

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

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

APPLICATION OF CHEVRON U.S.A., INC. CASE NO. 16380
FOR APPROVAL OF NONSTANDARD OIL SPACING
UNITS AND COMMINGLING, OR ALTERNATIVELY
FOR THE CONTRACTION OF THE WC-025 G-06
S263319P, BONE SPRING POOL AND THE SANDERS
TANK; UPPER WOLFCAMP POOL, AND FOR THE
CREATION OF NEW BONE SPRING AND UPPER
WOLFCAMP POOLS, SPECIAL POOL RULES, AND
COMMINGLING IN SECTION 29 AND IRREGULAR
SECTION 32, TOWNSHIP 26 SOUTH, RANGE 33
EAST, N.M.P.M., LEA COUNTY, NEW MEXICO.

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

September 6, 2018

Santa Fe, New Mexico

BEFORE: MICHAEL McMILLAN, CHIEF EXAMINER
WILLIAM V. JONES, TECHNICAL EXAMINER
DAVID K. BROOKS, LEGAL EXAMINER

This matter came on for hearing before the
New Mexico Oil Conservation Division, Michael McMillan,
Chief Examiner, William V. Jones, Technical Examiner,
and David K. Brooks, Legal Examiner, on Thursday,
September 6, 2018, 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.

REPORTED BY: Mary C. Hankins, CCR, RPR
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1 (8:24 a.m.)

2 EXAMINER McMILLAN: Okay. I sent out a
3 list yesterday, and as you know, these things change.
4 And, actually, Will Jones will be here for the first
5 case we're going to hear today, Case Number 16380. And
6 it is application of Chevron U.S.A., Incorporated for
7 approval of nonstandard oil spacing units and
8 commingling, or alternatively for the contraction of the
9 WC-025 G-06 S263319P, Bone Spring pool and the Sanders
10 Tank; Upper Wolfcamp Pool, and for the creation of new
11 Bone Spring and Upper Wolfcamp pools, special pool
12 rules, and commingling in Section 29 and irregular
13 Section 32, Township 26 South, Range 33 East, N.M.P.M.,
14 Lea County, New Mexico.

15 Call for appearances.

16 MS. BRADFUTE: Mr. Examiner, Jennifer
17 Bradfute, with the Modrall Sperling Law Firm, on behalf
18 of the Applicant.

19 EXAMINER McMILLAN: Any other appearances?

20 MS. BRADFUTE: Mr. Examiner, today I have
21 three witnesses with me, and I just wanted to briefly
22 provide an introduction for the Division concerning this
23 application.

24 This application involves two alternative
25 forms of relief. The first form of relief sought would

1 be the creation of a nonstandard horizontal spacing
2 unit, which is the size of a proposed communitized area
3 that Chevron would like to form. There are two
4 different proposed communitizations, one for the Bone
5 Spring Formation and one for the Wolfcamp Formation.

6 Alternatively, if the Division does not
7 want to grant a nonstandard horizontal spacing unit,
8 Chevron has asked that a new pool be created for the com
9 areas both in the Bone Spring Formation and the Wolfcamp
10 Formation and that special pool rules be enacted so that
11 it could effectively create a spacing unit the size of
12 the com.

13 EXAMINER BROOKS: And there were no other
14 appearances?

15 Very good. Proceed.

16 MS. BRADFUTE: I have my three witnesses
17 here.

18 EXAMINER McMILLAN: Will the witnesses
19 please stand up and be sworn in at this time? Thank
20 you.

21 (Ms. Holmes, Ms. Schwehr, Ms. DeFriend
22 sworn.)

23 MS. BRADFUTE: I'd like to call my first
24 witness.

25 EXAMINER McMILLAN: Please proceed.

1 SHALYCE HOLMES,
2 after having been first duly sworn under oath, was
3 questioned and testified as follows:

4 DIRECT EXAMINATION

5 BY MS. BRADFUTE:

6 Q. Good morning.

7 A. Good morning.

8 Q. Can you please state your name?

9 A. Shalyce Holmes.

10 Q. And, Ms. Holmes, who do you work for?

11 A. Chevron.

12 Q. And what is your position at Chevron?

13 A. I'm a land representative.

14 Q. And what are your responsibilities as a land
15 representative?

16 A. I cover all land activities within Lea County,
17 Delaware Basin.

18 Q. And are you familiar with the application
19 that's been filed by Chevron in this case?

20 A. Yes.

21 Q. And are you familiar with the status of the
22 lands which are the subject matter of that application?

23 A. Yes.

24 MS. BRADFUTE: I'd like to tender
25 Ms. Holmes as an expert witness in petroleum land

1 matters.

2 EXAMINER McMILLAN: So qualified.

3 Q. (BY MS. BRADFUTE) Ms. Holmes, could you please
4 turn to what has been marked as Exhibit A in the packet
5 in front of you?

6 A. Yes.

7 Q. Could you please identify what this document
8 is?

9 A. This document is our application to create a
10 nonstandard spacing unit for the Bone Spring and
11 Wolfcamp Formations underlying Sections 29 and 32 in
12 Township 26 South, Range 33 East, Lea County, New
13 Mexico, and in the alternative, the creation of a new
14 Bone Spring and Upper Wolfcamp pool covering the same.

15 Q. Okay. And in order to create a new pool within
16 the Bone Spring and the Wolfcamp Formations, is Chevron
17 also asking for the contraction of the existing pools
18 that covers that acreage?

19 A. Yes. Yes, we are.

20 Q. Could you please turn to Exhibit B? Could you
21 please identify what this exhibit contains?

22 A. This exhibit is a map of the acreage in
23 question, specifically Sections 29 and 32 of Township 26
24 South, Range 33 East. And specifically, the bold black
25 line would be the Texas-New Mexico border.

1 Q. Okay. So the lands at issue are directly on
2 the Texas-New Mexico state line?

3 A. Yes.

4 Q. Okay. And is it your understanding that there
5 are different lot sizes within irregular Section 32?

6 A. Yes.

7 Q. Okay. And so those different lot sizes have
8 different amounts of acreage depending on where you are
9 in that irregular section?

10 A. Correct.

11 Q. And is it your understanding that Chevron would
12 like to communitize all of Section 29 and irregular
13 Section 32 under two separate communitization
14 agreements?

15 A. Yes.

16 Q. And those two separate communitization
17 agreements differ by formation; is that correct?

18 A. Yes.

19 Q. So there would be one com agreement covering
20 the Bone Spring Formation?

21 A. Yes.

22 Q. And there would be one com agreement covering
23 the Wolf- -- Upper Wolfcamp Formation?

24 A. Yes.

25 Q. Could you please explain the ownership within

1 **the proposed communitized area to the hearing examiners?**

2 A. Chevron owns 100 percent of the working
3 interest in all of Sections 29 and 32. The Bureau of
4 Land Management owns 100 percent of the royalty interest
5 in Section 29, and the State Land Office owns 100
6 percent of the royalty interest in Section 32.

7 **Q. And is the owner identical within the Bone**
8 **Spring and the Wolfcamp Formations?**

9 A. Yes.

10 **Q. Could you please turn to what's been marked as**
11 **Exhibit C, and could you please identify this document?**

12 A. This is the communitization agreement
13 specifically for the Wolfcamp Formation underlying
14 Sections 29 and 32, Township 26 South, Range 33 East.

15 **Q. And could you please turn to Exhibit D and**
16 **identify that?**

17 A. This the communitization agreement for the Bone
18 Spring Formation underlying the same.

19 **Q. And have you discussed these proposed**
20 **communitization agreements with the BLM and the**
21 **New Mexico State Land Office?**

22 A. Yes.

23 **Q. Could you summarize those discussions for the**
24 **hearing examiners?**

25 A. Those discussions have -- both parties, the BLM

1 and the New Mexico State Land Office, are amenable to
2 the communitization agreements. In December of 2017 or
3 earlier in 2017, we did discuss pursuing a resource
4 development unit covering this acreage. However,
5 subsequently the BLM rescinded, wanting to utilize
6 resource development units specifically in southeastern
7 New Mexico. So we have -- are now entering into
8 enlarged communitization agreements.

9 Q. And has the State Land Office expressed a
10 concern regarding the existing spacing rules within the
11 proposed com area to you?

12 A. Yes.

13 Q. And what were the concerns that you were told
14 about?

15 A. The concerns were specifically if the spacing
16 unit does not match the com area, the New Mexico State
17 Land Office would not be able to allocate the wells
18 appropriately via their -- their royalty reporting
19 system.

20 Q. Okay. And so has the State Land Office
21 informed Chevron that they need a spacing unit that
22 equals the size of the communitized area?

23 A. Yes.

24 Q. Okay. And that is essentially the purpose of
25 this application today, correct?

1 A. Yes.

2 Q. Why can Chevron not just form two separate
3 coms, one for the east half and one for the west half of
4 each formation, and then commingle production?

5 A. Specifically because of the lots and the
6 irregular Section 32. The allocation of the wells would
7 be different. That's a BLM rule on Onshore Order 3, I
8 believe it is, where to commingle production, the
9 royalty paid to the BLM has to be identical.

10 Q. And so has the BLM indicated to you that they
11 could not approve commingling just because of the lot
12 sizes on the state line in this area?

13 A. Correct. Correct.

14 Q. Okay. So this application is unique to the
15 acreage on the state line?

16 A. Correct.

17 Q. If you could please turn to Exhibit E in the
18 packet in front of you, I'd like to turn to the last
19 page of this exhibit, which is page 3.

20 EXAMINER BROOKS: What exhibit is this?

21 MS. BRADFUTE: E, as in elephant.

22 EXAMINER McMILLAN: Ah.

23 EXAMINER BROOKS: Ah, yes. Go ahead.

24 Q. (BY MS. BRADFUTE) If you could turn to page 3
25 of this exhibit, does page 3 contain email sent by

1 Christopher Walls from the BLM to yourself and to the
2 State Land Office, which indicates that the BLM is in
3 agreement that a larger communitization agreement would
4 be the best route forward to develop the acreage?

5 A. Yes.

6 Q. And if you could flip forward by one page, is
7 there an email dated December 19th, 2017 from the
8 Division to the BLM and the State Land Office and
9 yourself responding to the BLM's proposal?

10 A. Yes.

11 Q. And if you could turn one page forward, I just
12 want to focus on the bottom of page 1. Is there an
13 email from the State Land Office to yourself, as well as
14 the Division and the BLM further discussing this issue?

15 A. Yes.

16 Q. And the actual body of this message is on the
17 top of page 2 of this exhibit. Could you explain what
18 the State Land Office informed you in that message?

19 A. To summarize, they stated that in order to
20 create -- or to have two communitization agreements, we
21 would have to get a nonstandard project area approved by
22 the OCD to move forward with that.

23 Q. Is it your understanding that both the Bureau
24 of Land Management and the New Mexico State Land Office
25 support Chevron's idea of creating two separate coms for

1 the Bone Spring and the Wolfcamp Formations?

2 A. Yes.

3 Q. If Chevron was not able to get the spacing that
4 it requests today, what would be the result?

5 A. The result would be additional facilities and
6 further surface disturbance where we have our central
7 facilities located in the northern portion of Section
8 29.

9 Q. Okay. And in your opinion, would that result
10 in surface waste?

11 A. Yes.

12 Q. Is it your opinion that the simplest way to
13 approve the spacing for the communitized area would be
14 to create a nonstandard horizontal spacing unit?

15 A. Yes.

16 Q. Alternatively, a new pool with special pool
17 rules could be created which allows for the creation of
18 a larger spacing in the area, right?

19 A. Correct.

20 Q. So what Bone Spring Pool currently underlies
21 the acreage at issue?

22 A. The current Bone Spring pool is Pool Code
23 97955.

24 Q. Okay. And would this Bone Spring pool need to
25 be contracted in order to create a new Bone Spring pool

1 covering the area?

2 A. Yes.

3 Q. And does Chevron ask that the Division then
4 create a new Bone Spring pool underlying the acreage?

5 A. Yes.

6 Q. And what spacing does Chevron ask be created
7 for this new Bone Spring pool?

8 A. Well, 949.56 acres or 160-acre blocks for the
9 wells.

10 Q. So Chevron -- just to clarify, the spacing
11 would be based on quarter sections --

12 A. Yes.

13 Q. -- with 160-acre blocks, correct?

14 A. Correct. Correct.

15 Q. And that would be similar to the current
16 horizontal well rules for Wolfcamp wells?

17 A. Correct.

18 Q. Does Chevron also ask that it be allowed to
19 include proximity tracts in the spacing units for wells
20 that are located closer than 330 feet from an adjacent
21 quarter section?

22 A. Yes.

23 Q. And this is similar to what is allowed under
24 the new horizontal well rules, correct?

25 A. Correct.

1 Q. Has Chevron or its attorney spoken with Paul
2 Kautz in the district office concerning this request?

3 A. Yes.

4 Q. And has Mr. Kautz recommended that this pool be
5 named the Needmore Tank; Bone Spring Pool?

6 A. Yes.

7 Q. What Upper Wolfcamp pool currently underlies
8 the acreage?

9 A. That would be Pool Code 98097.

10 Q. And would this existing Upper Wolfcamp pool
11 need to be contracted in order to create a new Upper
12 Wolfcamp pool within the com area?

13 A. Yes.

14 Q. Does Chevron ask that the Division create a new
15 Upper Wolfcamp pool underlying the communitized area?

16 A. Yes.

17 Q. And what spacing does Chevron ask be created
18 for this Upper Wolfcamp pool?

19 A. Similar to the Bone Spring, 160-acre blocks.

20 Q. So it would be based on quarter sections?

21 A. Yes.

22 Q. And does Chevron also ask that it be allowed to
23 include proximity tracts in the spacing units for wells
24 that are located closer than 330 feet from an adjacent
25 quarter section?

1 A. Yes.

2 Q. And this is also similar to what's allowed
3 under the current horizontal well rules?

4 A. Yes.

5 Q. And has Mr. Kautz also recommended a name for
6 this new Upper Wolfcamp pool that's being proposed?

7 A. Yes, he has.

8 Q. And is the name of that pool the Needmore Tank;
9 Upper Wolfcamp Pool?

10 A. Yes.

11 Q. If you could please turn to Exhibit F, as in
12 Frank, in the packet in front of you, under both
13 alternatives that Chevron is seeking relief for today,
14 Chevron is asking for approval to commingle production
15 from the Bone Spring and the Wolfcamp Formations,
16 correct?

17 A. Correct.

18 Q. And that's going to be approval to commingle
19 from the Bone Spring in the Upper Wolfcamp?

20 A. Yes.

21 Q. And those formations under either form of
22 relief will be covered by separate pools, right?

23 A. Correct.

24 Q. Under the new horizontal well rules, these
25 pools are no longer prorated when there is horizontal

1 development, right?

2 A. Correct.

3 Q. And you testified earlier that ownership within
4 these formations is identical, correct?

5 A. Yes.

6 Q. Chevron previously obtained approval from the
7 Division to commingle production from these separate
8 formations within Section 29 and irregular Section 32,
9 correct?

10 A. Yes.

11 Q. And if you look at the document in Exhibit F,
12 is this the approval that Chevron obtained?

13 A. Yes.

14 Q. If you could please turn to Exhibit G, is this
15 a related approval that Chevron obtained approving a
16 central tank battery and off-lease measurements?

17 A. Yes.

18 Q. Does Chevron propose to amend these
19 administrative approvals that it obtained for the area?

20 A. Yes, we do.

21 Q. And what changes specifically is Chevron asking
22 for?

23 A. Specifically to include new wells in the Upper
24 Wolfcamp Formation into this application.

25 Q. Okay. And is Chevron also proposing an amended

1 facilities diagram?

2 A. Yes.

3 Q. If you could turn to Exhibit I, is Exhibit I
4 the amended facilities diagram that Chevron is
5 proposing?

6 A. Yes.

7 Q. And does this diagram list all of the wells
8 that Chevron is seeking commingling approval for?

9 A. Yes.

10 Q. And could you briefly explain the measurement
11 system that Chevron will be using when it comes to
12 production?

13 A. So we have two facilities trains identified as
14 Train 1 and Train 2 on the facilities diagram. We have
15 multiple wells entering through a header, and oil for
16 all wells will be measured via Coriolis heater after the
17 heater treater for each facilities train. Gas will be
18 measured after the separator, production separator and
19 heater treater prior to all production going into our --
20 the bottom right of the graph, the oil tanks installed
21 through the LACT.

22 Q. Ms. Holmes, were all of the interest owners
23 within the proposed communitized areas notified of
24 Chevron's application in this matter?

25 A. Yes.

1 Q. And were affected offsets also notified of
2 Chevron's request to create a nonstandard horizontal
3 spacing unit within the Bone Spring and the Upper
4 Wolfcamp?

5 A. Yes.

6 Q. And were operators within the respective pools
7 and within one mile of where the pools are located
8 notified of Chevron's request to contract the boundaries
9 of the existing Bone Spring and Wolfcamp wells?

10 A. Yes.

11 Q. And were working interest owners, overriding
12 royalty interest owners, the Bureau of Land Management
13 and the New Mexico State Land Office also notified of
14 Chevron's request to create a new pool and establish new
15 pool rules within Section 29 and irregular Section 32?

16 A. Yes.

17 Q. If you could please turn to Exhibit J, does
18 Exhibit J contain an affidavit that's been prepared by
19 Chevron's counsel in this matter confirming that notice
20 was provided?

21 A. Yes.

22 Q. And attached to Exhibit A are documents
23 confirming that notification was mailed. If you look at
24 the third page of this exhibit, there's a chart with a
25 blue header which states whether or not certified

1 mailings were delivered; is that correct?

2 A. Yes.

3 Q. And there were three mailings that have not yet
4 been delivered; is that right?

5 A. Correct.

6 Q. If you turn the page, has Chevron obtained USPS
7 tracking reports -- USPS tracking reports for these
8 mailings?

9 A. Yes.

10 Q. And it looks like they are still out for
11 delivery; is that correct?

12 A. Yes.

13 Q. And if you turn to the last page of this
14 exhibit, did Chevron also publish notice in a newspaper
15 of general circulation within Lea County?

16 A. Yes.

17 Q. Ms. Holmes, were Exhibits A through J prepared
18 by you or under your supervision or from company
19 business records?

20 A. Yes.

21 Q. And in your opinion, is the granting of this
22 application within the interest of conservation and the
23 prevention of waste?

24 A. Yes.

25 MS. BRADFUTE: I'd like to tender Exhibits

1 A through J into the record.

2 EXAMINER McMILLAN: Exhibits A through J
3 may now be accepted as part of the record.

4 (Chevron U.S.A., Inc. Exhibit Letters A
5 through J are offered and admitted into
6 evidence.)

7 MS. BRADFUTE: And that concludes my
8 questions.

9 CROSS-EXAMINATION

10 BY EXAMINER McMILLAN:

11 Q. Going back to your pool, the first question is:
12 Will you agree to freeze the boundaries of the new pool
13 that only encompasses Sections 29 and 32?

14 A. Yes.

15 Q. And what about -- what setbacks are you -- are
16 you requesting?

17 A. 330 from the east and the west, similar to the
18 new horizontal spacing rules, 100 from the north and 100
19 from the south.

20 Q. Okay. Any wells drilled and completed?

21 A. Yes.

22 Q. Okay. And you'll provide a list for that?

23 A. Yes. We have all of the C-102s for the wells
24 that have been drilled and completed and also the wells
25 that have not yet been completed but permitted.

1 **Q. Okay. Do any of those drilled and completed**
2 **wells fit the proximity tract rule?**

3 A. Yes.

4 MS. BRADFUTE: Yes, they do. And we have
5 later testimony from an engineer about that. There will
6 be a drilled well that fits the proximity tract rule in
7 the Upper Wolfcamp and one in the Bone Spring Formation
8 as well.

9 EXAMINER McMILLAN: It's completed?

10 REDIRECT EXAMINATION

11 BY MS. BRADFUTE:

12 **Q. Well, are they completed?**

13 A. The Bone Spring wells are completed. The
14 Wolfcamp well is permitted, and we will be drilling it
15 in the next few months. Uh-huh.

16 CROSS-EXAMINATION

17 BY EXAMINER BROOKS:

18 **Q. Are there any overriding royalties within this**
19 **area?**

20 A. Yes. There are overriding royalty interest
21 owners in Section 29.

22 **Q. So their ownership would not be identical**
23 **throughout the --**

24 A. Their ownership is identical via the formation,
25 i.e., they own whatever the override is, 2.5 percent, in

1 both the Bone Spring and the Wolfcamp Formations.

2 Q. Okay. Under both the federal and state leases
3 or --

4 A. Under the federal tract, yes.

5 Q. Okay. Under the federal tract?

6 A. Uh-huh.

7 MS. BRADFUTE: So one com agreement --

8 EXAMINER BROOKS: Yeah. The com agreement
9 will, of course, bring them all together.

10 THE WITNESS: Uh-huh.

11 MS. BRADFUTE: They'll be identical
12 throughout the communitized area for the Bone Spring and
13 the Wolfcamp.

14 THE WITNESS: Uh-huh.

15 Q. (BY EXAMINER BROOKS) Explain to me this federal
16 policy on communitization. I don't really understand
17 it, and I was not aware of it. So could you please
18 explain it to me?

19 A. So the onshore orders pretty much state that
20 the BLM wants the royalty rates that they receive from
21 every well to be identical if those wells are going to
22 be commingled. So, for instance, their royalty is
23 12-and-a-half percent. They do not want any wells where
24 their 10.375 or any other number to be commingled with
25 the 12-and-a-half percent wells. Because of the

1 irregular state section, because it is 309.56 acres,
2 when -- regardless of where the well is drilled, the
3 allocation to the BLM will be a different royalty
4 rate -- royalty decimal rate wherever you drill a well
5 because of the lots.

6 Q. Well, I still don't fully understand it. I can
7 see that if you have a different acreage --

8 A. Uh-huh.

9 Q. -- computation, then the actual net revenue
10 percentage would be different.

11 A. Yes. And that is their concern.

12 Q. So I'm still confused.

13 REDIRECT EXAMINATION

14 BY MS. BRADFUTE:

15 Q. Ms. Holmes, the BLM has informed you that they
16 won't let you commingle production in this area unless
17 you have a communitization agreement or a unit agreement
18 that covers all of Section 29 and irregular Section 32?

19 A. Correct. Correct.

20 EXAMINER BROOKS: I guess that's
21 understandable. It's getting the communitization
22 agreement in place.

23 MS. BRADFUTE: Yes.

24 EXAMINER BROOKS: Then they have the same
25 royalty -- royalty percentage. It's not the royalty

1 percentage provided in their lease.

2 THE WITNESS: Right. Right.

3 EXAMINER BROOKS: It's less than the
4 royalty percentage provided in their lease.

5 MS. BRADFUTE: That's right.

6 THE WITNESS: Uh-huh. Uh-huh.

7 EXAMINER BROOKS: Okay. Thank you.

8 CROSS-EXAMINATION

9 BY EXAMINER JONES:

10 Q. The com agreements, what status are they?

11 A. They have been submitted. They have not yet
12 been approved. We are waiting on the results of this
13 hearing for approval of the communitization agreement.

14 Q. Okay. Okay. So it's not really a catch-22.

15 MS. BRADFUTE: Yes.

16 EXAMINER JONES: Look at it in that way.

17 Q. (BY EXAMINER JONES) Those overrides, do they
18 have pooling clauses?

19 A. We have the right to pool the overrides via the
20 documents created the overriding royalty interests.
21 Uh-huh.

22 Q. So the federal com agreement, did it require
23 signature of the overrides?

24 A. It does not require signature. However, we
25 will be sending ratifications of the communitization

1 agreement to the overriding royalty interest owners.

2 Q. Okay. The acreage in the federal section, is
3 that -- do you know if that is exactly what it shows on
4 the OCD land ownership plats, or has it been resurveyed
5 by BLM?

6 A. It has not been resurveyed. It is our
7 understanding that that acreage in Section 29 is a
8 standard section, i.e., 640 acres.

9 Q. Okay. We can always say more or less.

10 A. More or less.

11 Q. And those central tank batteries, did they
12 include -- for OCD, central tank batteries, did they
13 include wells outside of this acreage?

14 A. They do not.

15 Q. So all those wells you listed were proposed
16 wells or existing wells inside this area?

17 A. Inside of this area, yes.

18 THE WITNESS: Yes. Yes.

19 EXAMINER JONES: Wow. Somebody's got lots
20 of money to drill, don't they?

21 How do you spell "Need More"?

22 MS. BRADFUTE: So I spoke with Paul. It's
23 N-E-E-D-M-O-R-E, all one word.

24 EXAMINER JONES: One word, Needmore Tank.
25 Needmore Tank; Bone Spring.

1 Upper Wolfcamp, do you know if he has a
2 definition of where that start and ends, or are we going
3 to talk about that later?

4 MS. BRADFUTE: We may need to supplement
5 the actual footage, but we'll talk about it with the
6 geologist.

7 EXAMINER JONES: Okay. Don't let us
8 forget.

9 You said surface waste. That's a term
10 that's interesting. Is that a defined term or --

11 MS. BRADFUTE: So the New Mexico Oil and
12 Gas Act defines waste including surface waste or --

13 EXAMINER BROOKS: That's true.

14 EXAMINER JONES: Okay. Mr. Brooks, thank
15 you.

16 EXAMINER BROOKS: I think the term is
17 largely archaic but not entirely.

18 **Q. (BY EXAMINER JONES) Okay. And is there any**
19 **surface restrictions on facilities, that you can't put**
20 **more than one facility in this area, or is that just for**
21 **cost needs that you want to put more than one facility?**

22 A. Well, cost is a part of it as well, but also
23 just overall surface disturbance. As you can see via
24 the diagram, we are planning to put all of those wells
25 in the section and we are also planning to put even more

1 wells in the section, so we want to try to reduce as
2 much surface disturbance as we possibly can in the
3 beginning to ensure that we aren't off lease or anything
4 of that nature.

5 Q. Will all the surface locations be on this com
6 agreement -- these com agreements?

7 A. They will. Uh-huh.

8 Q. Are you the surface land person, or do you know
9 where the pads are going to be? Is it going to be one
10 huge pad?

11 A. There are multiple -- I am not the surface land
12 person. However, there are multiple pads located on the
13 surface that almost cover every inch of the north
14 boundary line of Section 29.

15 MS. BRADFUTE: We'll have some diagrams
16 that the engineer is going to talk about.

17 Q. (BY EXAMINER JONES) Okay. So we are definitely
18 talking about two separate pools here?

19 MS. BRADFUTE: That's right.

20 THE WITNESS: Uh-huh.

21 EXAMINER JONES: So not combined.

22 Q. (BY EXAMINER JONES) And is it -- you're not a
23 legal witness here, so --

24 EXAMINER JONES: You're not going to put on
25 a legal witness, are you, to testify as to the ability

1 of the OCD to make oversized nonstandard spacing units?

2 (Laughter.)

3 MS. BRADFUTE: Well, typically we can't
4 opine to what the law states.

5 EXAMINER JONES: Okay.

6 MS. BRADFUTE: And so we could present a
7 legal argument if you would like a brief on that.

8 EXAMINER JONES: I don't. Mr. Brooks
9 might.

10 EXAMINER BROOKS: No. I think the opinions
11 on that subject have been very extensively --

12 MS. BRADFUTE: Chevron is satisfied with
13 either option, either alternative that it's requesting
14 in its application, feels confident we'll have a similar
15 result. And so it's whatever form of relief the
16 Division would prefer.

17 Q. (BY EXAMINER JONES) Was the -- I guess another
18 hearsay issue. Was the land office -- in your
19 conversations, did you submit these com agreements to
20 both agencies yourself?

21 A. Yes.

22 Q. Okay. Did they talk about whether they would
23 rather do a unit, in the land office, or a com
24 agreement?

25 A. So in early 2017, we had gotten -- Chevron as a

1 company had gotten multiple resource development units
2 approved via the Bureau of Land Management. However, in
3 December, a decision was made with the BLM to no longer
4 use resource development units. But we had presented
5 that plan to the State Land Office and received
6 preliminary approval from the Commissioner for the State
7 Land Office and also approval from the BLM to move
8 forward with those resource development units. But in
9 December, that was rescinded, and the thought was the
10 best route forward would be to do a communitization
11 agreement that covered the entire footprint of Sections
12 29 and 32, specifically.

13 Q. Okay. In Section 29, that little federal lease
14 in the southeast quarter --

15 A. Uh-huh.

16 Q. -- is that the same royalty rate as the
17 other --

18 A. Federal lease? Yes. Uh-huh.

19 Q. -- federal lease?

20 Now, if it would have been different, would
21 they have made a different decision, do you think?

22 A. I'm not sure. I do know that they were both
23 12-and-a-half percent no-sliding-scale royalties.

24 Q. Say again. They do have sliding --

25 A. No, no, no. No, no, no.

1 **Q. No sliding scale?**

2 A. No sliding scale royalty. They are both
3 12-and-a-half percent royalty leases granted by the
4 Bureau of Land Management. But no, no discussion was
5 had about if those leases had been different royalty
6 rates to the BLM, what other alternative we could have
7 pursued.

8 **Q. And is Daniel B. Gonzales still the holder of**
9 **these leases?**

10 A. No. Chevron U.S.A., Inc. is the holder of the
11 leases.

12 **Q. So he assigned the leases over?**

13 A. Yes.

14 **Q. You've received assignments from the agencies,**
15 **the BLM and State Land Office?**

16 A. We have received assignments from both
17 agencies, yes. And Chevron is listed on the LR2000 and
18 the New Mexico State Land Office's system as the lessee
19 of record.

20 **Q. This is Chevron U.S.A.?**

21 A. Inc.

22 **Q. Inc.**

23 A. Uh-huh.

24 **Q. Thank you.**

25 MS. BRADFUTE: That concludes my questions

1 for this witness.

2 I'd like to call my second witness.

3 EXAMINER McMILLAN: Please proceed.

4 KATE SCHWEHR,

5 after having been previously sworn under oath, was
6 questioned and testified as follows:

7 DIRECT EXAMINATION

8 BY MS. BRADFUTE:

9 Q. Could you please state your name for the
10 record?

11 A. Kate Schwehr.

12 Q. And, Ms. Schwehr, who do you work for?

13 A. Chevron.

14 Q. And what is your position at Chevron?

15 A. I'm a geologist in charge of well planning and
16 performance.

17 Q. Ms. Schwehr, have you previously testified
18 before the Division?

19 A. No.

20 Q. Could you please explain your educational
21 background?

22 A. I received a Bachelor of Science in Geoscience
23 from the University of Montana, as well as a Master of
24 Science in Geosciences from the University of Utah.

25 Q. And could you please explain your work history?

1 A. Prior to returning to school for my master's, I
2 worked as a well site geologist in the Williston Basin
3 for four-and-a-half years, and I've been at Chevron for
4 about a month.

5 Q. And are you familiar with the application
6 that's been filed by Chevron in this case?

7 A. Yes.

8 Q. And are you familiar with the status of the
9 lands which are the subject matter of this application?

10 A. Yes.

11 Q. Have you conducted a geologic study of the Bone
12 Spring and the Upper Wolfcamp Formation in Section 29
13 and irregular Section 32?

14 A. Yes.

15 MS. BRADFUTE: I would like to tender
16 Ms. Schwehr as an expert witness in geology matters.

17 EXAMINER McMILLAN: How long have you
18 worked for Chevron?

19 THE WITNESS: A month.

20 EXAMINER JONES: But she's mud-logged in
21 the Williston for five years.

22 THE WITNESS: Almost five years.

23 (Laughter.)

24 EXAMINER JONES: In the cold.

25 THE WITNESS: Yes. It's definitely cold up

1 there.

2 EXAMINER McMILLAN: So qualified.

3 Q. (BY MS. BRADFUTE) Ms. Schwehr, could you please
4 turn to what has been marked as Exhibit K in the packet
5 in front of you? And I'd like to look at the first page
6 of this exhibit. Could you please identify what this
7 diagram shows?

8 A. So this diagram is an Upper Avalon structure
9 map in subsurface TVD. Chevron's acreage is outlined in
10 red. Specifically, Sections 29 and 32 are outlined in
11 red to the bottom right, and the Upper Avalon structure
12 is deeper to the east and shallower to the west. I
13 would also like to note, on this diagram, that the
14 surface-hole locations of these wells, these wells were
15 all TD'd within the Bone Spring Formation.

16 Q. And could you please turn to the second page of
17 this exhibit and explain what this document is?

18 A. This map just shows the location of the wells
19 that I chose for the cross section. The cross section
20 goes from A to A prime.

21 Q. Okay. Great.

22 And the next page you turn to should be a
23 copy of the cross section that you prepared. It might
24 be the last page of this exhibit, if you can turn to the
25 cross section. Is this the cross section of wells that

1 **you prepared?**

2 A. Yes.

3 **Q. And are the wells that you selected for this**
4 **cross section representative of the Bone Spring in this**
5 **area?**

6 A. Yes.

7 **Q. Could you please explain the cross section to**
8 **the hearing examiners?**

9 A. So there is a cross section on the Bone Spring
10 from A to A prime. This cross section does follow the
11 structure map, so the well by A is shallower than the
12 well near A prime, which is deeper. We can also see
13 that the general thickness of the Bone Spring Formation
14 is consistent throughout the wells. And from the log
15 character, we can see that the characteristics of the
16 Bone Spring are similar along the wells as well.

17 **Q. And what are the depths of the Bone Spring**
18 **Formation in this area?**

19 A. So the Bone Spring goes from about 5,400 feet
20 to 5,900 feet subsurface TVD.

21 **Q. And could you please turn to the gross isopach**
22 **thickness of the Bone Spring diagram that you prepared,**
23 **and could you please explain what this map shows?**

24 A. So this map shows the gross thickness of the
25 Bone Spring Formation in the Salado Draw acreage area.

1 The thickness ranges from 2,990 feet to 3,110 feet, and
2 it generally increases in thickness to the northwest.

3 Q. And what conclusions have you drawn from your
4 study of the Bone Spring Formation in this area?

5 A. I've concluded that the Bone Spring is present
6 throughout the area and fairly consistent in character.

7 Q. And could you please turn to Exhibit L in the
8 packet in front of you? And I want to first focus on
9 the first page of this exhibit. Could you please
10 explain what that document is?

11 A. So this document contains a subsurface
12 structure map on the Upper Wolfcamp Formation. And,
13 again, Chevron's acreage is outlined in red. And on the
14 Upper Wolfcamp, it's also deeper to the east and
15 shallower to the west. And, again, on this map, the
16 surface-hole locations of the wells are shown in the
17 green, and these wells were all TD'd within the Wolfcamp
18 Formation.

19 Q. And could you please turn to the second page of
20 this exhibit and explain what it contains?

21 A. So, again, this is a cross-section location
22 map. I used the same wells for the Wolfcamp cross
23 section that I used for the Bone Spring. And, again, it
24 goes from A to A prime.

25 Q. And could you please turn to the next page of

1 this document, the cross section of the Upper Wolfcamp
2 Formation that you prepared in your study?

3 A. Yes.

4 Q. And are the wells that you selected for this
5 cross section representative of the Upper Wolfcamp in
6 the area?

7 A. Yes.

8 Q. Could you please explain this cross section?

9 A. So this is a cross section of the Wolfcamp
10 Formation from the top of the 3rd Bone Spring down to
11 Wolfcamp D. Again, this cross section shows that the
12 structure is shallower to the west and deeper to the
13 east. And we can see that generally thicknesses are
14 consistent throughout the Wolfcamp Formation in this
15 area and also that the characteristics of the Wolfcamp
16 are similar among the wells from the well character.

17 Q. What are the depths of the Upper Wolfcamp
18 Formation in this area?

19 A. The depths range from about 8,500 feet to 8,900
20 feet.

21 Q. And if you could turn to the last page of this
22 exhibit, the gross isopach thickness of the Wolfcamp.
23 Could you please explain this exhibit to the hearing
24 examiners?

25 A. So this is a gross thickness of the Wolfcamp

1 Formation. Thicknesses range from 17,020 feet to 21,060
2 feet, and they generally increase to the south.

3 Q. And what conclusions have you drawn from your
4 geologic study of the Upper Wolfcamp Formation in the
5 area?

6 A. So I've determined that Wolfcamp is present and
7 generally pretty consistent throughout the area.

8 Q. In your opinion, would the granting of
9 Chevron's application be in the best interest of
10 conservation and prevention of waste and the protection
11 of correlative rights?

12 A. Yes.

13 Q. And were Exhibits K and L compiled by you or
14 prepared under your direction and supervision?

15 A. Yes.

16 MS. BRADFUTE: I'd like to tender Exhibits
17 K and L into the record.

18 EXAMINER McMILLAN: Exhibits K through L
19 may be accepted as part of the record.

20 (Chevron U.S.A., Inc. Exhibit Letters
21 K and L are offered and admitted into
22 evidence.)

23 MS. BRADFUTE: And that concludes my
24 questions for this witness.

25

1 CROSS-EXAMINATION

2 BY EXAMINER McMILLAN:

3 Q. Okay. First question is: Where is the type
4 log for the Bone Spring and the Wolfcamp?

5 A. So we are using the Salado Draw SWD 13 for the
6 Wolfcamp and Bone Spring type log.

7 Q. Okay. In looking at the cross section on the
8 Bone Spring for the Salado Draw, are you calling the
9 Wolfcamp -- from the top of the Avalon to the base of
10 the Wolfcamp, is that your -- to the Wolfcamp, is that
11 your -- what you're calling the Bone Spring pool?

12 A. What was that?

13 Q. So you're calling -- for the type log for the
14 Salado Draw, you're calling the Bone Spring interval
15 from the top of the Wolfcamp to the -- I'm sorry -- from
16 the top of the Avalon to the top of Wolfcamp?

17 A. Yes.

18 Q. Okay. And where are your target interval or
19 intervals?

20 A. So we are currently targeting, in the Bone
21 Spring, the Upper Avalon. We've already drill eight
22 Upper Avalon, and we have already drilled one 1st Bone
23 Spring. And our future development plan will be
24 targeting the 1st Bone Spring, the 3rd Bone Spring and
25 the Lower Avalon.

1 Q. 1st Bone Spring --

2 A. Yes.

3 Q. -- and the what?

4 A. 3rd Bone Spring and Lower Avalon.

5 Q. Okay. So your present target interval is the
6 Avalon, and in the future, it's going to be the Lower
7 Avalon, right?

8 A. Yes, and 1st and 3rd Bone Spring.

9 Q. Okay. Okay. I'm going to ask you the exact
10 same question for the Wolfcamp.

11 MS. BRADFUTE: Just to clarify,
12 Mr. Examiner, the question was: What are the target
13 intervals?

14 Q. (BY EXAMINER McMILLAN) What is the -- what
15 are -- what is the vertical extent of the pool you're
16 requesting and where are your target intervals?

17 A. So the pool is from Wolfcamp A to Wolfcamp D,
18 and the intervals we're targeting are Wolfcamp A and
19 then what we're calling the Wolfcamp A2, which is below
20 the A, lower than the A target.

21 Q. Okay. What I'd like to see is I want to see
22 the type -- show an exhibit of type logs of what the
23 Bone Spring is going to be and what the Wolfcamp is
24 going to be. And then I also want to see -- I want you
25 to redo the cross sections and show where the target

1 intervals will be.

2 A. Okay.

3 Q. And then if you're going to use color displays,
4 make them relevant. I mean, a color display of all
5 green doesn't mean much.

6 A. Right. Yeah. It showed up better on the
7 screen, and it didn't work very well. I apologize.

8 Q. Use tighter intervals --

9 A. Right.

10 Q. -- next time you come.

11 EXAMINER McMILLAN: Go ahead.

12 CROSS-EXAMINATION

13 BY EXAMINER JONES:

14 Q. We're going to have to list the discovery wells
15 for each one of these pools, and Paul will probably know
16 what they are. But have you talked to him about that
17 yet?

18 A. I have not.

19 Q. Okay. It usually is the first well drilled in
20 the pool.

21 MS. BRADFUTE: In the pool. And so Chevron
22 has wells that have been drilled within the pool that
23 will be created for both pools.

24 EXAMINER JONES: And it depends on if they
25 were the first wells completed in the Wolfcamp and in

1 the Bone Spring. It could have been years ago, like
2 decades ago or something.

3 MS. BRADFUTE: Okay.

4 EXAMINER JONES: I guess if you're going to
5 redo an isopach, well, just with different -- well,
6 maybe you could send that, because sometimes Paul
7 answers our questions; sometimes he doesn't.

8 MS. BRADFUTE: Paul was out on -- with
9 medical issues over the past several weeks.

10 EXAMINER McMILLAN: Yes, he was. He was.

11 Q. (BY EXAMINER JONES) So you say the Wolfcamp is
12 going to go from the A through the B for this Upper
13 Wolfcamp? That's what's called Upper Wolfcamp.

14 A. So -- yeah. Our Upper Wolfcamp structure map
15 is hinged at the top, so it would be Wolfcamp A.

16 Q. Okay. That's your target, A and A2, right?

17 A. Yes. So A2 is still within Wolfcamp A, but
18 just a little bit lower than A.

19 Q. Okay. Well, maybe on the discovery well -- or
20 not just the discovery well, because that's -- but for
21 the -- it establishes if it's an oil pool or not. So on
22 this type log, show us the vertical top and bottom of
23 the pool, unless we want to be vague about it. Just say
24 Wolfcamp A and Wolfcamp B, which they might want to be.
25 I don't know.

1 MS. BRADFUTE: Yeah.

2 EXAMINER JONES: I don't know what Paul has
3 been using for his definitions of the Upper Wolfcamp. I
4 should know that, but I don't. It would be nice if you
5 find it out and just tell us.

6 THE WITNESS: Okay.

7 EXAMINER McMILLAN: I want multiple
8 displays. I want several ones for the Bone Spring and
9 the Wolfcamp.

10 MS. BRADFUTE: That's fine. We can do two
11 iterations, one for the Bone Spring and one for the
12 Wolfcamp.

13 EXAMINER McMILLAN: Yes. That's what I
14 want.

15 THE WITNESS: Okay. Yes.

16 Q. (BY EXAMINER JONES) And you said the Bone
17 Spring intervals. But are they the sands, or are they
18 the carbonates, or are they either one, your target
19 intervals in the Bone Spring? You said Avalon, Bone
20 Spring 1 --

21 A. 1st Bone Spring and 3rd Bone.

22 Q. -- and 3?

23 But not the 2nd?

24 A. No, not the 2nd at this time.

25 Q. The 2nd's not good here?

1 A. We don't find it economic at this time.

2 Q. Oh, so you've tried it?

3 A. I'm not sure if we've tried it. I think we've
4 looked at other --

5 Q. Other analogy?

6 A. Yes.

7 Q. Did you say it's the sands you're targeting?

8 A. I would assume sands, but I'm honestly not
9 entirely sure.

10 Q. So you just can't say right now for sure?

11 A. Uh-huh.

12 Q. It's probably the sands.

13 Okay. And geologically -- I know we're
14 going to have some testimony in a little bit by the
15 engineer, but geologically, is this formation pretty
16 heterogenous --

17 A. Yes.

18 Q. -- or is it homogeneous across, very
19 continuous --

20 A. Yes.

21 Q. -- or is it -- is it -- in your opinion, are
22 there barriers laterally along the way that would stop
23 drainage from the well?

24 A. I don't think so. Not that I'm aware of.

25 Q. Just vertical barriers?

1 A. Right. Yeah, like thick limestones. Not that
2 I'm aware of.

3 Q. Okay. So possibly the bigger spacing would be
4 all right with you as a geologist?

5 A. Yes.

6 Q. Okay. Thanks.

7 CROSS-EXAMINATION

8 BY EXAMINER BROOKS:

9 Q. Okay. Well, I think he clarified it, but the
10 examiner was going a little fast. He said, "Is it
11 homogeneous," and you said yes. And he went on and
12 said, "Is it heterogeneous," and you said yes.

13 A. Oh, sorry.

14 EXAMINER JONES: It's probably both.

15 THE WITNESS: Well, you know, it's probably
16 a mix of both, but I think it's more homogeneous than
17 heterogeneous.

18 Q. (BY EXAMINER BROOKS) Yes. Okay. That's what I
19 thought you were saying.

20 A. That's what I intended to say.

21 Q. So thank you.

22 EXAMINER BROOKS: I have no further
23 questions for the geologist.

24

25

BY EXAMINER JONES:

Q. How does it compare to your Bakken that you were logging all those years?

A. It's a little bit more complicated down here.

Yes.

Q. More complicated?

A. Yes. Not more complicated than the three four [sic], but more complicated than the Bakken.

Q. Did the Bakken compare to the Upper Wolfcamp?

A. They're similar. I would say there are similarities.

Q. More similar than Bone Spring, right?

A. Yes. Yes.

Q. Okay. Thanks.

A. Yeah. Thank you.

MS. BRADFUTE: Thank you.

I'll call my next witness.

CHRISTINE DEFRIEND,

after having been previously sworn under oath, was questioned and testified as follows:

DIRECT EXAMINATION

BY MS. BRADFUTE:

Q. Would you please state your name?

A. Christine DeFriend.

1 Q. And, Ms. DeFriend, who do you work for?

2 A. Chevron.

3 Q. What is your position at Chevron?

4 A. I'm an engineer.

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

7 A. No.

8 Q. Could you please explain your educational
9 background?

10 A. I have a Bachelor of Science in Petroleum
11 Engineering from Texas A&M.

12 Q. Could you please explain your work history?

13 A. I've worked for Chevron for eight years.

14 Q. And during your position at Chevron, your
15 tenure at Chevron, have you worked as an engineer during
16 that time?

17 A. Yes, the whole eight years.

18 Q. Are you familiar with the application filed by
19 Chevron in this matter?

20 A. Yes.

21 Q. And are you familiar with the status of the
22 lands which are the subject matter of that application?

23 A. Yes.

24 Q. And are you familiar with the drilling plans
25 for the area covered by Chevron's application?

1 A. Yes.

2 MS. BRADFUTE: I would like to tender
3 Ms. DeFriend as an expert witness in petroleum
4 engineering matters.

5 EXAMINER McMILLAN: So qualified.

6 Q. **(BY MS. BRADFUTE) Could you please turn to**
7 **what's been marked as Exhibit M in the packet in front**
8 **of you, and could you please identify what the first**
9 **page of this exhibit shows?**

10 A. This shows Chevron's acreage in southern Lea
11 County, New Mexico, and highlighted in red are Sections
12 29 and 32 which we are here today for.

13 Q. **Okay. And if you could please turn to the next**
14 **page of this exhibit, and could you please explain what**
15 **that diagram shows?**

16 A. This shows, drawn not to scale, our existing
17 drilled wells in the Bone Spring shown in blue and our
18 existing Wolfcamp wells shown in red that are drilled
19 but not yet producing. However, the Bone Spring are all
20 producing at this time.

21 Q. **And were you present for Ms. Holmes' testimony**
22 **earlier?**

23 A. Yes.

24 Q. **Has Chevron already drilled a Bone Spring well**
25 **that is located closer than 330 feet to the centerline**

1 **of the proposed com area?**

2 A. Yes. It is from the well pad -- it is from the
3 pad marked number two in blue, and it is the well that
4 is shown closest to the centerline. And that well name
5 is Salado Draw 29-26-33 Fed Com 5H.

6 **Q. And has Chevron also drilled a Wolfcamp well --**
7 **Upper Wolfcamp well located closer than 330 feet to the**
8 **centerline of the proposed com area?**

9 A. Yes. It is from Pad 8. And I apologize.
10 Again, it's not to scale. And it appears farther than
11 330, but it is, in fact, within the 330 feet. And that
12 is the well name SD EA 29 Fed Com P8 9H.

13 EXAMINER JONES: Can you say the API of it?

14 THE WITNESS: I do not have the API.

15 MS. BRADFUTE: So attached as an exhibit --
16 we will get to that next -- are the C-102s, which have
17 APIs on them.

18 **Q. (BY MS. BRADFUTE) So Ms. DeFriend, could you**
19 **please turn to the next page of this exhibit and explain**
20 **what that diagram shows?**

21 A. This is highlighting our Wolfcamp already
22 drilled existing pads and future planned and permitted.
23 So the existing are shown in blue. Those wells are
24 drilled but not yet completed and producing. Pads 10
25 and 11 are permitted but not yet drilled.

1 **Q. Could you please turn to the next page of this**
2 **exhibit and identify what is shown here?**

3 A. This is showing roughly our development plan
4 for the remaining drilling and completion activities in
5 these sections. The already drilled, as mentioned
6 before, is Pad 8 shown in blue. The permitted but not
7 yet drilled are shown in red, and those are all of our
8 Wolfcamp A and A2 development pads.

9 And then our future pads shown in the
10 southern part of Section 32 are shown in green, and we
11 have roughly six wells per section stacked on top. So
12 that's why you only see six horizontal green lines for
13 the 1st Bone, 3rd Bone and Lower Avalon.

14 **Q. Okay. So those wells are just going to be**
15 **stacked in different subparts of each formation?**

16 A. Correct.

17 **Q. So Chevron plans to fully develop the**
18 **communitized areas both in the Bone Spring and the**
19 **Wolfcamp Formations?**

20 A. Yes.

21 **Q. I want to focus on the wells that are located**
22 **within 330 feet of the centerline of the com area.**

23 A. Okay.

24 **Q. Is it your opinion that the Bone Spring well**
25 **that's located closer than 330 feet will drain some**

1 **production from the entire com area given enough time?**

2 A. Yes. We've seen -- we've seen pressure
3 communication from a frac spread to a drilling rig
4 greater than one mile away, and we've also seen
5 hydraulic communication from existing producing wells
6 within the same formation one mile away that indicates
7 the fracture network is extensive enough to cross one
8 mile or to cover one mile so that we're confident that
9 one well could drain from each quarter-quarter.

10 **Q. Okay. So that well that's located closest to**
11 **the center of the proposed com within the Bone Spring**
12 **Formation will obtain production from each**
13 **quarter-quarter section located within the communitized**
14 **area?**

15 A. Yes.

16 **Q. And in your opinion, would 160-acre spacing be**
17 **appropriate in this situation?**

18 A. Yes. We've determined based on economic
19 analysis that one well is appropriate.

20 **Q. Okay. But Chevron does intend to and has**
21 **already drilled multiple wells?**

22 A. Yes, to fully develop.

23 **Q. Likewise, for the Upper Wolfcamp Formation,**
24 **have you looked at whether or not the well that's going**
25 **to be located closest to the center of the proposed**

1 Upper Wolfcamp com area will obtain some production from
2 each 40-acre tract included within the com?

3 A. Yes.

4 Q. And is it your opinion that that well could
5 drain the com area given enough time?

6 A. Yes, for the same reasons that I've already
7 testified to, the hydraulic pressure communication --
8 the hydraulic and pressure communication.

9 Q. And is it your opinion that 160-acre spacing --
10 using 160-acre blocks -- building blocks for spacing is
11 appropriate within the Upper Wolfcamp Formation?

12 A. Yes.

13 Q. Could you please turn to Exhibit N, as in
14 Nancy? And this exhibit has two parts. There's kind of
15 a parts paper in the middle. Does this contain all of
16 the C-102 forms for wells that have been drilled or have
17 been permitted within the Bone Spring Formation in the
18 Upper Wolfcamp Formation for the proposed coms?

19 A. Yes.

20 Q. And each one of these C-102 forms provides an
21 API number, along with the location information for each
22 well, correct?

23 A. Yes.

24 Q. In your opinion, will the granting of Chevron's
25 application be in the best interest of conservation, the

1 prevention of waste and the protection of correlative
2 rights?

3 A. Yes.

4 Q. And were Exhibits M and N prepared by you or
5 compiled under your supervision and direction or from
6 company business records?

7 A. Yes.

8 MS. BRADFUTE: I'd like to tender Exhibits
9 M and N into the record.

10 EXAMINER McMILLAN: Exhibits M and N may
11 now be accepted as part of the record.

12 (Chevron U.S.A., Inc. Exhibit Letters M
13 and N are offered and admitted into
14 evidence.)

15 MS. BRADFUTE: And that concludes my
16 questions.

17 EXAMINER McMILLAN: Go ahead.

18 CROSS-EXAMINATION

19 BY EXAMINER JONES:

20 Q. So can you -- you're spending a lot of money
21 out here. You've already spent a lot of money. What
22 vertical wells have you drilled and tested as far as
23 logs and cores and special core analysis, any of that
24 stuff? Have you done that?

25 A. I'm not sure enough to testify to that.

1 **Q. Okay.**

2 A. But we have -- Exhibit M, page 2 summarizes all
3 of the producing and drilled wells. So we have the
4 eight wells. I think this is what Kate testified to
5 earlier, eight wells in the Upper Avalon, the one -- to
6 the 1st Bone, and the four wells that have been drilled
7 but not completed in the Wolfcamp A and A2.

8 **Q. You're going to complete them all at the same**
9 **time?**

10 A. Yes. Uh-huh.

11 **Q. So you've been listing and your geologist just**
12 **listed the 1st, the 3rd and the Avalon, in that order.**
13 **Is that because you like the 1st better than the --**

14 A. It's not necessarily order. I think that's
15 just the way we're verbalizing it.

16 **Q. Okay. Okay. Because you said you had drilled**
17 **a bunch already in the Avalon.**

18 A. We've already drilled and are producing the
19 Upper Avalon. We have not drilled any yet in the Lower
20 Avalon. That is a future development plan, but we have
21 not drilled or permitted. It's just our development
22 plan.

23 **Q. What sort of fluid differences are you seeing**
24 **between the formations?**

25 A. Right now we've seen very similar fluids, APIs

1 around 45, 44.7 for the Bone Spring and 46.5 for the
2 Wolfcamp. But we do have some planned PVT sampling for
3 the Wolfcamp A2, but as of now, we've seen very similar.

4 **Q. Okay. So that's the gravity.**

5 **What's the GOR -- the initial GOR that**
6 **you've been seeing? Is it a black oil reservoir? Is it**
7 **a volatile oil reservoir?**

8 A. Volatile. Uh-huh. I'm hesitant to testify to
9 a number I'm unsure of on the GORs. Without the
10 numbers --

11 **Q. You're an engineer --**

12 A. -- in front of me -- but we can very easily
13 provide that. I'm making note.

14 **Q. Okay. Well, do you have an idea of the matrix**
15 **permeability, matrix porosity, matrix fracture**
16 **permeability, fracture porosity?**

17 A. Yes. We have all of those. But, again, I
18 didn't bring any of that. I don't want to testify to
19 the wrong numbers, the wrong information, but we can
20 provide that.

21 **Q. Okay. Okay. What about reservoir simulation?**
22 **Do you have a working simulator going out here that you**
23 **fine-tune every time you get new data?**

24 A. No, not necessarily. We have a few models that
25 are working and have been history matched, but we don't

1 keep them up to date with every -- we don't update it
2 like every month or every time we get new production.
3 It's kind of when we start to look at new development
4 areas, we'll start running new models.

5 **Q. So -- but what do the models -- what are the**
6 **models showing you as far as well density out here?**

7 A. So we've used the models to optimize our well
8 spacing. So the Upper Avalon, you'll see, we have eight
9 wells per section, and those were completed with smaller
10 completion designs. So we've been able to use the
11 models, as well as offset analog data to optimize our
12 completion strategy, as well as our well spacing. So
13 our future development includes six wells per section
14 and a larger completion design.

15 **Q. Okay. So basically your frac model is**
16 **fine-tuned with your reservoir model --**

17 A. Yes.

18 **Q. -- and your nodal analysis?**

19 A. Yes.

20 **Q. Okay. What kind of surface pressures are**
21 **you -- are you producing these through rod pumps, or are**
22 **they flowing?**

23 A. They're on gas lift. Initially, they flow on
24 their own, and then we put them on gas lift.

25 **Q. Pretty quick afterwards?**

1 A. I guess quick is a relative term.

2 Q. Yeah, it's a relative term.

3 A. Several months. Yeah.

4 Q. So sand production after the fracs, are you
5 having trouble with that?

6 A. No. We're not having trouble, but we do have a
7 lot of sand production, and we're able to manage it.

8 Q. You have to go in, pull tubing and clean it
9 out, or you just --

10 A. No. Mostly we're able to manage it at surface,
11 and we run tubing immediately so that we're able to
12 switch to gas lift when we're ready to do so.

13 Q. Okay. So is it closed-in gas lift or open-end
14 gas lift? Do you have a packer down there, or is it --
15 is it just you pump down the annulus and --

16 A. No.

17 Q. -- with no packer?

18 A. We have gas lift values.

19 Q. You have mandrels and valves?

20 A. Mandrels, yes.

21 Q. Okay. So this area, how far away is it from
22 the Purple Sage?

23 A. I'm not sure of that.

24 Q. It's in Lea County.

25 MS. BRADFUTE: It's in Lea County.

1 EXAMINER JONES: But the Purple Sage, they
2 testified as to high oil gravities also.

3 MS. BRADFUTE: Yeah.

4 Q. (BY EXAMINER JONES) Is there any possibility of
5 any retrograde issues here in the Wolfcamp?

6 A. I mean, I guess there's always a possibility,
7 but we are not expecting that at this time based on our
8 nearer offset analog data.

9 Q. Have you done any PVT analysis or --

10 A. In the Wolfcamp A but not in the A2. But we
11 are planning, when we put on production one of these Pad
12 8 A2 wells, to get a PVT sample.

13 Q. Okay. You're going to get a downhole PVT
14 sample or --

15 A. No, at surface. Uh-huh.

16 Q. Okay. And put them together.

17 So there's no idea on the -- on the -- what
18 fracture indicators do you have besides just the analogy
19 that wells -- empirical analysis that wells have
20 communicated long distances? Is there -- is there
21 anything else that indicates fracturing out here?

22 A. We've seen, when we are drilling a well or a
23 pad of wells a mile away and fracking -- so the distance
24 between a frac spread and a drilling pad of a mile away,
25 we've seen that we fracked into ourselves. So as a

1 policy by Chevron, we do not do that. We have a greater
2 spacing to manage our sim ops for that reason.

3 (The court reporter requested clarification
4 of the terminology.)

5 A. Sim ops, simultaneous operations. I apologize.

6 We've also seen -- when we have a producing
7 pad and frac a nearby pad within a mile of the same
8 zone, what we call a frac hit, we've largely watered out
9 those wells for a month or so, and then the wells will
10 come back on after that water has communicated. So
11 that's extensive enough reason for us to believe that we
12 are able to produce from each quarter-quarter, because
13 of the communication we've seen.

14 Q. Okay. So quarter -- quarter-section equivalent
15 spacing is reasonable as far as you're concerned?

16 A. Yes.

17 Q. Now, what well was it that first drilled? Can
18 we find the API real quick?

19 MS. BRADFUTE: Sure.

20 EXAMINER JONES: I'm sorry to drag this
21 out.

22 MS. BRADFUTE: Oh, no.

23 So for the Bone Spring well --

24 It was the 5H well, right, Christine?

25 EXAMINER JONES: You said 5H first.

1 THE WITNESS: Yes.

2 MS. BRADFUTE: The API number is
3 30-02542440.

4 And then the Wolfcamp well is which one?

5 THE WITNESS: The Wolfcamp is the P8, Pad
6 8, 9H.

7 Q. (BY EXAMINER JONES) What API does it show on
8 that one? When you think about the differences between
9 the Lower Wolfcamp and the Upper Wolfcamp, you're not
10 targeting the Lower Wolfcamp here?

11 A. Not at this time. Right now we're targeting
12 the Wolfcamp A and the A2, which is a lower zone of the
13 A. Based on all of our analysis, those are the most
14 economic zones to target for right now.

15 Q. So why is it split between upper and the lower?

16 A. Upper Wolfcamp and the Lower?

17 MS. BRADFUTE: It had previously been split
18 by the district office, the upper and lower.

19 EXAMINER JONES: Did they have a reason for
20 that?

21 THE WITNESS: I'm not sure of that reason.

22 MS. BRADFUTE: The upper was listed as an
23 oil pool in this area, and the lower is listed as a gas
24 pool.

25 EXAMINER JONES: Okay. So it gets gassier

1 as you go down?

2 MS. BRADFUTE: Yes. Yes, which is common
3 in Lea County, in several areas of Lea County, for those
4 pool designations by the district office.

5 EXAMINER JONES: What's the API?

6 MS. BRADFUTE: It is 30-025-43268.

7 EXAMINER JONES: Okay. Thanks very much.
8 I'm sorry to drag this out.

9 THE WITNESS: No problem.

10 CROSS-EXAMINATION

11 BY EXAMINER BROOKS:

12 Q. You said that the most centrally located well
13 within this two-mile-wide area would, given enough time,
14 draw oil and gas from every quarter section in the area,
15 correct?

16 A. Yes. But to clarify, it's a one-mile-wide
17 section, not a two-mile. The east-west is one mile.
18 The north-south is roughly one-and-a-half.

19 Q. You're talking only about 29 and 32?

20 A. Yes.

21 Q. Okay. One mile wide -- one mile as opposed to
22 one-half mile. And what was proposed as an alternative
23 was two half-mile communitizations, I believe.

24 MS. BRADFUTE: So the two alternatives
25 would be one single nonstandard horizontal spacing unit

1 that covers the mile and a half long and mile wide.

2 EXAMINER BROOKS: Right.

3 MS. BRADFUTE: And then the other
4 alternative would be similar to Wolfcamp for gas rules
5 for horizontal wells using building blocks of quarter
6 section.

7 EXAMINER BROOKS: So there would be two in
8 that -- that would be the --

9 MS. BRADFUTE: Except with your proximity
10 tract, you could create one.

11 EXAMINER BROOKS: We need to talk one at a
12 time. We don't want to drive the court reporter mad.

13 MS. BRADFUTE: Okay. Sorry.

14 EXAMINER BROOKS: What you're talking about
15 here was -- the alternative of two communitized areas
16 would be one that is one-half mile wide and a mile and a
17 half long, approximately?

18 MS. BRADFUTE: No. So the two communitized
19 areas is one for the Bone Spring Formation and one for
20 the Wolfcamp Formation. Both communitized areas will
21 cover all of Section 29 and irregular Section 32. So
22 both com areas, one for the Bone Spring will be a mile
23 wide and a mile and a half long. And the one for the
24 Wolfcamp will be -- Upper Wolfcamp will be a mile wide
25 and a mile and a half long.

1 EXAMINER BROOKS: Well, I think we're
2 talking in cross-purposes, but I'm going to have to
3 recall the land witness to testify to clarify this.

4 Q. (BY EXAMINER BROOKS) But in any event, your
5 testimony, Ms. DeFriend, deals with a one-mile wide,
6 one-and-a-half-mile long communitized area?

7 A. Yes, where the lateral is the length of the
8 one-and-a-half mile.

9 Q. Yes.

10 And you have testified that the most
11 centrally located well, that is the well located
12 approximately on -- not necessarily exactly on, but
13 approximately on the north-south dividing line between
14 the two halves of that -- well, I'll have to clarify a
15 little more. The dividing line between the two halves
16 that divides the communitized area into an east half and
17 a west half, that well located approximately at that
18 location would drain -- would -- would produce oil and
19 gas at some point in time from all parts of the
20 communitized area?

21 A. Yes. Given enough time, one well would produce
22 from each quarter-quarter.

23 Q. Okay. Can you get out your crystal ball and
24 give us a prediction as to how much time would be --

25 A. I wish I had one (laughter).

1 Q. You don't have an opinion then as to --

2 A. Oh, I have an opinion, yes. But --

3 Q. An opinion is good enough.

4 A. 100-plus years.

5 Q. So it would take a very, very long time before
6 it would drain from the entire area?

7 A. Yes, which is why we have a development plan to
8 add additional wells to that area.

9 Q. And I have to use the words "drain" and
10 "develop" in different senses because I think --
11 although I'm not sure what they mean in every context, I
12 think drain would mean -- am I correct, from a reservoir
13 engineering standpoint, that drain means a more complete
14 emptying than develop, or is that a misunderstanding?

15 A. I use the term "develop" in terms of how we
16 plan to drill the area.

17 Drain -- I guess I wouldn't use the word
18 "drain" in that it would fully drain the entire
19 recoverable hydrocarbons, but it would produce some
20 hydrocarbon arguably more than supported by data, more
21 is from near wellbore than the far extents closer to the
22 leaselines.

23 Q. Yeah. I ask about those distinctions, between
24 drain and develop, because I believe the New Mexico Oil
25 and Gas Act uses the phrase in one context "drain and

1 develop," which to me indicates that it's referring to
2 somewhat more than simply removing some hydrocarbons.

3 A. Well, if you are planning to fully drain, then
4 maybe it's 300 years. It's a very long time. Given
5 enough time, with a pressure sink in the middle of the
6 section, one well could produce, drain hydrocarbons from
7 the entire area.

8 Q. Of course you would, I'm sure, agree, given
9 what you've seen in your lifetime, that in that period
10 of time, there will probably be significant changes in
11 technology of oil and gas production.

12 A. (Indicating.)

13 Q. Thank you very much.

14 RECROSS EXAMINATION

15 BY EXAMINER JONES:

16 Q. Of course, if you drill -- if we create 160
17 spacing and you drill closer than 330, you don't have to
18 prove that you'll drain a whole mile.

19 MS. BRADFUTE: That's right.

20 EXAMINER JONES: The horizontal well rule
21 doesn't say you have to prove that.

22 MS. BRADFUTE: That's right.

23 Q. (BY EXAMINER JONES) So in your opinion, if we
24 go -- if we did settle on 160s, would it be more
25 reasonable that it could develop -- develop the whole

1 160 with one well? In other words, you have hydraulic
2 and pressure communication that would convince you that
3 160-acre spacing is not abnormally large spacing in this
4 area?

5 A. Correct.

6 Q. Correct?

7 A. Not abnormally large.

8 EXAMINER BROOKS: No further questions.

9 EXAMINER JONES: Thanks.

10 MS. BRADFUTE: Thank you.

11 We will supplement the record with the
12 discovery well information and the type log information
13 as to the Bone Spring and the Wolfcamp. Would you like
14 to accept that via affidavit and in an email that I send
15 to you?

16 EXAMINER JONES: Those three parties that
17 didn't get notice yet, were they -- was that an issue at
18 all?

19 EXAMINER BROOKS: I'm not aware of what
20 that issue was.

21 MS. BRADFUTE: We published as well.

22 EXAMINER McMILLAN: Yeah. They did an
23 Affidavit of Publication.

24 EXAMINER JONES: They did an Affidavit of
25 Publication, and it was more than ten days ago?

1 MS. BRADFUTE: Yeah, it was.

2 EXAMINER JONES: Supplement the record,
3 right?

4 EXAMINER McMILLAN: Yeah, that's fine.

5 So then Case Number 16380 shall be taken
6 under advisement with the requested information.

7 Thanks.

8 We'll take a ten-minute break.

9 (Case Number 16380 concludes, 9:40 a.m.)

10 (Recess 9:40 a.m. to 9:57 a.m.)

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1 STATE OF NEW MEXICO
2 COUNTY OF BERNALILLO

3

4 CERTIFICATE OF COURT REPORTER

5 I, MARY C. HANKINS, Certified Court
6 Reporter, New Mexico Certified Court Reporter No. 20,
7 and Registered Professional Reporter, do hereby certify
8 that I reported the foregoing proceedings in
9 stenographic shorthand and that the foregoing pages are
10 a true and correct transcript of those proceedings that
11 were reduced to printed form by me to the best of my
12 ability.

13 I FURTHER CERTIFY that the Reporter's
14 Record of the proceedings truly and accurately reflects
15 the exhibits, if any, offered by the respective parties.

16 I FURTHER CERTIFY that I am neither
17 employed by nor related to any of the parties or
18 attorneys in this case and that I have no interest in
19 the final disposition of this case.

20 DATED THIS 28th day of September 2018.

21

22

23 MARY C. HANKINS, CCR, RPR
24 Certified Court Reporter
25 New Mexico CCR No. 20
Date of CCR Expiration: 12/31/2018
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