

STATE OF NEW MEXICO
ENERGY, MINERALS, AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING CALLED
BY THE OIL CONSERVATION DIVISION FOR
THE PURPOSE OF CONSIDERING:

ORIGINAL

CASE 15278

APPLICATION OF HIGH ROLLER WELLS LLC
FOR AUTHORIZATION TO INJECT,
EDDY COUNTY, NEW MEXICO

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

April 30, 2015

Santa Fe, New Mexico

BEFORE: PHILLIP GOETZE, CHIEF EXAMINER
GABRIEL WADE, LEGAL EXAMINER

This matter came on for hearing before the
New Mexico Oil Conservation Division, Phillip Goetze,
Chief Examiner, and Gabriel Wade, Legal Examiner, on
Thursday, April 30, 2015, at the New Mexico Energy,
Minerals, and Natural Resources Department, Wendell
Chino Building, 1220 South St. Francis Drive, Porter
Hall, Room 102, Santa Fe, New Mexico.

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1	I N D E X			
2	CASE NUMBER 15278 CALLED			
3	HIGH ROLLER WELLS LLC CASE-IN-CHIEF:			
4	WITNESS RICK JOHNSTON, P.E.			
5		Direct	Redirect	Further
6	By Mr. Hall	9		
7	Questioning Regarding Exht 6 by Mr. Feldewert			Page 31
8		Cross	Recross	Further
9	By Mr. Feldewert	35		
10	By Mr. Bruce	43		
11	Examination by Examiner Goetze			Page 45 and 48
12	WITNESS BRIAN WOOD			
13		Direct	Redirect	Further
14	By Mr. Hall	89		
15	MELBOURNE OIL COMPANY CASE-IN-CHIEF			
16	WITNESS CLAYTON PEARSON			
17		Direct	Redirect	Further
18	By Mr. Bruce	51		
19		Cross	Recross	Further
20	By Mr. Hall	54		
21	WITNESS NATE CLESS			
22		Direct	Redirect	Further
23	By Mr. Bruce	55		
24		Cross	Recross	Further
25	Mr. Hall	64		
	WITNESS DREW ROBISON			
		Direct	Redirect	Further
	By Mr. Bruce	66		

1	I N D E X (cont'd)	
2	WITNESS DREW ROBISON (cont'd)	
3	By Mr. Hall	
4	Cross 74	
5	Recross	
6	Further	
7	Examination by Examiner Goetze	Page 78
8		
9	STATEMENT BY MS. GLORIA VASQUEZ	Page 80
10		
11	Reporter's Certificate	PAGE 94
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		

1	E X H I B I T I N D E X	
2	Exhibits Offered and Admitted	
3		PAGE
4		
5	High Roller Wells Exhibit 1	34
6	High Roller Wells Exhibit 2	34
7	High Roller Wells Exhibit 3	34
8	High Roller Wells Exhibit 4	34
9	High Roller Wells Exhibit 5	34
10	High Roller Wells Exhibit 6	34
11	High Roller Wells Exhibit 7	34
12	High Roller Wells Exhibit 8	34
13	High Roller Wells Exhibit 9	80
14	---oOo---	
15		
16	Exhibits Offered and Admitted	
17		PAGE
18	Mewbourne Oil Company Exhibit 1	54
19	Mewbourne Oil Company Exhibit 2	63
20	Mewbourne Oil Company Exhibit 3	63
21	Mewbourne Oil Company Exhibit 4	74
22	Mewbourne Oil Company Exhibit 5	74
23		
24		
25		

1 (Time noted 9:12 a.m.)

2 EXAMINER GOETZE: We are back on the record.
3 Last case on the docket is case 15278, Application of
4 High Roller Wells LLC for Authorization to Inject, Eddy
5 County, New Mexico.

6 Call for appearances.

7 MR. HALL: Mr. Examiner, Scott Hall,
8 Montgomery and Andrews Law Firm, Santa Fe, appearing on
9 behalf of the Applicant, High Roller Wells LLC.

10 We have two witnesses this morning.

11 EXAMINER GOETZE: Okay. Any other
12 appearances?

13 MR. BRUCE: Mr. Examiner, Jim Bruce of
14 Santa Fe representing Mewbourne Oil Company. And I have
15 three witnesses.

16 MR. FELDEWERT: Mr. Examiner, Michael
17 Feldewert with the Santa Fe Office of Holland and Hart,
18 appearing on behalf of BTA Oil Producers LLC. I have no
19 witnesses here today.

20 EXAMINER GOETZE: Very good.

21 MS. MUNDS-DRY: Good morning, Mr. Examiner.
22 I am Ocean Munds-Dry representing COG Operating LLC this
23 morning.

24 EXAMINER GOETZE: Very good. And you have
25 no witnesses?

1 MS. MUNDS-DRY: I have no witnesses.

2 EXAMINER GOETZE: Very good. Thank you any
3 other appearances?

4 MS. MARGARITA VASQUEZ: Margarita Vasquez,
5 Loving, New Mexico. In the High Roller Wells, we are
6 representing ourselves --

7 MS. GLORIA VASQUEZ: -- all the residence of
8 the community.

9 EXAMINER GOETZE: Are you going to have one
10 person testify or --

11 MS. MARGARITA VASQUEZ: We can. Sure.

12 EXAMINER GOETZE: Okay. So who is going to
13 be the representative spokesperson? Will you identify
14 yourself.

15 MS. GLORIA VASQUEZ: I will. Gloria
16 Vasquez, I'm just a lot away from the proposed site so
17 I'll be --

18 EXAMINER GOETZE: So your address is surface
19 owner?

20 MS. GLORIA VASQUEZ: Yes.

21 EXAMINER GOETZE: Okay. Very good.

22 LEGAL EXAMINER WADE: Will you be presenting
23 testimony yourself?

24 MS. GLORIA VASQUEZ: Just a couple of
25 reasons in regards to why we are objecting.

1 LEGAL EXAMINER WADE: -- giving a statement.

2 Okay. And do you intend to cross-examine any witnesses?

3 MS. GLORIA VASQUEZ: No, we don't.

4 EXAMINER GOETZE: At this point, let's have
5 the witnesses stand, identify yourself to the court
6 reporter, and be sworn in.

7 (Whereupon, the witnesses were administered
8 the oath.)

9 EXAMINER GOETZE: If you would, after giving
10 testimony, if you have a business card, it would be nice
11 to give it to the court reporter.

12 Any opening statements?

13 (No response.)

14 EXAMINER GOETZE: We will move into the case
15 then.

16 LEGAL EXAMINER WADE: Ms. Vasquez, we were
17 giving the attorneys the opportunity to give an opening
18 statement. Would you like to do that or you can make a
19 closing statement?

20 MS. GLORIA VASQUEZ: Just a closing
21 statement would be fine.

22 LEGAL EXAMINER WADE: Okay.

23 EXAMINER GOETZE: Go ahead. Proceed.

24 APPLICANT'S CASE-IN-CHIEF

25 MR. HALL: At this time, we will call our

1 call our first witness, Rick Johnston, to the stand.

2 RICK JOHNSTON, P.E.

3 having been first duly sworn, was questioned and
4 testified as follows:

5 DIRECT EXAMINATION

6 BY MR. HALL:

7 Q. For the record, please state your name.

8 A. My name is Rick Johnston.

9 Q. And, Mr. Johnston, where do you live and by whom
10 are you employed?

11 A. I live in Austin, Texas, and I am a partner in
12 the consulting firm of Johnston & Cloud. We are
13 consulting petroleum engineers.

14 Q. All right. And are you consulting with the
15 applicant High Roller Wells in this case?

16 A. Yes.

17 Q. You're authorized to testify on their behalf
18 today; is that correct?

19 A. Yes.

20 Q. Have you ever testified before the OCD and had
21 your credentials as a petroleum engineer established as
22 a matter of record?

23 A. No.

24 Q. Would you give the hearing examiner a brief
25 summary of your educational background and work

1 experience.

2 A. I have a degree in chemical engineering that I
3 received from the University of Texas in 1978. When I
4 got out of school, I went to work for Amoco Production
5 Company. And since that time, I have been a practicing
6 petroleum engineer. I am a registered engineer in the
7 state of Texas. I am not registered in New Mexico.

8 Q. Have you testified as an expert petroleum
9 engineer before regulatory bodies of other states?

10 A. Yes.

11 Q. Would you identify those, please?

12 A. Texas and Oklahoma.

13 Q. All right. You are familiar with the application
14 that's been filed in this case?

15 A. Yes.

16 Q. And are you familiar with the lands that are the
17 subject of the application?

18 A. Well, I have not been to the location. I have
19 seen survey plats, yes.

20 MR. HALL: At this point, Mr. Examiner, we
21 offer Mr. Johnston as an expert petroleum engineer.

22 EXAMINER GOETZE: So qualified. Any
23 objections?

24 MR. BRUCE: No objection.

25 MR. FELDEWERT: No objection.

1 MS. MUNDS-DRY: No objection.

2 EXAMINER GOETZE: We figured he'd be
3 accepted so, yes, he's so qualified.

4 BY MR. HALL (cont'd):

5 Q. If you would, Mr. Johnston, just give us a brief
6 summary of what it is High Roller Wells is seeking by
7 its application.

8 A. We seek authority from the state of New Mexico to
9 drill and complete a commercial saltwater disposal well.
10 We seek a disposal interval from 2,500 feet to 4,500
11 feet.

12 I believe the application reflects an interval
13 from 2,500 to 5,000. But in an effort to address some
14 of the concerns of some of the operators in the area, we
15 have agreed to raise the bottom of the interval up to
16 4,500 feet.

17 The application also includes a maximum volume of
18 30,000 barrels a day. And we seek to amend that to
19 include 17,500; again reduced that volume to address
20 some of the concerns of the operators in the area.

21 Q. Mr. Johnston, did you assist in the preparation
22 of the C-108 that was submitted to the Division?

23 A. Yes.

24 Q. Let's turn to that. It is marked as Exhibit 1.

25 MR. HALL: And you will see at the bottom of

1 each of those pages, Mr. Examiner, we have numbered
2 those. And I am going to ask the witness to refer to
3 page 13 of the C-108.

4 Q. Mr. Johnston, can you identify that page and tell
5 us what it is?

6 A. Exhibit 13 is a Topo map that shows the location
7 of the proposed disposal well. The name of the well is
8 the Gossett SWD No. 1. You can see that it is just
9 slightly to the east of Highway 285.

10 Q. And if we refer back to page 12, is that the
11 C-102 showing the footage locations for the well?

12 A. It is.

13 Q. Tell the hearing examiners, what do you expect
14 the source of disposal fluids to be?

15 A. We expect it to be the producing wells within
16 five or ten miles of the proposed disposal well if it's
17 permitted and drilled.

18 Q. And, briefly -- we will get into this in more
19 detail -- but explain to the hearing examiners how the
20 intervals you've identified within the Delaware Mountain
21 Group were selected for injection operation?

22 A. We looked at where wells in the area were
23 producing. I am familiar with the Delaware from the
24 work that I have done in Texas, as being a good disposal
25 interval.

1 This location is some ten or 12 miles from the
2 state line. It is in the same geologic setting that I
3 deal with down in Texas. We know that the Delaware
4 section is a good disposal interval, so that's primarily
5 why we chose this interval.

6 Q. All right. Let's talk about the design and
7 construction of the well. If you would refer to page 4
8 of the C-108 and discuss the casing and submitting of
9 the well --

10 A. The plan is to drill to 550 feet and then run
11 surface casing, 10-3/4 inch surface casing, and cement
12 that back to surface.

13 I believe the deepest water well in the area that
14 we found has a total depth of 268 feet. So we believe
15 that setting casing at 550 feet will protect the ground
16 water.

17 After that string is set, we'll drill to probably
18 4,600 feet and run seven-inch casing to that depth and
19 cement that back to surface. Since we've changed the
20 disposal interval, we are not going to drill the well as
21 deep as reflected on page 4.

22 Q. And will this be perforated or --

23 A. It would be perforated.

24 I guess the other thing I'll mention is most
25 likely we will run a DV tool, probably at about

1 ~~26~~,000 feet to make sure we are able to get cement back
2 to surface. The most important portion of the cement
3 job on the long string is that immediately above the
4 disposal interval.

5 Q. Let me ask you, you've designed and supervised
6 the construction of a number of these wells for High
7 Roller?

8 A. Yes. Over the past year, High Roller has drilled
9 and completed more than 15 of these in Texas.

10 Q. All right. Was a liquid seal injected under
11 pressure?

12 A. I would expect so, yes.

13 Q. And what materials will be used for the tubing?

14 A. The tubing will be steal. They'll N-80. And it
15 will be internally plastic coated.

16 Q. All right.

17 A. I guess the other thing is we are going to run
18 N-80 seven-inch. We typically do that so that we have
19 some added corrosion resistance.

20 Q. All right.

21 You briefly referred to injection rates earlier
22 in your testimony. The application shows you are
23 requesting a maximum of 30,000 barrels a day and an
24 average of 20,000 a day. And that's been changed again.
25 What volume are you seeking?

1 A. We are seeking a maximum of 17,500.

2 Q. Okay. Will this be a commercial facility?

3 A. Yes, sir.

4 Q. And what are the anticipated average maximum
5 injection pressures you are looking at?

6 A. With the top of the disposal interval at
7 2,500 feet, our maximum surface injection pressure will
8 be 500 pounds. I believe that probably will be the
9 limitation as to how much water is really able to be put
10 in this well.

11 We typically try to set the volume limit high
12 enough that it really isn't a limit. Generally it is
13 the pressure that is going to limit the volume of water
14 that will go in one of these wells.

15 Q. Let's talk about the injection fluids. And if we
16 refer to those pages of the C-108, beginning with page
17 43, would you identify those for us, those chemical
18 analyses of area wells?

19 A. Exhibit 43 is an analysis of some Cherry Canyon
20 water. You can see that it has a chloride content of
21 100,000 parts per million. And sodium is up at 34,000.
22 Calcium is up at 19,000.

23 So this is a fairly -- it is a very saline
24 solution. Total dissolved solids are 159,000 over on
25 the right hand side.

1 Q. Do you anticipate there will be any compatibility
2 issues with the injection formation?

3 A. No. And, in my experience, the injection wells
4 that High Roller Wells has drilled and operated down in
5 Texas in the same basin, in the same formation, we have
6 not had any comparability problems with injecting frac
7 flow-back water and produced water, both.

8 Q. Okay. Let's talk a little bit about the Delaware
9 Formation in this part of the country. First what is
10 the vertical extent of the injection interval that
11 you're talking about for the Bell Canyon, Cherry Canyon?

12 A. The Bell Canyon is going to span from roughly
13 about 2,600 feet down to about 3,400 feet. The Cherry
14 Canyon will span from, roughly, the 3,400, 3,500-foot
15 depth down to the base of this interval at 4,500 feet.
16 And then below that is the Brushy Canyon.

17 Q. All right. What can you tell us about the
18 permeability and the porosity of the reservoir for
19 injection?

20 A. It is a good reservoir for injection. It has
21 porosities that range from the high teens up to the high
22 twenties.

23 In my experience, rock needs to have a minimum
24 porosity of about 12 percent before it is going to be
25 suitable for this sort of injection. And we have a

1 cross section -- and in a minute we'll talk about the
2 porosity that we see in the offsetting logs. But it
3 looks good to me.

4 Q. All right. So from your evaluation, have you
5 concluded that the injection fluids will remain
6 contained within the disposal intervals?

7 A. Yes.

8 Q. How did you reach that conclusion?

9 A. From looking at the well logs in the cross
10 section that I've done.

11 Q. All right. Are these particular intervals of
12 the Delaware productive of oil or gas anywhere in this
13 area?

14 A. The intervals that we seek to inject into are not
15 productive within two miles.

16 Q. Let's turn to pages 14, 15, and 16 of the C-108.

17 A. Okay.

18 Q. Do these identify the areas of review for your
19 study?

20 A. Well, 14 is the half-mile area review, which is
21 the area where we looked at the artificial penetrations.
22 And then 15 -- which doesn't have a number on it -- is a
23 two-mile radius map.

24 Q. Is there currently any non-Delaware production
25 within the AOR above the injection area?

1 A. Yes. There's a fair amount of Morrow, Bone
2 Spring, and Atoka production in the area.

3 Q. Maybe I didn't ask that correctly.

4 Is there any non-Delaware production below the
5 injection interval?

6 A. Excuse me. I took that to being below. There is
7 no production above the Delaware section.

8 And then below the proposed disposal interval,
9 there is some Delaware production down at the very base
10 of the Delaware section. There is Bone Spring
11 production, Avalon shale production, and Atoka and
12 Morrow, Deeper Horizons.

13 Q. Are there a number of wells within the area of
14 review that have penetrated the injection interval?

15 A. There are a few, yes.

16 Q. And if we refer to pages seven and eight of the
17 C-108, are they identified there?

18 A. They are.

19 Q. And on page eight, there is a reference to the
20 Mewbourne Yardbirds 34 NBP 2H Well, indicated as, No
21 spud yet. [Yardbirds 34 MD Fee Well No. 2H / 30-015-41308] *only*

22 Does that remain accurate?

23 A. I'm not sure. I've been told that somebody has
24 seen a rig out in the area. So I don't know if
25 that well is being drilled or has been drilled.

1 Q. You haven't laid eyes on it yourself?

2 A. I'm not sure.

3 Q. Okay. That is fine.

4 Let's turn to pages 36 through 38. And are those
5 pages a composite of the well bore schematics for all
6 the wells that are shown to have penetrated the
7 injection interval in the AOR?

8 A. Yes. These are the wells that have penetrated
9 the proposed disposal interval within the half-mile well
10 bore schematics. And if you review those, it appears to
11 me that none of them will act as a conduit to allow the
12 injected fluids to migrate shallower.

13 Q. Okay. And was the available data sufficient to
14 permit you to determine the casing depths and to
15 accurately calculate the cement tops and bottoms of each
16 of those wells?

17 A. Yes.

18 Q. You saw no evidence of casing leaks in any of
19 them?

20 A. I did not.

21 Q. Let's turn to page 45. Would you identify that
22 for us please.

23 A. Page 45 is a tabulation of the water wells in the
24 area. That was put together by Brian Wood's group.

25 It shows the depth of the water wells in the

1 area. You can see that the deepest well is 268 feet.
2 Most of the water wells in the area are on the order of
3 the 150-foot range.

4 We believe that by running 550 feet of surface
5 casing and cementing it back to surface, that that will
6 act as a means of protecting the groundwater in the
7 area.

8 Q. Are there any known sources of fresh water below
9 the injection interval?

10 A. Not that I'm aware of, no.

11 Q. Based on your experience with the Delaware
12 Formation, permitting other disposal wells similar to
13 this, have you seen any evidence of open faults or any
14 other hydrologic connection between the disposal zone
15 that's proposed here and any source of underground
16 drinking water?

17 A. No. Actually in this particular location or
18 throughout the Delaware Basin, you have a very thick
19 salt anhydride section that's going to be below the
20 Delaware Sands and the shallow fresh water.

21 Q. All right. Let's look at the very -- at almost
22 the last page. I believe it is page 53 of the C-108;
23 what is that?

24 A. This is a map that was put together by Brian
25 Wood's group that identifies the nearest quaternary

1 faults in the area.

2 Q. And what is the distance of those faults to the
3 Gossett Well?

4 A. I don't remember the distance. It's a number of
5 miles.

6 Q. Does 53 sound correct?

7 A. Yes, it does. And, actually, if you turn to page
8 11 of Exhibit No. 1, it is noted under VII that it is
9 53 miles.

10 Q. Right. Thank you.

11 If we turn to page 48, is that a chemical
12 analysis of fresh water from some of the wells in the
13 area?

14 A. Yes, I believe 48, 49, 50, 51, and 52 are
15 analyses of the water from the water wells in the area.

16 Q. And are the dates of the samples from those wells
17 indicated on those pages?

18 A. They are, yes. In the upper right-hand portion
19 of each page, it shows the collection date and then the
20 date that it has received at the lab.

21 Q. All right. Refer to beginning on page 17 through
22 32 of the C-108. Is that a compilation of all of the
23 interest owners who received notice of this application?

24 A. Yes. That would have included the surface owner
25 of the tract on which the proposed disposal well would

1 be located, which is a subsidiary or affiliate of High
2 Roller Wells and then all of the mineral owners, and if
3 those minerals were leased, then the lease holders.

4 Q. All right. And that included area operators?

5 A. If they had leases within this area, that is
6 correct.

7 Q. Are you aware of whether High Rollers received
8 objections from one or more operators to the
9 application?

10 A. Yes, sir.

11 Q. And what efforts were made to try to resolve
12 those objections --

13 A. We talked with some of them. Raising the bottom
14 of the interval caused a couple of them to withdraw
15 their protest. But we still do have some remaining
16 protest.

17 Q. We understand that both Devon and COG expressed
18 concerns at one time; is that right?

19 A. Yes, sir.

20 Q. And their objections have been resolved, as far
21 as you know?

22 A. As far as I know.

23 Q. All right. In your opinion, Mr. Johnston, can
24 this project be operated so that the injection
25 fluids will remain contained within the injection

1 formation?

2 A. Yes.

3 Q. And in your opinion, will injection operations
4 impose any threat of impairment of correlative
5 rights or waste of hydrocarbon resources?

6 A. In my opinion, no, it won't.

7 Q. Do you have some additional exhibits that we can
8 refer to that will help you explain your conclusion in
9 that regard?

10 A. Yes.

11 Q. Let's turn to what's marked as Exhibit 2 in the
12 packet. First identify Exhibit 2 for us and tell us
13 what that shows.

14 A. Exhibit 2 is a base map that I put together. And
15 what I have done is I have had the computer go in and
16 put a blue dot around API No. 30-015-26798, which is a
17 well very near to the proposed disposal location.

18 If you flip back to Exhibit No. 1 and look at
19 page 12, you can see that the proposed disposal well is
20 going to be 313 feet from the south line and 921 feet
21 from the east line. So that API number I just mentioned
22 is quite close to the proposed location.

23 I had to have a point in the GIS system to then
24 have the computer draw this two-mile radius circle,
25 which is the tan area.

1 So what I did was I had the computer draw that
2 circle, and then I had the computer provide me a list of
3 all the API numbers of all the wells within that
4 two-mile area.

5 Q. And is that what's shown on Exhibit 3?

6 A. And then Exhibit 3 is a listing of those wells.
7 I used the Lasser Production Data, which is a commercial
8 service which provides information and some completion
9 information; and I built the tabulation which is Exhibit
10 No. 3.

11 Then I went in and there were a number of
12 Delaware wells for which Lasser didn't have completion
13 information. So I pulled PI scalp tickets and
14 populated the perforation columns for the Delaware
15 completions.

16 Q. And that is Exhibit 4?

17 A. Well, that is Exhibit 3.

18 And then I took the spreadsheet, which is
19 Exhibit 3, and sorted it by perforation, upper
20 perforation, which is Exhibit 4.

21 Q. So these are sorted by depth then?

22 A. Yeah. If you look at the second line of the
23 title of each one of them, you can see that Exhibit 3 is
24 titled Lasser Production Data, Sorted by API number.

25 And then Exhibit 4 is Lasser Production Data,

1 Sorted by upper perforation.

2 And what I am trying to figure out is what is the
3 shallowest Delaware production in the area.

4 Q. Okay.

5 A. So if you flip to the second page, all of the
6 entries on the first page, with the exception of the
7 very bottom one, which is a disposal well injected from
8 3,355 to 4,900 feet, and then on the second page --

9 Q. You're speaking about Exhibit 3?

10 A. Exhibit 4.

11 On the second page of Exhibit 4, the top entry is
12 for another disposal well that injected from 3,500 to
13 4,800 feet.

14 And then, below that, you can see a handful of
15 Delaware wells, with the shallowest perforation being at
16 5726, then 5762, 5825. A couple of those are BTA wells.

17 So you can see that the vast majority of the
18 Delaware production in the area is actually down around
19 6,000 to 6,200 feet.

20 But I wanted to -- and then the next step was I
21 generated Exhibit No. 5, which is just another version
22 of the map on a smaller scale. And I've had the
23 computer go in and put blue circles around the well
24 symbols for the four shallowest Delaware producers.

25 And you can see that they are in the northwest

1 quadrant of the tan circle. They are up to the
2 northwest.

3 Q. Let's refer to your next exhibit, the cross
4 section.

5 A. And then Exhibit 6 is a cross section that I put
6 together. If you go back to Exhibit No. 2, which is the
7 map, you can see that up at about 10 o'clock, API No.
8 30163 has a red circle around it, the well symbol does.
9 It is kind of faint.

10 Now you have to go to Exhibit 2, which is the
11 large map.

12 Q. Section 29?

13 A. Yes. But where I'm headed is the well symbols
14 that have the red circles around them, those are the
15 wells that are on the cross section. So the line of
16 cross section roughly goes from northwest over to east,
17 southeast.

18 Q. What does your cross section tell us about the
19 basin in this area?

20 A. It shows me that as you move from northwest to
21 southeast, you go down dip, which is what I would expect
22 for the Delaware Sands in this part of the world. And
23 it is not surprising to me that the shallowest Delaware
24 production would be located in that northwest quadrant.

25 And if you look at the cross section, down below,

1 marker No. 5 on the cross section, you can see that the
2 left-hand most log, which is API No. 30163, has
3 perforations down around 5,900 feet -- excuse me -- yes,
4 5,900 feet. The red dots on the depth track show you
5 where the well is perforated.

6 And you could see that, looking across the cross
7 section, the production from the Delaware section is all
8 below marker No. 5. And if you look at the top of the
9 cross section, you can see roughly where marker No. 1 is
10 hung on the base of the salt anhydride.

11 It's the beginning of the sand and shale
12 sequences of the Delaware section. It is also the top
13 of the Bell Canyon. Just below marker No. 3 would be
14 the top of the Cherry Canyon. You can see that I've
15 marked the base of the disposal interval at roughly
16 4,500 feet. The top of the Brushy Canyon would be just
17 slightly above marker No. 4.

18 So what we gleaned from this cross section is
19 that we are in a portion of the Delaware section where
20 nobody has demonstrated it to be productive; and that it
21 is productive in the Delaware is some 1,400, 1,500 feet
22 deeper.

23 Q. And is the entire vertical extent of the
24 disposing interval, both the tops and bottoms, indicated
25 on the cross section?

1 A. Yes. And, actually, after we drilled the well,
2 we probably -- the actual disposal interval top will
3 probably be somewhat deeper, because where it is
4 currently marked on the cross section it's going to be
5 up in the salt anhydride section.

6 Q. All right. And are you satisfied, from your
7 evaluation, that there is adequate separation between
8 the injection interval and the producible hydrocarbon
9 interval?

10 A. Yes. And I guess the other point to add is that
11 there have been wells drilled in the very close vicinity
12 to the proposed location where -- by Enron -- some time
13 ago. They produced from the lower portion of the
14 Delaware and then plugged the well.

15 Their evaluation of this shallow interval that
16 we're planning to inject into, they didn't test.

17 Q. Let's turn to Exhibit 7 in the packet.

18 A. Okay. Exhibit No. 7 is a schematic of how we
19 plan to lay out the facility.

20 Since this diagram has been prepared, it has come
21 to our attention that, most likely, the New Mexico DOT
22 is going to require us to have only one driveway instead
23 of two. So I would expect that this is going to have to
24 be reconfigured such that perhaps the unloading facility
25 will have to be located to the east of the well and

1 perhaps the tank battery will need to be moved a little
2 closer to the well.

3 But, generally, this shows the layout of -- it
4 will be amended, but, roughly, this shows the layout.

5 Q. Let's turn to Exhibit 8. Would you identify
6 that, please?

7 A. Exhibit No. 8 are a couple of pictures of some
8 facilities that have been drilled and put into operation
9 in Texas by High Roller Wells.

10 The first picture is a picture of the unloading
11 area. This is where the trucks drive in. You can see
12 the hoses. And each hose has its own pump. As the
13 trucks drive in, the hose is connected to the well. The
14 pump is used to pump the water from the truck into the
15 tank.

16 And it is a little difficult to see in the
17 picture, but the concrete in this loading area is
18 elevated or tilted such that any spillage that occurs as
19 the lines are connected and disconnected to the tank,
20 any of that spillage drains into that sump that is just
21 in front of all these pumps.

22 There's a pump in the sump, and any of that
23 spillage is caught, collected, and pumped into the
24 tanks. The sump is concrete lined.

25 You can also see the tank battery. It is a

1 little difficult to see in the first picture. But if
2 you flip to the second picture, you can see that the
3 tanks are enclosed in a concrete wall.

4 I don't have a picture of it, but the tanks also
5 sit on a concrete pad. So, so to speak, the tanks are
6 in a concrete vault. Any spillage or failure of a line
7 or a tank will be captured in that concrete vault.

8 There are sumps in it with pumps, and any
9 spillage will be pumped into the tanks.

10 And, then, I guess the other point is all road
11 area where the trucks are going to drive will either be
12 concrete or asphalt.

13 Q. And will High Roller Wells make provisions for
14 the control of run-on and runoff from rain events?

15 A. Yes.

16 Q. And is it the expectation that the facility to be
17 constructed at the Gossett Well will be the same
18 configuration -- the same configuration or a highly
19 similar configuration that we see in Exhibit 8?

20 A. Yes, it will be. The only difference is whether
21 it will be a facility that has three unloading bays,
22 four or five or six. And that is going to be a function
23 of the ability of the well, after it's drilled and
24 completed, what volume of water can you really put away
25 in it.

1 And, again, we expect the pressure limitation to
2 be the limiting component.

3 Q. All right. Mr. Johnston, did you participate or
4 create -- participate in the creation or yourself create
5 Exhibits 1 through 8?

6 A. Yes.

7 Q. And in your opinion, Mr. Johnston, will granting
8 High Roller's application promote the interests of
9 conservation and result in the prevention of waste and
10 the protection of correlative rights?

11 A. Yes.

12 Q. And will that facility be constructed so as to
13 adequately protect human health and the environment?

14 A. Yes.

15 MR. HALL: With the admission of Exhibits 1
16 through 8, Mr. Examiner, that concludes my direct of
17 this witness.

18 EXAMINER GOETZE: Exhibits 1 through 8 are
19 so entered --

20 MR. FELDEWERT: I do have a couple of
21 questions about Exhibit 6, if I may, before admission.

22 EXAMINER GOETZE: Very well. Then we will
23 withhold admitting. Proceed.

24 QUESTIONING REGARDING EXHIBIT 6

25 BY MR. FELDEWERT:

1 Q. It is Mr. Johnson or Mr. Johnston?

2 A. J-o-h-n-s-t-o-n.

3 Q. Mr. Johnston, you mention that you participated
4 in the development of these exhibits. I am going to
5 focus particularly on Exhibit 6.

6 A. Okay.

7 Q. First off, can you orient me to Exhibit No. 2? I
8 am having a difficult time finding all the wells that
9 are represented on this Exhibit No. 6.

10 A. All right. At the heading of each log is the API
11 number of the well.

12 Q. Okay.

13 A. If you look at section No. 29, which is up at
14 roughly 10 o'clock on the tan circle, you can see API
15 No. 30163.

16 Q. Okay. So is that the well on the left of
17 Exhibit No. 6?

18 A. Yes, with the corresponding API number.

19 Q. Okay. Please move us across.

20 A. Then the next I projected in the location of the
21 Gossett Well.

22 Q. And that's --

23 A. Going to be down near the blue dot.

24 Q. So is that the second entry?

25 A. Well, I didn't have the computer put a red circle

1 on the map for the projected location of the disposal
2 well.

3 Q. But the Gossett or the second entry on Exhibit 6
4 will correspond to your blue dot in Exhibit 33; is that
5 what you're saying?

6 A. That is correct.

7 Q. And you don't have any information?

8 A. What do you mean?

9 Q. You don't have a log.

10 EXAMINER GOETZE: I think there is confusion
11 here. I think the stick figure is the proposed location
12 of where the well will be in section.

13 I think your third item on this will be your
14 second blue dot in the section.

15 MR. FELDEWERT: Okay. All right.

16 BY MR. FELDEWERT (cont'd):

17 Q. Okay. So where is the second log entry shown on
18 this map?

19 A. It will be the blue dot.

20 Q. Section 34?

21 A. That is in section 33, southeast corner, API
22 No. 26798, which is the same API number in over the log.

23 Q. I am with you.

24 A. And then move due east along the blue dashed
25 line --

1 Q. Okay.

2 A. -- and you can see a location there with a red
3 circle around it. And, then, from there, move to the
4 southeast in section 2, and then that's API
5 No. 26279.

6 Q. Did you choose these wells?

7 A. Yes.

8 Q. And did you review the logs?

9 A. Yes. I built the cross section --

10 Q. You built the cross section --

11 A. -- in Petra.

12 Q. All right.

13 MR. FELDEWERT: That's all the questions I
14 have. I have no objection.

15 EXAMINER GOETZE: Very good. And that was a
16 lesson in why we label our cross sections from A to A
17 Prime.

18 Any other objections?

19 MS. MUNDS-DRY: No objection.

20 MR. BRUCE: No objection.

21 EXAMINER GOETZE: On that note, let's go
22 with Exhibits 1 through 8 are so entered with the
23 notations.

24 (High Roller Wells Exhibits 1 through 8 were
25 offered and admitted into evidence.)

1 EXAMINER GOETZE: We will begin with cross
2 by Mr. Bruce.

3 MR. BRUCE: I will defer to Mr. Feldewert.

4 EXAMINER GOETZE: Mr. Feldewert, you're
5 next.

6 CROSS-EXAMINATION

7 BY MR. FELDEWERT:

8 Q. Mr. Johnston, I want to make sure I clearly
9 understand a couple of things you said early on. You
10 mentioned that your new injection interval is 2,500 feet
11 to 4,500 feet?

12 A. Yes, sir.

13 Q. What is going to be your lowest perforation?

14 A. It could be as low as 4,500 feet. That will
15 be --

16 Q. Okay. So the Division needs to assume that you
17 will have a perforation as low as 4,500 feet?

18 A. Yes.

19 Q. How deep are you going to drill your well?

20 A. 4,600 feet.

21 Q. And you mentioned that, according to your
22 testimony, the top of the Brushy Canyon is at
23 4,500 feet; is that right? That's what I wrote down.
24 Did I write it down wrong?

25 A. Well, I -- we don't have a log of the proposed

1 disposal well. So what we have to do is look at the
2 offsetting logs.

3 If you look at -- if you look at the log of API
4 No. 26798, depending on where you pick it, I would say
5 the top of the Brushy Canyon is going to be in the
6 4,650, to 4,700-foot range, depending on which geologist
7 you talk to.

8 Q. Based on your offsetting wells?

9 A. Based on API No. 26798, which is the second from
10 the left log in the cross section.

11 Q. And you are showing the bottom of the Cherry,
12 according to your testimony, at roughly 4,500?

13 A. Bottom of the Cherry is going to correspond to
14 the top of the Brushy, which is going to be, again, in
15 the 4,650 to 4,700-foot range.

16 Q. So you anticipate then drilling a well, according
17 to your calculations, at least within close to 50 feet
18 of top of the Brushy Canyon and, then, potentially,
19 having a perf within 100 feet at the top of the Brushy
20 Canyon, right?

21 A. If you look at the cross section, the way I am
22 projecting it, I am thinking the way it projects
23 stratigraphically into the proposed location, I would
24 say the top of the Brushy Canyon, base of the Cherry
25 Canyon is going to be roughly at 4,600 feet.

1 Q. Okay. And are you aware, Mr. Johnston, that this
2 particular area is subject to a pool that was created by
3 the Division called the East Loving Delaware Pool?

4 A. No.

5 MR. FELDEWERT: I don't think I will mark
6 this as an exhibit, but I do want to present a copy to
7 witness, if I may. This is a copy of Division Order
8 R-9501-B. If I may approach the witness.

9 EXAMINER GOETZE: Mr. Hall.

10 MR. HALL: That is fine. I would ask the
11 Division to take administrative notice of the pool
12 designation report. This area is SWD Pool 96802.

13 EXAMINER GOETZE: So noted. Proceed,
14 Mr. Feldewert.

15 BY MR. FELDEWERT (cont'd):

16 Q. Mr. Johnston, I just handed you this order only
17 for the purpose of demonstrating that the Division in
18 1993 created a pool -- actually contracted a pool to
19 create what they call the East Loving, Brushy Canyon
20 Pool for the Brushy Canyon member of the Delaware
21 Formation.

22 And if you look at the township and range, you
23 will see that back in '93 this extends into the
24 northeast quarter of section 34. And you are familiar
25 with the fact that per the Division rules those pools

1 have a one mile buffer, correct?

2 A. I am not that familiar with the rules of New
3 Mexico.

4 Q. Okay. Fine.

5 A. I take your word for it.

6 Q. All right. Now, you are going to be drilling
7 within 50 feet of this pool and perfining within 100 feet
8 of this pool. And you mentioned that you intend to
9 have -- request the permission to inject 17,500 barrels
10 of water per day?

11 A. Yes.

12 Q. Now, how did you arrive at 17,500 barrels of
13 water per day?

14 A. Well, some of the operators in the area have
15 expressed concerns about the way the application was
16 originally filed, so we have reduced that down to a
17 lower number.

18 Q. How did you arrive at the number?

19 A. I don't know I've really got a good answer for
20 you. We considered it to be a reduction. And it is
21 above a minimum volume that we believe we need to have
22 the ability to put away to make the proposed operation
23 economic.

24 Q. Do you have a study of your economics here today
25 that support your testimony that you need 17,500 barrels

1 of water per day to make it economic?

2 A. I do not.

3 Q. This is going to be a commercial operation?

4 A. Yes.

5 Q. So it is not based on any need of a particular
6 producer?

7 A. No. Although a number of the people that I've --
8 operators in the area expressed -- and even your client
9 has expressed an interest in putting water in it if the
10 thing is permitted.

11 Q. Do you have any contracts for disposal?

12 A. No, we wouldn't make a contract for something we
13 don't have a permit for.

14 Q. Do you have any commitments in the event you get
15 a permit?

16 A. As I mentioned before, we've had people express
17 interest and tell us they would bring water to this
18 facility if it was permitted.

19 Q. Have they identified how much volume they would
20 bring to the facility if it was permitted?

21 A. No.

22 Q. So you don't have any idea how much volume the
23 people you spoke with would actually bring to your
24 facility at this point?

25 A. No. We don't have any sort of a market study or

1 a commitment for something that has not been permitted
2 yet.

3 Q. And would you expect that -- the people that have
4 discussed with you possibly bringing water to your
5 facility, would you expect with the enactment of the
6 recent produced water recycling rule that that may
7 impact whatever amount they'd actually need to dispose
8 of their water at your commercial operation?

9 MR. HALL: Objection. Calls for
10 speculation.

11 Q. Have you had any discussions with them about
12 that?

13 A. I'm sorry. I don't understand your question.

14 Q. Have you had any discussions with the parties who
15 discussed with you potentially bringing water to your
16 facility about whether they still have an interest in
17 doing that in light of the passage of the Commission's
18 produced water recycling rule two months ago?

19 A. The conversations that I've had with BTA and with
20 Mewbourne, both, they both expressed interest in
21 bringing water to the facility if it is permitted.
22 They both indicated they considered it to be a good
23 location.

24 Q. And these are the two parties that are here
25 objecting to your application today, right?

1 A. Yes.

2 Q. How can you ensure that the -- whatever volume
3 you inject into these wells is not going to actually
4 migrate into the Brushy Canyon member that is subject to
5 the Division's pool?

6 MR. HALL: Object to form. Are we talking
7 about the designated SWD pool?

8 MR. FELDEWERT: I am talking about the
9 Brushy Canyon Pool recognized under Division Order
10 9501-B.

11 EXAMINER GOETZE: Let's clarify. At this
12 point, Brushy Canyon formation which has a pool
13 designated within the Delaware, I believe -- and I will
14 let the question continue on the basis, what is going to
15 happen with the water, what is keeping you out of the
16 Brushy Canyon Formation, period?

17 THE WITNESS: At the top of the Brushy
18 Canyon or immediately above the top of the Brushy Canyon
19 is a dense line streak that -- there are a couple of
20 dense lines streaks that you can correlate against this
21 cross section that we expect to act as a lower confining
22 interval.

23 BY MR. FELDEWERT (cont'd):

24 Q. Where do you see what you call a dense line
25 streak along the top of Brushy on this cross section?

1 A. It is going to be the interval roughly at
2 4,700 feet -- unfortunately, I don't have a five-inch
3 log with me -- but roughly at 4,700 feet and API No.
4 26798. And then you can see --

5 Q. Hold on. 26798, that's the --

6 A. The API number.

7 Q. -- the well in the middle of Exhibit No. 6?

8 A. Yes.

9 Q. And you see what you call a dense line streak at
10 roughly 4,700 feet?

11 A. Yes. And there are some others a little
12 shallower.

13 Q. Do you know the nature of that dense line streak,
14 as you call it?

15 A. Well, I'm not sure if it's a dense line streak.
16 It's got high resistivity. It's got hot gamma ray.

17 There are a handful of them below where -- the
18 stratographic equivalent of where we would be able to
19 perforate, that would act as an impediment to the
20 downward migration of the fluid.

21 Q. And according to calculations, you are going to
22 drill within 50 feet of what you call a dense line
23 streak on that particular well -- depending upon how it
24 correlates to where you are actually drilling?

25 A. Whether or not we actually drill through it, I

1 don't know.

2 Q. Okay.

3 A. But we will complete above it.

4 Q. As low as 4,500 feet?

5 A. Yes.

6 MR. FELDEWERT: That's all the questions I
7 have.

8 EXAMINER GOETZE: Very good.

9 MS. MUNDS-DRY: No questions, Mr. Examiner.

10 MR. BRUCE: I do have a couple of questions,
11 Mr. Examiner.

12 EXAMINER GOETZE: Mr. Bruce, you're breaking
13 my heart.

14 Continue, Mr. Bruce.

15 CROSS-EXAMINATION

16 BY MR. BRUCE:

17 Q. Mr. Johnston, does High Roller currently operate
18 any wells in New Mexico?

19 A. No.

20 Q. And you have mentioned the maximum injection
21 rate. What would you think will be the average
22 injection rate?

23 A. I don't know. I would -- if you want a number,
24 probably somewhere down on the order of 8,000 to
25 10,000 barrels a day. But I don't know until the well's

1 drilled and we see how it behaves.

2 Q. Okay. What -- you said initially the maximum
3 injection pressure will be -- will comply with the
4 Division's .2 psi per foot of depth to the top
5 perforation, correct?

6 A. Yes, sir.

7 Q. Would you anticipate in the future doing step
8 rate tests to increase the injection pressure?

9 A. Yes.

10 Q. And what, in your opinion, is the frac gradient
11 in the Delaware Formation?

12 A. I would expect it's going to be somewhere on the
13 order of in the range of, say, .62 to .66.

14 But that's the purpose of the step rate test, is,
15 for that specific location, to determine what the
16 parting pressure is.

17 MR. BRUCE: Okay. That's all I have,
18 Mr. Examiner.

19 EXAMINER GOETZE: Do you have any redirect,
20 Mr. Hall?

21 MR. HALL: I have no redirect.

22 EXAMINER GOETZE: Okay. Counselor, any
23 questions?

24 LEGAL EXAMINER WADE: No questions for me.

25 EXAMINER GOETZE: Okay. Well, there's a lot

1 here.

2 CROSS-EXAMINATION BY EXAMINER GOETZE

3 EXAMINER GOETZE: First of all, with to
4 production in the area, you have identified in your
5 area review, they are wells. And the well numbered
6 1536645, I believe that is the -- that's the Higgins 33
7 1H.

8 In review of the cementing, we got a
9 particular set of unknowns for top of cement and the
10 cement. And how is that going to be addressed?

11 THE WITNESS: Sorry. Which well is this?

12 EXAMINER GOETZE: This would be the 30015,
13 36645, which is the Higgins 33 1H.

14 (Discussion between the Examiners.)

15 EXAMINER GOETZE: I am going to delve into
16 the application and get you the page.

17 MR. HALL: Page 35.

18 EXAMINER GOETZE: Page 35, very good.

19 THE WITNESS: Well, if you give me a couple
20 of minutes, I can calculate the top of the cement of
21 those for you.

22 EXAMINER GOETZE: What I would like from you
23 is clarification of that and some real specifics, other
24 than unknown and no report.

25 With regards to this well, do we know that

1 it is a down hole co-mingling well and has connection
2 between production in both Bone Springs and
3 Delaware?

4 THE WITNESS: I would have to pull the
5 paperwork for the well, and I don't have it handy.

6 EXAMINER GOETZE: Okay. And as far as your
7 cross section, Exhibit 6, we've got mostly resistivity
8 suites on this -- well, log suites we've got, do you
9 see, besides gamma ray?

10 THE WITNESS: If you look at API number
11 26798, to the left of the depth track is a gamma ray
12 resistivity log.

13 EXAMINER GOETZE: Yes.

14 THE WITNESS: And then to the right of the
15 depth track is a gamma ray density porosity/neutron
16 porosity.

17 EXAMINER GOETZE: Okay.

18 THE WITNESS: The scale on that is minus 10
19 to 30 percent, such that the first heavy line from the
20 right is zero, the center line is ten percent, and then
21 20, 30.

22 EXAMINER GOETZE: And is that similar for --
23 let's see -- the Ogden 3, the SDX? Do you have
24 porosity?

25 THE WITNESS: It is going to be the same for

1 all four.

2 EXAMINER GOETZE: All right. Thank
3 you.

4 In consideration of application, did High
5 Roller look at an existing SWD in the proximity -- that
6 would be the Pearl No. 1, which is 30015-40496 -- as
7 part of any type of assessment in this area for
8 disposal?

9 THE WITNESS: We did not.

10 EXAMINER GOETZE: And with that, I have no
11 further questions for this witness.

12 MR. HALL: That concludes our testimony with
13 this witness. And we have an additional witness who I
14 may call for the purpose of providing testimony in the
15 nature of rebuttal evidence, if there is a need,
16 following the statements from the other folks in the
17 room. With that, we are otherwise concluded with our
18 case.

19 EXAMINER GOETZE: Mr. Bruce.

20 MR. BRUCE: May I have five minutes. I am
21 not feeling well and I would like to step outside.

22 EXAMINER GOETZE: Please. Let's take a
23 ten-minute break and come back in and then we'll go with
24 the next set.

25 (Brief recess.)

1 EXAMINER GOETZE: Okay. We are back on the
2 record.

3 At this point, we were going to go with
4 Mr. Bruce, however, evidently, we have calculations to
5 answer my question regarding the cementing of the well,
6 the Higgins No. 1.

7 If you would be so kind as to provide that
8 information and you are still under oath. Come on up
9 and have a seat.

10 (Whereupon, Mr. Johnston, the witness,
11 complies.)

12 EXAMINER GOETZE: Let's go ahead. Re-enter
13 your name on the record and what you're testifying on
14 behalf of and who --

15 THE WITNESS: Okay. My name is Rick
16 Johnston, and I am here today as a consulting petroleum
17 engineer testifying on behalf of High Roller Wells.

18 I guess in response to the question by the
19 Examiner concerning the top of cement for API
20 No. 30-01536645, on our Exhibit No. 1, we showed the top
21 of the cement on the tabulation for the three strings
22 piping that well to be unknown.

23 Yet we do show the size of the hole that was
24 drilled, the size of the casing, the depth to which it
25 was set, and then the number of sacks of cement.

1 So the first string is the 13-and-3/8ths
2 inch surface casing. It was set inside of a 1,700 inch
3 hole at 300 feet. It was cemented with 450 sacks of
4 cement.

5 When I go in and use a Class A neat yield, I
6 come up with that cement slurry generating a 764-foot
7 cement column. Typically on surface casing, you run
8 100 percent excess. So if you cut that 764 in half, it
9 still is more than adequate column to bring cement to
10 surface on that string.

11 The second string is the 9 and 5/8ths and a
12 12-and-a-quarter hole at 2,500 feet. It shows that
13 800 sacks were used to cement that string. I used a
14 Class H neat yield of 1.06. It yields a 2700-foot
15 cement column.

16 When I go and use a 20 percent washout
17 factor, the result is the top of the cement's at
18 334 feet, just slightly below the surface casing.

19 And then the last string, the 5-and-1/2-inch
20 casing in 7-and-7/8ths-inch hole, set at 10,800 feet, it
21 is cemented with 2,250 sacks.

22 Applying a Class H neat yield of 1.06, I
23 calculate a cement column of 13,762 feet. Applying a
24 20 percent washout, that results in a cement column of
25 11,009 feet.

1 So the cement top on that string is going to
2 be at surface or very near. So that well will not
3 present a path for the injected fluids to migrate out of
4 the disposal interval.

5 EXAMINER GOETZE: Okay. And I also
6 remembered one question I forgot to ask you. When you
7 made a consideration of the Delaware being economic or
8 payable, was this based upon vertical completions or did
9 this include the conservation of horizontal completions?

10 THE WITNESS: As far as looking at the
11 Delaware as being a potential disposal interval, we are
12 only looking at it as to vertical wells.

13 EXAMINER GOETZE: So when you make
14 consideration for that, I am more interested -- the
15 concern being that it has hydrocarbon potential. Was
16 any assessment made on -- other than the fact that we
17 have vertical wells that were PNA'd, was any
18 consideration given to the fact that it may be completed
19 as a horizontal and be successful?

20 THE WITNESS: No, I have not.

21 EXAMINER GOETZE: Thank you. That's all the
22 questions I have. Does anybody wish to --
23 Mr. Feldewert.

24 MR. FELDEWERT: No, thank you.

25 MS. MUNDS-DRY: No, thank you.

1 EXAMINER GOETZE: And just as a matter of
2 record, Burke's Exploration protested and you notified
3 them and you've come to resolution with them?

4 MR. HALL: Burke's?

5 EXAMINER GOETZE: B.K.

6 MR. HALL: They weren't notified and that
7 was my next housekeeping point.

8 I want to make sure the record is clear on
9 this. My notice affidavit is Exhibit 9 in the packet
10 with the court reporter's, and it shows the parties that
11 were notified, all those parties who had filed
12 objections within 15 days, I believe they are on the
13 list.

14 EXAMINER GOETZE: All right. And then you
15 may step down.

16 Mr. Bruce, it is yours.

17 MEWBOURNE OIL COMPANY CASE-IN-CHIEF

18 CLAYTON PEARSON

19 having been first duly sworn, was examined and
20 testified as follows:

21 DIRECT EXAMINATION

22 BY MR. BRUCE:

23 Q. Would you please state your name and city of
24 residence for the record.

25 A. I am Clayton Pearson. And I live in Midland,

1 Texas.

2 Q. And who do you work for and in what capacity?

3 A. I work for Mewbourne Oil Company as a landman.

4 Q. Have you previously testified before the
5 Division?

6 A. I have.

7 Q. And were your credentials as an expert petroleum
8 landman accepted as a matter of record?

9 A. Yes, sir.

10 Q. Are you familiar with Mewbourne's leasehold
11 ownership in the immediate area of the proposed SWD
12 well?

13 A. I am.

14 MR. BRUCE: Mr. Examiner, I tender
15 Mr. Pearson as an expert petroleum landman.

16 EXAMINER GOETZE: He is so qualified.

17 Q. Mr. Pearson, could you identify Exhibit 1 and
18 describe what is reflected on that plat?

19 A. Exhibit 1 is a plat. It is an overlay of a
20 Midland map on top of, I guess, some leasehold interests
21 that we have in the area.

22 It shows our surrounding leasehold interest in
23 the direct vicinity of the proposed SWD well. Any
24 section highlighted in yellow indicates that Mewbourne
25 Oil Company has a leasehold interest in that section

1 and we also have future plans to develop the sections as
2 operator either under an operating agreement or similar
3 terms.

4 Q. And in short, Mewbourne has a substantial amount
5 of leasehold acreage immediately adjacent to the
6 proposed SWD tract?

7 A. That's correct.

8 Q. What do the dashed and solid lines show?

9 A. The dashed lines indicate a permitted well we
10 plan to drill in the future. And the solid lines
11 indicate a well that has been previously drilled and
12 completed.

13 Q. And so Mewbourne is actively developing the
14 Delaware Formation in this immediate area, is it not?

15 A. That is correct.

16 Q. Will the next witness discuss a little bit more
17 about the Delaware geology?

18 A. Yes.

19 Q. And you did put other wells on here, like Bone
20 Spring and Wolfcamp. Mewbourne has already drilled a
21 number of wells in this immediate area?

22 A. That is correct.

23 Q. And its development plans are ongoing, correct?

24 A. Yes.

25 Q. Was Exhibit 1 prepared by you?

1 A. Yes.

2 MR. BRUCE: Mr. Examiner, I move the
3 admission of Exhibit 1.

4 EXAMINER GOETZE: Mr. Feldewert?

5 MR. FELDEWERT: No objection.

6 MR. HALL: No objection.

7 MS. MUNDS-DRY: No objection.

8 EXAMINER GOETZE: Very well. Exhibit 1 has
9 been so entered.

10 (Whereupon, Mewbourne Oil Company Exhibit 1
11 offered and admitted into evidence.)

12 MR. BRUCE: I have no further questions of
13 this witness.

14 EXAMINER GOETZE: Mr. Feldewert?

15 MR. FELDEWERT: No questions.

16 MS. MUNDS-DRY: No questions.

17 EXAMINER GOETZE: And Mr. Hall.

18 CROSS-EXAMINATION

19 BY MR. HALL:

20 Q. Is the Gossett SWD well situated to take water
21 from your section 34 wells?

22 A. Is it situated where it could take water from
23 section 34?

24 Q. Is it a good location for that?

25 A. It's obviously in the direct vicinity of our

1 proposed and producing wells.

2 Q. So the answer is yes?

3 A. Yes.

4 MR. HALL: Nothing further.

5 EXAMINER GOETZE: Counselor?

6 LEGAL EXAMINER WADE: No questions.

7 EXAMINER GOETZE: No questions for this
8 witness. Thank you.

9 NATE CLESS

10 having been first duly sworn, was questioned and
11 testified as follows:

12 DIRECT EXAMINATION

13 BY MR. BRUCE:

14 Q. Please state your name and city of residence.

15 A. Nate Cless. And I live in Midland, Texas.

16 Q. Where do you work?

17 A. I work for Mewbourne Oil Company as a geologist.

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

20 A. Yes, I have.

21 Q. And were your credentials as an expert petroleum
22 geologist accepted as a matter of record?

23 A. Yes, they were.

24 Q. And are you familiar with the Delaware Bone
25 Spring and other geology in the area of the proposed

1 injection well?

2 A. Yes, I am.

3 MR. BRUCE: Mr. Examiner, I tender Mr. Cless
4 as an expert petroleum geologist.

5 EXAMINER GOETZE: And you have testified
6 before us before?

7 THE WITNESS: Yes, sir.

8 EXAMINER GOETZE: Very good. Then you are
9 so qualified.

10 Q. Mr. Cless, what is Exhibit 2?

11 A. Exhibit 2 is a --

12 EXAMINER GOETZE: Continue.

13 A. Exhibit 2 is just a structure map and an activity
14 map of this area. The acreage that I've highlighted in
15 yellow is -- are sections with Mewbourne interest. The
16 section highlighted in blue is the section with the
17 proposed Gossett SWD No. 1 Well. I've put that location
18 on here and highlighted it with a blue diamond down in
19 the southeast, southeast of section 33.

20 And there is a -- I have got a structure map on
21 here that is -- it is the top of the Bone Spring
22 structure and -- and then I have also identified all of
23 the Delaware production in this area.

24 Now the Delaware Formation consists of the Bell
25 Canyon and the Cherry Canyon and the Brushy Canyon. And

1 I have gone through here and broken out basically which
2 Delaware well produces out of what. Actually, there are
3 all these colored production circles on here indicating
4 the different zones that are produced out of the
5 Delaware.

6 Also, to the right of each well bore, is the cum
7 gas, cum oil, and cum water from the Delaware, that's
8 been produced out of the Delaware for each particular
9 well.

10 And looking at the production circles, so the
11 light blue production circles indicate a Bell Canyon
12 producer; a red circle indicates a Cherry Canyon
13 producer; and green, there are two different shades of
14 green. But a green indicates a Brushy Canyon producer.
15 And I've broken the Brushy Canyon out between upper and
16 lower Brushy Canyon.

17 So --

18 Q. Go ahead.

19 A. So you can see in this immediate area, the
20 majority of the production does come out of the basal
21 Brushy Canyon or the lower Brushy Canyon. However,
22 there is still production in the Cherry Canyon and the
23 upper Brushy Canyon in the immediate area.

24 Q. And there are also some Bell Canyon wells?

25 A. There are also some Bell Canyon wells. That's

1 correct.

2 And, also, as indicated earlier, we have drilled
3 a lower Brushy Canyon horizontal in the west half, west
4 half of section 35, about a little over a mile away from
5 the proposed SWD location.

6 There are no Cherry Canyon horizontal wells
7 currently within two miles of this area. However, if
8 you look down -- if you look south, there's a horizontal
9 field in the south half of 24, south 28 east, in
10 sections 33, 34, as well as sections 3 and 4 of 25
11 south, 28 east that produce out of the upper Brushy
12 Canyon. And then there's also a Cherry Canyon field,
13 horizontal field, in 25 south, 29 east.

14 So there's certainly upper Brushy Canyon and
15 Cherry Canyon horizontals in the area. And, also, I
16 want to point out -- I guess we can move on to my next
17 exhibit, which is a cross section. But the location of
18 my next exhibit, the line is also on this map here.

19 Q. But looking just at this map, there is in this
20 general area, hydrocarbon potential in all of the
21 Delaware zones?

22 A. I believe so, yes.

23 Q. And to date, at least in the immediate area,
24 there have been no horizontal Cherry Canyon zones?

25 A. That's correct.

1 Q. Why don't you move on to Exhibit 3 and identify
2 that for the Examiners.

3 A. Exhibit 3 is a cross section that runs north to
4 south. It contains six wells in the area, and it
5 consists of the entire Delaware interval.

6 So you can see I have labeled the different parts
7 of the Delaware on the left-hand side of the cross
8 section. So you can see the upper part of the Delaware,
9 the Bell Canyon. And, then, the red dashed line in
10 through here is the top of the Cherry Canyon.

11 And as you go further down, you can see where the
12 top of the Brushy Canyon is. And at the very bottom is
13 the top of the Bone Spring.

14 Now, these particular wells I chose because --
15 the two wells in the middle are two wells that we have
16 drilled -- they are mud logs from two wells that we
17 drilled in section 35, so just a little over a mile to
18 the east of here. And on those two wells, you can see
19 that we had good mud log shows going through the Cherry
20 Canyon Formation.

21 In the well and by way of a 35 B2 and C well, we
22 have shows starting as high up as 4,100 feet in the
23 Cherry Canyon.

24 Also you can see on the well at 35 M, we had a
25 very good show -- we had a very good show at the top of

1 the Brushy Canyon or the base of the Cherry Canyon at
2 about 4,700 feet.

3 Q. And to stop -- and, once again, we are looking at
4 section 35 -- the one well is a horizontal lower Brushy
5 Canyon well; is that correct?

6 A. That's correct. The well is 35 M, so it's the
7 third well on the cross section. We landed at the very
8 basal part of the Brushy Canyon.

9 Q. And the other well, a couple of the others or at
10 least one other that you mentioned, the other wells
11 shown in section 35 at this point are Bone Spring wells?

12 A. Yes, correct.

13 Q. But you did mud log those completed wells and
14 they do show hydrocarbon potential in the Cherry Canyon
15 in this immediate area?

16 A. That's correct.

17 And the well on 35 M, so the third well in cross
18 section, I've listed what I say are current horizontal
19 targets. So there are three potential zones.

20 I guess in the two townships around this area
21 people are actively drilling Delaware horizontals in
22 that upper Brushy Canyon and Cherry Canyon as well as
23 two different parts of the lower Brushy Canyon.

24 And then just walking through this cross section,
25 the first well on this cross section is the northern

1 most well. And it is a Cherry Canyon producer. It made
2 32,000 barrels out of the Cherry Canyon. And it was
3 completed back in 1998, and it's still an active
4 producer on there.

5 The second well on this cross section is the
6 closest well to their proposed SWD location. I've
7 highlighted in blue -- on the left-hand side of that
8 well, I have highlighted in blue their initial proposed
9 injection interval. So you can see, when they initially
10 were going to take it down to 5,000 feet, kind of where
11 that lands.

12 Now that they're taking it back up to 4,500 feet,
13 they're still proposing to inject in an area which we
14 believe is prospective for Cherry Canyon and upper
15 Brushy Canyon horizontals.

16 Moving to the last two wells on the cross
17 section, I want to focus on the well that's located in
18 section 2. It's the fifth well on the cross section.

19 This well is a little over a mile away from the
20 proposed SWD well. And it is a Cherry Canyon producer.
21 It was drilled in 1954.

22 It tested the basal Brushy Canyon, but it never
23 produced out of it. And then it was recompleted at the
24 depths of 4,676 to 4,684. And it made 15,000 barrels
25 out of that Cherry Canyon zone.

1 Mr. Johnston, I believe -- he reported this as a basal
2 Brushy completion. However, if you go back and dig
3 through the records and look at the actual records on
4 it, it was recompleted in the Cherry Canyon and all of
5 its production came out of the Cherry Canyon.

6 Q. Now, looking at the wells in your cross section
7 and the structure map, would the injection into the
8 proposed Gossett well be up dip from potential producing
9 zones?

10 A. Yes, it would. I guess one other thing I would
11 like to note is Mr. Johnston also mentioned a dense
12 line -- that they believe there was a dense line at the
13 top of the Brushy Canyon. And if you look at the two
14 mud logs we have in here, no such dense line was logged
15 going through here.

16 Also, if you look at the porosity logs throughout
17 this interval, really the density porosity never gets
18 lower than eight or nine percent throughout a majority
19 of the Delaware Formation. So we believe that there
20 really is no -- that there would really be no barrier to
21 prevent the injection water from intruding down into the
22 Brushy Canyon Formation.

23 Q. And will that issue also be addressed by
24 Mewbourne's engineer?

25 A. Yes.

1 Q. Were Exhibits 2 and 3 prepared by you,
2 Mr. Cless?

3 A. Yes, they were.

4 Q. And in your opinion, is the denial of this
5 application in the interests of conservation and
6 prevention of waste?

7 A. Yes, sir.

8 MR. BRUCE: Mr. Examiner, I move the
9 admission of Exhibits 2 and 3.

10 EXAMINER GOETZE: Mr. Feldewert.

11 MR. FELDEWERT: No objection.

12 MS. MUNDS-DRY: No objection.

13 MR. HALL: No objection.

14 EXAMINER GOETZE: And a clarification,
15 acceptance of the witness qualification; I did not ask
16 you if you object.

17 MR. HALL: We don't object to him or his
18 exhibits.

19 EXAMINER GOETZE: Okay. And then we shall
20 enter Exhibits 2 and 3.

21 (Mewbourne Oil Company Exhibits 2 and 3
22 offered and admitted into evidence.)

23 EXAMINER GOETZE: Mr. Feldewert.

24 MR. FELDEWERT: No questions.

25 MS. MUNDS-DRY: No questions.

1 EXAMINER GOETZE: Mr. Hall.

2 CROSS-EXAMINATION

3 By MR. HALL:

4 Q. Mr. Cless, am I saying your name correctly?

5 A. Yes, sir.

6 Q. You look at your Exhibit 2, the structure map,
7 shows the closest Delaware production from the Bell
8 Canyon to the southeast down dip; is that correct?

9 A. Yeah, that's correct.

10 Q. Approximately --

11 A. Approximately three to four miles.

12 Q. Three to four miles is the closest that you have.

13 And if you turn to your Exhibit 3, the cross
14 section. I see that your red line shows proposed
15 injections. And that was not drawn with respect to the
16 injection intervals that are being requested in the
17 application?

18 A. That's correct. That was initially whenever they
19 were requesting going down to 5,000 feet.

20 Q. Okay. And so if we look at the horizontal line
21 you have, that indicates horizontal target at the Brushy
22 Canyon, the top of the Brushy Canyon. That line extends
23 across your AA Prime; do I have that right?

24 A. Yes.

25 Q. And that line in the vicinity of the disposal

1 well is 400 feet below the lowest injection interval
2 proposed for the Gossett well?

3 A. That line would be about 200 feet below if you
4 look at the offset. The offset -- I guess in the offset
5 well the top of that would be 4,700 feet. And they are
6 going down 4,500 feet.

7 Q. What is the minimum vertical separation you think
8 would be necessary to resolve the problems of the
9 interference with Brushy Canyon --

10 A. I'll probably defer that to the engineer. Just
11 looking at the logs throughout a lot of this Delaware, I
12 don't visibly see any barriers or any really tight
13 limestones in through here. But I will defer that to
14 the engineer.

15 Q. In the course of your evaluation, did you take
16 into consideration the existing disposal activities in
17 section 3 and 4?

18 A. Yes.

19 Q. Are you seeing any adverse effects from those
20 activities?

21 A. We have not at the current time. However, I
22 believe their injection rates -- and, again, my engineer
23 can confirm this -- but the injection rates are much,
24 much lower than what you guys were proposing.

25 MR. HALL: I have nothing further of the

1 witness.

2 EXAMINER GOETZE: Thank you. Any questions?

3 LEGAL EXAMINER WADE: No questions.

4 EXAMINER GOETZE: I have no questions for
5 this witness. Proceed with the next witness, please.

6 DREW ROBISON

7 having been first duly sworn, was questioned
8 and testified as follows:

9 DIRECT EXAMINATION

10 BY MR. BRUCE:

11 Q. Would you state your name and city of residence
12 for the record.

13 A. My name is Drew Robison and I live in Midland,
14 Texas.

15 Q. What is your job?

16 A. I am a reservoir engineer for Mewbourne Oil
17 Company.

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

20 A. Yes.

21 Q. And were your credentials as an expert reservoir
22 engineer accepted as a matter of record?

23 A. Yes, they were.

24 Q. And have you studied the Delaware Reservoir in
25 this area?

1 A. Yes.

2 MR. BRUCE: Mr. Examiner, I tender
3 Mr. Robison as an expert reservoir engineer.

4 EXAMINER GOETZE: Any objections?

5 MR. HALL: No objection.

6 EXAMINER GOETZE: Very good. You are so
7 qualified.

8 Q. Could you identify Exhibit 4 for the Examiner?

9 A. Exhibit 4 is a cumulative distribution plot of
10 the area Delaware SWDs. And by "area," I limited it to
11 the nine surrounding townships. And in those nine
12 surrounding townships, there are 44 Delaware disposals,
13 whether it be in the Bell Canyon, Cherry Canyon, or
14 Brushy Canyon. I lumped it all as the Delaware Mountain
15 group.

16 So with that -- for each well I took the average
17 injection rate over the life of the well and the maximum
18 rate for any given month for each well. And I then
19 sorted them and plotted them in an order to come up with
20 this distribution plot.

21 And I also took the Gossett SWD applied for max
22 and average disposal rate -- they have since changed
23 those rates and reduced them. But I think the point I
24 am trying to make here is still fair -- and plotted them
25 at the 100 percentile, those two different marks on the

1 far right side.

2 So the first in red is the area historical
3 average, again sorted in order from left to right. And
4 so you can see the most any well has averaged over its
5 lifetime is just under 3,000 barrels per day.

6 And the applicant applied for 20,000 barrels a
7 day and then testified that they expect 8,000 to
8 10,000 barrels a day now. And even that 8,000 to
9 10,000-barrel-a-day rate, if you look at the blue curve
10 at the bottom, that is the maximum for any given well.

11 The maximum that any well has seen in any given
12 month in these nine townships is 5,500 barrels. And,
13 again, they are saying the average is going to be above
14 that 5,500 barrels a day.

15 Mewbourne operates three Delaware wells in
16 southeast New Mexico, and they are not in these nine
17 townships. But the wells we do operate, the most we
18 have seen is around 5,000 barrels a day. And, again,
19 the average is 2,000 to 3,000 barrels a day. And in
20 most cases, we are bumping up against the max pressure
21 allowed by the OCD.

22 So we think that the applied for rates are
23 unreasonable and find it hard to believe they'll even be
24 able to achieve those rates.

25 Q. You said Mewbourne operates three Delaware wells

1 in New Mexico; you meant three Delaware SWD wells?

2 A. That's correct. Yes. Thank you.

3 Q. And Mewbourne, as with the other operators, isn't
4 averse to SWD wells?

5 A. That's right.

6 Q. You just think the rates here are too high?

7 A. That's right. And we look at each area
8 specifically, just as we would if we were drilling a
9 well. We look at the geology and what produces in the
10 area.

11 And in this particular area, we put a lot of
12 value on the Delaware. And we've drilled one basal
13 Brushy Canyon well. And we think, in the acreage that's
14 highlighted with yellow on the previous exhibits,
15 there's upwards of a million to a-million-and-a-half
16 barrels per section in the basal Brushy Canyon.

17 We haven't drilled a Cherry Canyon well in this
18 area. But, again, as the mud log shows, indicated,
19 there's hydrocarbons in the Cherry Canyon and we're
20 exploring that and it may be something we drill down the
21 road.

22 Q. What does Exhibit 5 reflect?

23 A. Exhibit 5 is a -- I basically took a basic
24 calculation of the frac rate in the Delaware. And
25 Mewbourne has drilled that basal Brushy Canyon well.

1 It's in section 35, from units N to D. And it's been
2 completed for a couple of years now.

3 After fracking the well, when you shut down the
4 job, you can measure the instantaneous shutdown pressure
5 at the surface. And with that number, it's a good
6 calculation of your frac gradient. And you take that
7 with a TDV.

8 So you can see the equation below. The frac
9 gradient equals the ISDP divided by the TDV plus the
10 hydrostatic gradient, which is going to be the
11 hydrostatic head of whatever fluid. And in this case we
12 just pumped slick water.

13 So you have got 965 psi over 6,250 feet, which is
14 the TDV, plus I used .45 -- it might even be a little
15 less than that -- and that gives you a frac gradient
16 of .6.

17 And why that's significant is that's an
18 anomalously low frac gradient for most formations.
19 Typically, as you see below, these are measured numbers
20 in the Avalon shale, the second Bone Spring Sand and
21 Wolfcamp of .72 to .85. And that's typical, .7 to .8.
22 And we see stuff in other areas as high as .9. We do
23 not see .6 very often. And it may be specific to this
24 area, but it is a very low frac gradient. And that's
25 concerning.

1 One of the reasons it's concerning is the OCD
2 allows a .2. The maximum injection pressure on the
3 surface is a .2 times the top perf. And if you subtract
4 out that .2, that leaves you with a fluid gradient from
5 this .6 of .4.

6 Well, in the disposal application, the majority
7 of the water was 150- to 300,000 total dissolved solids,
8 which is going to get frac gradients closer to -- I'm
9 sorry -- hydrostatic gradients closer to .5 than .4.
10 And so with that, just at the max pressure, essentially
11 this application would be above the frac gradient of the
12 Delaware.

13 Q. And especially considering Mr. Cless's testimony
14 that there is no dense lime layer, are you afraid of
15 this well, if the injection rates are too high, fracking
16 into the lower Brushy Canyon?

17 A. Yes. And especially if the applicant tries to
18 get a step rate test and increase the maximum injection
19 pressure. So as I indicated here, they'll already be at
20 the beginning of that -- that step rate test will likely
21 already be above the frac gradient. So they will not
22 see an inflection on that rate versus the pressure plot
23 that typically indicates the fracture point on the step
24 rate test.

25 Q. And so besides its potential affect on the Cherry

1 Canyon Reservoir, also its potential severe affect on
2 the Brushy Canyon Reservoir?

3 A. That's what we're concerned -- and like I said
4 before, we put significant value on the Delaware in this
5 area. Right now our activity is limited to the Brushy
6 Canyon, but with the reserve numbers that we have seen
7 to date and the wells we have planned in the area -- we
8 only show the wells we have permitted -- we've got
9 upwards of probably close to 30 to 40 wells staked in
10 this area. We are just waiting to file the permits
11 until we get closer to drilling them. The land
12 situation is very difficult and it moves slowly with all
13 the different owners. And so it takes time to put those
14 sections together.

15 But we have put a lot of time and effort into it.
16 And one of our primary objectives in this area is the
17 basal Brushy Canyon. We have developed Avalon Shale,
18 the Second Bone Spring Sand, and Wolfcamp. And they are
19 all economical targets. So Mewbourne has and will have
20 a significant volume in the future that we'll be
21 producing.

22 With that, we are moving forward with a Devonian
23 disposal. And in a phone conversation I had with Mr.
24 Johnston, I indicated to him that if they would consider
25 Devonian disposal, we would not object to that

1 application.

2 And I also want to say that I for sure -- and I
3 don't believe that anybody at Mewbourne has indicated
4 that we would be interested in sending our water to High
5 Roller because of those plans to drill our own disposal
6 well in the Devonian, which is a significant cost.

7 Q. Devonian wells can't accept under 20,000 barrels
8 a day --

9 A. That's correct. And if I did a similar
10 distribution plot, there's not as many wells. The
11 Delaware is easy to access. The Devonian here is
12 probably 14,000 feet, so it's considerably deeper.

13 But if I did a similar distribution plot for Eddy
14 County, you would see injection rates of 15,000, 20,000,
15 25,000 barrels a day consistently in the Devonian.

16 And Mewbourne actually operates out of three or
17 four Devonian disposals. And we've seen similar
18 injection rates. And that is why we are moving forward
19 with that deeper disposal zone.

20 Q. Were Exhibits 4 and 5 prepared by you?

21 A. Yes, they were.

22 Q. And in your opinion, is the denial of this
23 application in the interests of conservation and the
24 prevention of waste?

25 A. Yes.

1 MR. BRUCE: Mr. Examiner, I move the
2 admission of Exhibits 4 and 5.

3 EXAMINER GOETZE: Any objections to entrance
4 of the exhibits?

5 MR. HALL: No objection.

6 MS. MUNDS-DRY: No objection.

7 MR. FELDEWERT: No objection.

8 EXAMINER GOETZE: Very well. Exhibits 4 and
9 5 are so entered.

10 (Mewbourne Oil Company Exhibits 4 and 5
11 offered and admitted into evidence.)

12 EXAMINER GOETZE: Let's start with
13 Mr. Feldewert.

14 MR. FELDEWERT: I have no questions.

15 EXAMINER GOETZE: Ms. Munds-Dry, do you have
16 any questions?

17 MS. MUNDS-DRY: I have no questions.

18 EXAMINER GOETZE: And to you, Mr. Hall.

19 CROSS-EXAMINATION

20 BY MR. HALL:

21 Q. Referring to your Exhibit No. 4, Mr. Robison,
22 could you explain to us what your red line means?

23 A. That for any --

24 Q. What does the percentage mean, the percentage of
25 what?

1 A. It's where it falls -- I mean, this is a
2 distribution plot. So take the 90th percentile there on
3 the far right, so only 10 percent of the wells ever
4 injected more than 1,500 barrels a day. And 90 percent
5 of the wells injected less than 1,500 barrels a day on
6 average.

7 So what I am showing here is the 100 percentile
8 means that the highest any well in this whole area is
9 injected in both the red and the blue, so the red is the
10 average, the blue is the max, is an average of almost
11 3,000 barrels a day and a max of about 6,500 barrels a
12 day.

13 And I just plotted -- since it's not actual data
14 on the Gossett Well and it's just applied-for data, I
15 plotted that and where it would fall on the percentile
16 plot. And it would be that 100 percentile well and far
17 exceed any other well in the area.

18 Q. Okay. This says it purports to show total
19 injected volumes. Can you derive that from this?

20 A. No, you can not. There's no time component to
21 this.

22 Q. And this is a population of 44 disposal wells --

23 A. Correct.

24 Q. -- within nine --

25 A. Right.

1 Q. Does that include the disposal well in section
2 34?

3 A. Yes, it did. I could speak to that. I don't
4 have any exhibits. But that well falls in line here. I
5 have the injection plot here.

6 Currently it is disposing at about -- it looks
7 like about 58,000 barrels a month, so it's just under
8 2,000 barrels a day at 579 pounds.

9 The maximum pressure under the OCD order is for
10 that well 670 pounds. And that is the standard .2 times
11 the top perf. And on the completion I believe -- yes,
12 3350.

13 And so they are almost at the max pressure. And
14 they have injected 1.3 million barrels, and they are
15 only putting 2,000 barrels a day near the max pressure.

16 So the applicant's original 30,000 a day max and
17 20,000 average would have in two months exceeded what
18 this well has injected in over two years.

19 Q. Are you seeing any adverse effects on Brushy
20 Canyon reserves from the injecting of 33 and 34?

21 A. No, we have not. And we have not drilled in this
22 section either.

23 Q. Okay.

24 A. Our nearest well is about a half mile away, I
25 believe.

1 Q. The Yardbird well on the west half, west half of
2 34, is that drilling now?

3 A. No, it is not. It is planned for later this
4 year. We have drilled in section 3, unit D, but that is
5 a Wolfcamp well. And that well's pending completion.

6 Q. Okay. And your well at 34, west half, west half,
7 that is Bone Spring --

8 A. Yes. We have not drilled any wells in 34 to
9 date.

10 Q. Okay. Referring to Exhibit 1, and I don't know
11 if you have that in front of you. But it shows, in my
12 understanding, Delaware horizontal --

13 A. Yes.

14 Q. -- Delaware horizontal projects?

15 A. I don't think I understand your question.

16 Q. There are two wells in section 34 that appear to
17 be indicating with hatched brown.

18 A. Correct. And if you look at the legend below,
19 that's a Delaware that was on a permit. So we do have
20 plans and have filed and have approved permits to drill
21 in 34.

22 Q. Do you have any other existing Delaware
23 horizontals that you drilled in the area?

24 A. No, we do not. Not on this map, no.

25 Q. But your primary target is Brushy Canyon if you

1 were to do that?

2 A. Yes.

3 Q. Do you have an opinion what minimum vertical
4 separation would be needed to avoid adversely affecting
5 Brushy Canyon?

6 A. Truthfully, that largely depends on the injection
7 rates and the injection pressures.

8 Q. Okay.

9 A. And so I can't answer that -- with these volumes,
10 I'd -- on the application I would say we do not need any
11 injection into the Delaware.

12 MR. HALL: That concludes my cross.

13 EXAMINER GOETZE: Counselor?

14 LEGAL EXAMINER WADE: No questions.

15 EXAMINER GOETZE: I have one question.

16 CROSS-EXAMINATION BY EXAMINER GOETZE

17 EXAMINER GOETZE: You mentioned Mewbourne
18 had three SWDs wells in proximity --

19 THE WITNESS: Yes.

20 EXAMINER GOETZE: -- are also injecting in
21 Delaware?

22 THE WITNESS: Yes, I'd say -- they were in
23 Eddy County, New Mexico. They are not in this nine
24 township area.

25 EXAMINER GOETZE: Okay.

1 THE WITNESS: And with those, we made sure
2 there was no Delaware production in the nearby sections.
3 So we don't think it's prospective in those areas.

4 EXAMINER GOETZE: But then again, they were
5 not part of this nine township exercise --

6 THE WITNESS: That's correct.

7 EXAMINER GOETZE: No further questions for
8 this witness. Mr. Bruce?

9 MR. BRUCE: That concludes my presentation.
10 Thank you.

11 EXAMINER GOETZE: Mr. Feldewert, do you have
12 anything you want to bring forth?

13 MR. FELDEWERT: No, Mr. Examiner. Thank
14 you, though.

15 EXAMINER GOETZE: And Ms. Munds-Dry?

16 MS. MUNDS-DRY: Nothing to offer.

17 EXAMINER GOETZE: Okay. Would you like to
18 close?

19 MR. HALL: I think we'll wait to see the
20 nature of the statements and we'll reserve that option.

21 EXAMINER GOETZE: Very good. While I have
22 you up here, did we ever admit your Exhibit 9?

23 MR. HALL: So moved.

24 EXAMINER GOETZE: Well, thank you. Are
25 there any objections?

1 (No response.)

2 EXAMINER GOETZE: Okay. High Roller
3 Exhibit 9 is made part of the record, which is the
4 notification affidavit.

5 (High Roller Wells Exhibit 9 Offered and
6 admitted into Evidence.)

7 EXAMINER GOETZE: At this time, would you
8 like to come forward and provide a statement?

9 MS. GLORIA VASQUEZ: Yes, please.

10 Good morning. My name is Gloria Vasquez.
11 And we obviously don't have the maps or the figures or
12 the facts. But we are here to represent the community
13 in the area and just let everyone know why we are
14 objecting and we really don't want this thing in our
15 area.

16 We are actually -- myself and my fiance
17 currently are actually building a home. It's one lot
18 that separates the proposed site and our property. It
19 is under construction right now. It's actually -- they
20 have broken ground.

21 The other thing is there is a water well we
22 are going to be redrilling. I have some photos. Can I
23 provide those?

24 EXAMINER GOETZE: You may.

25 MR. HALL: Let's talk about that.

1 EXAMINER GOETZE: Let's let her make a
2 statement, and then you may have an opportunity.

3 MR. HALL: Let's just then clarify the rules
4 here.

5 EXAMINER GOETZE: She is providing testimony
6 as to just fact of what her situation is. And though --
7 there is no reason why it cannot be entered into
8 record.

9 MR. HALL: There is.

10 EXAMINER GOETZE: And what would that be?

11 MR. HALL: I think she is perfectly entitled
12 to make a statement. The Division has always allowed
13 that. It doesn't appear that Ms. Gloria Vasquez is any
14 individual who received notice or who filed a timely
15 objection. And so, for that reason, if you refer to the
16 rules of participation of hearings, I guess, it does
17 provide for statements.

18 But if you look at rule 1915414-D --
19 sorry -- -C, it spells out how parties may make
20 statements. The Division has traditionally allowed
21 that. But they are not allowed to present evidence or
22 cross-examine witnesses.

23 Now the understanding that a statement of
24 hers would be a statement only, and would not constitute
25 evidence upon which the Division could base a decision,

1 that's absolutely fine; but when we get to the point
2 where we start to tender photographs, other materials
3 into the record, I think that becomes a problem for us.

4 So that is what that rule addresses. Those
5 who may submit actual evidence are identified in rules
6 1915410-C and -B. And those are actual parties, those
7 who have filed timely objections.

8 And I have no record of Gloria Vasquez
9 filing a timely objection with the Division.

10 EXAMINER GOETZE: So her January 13th notice
11 is not timely? That's what I received and forwarded
12 notification to Mr. Wood by e-mail.

13 MR. HALL: You have that from Margarita
14 Vasquez. That is a different individual.

15 EXAMINER GOETZE: My e-mail here, it is
16 Gloria Vasquez, January 13th, 2015, 11:16 a.m. to
17 Mr. Wood.

18 MR. HALL: I don't have that.

19 EXAMINER GOETZE: Okay. As far as entering
20 evidence --

21 LEGAL EXAMINER WADE: This may be premature.
22 I mean I think she wanted to show us pictures.

23 MR. HALL: Just trying to understand the
24 ground rules.

25 MR. VASQUEZ: I never got no -- I live

1 within a little over 300 yards from this facility that
2 they are trying to build, and I never got a
3 notification.

4 LEGAL EXAMINER WADE: Is it okay if Ms.
5 Vasquez represents your --

6 MR. VASQUEZ: Yes. That's my sister.

7 LEGAL EXAMINER WADE: Okay.

8 MS. GLORIA VASQUEZ: And that's actually
9 correct. I never received paperwork, certified mail to
10 my address. It must have gone elsewhere. But I found
11 out, obviously, through other parties what was going on.

12 So we contacted the Oil and Gas
13 Conservation, and we were able to send our e-mails and
14 send our certified mail opposing the well in a timely
15 manner.

16 So I really just want to show some realtime
17 photos of -- not the maps, not the gradients, nothing
18 like that, just photos of what -- the location of it,
19 the proximity, the water well that is going to be
20 redrilled, if that is acceptable.

21 LEGAL EXAMINER WADE: You don't happen to
22 have more than one copy, do you?

23 MS. GLORIA VASQUEZ: Of the photos, I do.

24 LEGAL EXAMINER WADE: Maybe you could please
25 show Mr. Hall a copy.

1 MS. GLORIA VASQUEZ: (Handing.)

2 Like I said, last week the financing went
3 through, so we were able to touch the land. We haven't
4 been able to touch the well because the financing -- we
5 were told we couldn't touch anything on the land until
6 everything went through.

7 But now they have broken ground, everything
8 is cleared. So that first photo, I just wanted to show
9 the proximity of the SWD side to that water well, first
10 of all. It is not working right now, but we have plans
11 to redrill it.

12 We have spoken to an excavation company, and
13 they will be coming out to give us quotes on that. And
14 that is not far. That is probably within 200 feet of
15 the proposed site.

16 Let's see. The other thing that we are all
17 concerned about as residents is the potential -- we are
18 all downhill from that site. Anytime it rains,
19 everything comes straight down to all the properties.
20 There is lots of vegetation, lots of trees, lots of
21 things that could be contaminated if something were to
22 spill over.

23 And I know they have taken steps to contain
24 all that. But, honestly, I am in the water transport
25 business as well. And I have seen lots of spillage or

1 we have been sent to many sites to clean up those
2 spills. And the potential for contamination is
3 definitely there.

4 The other thing is we have children, lots of
5 children out there. I have a two- and a four-year-old.
6 I'm worried -- we all are worried about the increased
7 traffic in the area.

8 It is a two-lane road. There have been five
9 fatalities in the last year within two miles of that
10 highway due to semi trucks and the speeds and the
11 carelessness. We are very, very concerned about that.

12 Let's see. We are also concerned about the
13 value of our homes. Obviously, personally, I just -- we
14 just closed on the construction loan based on a specific
15 value to our home. I worry that that would affect the
16 ultimate financing of the construction once it is done
17 in four to six months due to having an SWD site next
18 door to us and bringing down our value, because it will.
19 It definitely will. So that affects my financing
20 personally.

21 We worry about the -- I know they are saying
22 that the H2S gases may not be present, but they will be.
23 There's always oil, there's always gases that come up
24 from these wells.

25 And those low levels, I don't think that

1 they are going to be fatal levels whatsoever, just
2 because of the minimal amounts of oil and gas. But
3 there will be H2S present. And we worry about that.

4 The odor that comes with those low levels is
5 very odorous. It's a terrible, terrible, sulphurous,
6 eggy smell. I don't want my kids smelling that on a
7 constant basis every day.

8 Let's see. High Roller Wells, also we have
9 -- I was doing some research and found that they had in
10 Eagle Ford an explosion back in 2012 with one of their
11 wells, an SWD site. And OSHA cited ten serious
12 violations.

13 And we are just worried that something like
14 that might happen again. Of course, precautions were
15 taken, but you never know, you never know what could
16 happen.

17 There are kids in the area. I would hate
18 for an explosion to happen, a fire, gases, anything, you
19 never know. Also the schools in the area, they are not
20 extremely close but they are a mile to a-mile-and-a-half
21 within the proposed site, all the high schools, the
22 elementary, the middle school. We worry about those
23 odors for all the kids really.

24 And I guess that's it. I am aware of the --
25 I work for a water transport company, I manage one; and

1 I am well aware of the all the negative factors involved
2 with all these wells. And I just don't see why there's
3 not another location, down the road, south of us, three
4 miles, four miles, five miles, there is nothing but
5 land, nothing but land where there's no homes, no
6 residences. There's nothing.

7 And I think that's it.

8 Oh, and that's a petition of just some of
9 the community. Of course, there's many elderly people
10 out there. Lots of people did not get their packages,
11 like me personally. They cannot leave their homes.
12 They are concerned as well, but can't make the drive up
13 here. They don't have the computers, they don't have
14 the e-mails, and they don't have everything that we have
15 available to us to get everything out and up here.

16 So there is a petition in there as well just
17 from some of the community within a mile to
18 a-mile-and-a-half of the proposed site.

19 EXAMINER GOETZE: Thank you.

20 LEGAL EXAMINER WADE: Let's see if anyone
21 has any questions. Mr. Hall, do you have any questions?

22 MR. HALL: No, sir.

23 MR. BRUCE: No, sir.

24 EXAMINER GOETZE: And we have a picture in
25 here of a well. Is that on --

1 MS. GLORIA VASQUEZ: It is -- it's on my
2 property.

3 EXAMINER GOETZE: And it is an old water
4 well.

5 MS. GLORIA VASQUEZ: It is it old water
6 well. There was a windmill attached to it. We had to
7 take the windmill down just because it was corroded.
8 But we have definite plans to redrill that.

9 EXAMINER GOETZE: I have no more questions
10 for this presentation.

11 MS. GLORIA VASQUEZ: Thank you.

12 EXAMINER GOETZE: Thank you very much.

13 MS. GLORIA VASQUEZ: Thank you.

14 EXAMINER GOETZE: And with that, shall we
15 start with closing statements, if you have one?

16 MR. HALL: Let's see where we are with
17 respect to the statement we just heard. None of the
18 materials have been offered into evidence. I think you
19 received an oral statement only.

20 EXAMINER GOETZE: Correct.

21 MR. HALL: It raises what I view as matters
22 of surface real estate development, highway safety, not
23 matters that were really within the province of the
24 Division to examine or regulate.

25 We are prepared to present you with actual

1 evidence and testimonies on these issues. If you wish
2 to hear it, we are prepared to do that. I don't see the
3 need for that, frankly, given the state of the evidence
4 hearing record right now.

5 EXAMINER GOETZE: The OCD feels no reason to
6 provide any more information. If you feel it supports
7 your case, proceed. But at this point, it is your
8 option.

9 MR. HALL: Well, with the understanding that
10 we have heard a statement only and it does not
11 constitute evidence upon which the Division may base a
12 decision, we have no need to present additional evidence
13 on those matters.

14 EXAMINER GOETZE: The only concern I have is
15 with the water well. So whether it was
16 provided in evidence in exhibit and if it matches
17 what was presented in the C-108, that would be my
18 concern.

19 MR. HALL: We have a witness who can answer
20 that question.

21 BRIAN WOOD

22 having been first duly sworn, was questioned
23 and testified as follows:

24 DIRECT EXAMINATION

25 BY MR. HALL:

1 Q. For the record, state your name.

2 A. My name is Brian Wood.

3 Q. Where do you live and by whom are you employed?

4 A. I live in Santa Fe, New Mexico, and I'm employed
5 by Permits West.

6 Q. Did Permits West assist High Roller Wells with
7 the application and the C-108 that were filed in this
8 case?

9 A. Yes.

10 Q. And are you familiar with the lands that are the
11 subject of the application?

12 A. Yes.

13 Q. Are you familiar with the proximity of water
14 wells within the area reviewed --

15 A. Yes.

16 Q. Can you identify in the C-108, for the Examiner,
17 where the water well is located that we may have just
18 learned about in the statement?

19 A. It appears, based on the USPS map --

20 EXAMINER GOETZE: Before we go farther, we
21 will qualify him as a witness. If anybody has any
22 objections --

23 MR. HALL: He is a fact witness.

24 EXAMINER GOETZE: Okay. Sorry. I'm showing
25 my greenness. Go ahead.

1 BY MR. HALL (cont'd):

2 Q. Let's refer to the C-108.

3 A. Okay. Within the application, there is Exhibit
4 I, like India. And if you look on that, you will see
5 the Gossett SWD 1 Well on the east side of U.S. 285.
6 Immediately south of that is a very small symbol with
7 WM. It indicates a windmill.

8 MR. HALL: That's page 47.

9 A. That is the windmill Ms. Vasquez is talking
10 about.

11 If you would also look -- let me get my exhibits
12 straight here. If you look at Exhibit H. This is a
13 download from the State Engineer's Office website.

14 MR. FELDEWERT: What page are you on?

15 MR. HALL: It's 45.

16 MR. FELDEWERT: So you are on Page 45 of
17 Exhibit 1?

18 MR. HALL: Yes.

19 EXAMINER GOETZE: The map is on 47. The
20 information is on 45.

21 MR. FELDEWERT: Thank you.

22 A. Is everybody looking at this page that has access
23 to it? Okay.

24 This is a download from the State Engineer's
25 Office website. It is ranked by proximity, horizontal

1 distance from the proposed saltwater disposal well.

2 It's a little bit confusing in that the column marked
3 "distance," that is in meters not feet.

4 Based on this, the windmill is not in the State
5 Engineer's Office website, which probably makes sense
6 given that it sounds like it's dry --

7 MS. GLORIA VASQUEZ: It is older. And I
8 don't believe it has a C number. But it is there.

9 THE WITNESS: Okay.

10 EXAMINER GOETZE: Is that okay?

11 MR. HALL: That's all we have.

12 (Discussion off the record between the
13 Examiners.)

14 EXAMINER GOETZE: Let's go with closing on
15 your part, if you wish.

16 MR. HALL: We will defer to the opponents.

17 EXAMINER GOETZE: Mr. Bruce.

18 MR. BRUCE: Very simply, this has a danger
19 of adversely affecting a hydrocarbon potential zone,
20 Cherry Canyon, and due to the high rates of injection,
21 fracking into the Brushy Canyon which is already highly
22 productive in this area. And, simply put, there's too
23 much danger here and it shouldn't be allowed.

24 EXAMINER GOETZE: Mr. Feldewert.

25 MR. FELDEWERT: I have no additional

1 statements.

2 EXAMINER GOETZE: Ms. Munds-Dry?

3 MS. MUNDS-DRY: No. Thank you.

4 EXAMINER GOETZE: Mr. Hall.

5 MR. HALL: I would only briefly say the
6 basis of the objection is based solely on speculation at
7 this point. Until the well is drilled, until injection
8 data is obtained, I don't think their conclusions are
9 supportable at all. That concludes my statement.

10 EXAMINER GOETZE: Very well.

11 We will take this case under advisement.

12 And this closes this hearing for today.

13 Thank you ladies and gentlemen for coming.

14 (Time noted 11:30 a.m.)

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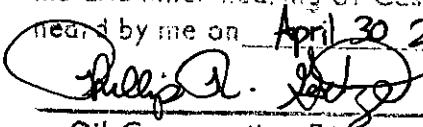
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I do hereby certify that the foregoing is
a complete record of the proceedings in
the Examiner hearing of Case No. 15278
heard by me on April 30 2015.
 , Examiner
Oil Conservation Division

1 STATE OF NEW MEXICO)
2) ss.
3 COUNTY OF BERNALILLO)
4
5
6

7 REPORTER'S CERTIFICATE

8 I, ELLEN H. ALLANIC, New Mexico Reporter CCR
9 No. 100, DO HEREBY CERTIFY that on Thursday, April 30,
10 2015, the proceedings in the above-captioned matter were
11 taken before me, that I did report in stenographic
12 shorthand the proceedings set forth herein, and the
13 foregoing pages are a true and correct transcription to
14 the best of my ability and control.

15 I FURTHER CERTIFY that I am neither employed by
16 nor related to nor contracted with (unless excepted by
17 the rules) any of the parties or attorneys in this case,
18 and that I have no interest whatsoever in the final
19 disposition of this case in any court.

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