go hand in glove.

11 Q. Do you anticipate radial drainage?

12 A. No. That's purely theoretical. But I
13 think it's generally accepted in hearings of this
14 type it would be virtually impossible to see
15 radial drainage.

16 Q. Wouldn't it in fact tend to drain the
17 portion of the reservoir that is thickest and has
18 the best quality pay?

19 A. Not necessarily thickest but that would
20 have the best quality that would have the highest
21 porosity and highest permeability.

22 Q. In making your estimate you didn't
23 factor in what sort of a shape might have been
24 isopached for this Morrow zone?

25 A. No, sir, I did not because we really --

1 it's difficult to isopach the porosity of the
2 formation.

3 Q. You have indicated I think on Exhibit
4 No. 11 by triangle standard location; isn't that
5 right? Is that what these triangles in the east
6 half of --

7 A. Yes, that's correct.

8 Q. -- of the proration unit indicate?

9 A. Yes.

10 Q. So there is a standard location
11 available to you outside the area that's already
12 been drained?

13 A. That's correct. But very near the
14 boundary of -- the drainage boundary.

15 Q. Have you estimated how many acres
16 remain in the northeast of 34 to be drained, or
17 is that an impossible task?

18 A. Well, again it's a function of the
19 thickness and porosity that you assign to the
20 northeast. It would be -- I think I did make an
21 estimate. I don't know if I did or not.

22 Q. Do you have a rough estimate as to how
23 many acres you think you have producible up
24 there?

25 A. Let me see. No, sir, I don't think

1 so.

2 Q. You did make that calculation; you just
3 don't have the result?

4 A. I don't have it at hand.

5 Q. And did you condemn any portion of the
6 northeast quarter because of the Stanlind well
7 drilled in the southeast of 34?

8 A. No, I did not.

9 MR. CARR: That's all I have.

10 EXAMINER STOGNER: Thank you, Mr.
11 Carr.

12 Mr. Cavin, any redirect?

13 MR. CAVIN: Well, I would like to put
14 on the record, if there's no objection, because
15 there seems to be some confusion as to the
16 geologic characteristics -- I'm sure I
17 contributed to that -- but what Nearburg's
18 position was, at least in Case 9568, which
19 concerned a well less than a mile from our
20 proposed well.

21 MR. CARR: I will object. I mean we've
22 just had this witness testify that the formation
23 varies location by location. And I think that to
24 then start bootstrapping in testimony from miles
25 away is inappropriate.

1 They have both a geologist and an
2 engineer here. They can testify about anything
3 they know on their own and they can explain what
4 they're basing that opinion on.

5 But to just come along and start
6 picking up transcripts from other cases a mile
7 away I think is inappropriate. In the Morrow
8 reservoir it varies location by location.

9 EXAMINER STOGNER: Which well is that
10 for?

11 MR. CAVIN: This is the well in Section
12 26. It's the Morris 26-E. And the reason I want
13 to ask our experts is because I intend to ask Mr.
14 Elger, and I think, in my view anyway, it's fair
15 game since they were taking these positions to
16 justify their Morrow location.

17 And these are just generic
18 characteristics of the Morrow formation in this
19 area, and they were stated as such.

20 MR. CARR: May it please the Examiner,
21 if anything that's previously been presented and
22 sworn to is inconsistent with what Mr. Elger is
23 going to testify to, it can be used to impeach
24 him. And I think it can be used appropriately
25 that way, but not just to go out and start

1 picking up transcripts on unrelated property.

2 MR. STOVALL: Is that what you're kind
3 of laying the foundation for is to impeach him?
4 Is that what you're trying to do?

5 MR. CAVIN: We can use it in that
6 fashion.

7 MR. STOVALL: Let's hold off on that
8 until we get Mr. Elger on the stand. And you're
9 talking about Nearburg testimony in a previous
10 case filed by Nearburg; is that correct?

11 MR. CAVIN: Uh-huh.

12 MR. STOVALL: Let me ask the witness,
13 are any of your conclusions based -- are you
14 familiar with the testimony that he's talking
15 about?

16 THE WITNESS: On which one, the Boyd
17 stand?

18 MR. CAVIN: Yes, the two.

19 MR. STOVALL: The Boyd or the Morris?

20 MR. CAVIN: I'm sorry. This is the
21 Morris.

22 THE WITNESS: No, sir, I am not, not on
23 the Morris.

24 MR. STOVALL: So none of your
25 conclusions are based upon any testimony which he

1 might be referring to; is that correct?

2 THE WITNESS: That's correct.

3 EXAMINER STOGNER: I don't see the
4 relevance of that.

5 MR. STOVALL: Let's save it for the
6 Nearburg witness, I would suggest.

7 EXAMINER STOGNER: Any more redirect,
8 Mr. Cavin?

9 MR. CAVIN: No.

10 EXAMINATION

11 BY EXAMINER STOGNER:

12 Q. Mr. Waller, I got thrown off my
13 thinking here. The well that's in the north half
14 of Section 34, what's it doing now? Is it
15 producing?

16 A. I would have to, as far as its current
17 status, I would have to defer that question to
18 Mr. Cromwell.

19 EXAMINER STOGNER: Okay. Mr. Cromwell,
20 I'll ask the question to you then. What is the
21 present status of that well?

22 MR. CROMWELL: It's shut-in. It's
23 under recommendation to plug and abandon right
24 now.

25 EXAMINER STOGNER: So if this well,

1 this other well that's proposed -- I mean is
2 approved, then this well would be plugged and
3 abandoned at that time?

4 MR. CROMWELL: Yes, sir, most
5 definitely.

6 It's not our intent to have two wells
7 on the same proration unit.

8 EXAMINER STOGNER: I'm going to hold
9 off on any questions myself. I may have some at
10 a later time.

11 In that case, let's take a five-minute
12 recess.

13 (A recess was taken.)

14 EXAMINER STOGNER: This hearing will
15 come to order.

16 Mr. Carr.

17 MR. CARR: At this time we call Jerry
18 Elger.

19 JERRY ELGER

20 Having been duly sworn upon his oath, was
21 examined and testified as follows:

22 EXAMINATION

23 BY MR. CARR:

24 Q. Would you state your full name for the
25 record.

1 A. Jerry Elger.

2 Q. By whom are you employed and in what
3 capacity?

4 A. By Nearburg Producing Company as a
5 geologist.

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

8 A. Yes, I have.

9 Q. At that time of that testimony, were
10 your credentials accepted and made a matter of
11 record?

12 A. Yes, they were.

13 Q. Are you familiar with the application
14 filed by Coquina?

15 A. Yes, I am.

16 Q. Are you familiar with the subject area?

17 A. Yes, I am.

18 Q. As a geologist for Nearburg, have you
19 been involved in the development of a number of
20 locations in this particular field?

21 A. Some.

22 Q. Are you familiar with the Boyd State
23 No. 1 well?

24 A. Yes, I am.

25 MR. CARR: Are the witness'

1 qualifications acceptable?

2 EXAMINER STOGNER: Are there any
3 objections?

4 MR. CAVIN: None.

5 EXAMINER STOGNER: Mr. Elger is so
6 qualified.

7 Q. (BY MR. CARR) What does Nearburg seek
8 with this application?

9 A. To deny the application in Case 10417
10 for Coquina Oil Corporation.

11 Q. Have you prepared exhibits for
12 presentation in this case?

13 A. Yes, I have.

14 Q. Would you refer to what has been marked
15 for identification as Nearburg Exhibit No. 1,
16 identify that, and review it for Mr. Stogner.

17 A. Exhibit No. 1 is an isopach map of the,
18 what we call the Boyd Channel sand, and I'll
19 identify that in a second in Exhibit 2.
20 Basically it shows the distribution of that sand
21 across the subject area and the interpretation of
22 that sand as being basically a north-to-south
23 channel type system across the east half of
24 Section 27 and through section -- the majority of
25 Section 34.

1 Exhibit No. 2 will be the cross-section
2 A-to-A prime that you see on the isopach map and
3 ties what we feel are four key wells to the
4 subject application by Coquina.

5 You'll also notice there's two
6 different colored dots in the northeast corner of
7 Section 34. The orange dot closest to the
8 northeast corner is where the applicant --
9 application is referenced to the 990 unorthodox
10 drill site.

11 The red dot just to the west of that is
12 where our legal setback, legal location for a
13 north-half proration unit in Section 34 would be
14 found.

15 Q. Now, Mr. Elger, if I look at Exhibit
16 No. 1, what does the yellow shading indicate?

17 A. The yellow shading indicates the
18 contour -- the isopach contour interval is 15
19 feet. What I've done is shade all sands from 15
20 to 30 feet in a light yellow shade and greater
21 than 30 feet in sand thickness, a darker yellow
22 shade.

23 Q. Was this particular isopach map
24 prepared for this hearing?

25 A. Yes, it was.

1 Q. And when was the actual work performed
2 on this particular interpretation?

3 A. When was it done?

4 Q. Yes.

5 A. Several weeks ago.

6 Q. Let's go now to Exhibit No. 2, and I'd
7 ask you to identify that.

8 A. Exhibit No. 2 is the cross-section
9 A-to-A prime. It's referenced on the isopach
10 map. And what I've done is just color -- I've
11 identified the various members of the Morrow, the
12 top of the Morrow clastics section.

13 I've identified what we're calling the
14 Boyd Channel sand or deposit, the top of the
15 Lower Morrow, top of the Barnett shale, and the
16 top of the Chester limestone, Mississippian Age
17 Chester limestone, which is the datum for the
18 cross-section.

19 This is a stratigraphic cross-section
20 so that you can see more readily the correlations
21 of the sand member from one side to the other
22 side of the proposed drill site.

23 Again, I've identified in red, under
24 red in the depth column on each of these, where
25 the perforations are on the respective wells.

1 As you can see, the Coquina Pan
2 Canadian No. 1 and the Nearburg No. 1 26-M Boyd
3 State, I interpret as producing from the same
4 Boyd Channel sand system. Whether they're the
5 same sand exactly within that system is
6 speculative, but they're both producing from the
7 sand within that system, within that channel.

8 Q. Based on your geologic interpretation
9 of this area, do you have an opinion as to
10 whether or not a standard location is available
11 to Coquina in the north half of Section 34?

12 A. I believe it is. With reference to the
13 Exhibit 1 again, the red dot interpretation is
14 there that that well would encounter an
15 equivalent-looking sand thickness to what was
16 encountered in the original Coquina Pan Canadian
17 No. 1.

18 Q. You were present when Mr. Waller
19 testified?

20 A. Yes.

21 Q. You heard him testify about a well that
22 in his estimation would ultimately produce 6.5
23 Bcf?

24 A. Yes.

25 Q. Who drilled that well?

1 A. That was also drilled by Nearburg
2 Producing Company. And it's on Exhibit 9,
3 Coquina's Exhibit 9.

4 Q. What well?

5 A. Huber Federal No. 1.

6 Q. What sort of data was available to you
7 at the time you drilled the well?

8 A. That is Nearburg's first well drilled
9 in the area.

10 Q. Was there offsetting development that
11 you could use to interpret the reservoir?

12 A. The key well that was used to identify
13 that drill site for Nearburg was -- again on
14 Coquina's cross, I believe, is section -- it's
15 the one on the end, Exhibit No. --

16 MR. STOVALL: The one on the far end,
17 No. 7?

18 THE WITNESS: Yes. It's the old
19 Stanlind Lakewood Unit No. 1, which was drilled
20 to the Devonian, and encountered 34 feet of sand
21 within the Boyd Channel.

22 Q. (BY MR. CARR) Were you anticipating a
23 well of that caliber when you drilled it?

24 A. No, we were not.

25 Q. In fact, you didn't know what you were

1 going to have until you got the well?

2 A. That's correct.

3 Q. You've heard testimony today about a
4 number of unorthodox locations drilled in the
5 area by Nearburg, have you not?

6 A. Yes.

7 Q. Four of them in fact were identified by
8 the witnesses for Coquina?

9 A. Yes.

10 Q. Of those four how many have been
11 commercial successes?

12 A. One.

13 Q. And that is the Boyd State No. 1?

14 A. That's correct.

15 Q. Based on your geologic study and
16 interpretation of the area, what conclusions can
17 you reach about the plans of Coquina for
18 development of the north half of 34?

19 A. Well, one conclusion is we think that
20 Coquina could drill a standard location within
21 that north-half proration unit and not really
22 hurt themselves in terms of moving away from
23 where their application is for the 990 location
24 on the corner.

25 Q. Do you have an opinion as to whether or

1 not a well at the proposed location, if in fact
2 it's approved, would drain reserves from
3 offsetting Nearburg interests in the north half
4 of 35?

5 A. Yes.

6 Q. What is that opinion?

7 A. Well, I believe it would.

8 Q. If the application is granted, will you
9 believe that drilling of a well as proposed by
10 Coquina will impair the correlative rights of
11 Nearburg?

12 A. Yes, it would.

13 MR. CARR: I have nothing further and
14 would move the admission of Nearburg Exhibits 1
15 and 2.

16 EXAMINER STOGNER: Are there any
17 objections?

18 MR. CAVIN: None.

19 EXAMINER STOGNER: Exhibits 1 and 2
20 will be admitted into evidence at this time.

21 MR. CARR: Pass the witness.

22 EXAMINER STOGNER: Mr. Cavin, your
23 witness.

24 EXAMINATION

25 BY MR. CAVIN:

1 Q. Mr. Elger, first of all, I'd like to
2 get some idea -- I know you've stated this, but
3 ask you again. Your background is petroleum
4 geology?

5 A. Yes.

6 Q. And do you have any experience in
7 petroleum engineering?

8 A. No.

9 Q. Okay. So anything you're testifying to
10 is strictly petroleum geology?

11 A. That's correct.

12 Q. Let me go over these wells. If I could
13 refer you to Exhibit 2, Coquina Exhibit 2 -- and
14 I can get you a copy of that -- just for
15 identification of the wells.

16 Again, I guess you're proposing on your
17 Exhibit 1 that Coquina drill a 660 from the north
18 line and 1980 from the east line?

19 A. That's correct.

20 Q. And can you tell me a little bit about
21 Nearburg's experience out in this area? And
22 basically I refer you to the wells that are
23 identified on Exhibit 2. And, first of all, tell
24 me which of the Morrow wells -- which are
25 successful Morrow wells up here?

1 MR. STOVALL: Which Exhibit 2 are you
2 referring to, theirs or yours?

3 MR. CAVIN: Coquina. Coquina Exhibit
4 2.

5 A. Which are the successful --

6 Q. (BY MR. CAVIN) Nearburg Morrow wells.

7 A. Okay. The Boyd State, obviously, in
8 the southwest of Section 26.

9 Q. Okay.

10 A. The Huber Federal No. 1 in the south
11 half of Section 3. You mean successful in terms
12 of commercial --

13 Q. Commercially successful.

14 A. That's about it.

15 Q. Okay. So how many wells has Nearburg
16 drilled out in this area?

17 A. How many?

18 Q. Uh-huh.

19 A. Just on your map?

20 Q. Uh-huh.

21 A. Ten.

22 Q. Okay. So two out of the ten Morrow
23 wells that Nearburg has drilled in this area have
24 been commercially successful?

25 A. (Witness nodded.)

1 Q. Are you familiar with these wells and
2 the geology of the land to picking out various
3 locations?

4 A. No, I'm not.

5 Q. Okay.

6 A. Some of them yes, some no.

7 Q. So in your preparation of your maps,
8 you didn't rely on previous Nearburg maps --

9 A. I did not, no.

10 Q. -- for these unorthodox locations?

11 A. That's correct.

12 Q. Just drafting them from scratch?

13 A. That's correct.

14 Q. Okay. Based on Nearburg's performance
15 in this area, would you suggest we should rely on
16 allowing Nearburg to help us to pick our
17 locations here? Is that a pretty good success
18 ratio in the Morrow, two out of ten?

19 A. That's debatable. Some are worse and
20 some are better.

21 Q. So you have no familiarity with cases,
22 OCD Cases 9568 and 9405, which concern the
23 Nearburg wells in Section 26 on the west half?

24 A. No, I do not. I did include on my
25 cross-section A prime, you can see the subject

1 well that was an unorthodox drill site. In fact,
2 I've correlated what I believe is a remnant of
3 the Boyd Channel sand into that wellbore.

4 Q. Okay. Regarding characteristics of the
5 Morrow in this area, do you believe it's
6 comprised of several different zones within that
7 one sand that you've mapped?

8 A. I believe there are separate sandbars
9 within the main channel system.

10 Q. So do you think it's unreasonable to
11 state there are 12 separate zones within that
12 sand?

13 A. No.

14 Q. You do --

15 A. I'm talking about just the -- I'm
16 talking about the sands within what I've
17 identified on my cross-section as the Boyd
18 Channel. You're talking about specifically the
19 entire Morrow from the top of the clastics to the
20 top of Barnett; correct?

21 Q. Well, yes. How many productive zones,
22 potentially productive zones, do you think are
23 within that range?

24 A. Well, there's probably -- there could
25 potentially be up to 12 sands, I imagine, that

1 could contribute reserves to any subject test.
2 However, I don't believe any of them would be
3 commercial, commercial objectives.

4 That's why I've only colored in and
5 identified on this cross-section the Boyd Channel
6 sand because historically within the map that
7 I've got on figure 1, there are basically no
8 commercial Morrow wells that have perforated any
9 other sand in the Boyd Channel sand.

10 Q. Let me ask you if you could refer to
11 what is marked as Coquina Exhibit 4, which has
12 previously been admitted, and reference these
13 drainage circles which indicated a drainage area
14 that have been prepared by Mr. Waller, who's
15 previously testified.

16 Do you agree with these, or do you have
17 any reason to disagree? Are you qualified to
18 say?

19 A. I don't have any reason to disagree
20 other than they're just theoretical circles.

21 Q. So you don't have any reason to
22 disagree?

23 A. No.

24 Q. Do you feel qualified to even pass on
25 that?

1 A. Not -- you know --

2 MR. STOVALL: Mr. Cavin, if you don't
3 mind, I'd like to ask an intermediate question to
4 that.

5 MR. CAVIN: Sure.

6 MR. STOVALL: If I understand, Mr.
7 Waller's -- that exhibit you're referring to was
8 prepared based upon some engineering calculations
9 which Mr. Waller made on another exhibit; is that
10 correct?

11 MR. CAVIN: Well, yes, Exhibits 10 and
12 11.

13 MR. STOVALL: Given the information
14 that that exhibit to which Mr. Cavin is referring
15 you is based upon engineering calculations, would
16 you feel comfortable expressing an opinion as to
17 the work that went into it, the calculations and
18 the engineering work that went into those
19 circles? I think that's --

20 THE WITNESS: I know they were derived
21 based on mathematical formulas.

22 Q. (BY MR. CAVIN) Do you have any reason
23 to doubt the formulas that were used or the data
24 that was put into those formulas?

25 A. No, I don't.

1 Q. Because the data assumes various
2 variables that were compiled by Mr. Cromwell and
3 reflected on these logs according to Mr.
4 Cromwell's interpretation.

5 A. Uh-huh.

6 Q. So you don't have any reason to doubt
7 the variable information?

8 A. Although, again, they could be, you
9 know, the same quality could be much better than
10 any well that penetrated the system within my
11 Exhibit 1, as referenced again to the Nearburg
12 Huber Federal No. 1, which had greater porosity
13 and probably greater permeability than any of the
14 other wells drilled in 26 or 34.

15 Q. Yes, sir. I'm not saying it's not
16 possible to find one of those Huber wells. But
17 what I'm asking you is the variable information
18 on Coquina Exhibit 10 is of a geologic type -- if
19 I'm not mistaken -- and it's taken from well
20 interpretations, again it's plugged into a
21 formula to which no one has objected to. And I
22 would just ask you if you could tell us if you
23 have any differences as far as the variables that
24 were input here?

25 A. No, I don't.

1 Q. Okay. So again, as far as the drainage
2 areas, circles, and the data that's on Exhibits
3 10, 11, and Coquina Exhibit 4, you don't have any
4 reason to question these drainage areas or the
5 data that's on the exhibits?

6 A. For the wells that have currently been
7 drilled and log calculations and so forth?

8 Q. Yes.

9 A. You're right.

10 Q. Have you seen Mr. Cromwell's
11 presentation today -- and I think you've seen
12 that before when they came over to present this
13 to you. Do you differ with Mr. Cromwell and his
14 geological interpretations other than the ways
15 you've mapped here? I mean, structurally you
16 agree with his interpretation?

17 A. Yes.

18 Q. So basically it's just the way he's
19 mapped his isopach map of the sands?

20 A. He's interpreted more of a bar-type
21 system.

22 Q. So by the location that Nearburg would
23 propose, it would put you in that 30-foot isopach
24 line, between 30 and 45, but it gets you very
25 close to a well which we have indicated as

1 depleted, and it also gets you very close to the
2 dry hole up in Section 27. Is that something
3 that would not give you any concern as a
4 geologist?

5 A. No.

6 Q. Okay.

7 A. There's only -- I think if you measured
8 off, based on the 1-to-2,000 scale, there's only
9 5- or 600 feet of difference between where you're
10 proposing to drill and where we're--

11 Q. So if Nearburg were drilling a well
12 like this, they would pinch it closer to the
13 depleted well and also a dry hole rather than
14 where we've indicated?

15 MR. CARR: I don't believe that's what
16 he said. I object to the form of the question.

17 EXAMINER STOGNER: Do you want to
18 restate your question, Mr. Cavin?

19 Q. (BY MR. CAVIN) Do you think this
20 proposed location is a better location than that,
21 geologically better location, than that that
22 Coquina has proposed?

23 A. No, I didn't say that. I said it's
24 comparable to.

25 MR. CAVIN: I have no further

1 questions.

2 EXAMINER STOGNER: Mr. Carr, any
3 redirect?

4 FURTHER EXAMINATION

5 BY MR. CARR:

6 Q. Mr. Elger, you haven't reviewed the
7 statistics set forth on Exhibit No. 10, have you?

8 A. Where is 10?

9 MR. STOVALL: The engineering
10 calculations that I asked you about.

11 A. No.

12 Q. (BY MR. CARR) Is it the point of your
13 testimony to confirm that these are correct?

14 A. I couldn't say without going through
15 the logs and everything. I haven't gone into all
16 the individual logs.

17 Q. And you haven't done that?

18 A. No.

19 Q. You just don't have any basis, based on
20 not having a chance to review them, to warrant
21 one way or the other?

22 A. Yes, that's correct.

23 Q. Do you have any idea how many acres the
24 well they're proposing will actually drain?

25 A. Nobody will know until it's drilled.

1 Q. Mr. Cavin asked you some questions
2 about the things you agreed with, even he noted
3 you agreed with Mr. Cromwell's structural
4 interpretation?

5 A. Yes.

6 Q. Does it have any real importance in
7 terms of whether you drill a well out there or
8 not?

9 A. No, it doesn't.

10 MR. CARR: That's all I have.

11 EXAMINER STOGNER: Thank you, Mr. Carr.
12 Mr. Cavin.

13 FURTHER EXAMINATION

14 BY MR. CAVIN:

15 Q. You've indicated that the structure out
16 here doesn't really have any bearing on the well
17 locations. Is that consistent with Nearburg's
18 philosophy in this area?

19 A. In solution gas reservoirs, yes.

20 Q. Okay. So that's consistent?

21 A. It's only a concern where you've got
22 potential -- where you go from a transition in
23 one particular sand unit or from a wet sand to a
24 gas sand.

25 Q. So would that surprise you if I told

1 you that in the cases concerning these wells in
2 the west half of Section 26 that that was a
3 primary consideration, Nearburg's primary
4 consideration for the unorthodox locations?

5 A. Yes, that would surprise me.

6 Q. So getting back to Coquina Exhibit 10,
7 have you looked at the logs of these wells?

8 A. I have looked at some of the logs, yes.

9 Q. And you haven't come up with any kind
10 of numbers comparable to these, or like total
11 recovery is certainly one I would think you've
12 done. Water saturation --

13 A. Reservoir engineers have. I have not
14 reviewed the logs in terms of reservoir
15 calculations for those wells. That's beyond my
16 area of expertise.

17 Q. So all of these variables are really
18 beyond your area of expertise?

19 A. That's correct.

20 MR. CAVIN: Okay. I have no further
21 questions.

22 EXAMINER STOGNER: Thank you, Mr.
23 Cavin. I have a couple of questions.

24 EXAMINATION

25 BY EXAMINER STOGNER:

1 Q. We're specifically talking about the
2 Cemetary Morrow Gas Pool, aren't we? Is that
3 where this production in this area is from?

4 A. I believe that's correct.

5 Q. Is that a prorated pool or an
6 unprorated pool? Come on, Mr. Elger, you've been
7 operating out there long enough. You ought to
8 know.

9 MR. STOVALL: Are your wells prorated
10 out there?

11 A. I believe they are. I don't really
12 know.

13 Q. (BY EXAMINER STOGNER) Well, all
14 right. Let me go on to the next question.

15 Are you proposing that there be -- if
16 this well is approved at this location -- that it
17 have a penalty assessed to it?

18 A. I would think so, yes.

19 Q. How would I do that?

20 MR. STOVALL: Back up. Mr. Cavin and
21 Mr. Carr, do you both agree that this is an
22 unprorated pool?

23 MR. CARR: Yes.

24 MR. CAVIN: (Nodded.)

25 MR. STOVALL: Mr. Cavin is nodding his

1 head.

2 MR. CAVIN: That's my information too.
3 If Mr. Carr says yes, I say yes.

4 MR. CARR: If I were a geologist, I
5 might not know.

6 MR. STOVALL: The reason for that,
7 obviously, if it's prorated -- I don't know how
8 much you're involved in operations or whether
9 you're strictly a finding geologist,
10 explorationist, you're probably being put on the
11 spot.

12 Q. (BY EXAMINER STOGNER) Let rephrase my
13 question. Is it Nearburg's position today to
14 deny this application or to assess a penalty if
15 this location is drilled here?

16 A. It's to deny the application.

17 Q. Okay. So essentially what we have here
18 is an all-or-none; is that correct?

19 A. Yes.

20 Q. Okay. And that question, it seems
21 like, to Mr. Carr and Mr. Cavin too --

22 MR. STOVALL: No penalty has been
23 proposed by either party at this time; is that --

24 MR. CAVIN: Well, I guess.

25 MR. CARR: No. That is correct.

1 MR. CAVIN: That is correct.

2 MR. STOGNER: Now, I am kind of caught
3 between -- I'm going to -- general statement
4 here. All the testimony that has been given
5 today has been about the Morrow formation.

6 And the application was for an
7 unorthodox location to include all formations
8 spaced on 320 acres. And that would essentially
9 be in this area from the top of the Wolfcamp to
10 the base of the Morrow.

11 And there are some particular pools in
12 there, in fact, this particular area is in the
13 north Cemetary Atoka Gas Pool, but I haven't
14 heard any testimony on that today. Should I
15 limit this approval just to the Morrow?

16 MR. STOVALL: Assuming it's granted.

17 MR. CAVIN: We would ask that it be as
18 to all formations. It's my understanding there
19 aren't very many potential formations that would
20 be spaced on 320 if I'm correct.

21 MR. STOVALL: Let me suggest something
22 here. I think there are some questions that
23 need to go back to Mr. Cromwell as far as what
24 the Examiner is talking about. So let's finish
25 up with Mr. Elger, if we've got any. And I see

1 what you're saying with Mr. Cromwell.

2 MR. CAVIN: Could I make a statement?
3 I think -- well, certainly if you assume 320-acre
4 drainage out here and would base your penalty on
5 that, that would be very hard to live with,
6 particularly in this environment for gas
7 producers.

8 I think, and I have not discussed this
9 with my client yet, but if you were were willing
10 to -- if they could stipulate to the maximum line
11 where that red line is, it's most important to
12 them that they have that unorthodox location.
13 And in fact that's what, in my view, my
14 understanding, could jeopardize drilling the
15 well.

16 MR. STOVALL: If the location were
17 denied, it would jeopardize the well is that what
18 you're saying?

19 MR. CAVIN: Yes.

20 MR. STOVALL: But if there were some
21 top limitation placed on the well which would
22 effectively limit the drainage circle --

23 MR. CAVIN: Certainly we're not in
24 favor of that, but again the location is of
25 paramount concern. And I guess the other

1 paramount concern is if the Division was going to
2 assume 320-acre drainage in coming up with a
3 penalty, I could see that could be a very -- that
4 would be a very severe penalty. And we don't
5 believe the facts warrant an assumption of
6 320-acre drainage radius in this area.

7 MR. STOVALL: Let me ask a question of
8 either Mr. Elger -- or I'll ask you first. Do
9 you know if any of the Nearburg unorthodox
10 locations had a penalty attached to them?

11 THE WITNESS: I don't know, but I don't
12 think they did.

13 MR. STOVALL: Mr. Carr, did you
14 represent Nearburg in those cases?

15 MR. CARR: I don't know. I had some of
16 them, but I don't know. Mr. Cooter has
17 represented them in others.

18 MR. STOVALL: It's my recollection that
19 none of them did have a penalty in the unprorated
20 pools.

21 MR. CAVIN: I believe, if I might
22 interject here, and although it's not crystal
23 clear from the order that the order in 9405 was
24 left open, that certainly did not impose a
25 penalty, but the way I read it, we could -- a

1 penalty could be imposed.

2 EXAMINER STOGNER: Which order?

3 MR. CAVIN: 9405.

4 EXAMINER STOGNER: R-9405?

5 MR. CAVIN: Yes.

6 MR. STOVALL: Is that Order No. R-9405
7 or Case No. 9405?

8 MR. CAVIN: I'm sorry. That's Case
9 9405, and I could tell you the order number real
10 quick.

11 MR. CROMWELL: That's the Boyd State
12 well.

13 MR. CAVIN: It's Order No. R-8687 in
14 the language. And in fact -- well, I'll just
15 read you the language: "No production penalty
16 should be imposed on the subject well at this
17 time. We interpret that to leave that whole
18 issue open."

19 If a penalty is deemed appropriate, we
20 would --

21 EXAMINER STOGNER: What's the order
22 number?

23 MR. CAVIN: R-8687.

24 EXAMINER STOGNER: I'll tell you what,
25 if there's no other questions of Mr. Elger, he

1 may be excused. I'm ready now for closing
2 statements.

3 MR. STOVALL: Do we need to recall him
4 with respect to the 320 formation? Let's go off
5 the record for a second.

6 (A discussion was held off the record.)

7 MR. STOVALL: Let me just explain. We
8 had talked about calling Mr. Cromwell back on
9 with regard to other formations which would be
10 included. And in our off-the-record discussion,
11 we do not feel that is necessary. So we have no
12 need to recall Mr. Cromwell to address any other
13 pool formations that might be covered by this
14 order.

15 So if that guides you as to whether you
16 wish to recall Mr. Cromwell, we would --

17 MR. CAVIN: The only reason --

18 MR. STOVALL: I would encourage you to
19 at this point.

20 MR. CAVIN: We will keep it very
21 brief. The only reason that I would like to
22 recall Mr. Cromwell is so that I don't butcher up
23 my discussion of the geology, if that would be
24 acceptable.

25 EXAMINER STOGNER: It sounds like to me

1 you're limiting it to the Morrow?

2 MR. CAVIN: And also the maps that have
3 been admitted.

4 EXAMINER STOGNER: The maps that have
5 been admitted have only --

6 MR. CROMWELL: I mean, as far as what
7 he's saying, I think we need to get the gas
8 formations, the Atoka formation included in this.

9 MR. CAVIN: If you feel it's critical
10 for the record, we would certainly like to --

11 MR. STOVALL: We're telling you we
12 don't think it is.

13 MR. CAVIN: Okay. The only reason I
14 want to recall you is to briefly tell them your
15 problems with the map, and they'll ask some
16 questions.

17 MR. CROMWELL: Fine.

18 MR. CAVIN: All right. I'd like to
19 recall --

20 EXAMINER STOGNER: Okay, Mr. Cavin,
21 you're recalling Mr. Cromwell at this time.

22 MR. STOVALL: You can stay where you
23 are rather than move.

24 DAVID W. CROMWELL

25 Having been previously duly sworn upon his oath,

1 was examined and testified further as follows:

2

3

FURTHER EXAMINATION

4

BY MR. CAVIN:

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Q. Mr. Cromwell, I would ask you to review the Exhibits 1 and 2, Nearburg Exhibits 1 and 2 that have been admitted here today and ask that you describe your problems with these exhibits.

A. The only thing I would like to point out to the Examiner, on Nearburg's Exhibit No. 1 is that the -- in Section 34 in the southeast quarter of Section 34, they have that Stanlind No. 1 Lakewood well symbolized as a productive well, when in fact it is a dry hole, as you can see there in that exhibit.

And also, you know, that just -- and also the fact that you have a dry hole in the southwest quarter of Section 27, which has very little sand in it, if any, which is illustrated on this isopach map.

Also you have a well in the southwest quarter of Section 34, which has an indication that it does not have any pay sand in this thick supposedly Morrow Boyd Channel.

So you've got several wells. My point

1 is you've got several wells within this channel
2 that are not productive that do show some
3 thickness of sand, to re-emphasize my point.

4 The other point I'd like to bring up,
5 also along that same line to reinforce that,
6 looking at Exhibit 2 of Nearburg, you'll note
7 that they have a dry hole that's illustrated on
8 the extreme right-hand side of that
9 cross-section.

10 And that sand is correlated into the
11 productive sand of the Nearburg No. 1 Boyd State
12 26-M. And this is another -- to me is another
13 indication that even though the sands are in the
14 same correlative position, that they are isolated
15 by pressure or by lack of transmissibility in
16 between the two sands. And it is a very
17 lenticular and often very high-risk formation to
18 drill and complete these Morrow tests into.

19 Those are the only two points I'd like
20 to bring before the Examiners.

21 EXAMINER STOGNER: Anything else, Mr.
22 Cavin?

23 MR. CAVIN: No.

24 FURTHER EXAMINATION

25 BY MR. CARR:

1 Q. Mr. Cromwell, when you talk about the
2 isopach map by Nearburg, as I understand your
3 objection, is the Stanlind well didn't produce,
4 but it is indicated on the map in there where
5 there is thick sand; correct?

6 A. My objection is that the well is
7 indicated as a producer, when it in fact is not a
8 producer.

9 Q. The purpose of an isopach is to show
10 the thickness of the sand; isn't that correct?

11 A. Yes, sir.

12 Q. You're not disputing the fact that
13 there was sand present in that well?

14 A. No, sir.

15 MR. CARR: That's all I have.

16 EXAMINER STOGNER: Any other questions
17 of this witness? If not, he may be excused.

18 Ready for closing arguments.

19 Mr. Carr, you may go first. Mr. Cavin,
20 you may go after.

21 MR. CARR: May it please the Examiner,
22 Coquina drilled the well in the north half of
23 Section 34 some time ago, and they produced the
24 reserves. The well is now ready to be plugged
25 and abandoned. And now they're before you

1 seeking approval of another location.

2 Since the first well was drilled in
3 this acreage, other development has occurred and
4 now the northeast quarter looks good to them. In
5 fact, it looks good to everyone.

6 Nearburg is before you not objecting to
7 Coquina producing its reserves. They, however,
8 object to locating a well in a position where it
9 can drain reserves from the north half of their
10 interest -- of Section 35, a tract that they
11 operate.

12 They have a duty not only to look after
13 their own interests, but those of their royalty
14 owners. And so they're here before you asking
15 you to deny the application.

16 Mr. Cromwell comes in, and he makes a
17 geological presentation. He notes that one of
18 the things you're looking for is thick sand and
19 that you're trying to get away from wells that
20 have not produced or have produced. So what he
21 does is he comes up with a location that he
22 believes is the best location to produce the
23 reserves in Coquina property.

24 The problem with it is it's 50 percent
25 closer to the Nearburg interest in Section 35

1 than permitted by your rules. If you look at
2 both isopachs, both interpretations, whether this
3 is a bar deposit or a channel sand, you see that
4 both geological interpretations show that there
5 is a standard location available to Coquina in
6 the north half of the section.

7 They've only presented evidence on the
8 Morrow. There's nothing on any other formation.
9 So we can, I think, based on this record assume
10 there's a standard location in the other
11 formations available to them as well, a location
12 from which they can drain their reserves, not
13 ours.

14 Then we call Mr. Waller, an engineering
15 witness, who talks about drainage areas of less
16 than 320 acres. He says the well isn't going to
17 drain that much. He doesn't know how much their
18 proposed well will drain, but he doesn't think
19 it's going to drain 320 acres.

20 Well, if it's like the Huber Federal
21 No. 1, it sure would. If it's like the Boyd
22 State, drilled the diagonal offset to the
23 northeast, the well in which they didn't object,
24 they had an opportunity, and they didn't show up
25 at the hearing, and they didn't go de novo. And

1 you can look at the record and see that.

2 And now they're saying maybe after the
3 fact they can come in and someday get a penalty.
4 The bottom line is if it's like those other
5 wells -- that the proposed well is like those two
6 wells, it will drain. It will drain substantial
7 reserves from us.

8 The problem we have here is that no
9 matter what these drainage circles are, this
10 isn't a case to change pool rules. The rules are
11 320 acres. There are well location requirements
12 that are set by the Division. And they have a
13 location, and they can drill at that location and
14 produce their own reserves.

15 The only thing we have concerning a
16 penalty in this case, the only thing, is Mr.
17 Cavin's suggestion that maybe if you take their
18 very interpretive Exhibit No. 11, that's really
19 their words, these are very interpretive circles,
20 that you might structure a penalty based on the
21 little bit of pink line that extends into Section
22 35.

23 The problem we have here is the same
24 problem the New Mexico Supreme Court had in
25 Faskin v. OCD. The problem with this is that it

1 emanates from the lips and pens of counsel, not
2 from technical witnesses. And consequently we
3 submit you can't even consider that.

4 There's nothing in the record on the
5 penalty. The record simply shows someone wants
6 to drill a new well, not at a standard location,
7 but by their own interpretation would be in the
8 pay and beyond their drainage area.

9 And so we ask you to do in this case
10 what was done in Case No. 10297 and the order
11 that was entered on your recommendation, Mr.
12 Stogner, on May 2, 1991.

13 In that case you denied an application
14 of Nearburg for an unorthodox location, simply
15 denied it, because you found that we had failed
16 to substantially support the need to force that
17 unorthodox location.

18 We think we've gone full circle on
19 that. And now someone is coming in, having
20 failed to meet their burden, and therefore we ask
21 you to deny the application.

22 EXAMINER STOGNER: Thank you, Mr.
23 Carr.

24 Mr. Cavin.

25 MR. CAVIN: Coquina -- I find it very

1 unfair that Nearburg would come in at this date
2 and challenge this unorthodox location in light
3 of their performance in this area. I find it
4 less objectionable since I get paid by the hour.

5 Coquina finds it quite objectionable
6 and respectfully requests that you approve their
7 location. I certainly think they've gone far to
8 demonstrate that this location is required both
9 from a geological standpoint and from an
10 engineering standpoint that it would not drain
11 the offset acreage in any significant way.

12 As far as the geological
13 considerations, we would say that Coquina
14 proposes their location based upon the following
15 reasons: First, it will stay out of the drainage
16 radius for existing or produced wells. Second,
17 it stays away from the dry holes to the north and
18 the south. Third, that it stays within the thick
19 sand development of the Morrow. And, fourth,
20 that it helps prove up additional locations in
21 the north.

22 Now, Nearburg today has presented some
23 geologic testimony, but certainly not anywhere
24 near the geologic testimony that we've provided.
25 And no engineering testimony. We believe that

1 the facts overwhelmingly indicate that this is
2 required geologically, but certainly they
3 indicate that even from the best well in the
4 field, and no one has disputed this, that it only
5 drained 158 acres.

6 We think it would be unreasonable to
7 use 320-acre drainage in this case. And again we
8 would request that the location be approved.

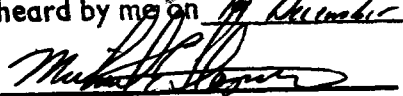
9 EXAMINER STOGNER: Thank you, Mr.
10 Cavin. Does anybody else have anything further
11 in this case? In that case --

12 MR. STOVALL: Should I make a closing
13 statement too?

14 EXAMINER STOGNER: No. Case No. 10417
15 will be taken under advisement.

16 (The proceedings were concluded.)
17
18
19

20 I do hereby certify that the foregoing is
21 a complete record of the proceedings in
22 the Examiner hearing of Case No. 10417,
23 heard by me on 19 December 19 91.

24  , Examiner
25 Oil Conservation Division

1 CERTIFICATE OF REPORTER

2

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

5

6 I, Debbie Vestal, Certified Shorthand
7 Reporter and Notary Public, HEREBY CERTIFY that
8 the foregoing transcript of proceedings before
9 the Oil Conservation Division was reported by me;
10 that I caused my notes to be transcribed under my
11 personal supervision; and that the foregoing is a
12 true and accurate record of the proceedings.13 I FURTHER CERTIFY that I am not a
14 relative or employee of any of the parties or
15 attorneys involved in this matter and that I have
16 no personal interest in the final disposition of
17 this matter.18 WITNESS MY HAND AND SEAL DECEMBER 29,
19 1991.

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DEBBIE VESTAL, RPR
NEW MEXICO CSR NO. 3