

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. 16132  
FOR A NONSTANDARD OIL SPACING AND  
PRORATION UNIT AND COMPULSORY POOLING,  
EDDY COUNTY, NEW MEXICO.

Consolidated with

APPLICATION OF CHEVRON U.S.A., INC. CASE NO. 16133  
FOR A NONSTANDARD OIL SPACING AND  
PRORATION UNIT AND COMPULSORY POOLING,  
EDDY COUNTY, NEW MEXICO.

Consolidated with

APPLICATION OF TAP ROCK RESOURCES, LLC CASE NO. 16134  
FOR COMPULSORY POOLING, EDDY COUNTY,  
NEW MEXICO.

Consolidated with

APPLICATION OF TAP ROCK RESOURCES, LLC CASE NO. 16160  
FOR A NONSTANDARD SPACING AND PRORATION  
UNIT AND COMPULSORY POOLING, EDDY COUNTY,  
NEW MEXICO

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

May 18, 2018

Santa Fe, New Mexico

BEFORE: SCOTT DAWSON, CHIEF EXAMINER  
DAVID K. BROOKS, LEGAL EXAMINER

This matter came on for hearing before the  
New Mexico Oil Conservation Division, Scott Dawson,  
Chief Examiner, and David K. Brooks, Legal Examiner, on  
Friday, May 18, 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.

1     REPORTED BY:   Mary C. Hankins, CCR, RPR  
                      New Mexico CCR #20  
2                     Paul Baca Professional Court Reporters  
                      500 4th Street, Northwest, Suite 105  
3                     Albuquerque, New Mexico 87102  
                      (505) 843-9241  
4  
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1 APPEARANCES

2 CASE NUMBERS 16132 and 16133:

3 FOR APPLICANT CHEVRON U.S.A., INC.:

4 GARY W. LARSON, ESQ.  
HINKLE SHANOR, LLP  
5 218 Montezuma Avenue  
Santa Fe, New Mexico 87501  
6 (505) 982-4554  
glarson@hinklelawfirm.com

7 and

8 ANGELA M. HEYWOOD BIBLE, ESQ.  
CHEVRON NORTH AMERICA  
OFFICE OF GENERAL COUNSEL  
9 Midcontinent Business Unit Negotiations and Legal  
1400 Smith, 6th Floor  
10 Houston, Texas 77002  
(713) 372-9039

11

12 CASE NUMBERS 16134 and 16160:

13 FOR APPLICANT TAP ROCK RESOURCES, LLC:

14 JAMES G. BRUCE, ESQ.  
Post Office Box 1056  
15 Santa Fe, New Mexico 87504  
(505) 982-2043  
jamesbruc@aol.com

16 and

17 DANA ARNOLD, ESQ.  
TAP ROCK RESOURCES, LLC  
18 Office of General Counsel  
602 Park Point  
19 Golden, Colorado 80401  
(720) 772-5090

20

21 FOR INTERESTED PARTY DOUGLAS C. MCLEOD:

22 JENNIFER L. BRADFUTE, ESQ.  
MODRALL, SPERLING, ROEHL, HARRIS & SISK, P.A.  
23 500 4th Street, Northwest, Suite 1000  
Albuquerque, New Mexico 87102  
24 (505) 848-1800  
jlb@modrall.com

25

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21  
22  
23  
24  
25

APPEARANCES

FOR INTERESTED PARTY EOG RESOURCES, INC.:

ERNEST L. PADILLA, ESQ.  
PADILLA LAW FIRM, P.A.  
1512 South St. Francis Drive  
Post Office Box 2523  
Santa Fe, New Mexico 87504  
(505) 988-7577  
epadillaplf@qwestoffice.net

FOR INTERESTED PARTIES VLADIN, LLC and JOHN YATES,  
TRUSTEE OF THE TRUST Q UNDER THE WILL OF PEGGY YATES:

J. SCOTT HALL, ESQ.  
MONTGOMERY & ANDREWS LAW FIRM  
325 Paseo de Peralta  
Santa Fe, New Mexico 87501  
(505) 982-3873  
shall@montand.com

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1 (9:00 a.m.)

2 EXAMINER DAWSON: Good morning, everyone.

3 We're here this morning to continue Docket Number 20-18.

4 We're at 1220 South Saint Francis, Santa Fe, New Mexico.

5 My name is Scott Dawson, and to my right is David

6 Brooks. He's our attorney.

7 This morning we are going to hear cases

8 one, two, three and four on the docket list. Case

9 Number 16132 is an application of Chevron U.S.A. for a

10 nonstandard oil spacing unit and proration unit and

11 compulsory pooling, Eddy County, New Mexico.

12 Case Number 16133 is an application of

13 Chevron U.S.A., Incorporated for a nonstandard oil

14 spacing and proration unit and compulsory pooling, Eddy

15 County, New Mexico.

16 Case Number 16134 is an application of Tap

17 Rock Resources, LLC for compulsory pooling, Eddy County,

18 New Mexico.

19 And Case Number 16160 is an application of

20 Tap Rock Resources, LLC for a nonstandard spacing and

21 proration unit and compulsory pooling, Eddy County, New

22 Mexico.

23 These cases are consolidated, correct?

24 MR. LARSON: Yes, Mr. Examiner.

25 MR. BRUCE: Correct.

1 EXAMINER DAWSON: Call for appearances,  
2 please.

3 MR. LARSON: Good morning, Mr. Dawson and  
4 Mr. Brooks.

5 Gary Larson with the Santa Fe office of  
6 Hinkle Shanor for the Applicant, Chevron U.S.A., Inc.,  
7 and I have three witnesses.

8 MR. BRUCE: Mr. Examiner, Jim Bruce of  
9 Santa Fe, appearing in association with Dana Arnold,  
10 in-house counsel for Tap Rock, representing Tap Rock  
11 Resources, LLC. I have four potential witnesses.

12 MR. PADILLA: Mr. Examiner, Ernest L.  
13 Padilla for EOG Resources. I have three witnesses.

14 And, also, we filed competing applications  
15 yesterday. We'll testify -- present testimony and  
16 evidence concerning those applications. We do not have  
17 case numbers yet, and they will not be assigned until  
18 May 30th.

19 EXAMINER DAWSON: Okay.

20 MR. HALL: Mr. Examiner, Scott Hall,  
21 Montgomery & Andrews of Santa Fe, on behalf of Vladin,  
22 LLC and John Yates, trustee of the Q Trust under the  
23 will of Peggy Yates. No witnesses.

24 I'm going to run out to the car and get my  
25 glasses.

1 EXAMINER DAWSON: All right. Sounds good.

2 MS. BRADFUTE: Mr. Examiner, Jennifer  
3 Bradfute, with the Modrall Sperling Law Firm, on behalf  
4 of Douglas McLeod. And I have one witness. We likely  
5 will not call him, but we may need to today.

6 EXAMINER DAWSON: Okay. Is that everyone?

7 MR. LARSON: Mr. Examiner, I'd like to  
8 introduce the lady to my left, Angela Bible, who is  
9 in-house attorney with Chevron in Houston.

10 EXAMINER DAWSON: Nice to meet you, Angela.

11 MS. BIBLE: Nice to meet you, too.

12 EXAMINER DAWSON: So when you're ready,  
13 Mr. Larson.

14 MR. LARSON: Would you like to have the  
15 witnesses sworn?

16 EXAMINER DAWSON: Yes. Please have your  
17 witnesses stand to be sworn in by the court reporter.  
18 Do you have three witnesses?

19 MR. LARSON: Yes.

20 (Mr. Cheben, Mr. Cooper, Mr. O'Toole  
21 sworn.)

22 MR. BRUCE: Mr. Examiner, I do have a brief  
23 opening statement.

24 EXAMINER DAWSON: Okay.

25 MR. BRUCE: I don't know if Mr. Larson

1 does.

2 MR. LARSON: I do not.

3 EXAMINER DAWSON: All right. Go ahead,  
4 Mr. Bruce.

5 OPENING STATEMENT

6 MR. BRUCE: Mr. Examiner, I think you got  
7 the flavor of what's going on on Tuesday at the  
8 pre-hearing conference. We believe that Tap Rock has a  
9 good, honest story to tell, and its application should  
10 be granted.

11 As Mr. Brooks mentioned in the meeting, the  
12 Division is charged with the prevention of waste, but  
13 there is also a subpart to that, and that's the  
14 protection of correlative rights.

15 Tap Rock will show that as to its Wolfcamp  
16 B well, it would be wasteful to drill an extended  
17 lateral, which is what Chevron is proposing.

18 As to the protection of correlative rights,  
19 as to the Bone Spring Formation, each party plans to  
20 drill a different reservoir, and by the OCD's own pool  
21 designations, they are in different pools.

22 As to the Wolfcamp, Tap Rock is ready,  
23 willing and able to drill, and, thus, it needs an order  
24 quickly, which I'll go into in a minute.

25 Tap Rock acquired a farm-out of a one-year

1 term of the south half of Section 13 below 10,000 feet  
2 in June 2017, less than a year ago. Shortly thereafter,  
3 it began preparations to drill a well, and this included  
4 following the procedures necessary to obtain an APD from  
5 the BLM and commencing negotiations with Chevron. It  
6 has now been working with Chevron for seven or eight  
7 months to develop Section 14 to no avail. Therefore, it  
8 needs a pooling order.

9 Both Tap Rock and Chevron have proposals  
10 for Bone Spring and Wolfcamp wells. And let's look  
11 briefly at the Bone Spring proposal. Tap Rock is only  
12 drilling a 3rd Bone Spring Carbonate, while Chevron has  
13 proposed an Avalon Bone Spring well. Tap Rock has no  
14 interest in the Avalon. In fact, the Avalon is in the  
15 Sand Dunes; Bone Spring Pool, while Tap Rock's well is  
16 in a separate -- a separate Bone Spring Pool. These  
17 applications are not conflicting with each other. They  
18 are complementary, and, frankly, both applications could  
19 be granted.

20 The Wolfcamp is the more important matter.  
21 Again, Tap Rock has worked with Chevron for a number of  
22 months and actually thought it had an agreement with  
23 Chevron. As soon as it was informed that no agreement  
24 would be forthcoming, it filed for pooling. As I said,  
25 it has an APD. It's ready and willing to drill. In

1 fact, it must commence its well within two weeks or Tap  
2 Rock will lose its farm-out, and its correlative rights  
3 will not only be adversely affected, but, using the  
4 phrase, they will be completely destroyed. Granting  
5 Chevron's application will have the same negative  
6 effect.

7 In that regard, I'd like to show you  
8 something. Mr. Examiner, I'm handing you part of Tap  
9 Rock's Exhibit 8. This is a document provided by  
10 Chevron by subpoena that Tap Rock obtained, and there  
11 are a lot of things you could say about it. But first  
12 look at the highlighted line. With respect to Chevron's  
13 proposed Wolfcamp well, they're not even planning to  
14 spud it until December of 2021. That's more than  
15 three-and-a-half years from now, three and a half. And  
16 this is after eight months of negotiations, knowing that  
17 Tap Rock had a June 1 deadline. This is not good faith.  
18 It obviously won't save Tap Rock's farm-out. In fact,  
19 since a pooling order is only valid for a year, why is  
20 Chevron even here today with a Wolfcamp proposal?

21 Tap Rock hereby moves that Chevron's  
22 Wolfcamp case be dismissed and that Tap Rock's  
23 application be allowed to proceed.

24 And as for EOG's revelation that it filed  
25 yesterday, which means it would be set for a June 28th

1     hearing, sorry, EOG is late to the game. We need an  
2     order now.

3                     Thank you.

4                     EXAMINER BROOKS: Mr. Bruce, could you just  
5     give us an overview of what wells you're proposing and  
6     where you're proposing them?

7                     MR. BRUCE: Tap Rock has a Bone Spring  
8     proposal, 3rd Bone Spring Carbonate, in the east  
9     half-east half of 14 and a Wolfcamp B, kind of a middle  
10    Wolfcamp, proposal in the -- it's in the Purple Sage  
11    Pool, and, therefore, that well unit comprises the east  
12    half of Section 14.

13                    EXAMINER BROOKS: This is in what part of  
14    the Wolfcamp?

15                    MR. BRUCE: The geologist will describe it.  
16    It's Wolfcamp B.

17                    EXAMINER BROOKS: I understand the Wolfcamp  
18    zones are not as firmly agreed upon.

19                    MR. BRUCE: Correct.

20                    EXAMINER BROOKS: I've heard several.

21                    MR. BRUCE: It's not at the top of the  
22    Wolfcamp. It's quite a bit below that.

23                    EXAMINER BROOKS: What's the project area  
24    going to be?

25                    MR. BRUCE: East half of Section 14.

1 EXAMINER BROOKS: East half of Section 14.

2 EXAMINER DAWSON: Yes.

3 EXAMINER BROOKS: 320 acres.

4 MR. BRUCE: Standard --

5 EXAMINER BROOKS: Thank you. Appreciate  
6 it.

7 Obviously, other attorneys are at liberty  
8 to say what they want in terms of the pre-hearing  
9 statement -- in terms of an opening argument, but I  
10 would like to get the same information from anybody else  
11 who is here proposing wells so I know what's going on.

12 EXAMINER DAWSON: Does anybody else wish to  
13 make an opening statement?

14 Mr. Larson, could you describe your wells?

15 MR. LARSON: Certainly.

16 EXAMINER DAWSON: Go ahead, Mr. Larson.

17 MR. LARSON: We have applications for --  
18 one application that has three Bone Spring wells in the  
19 east half of 14 and the southeast of 11. Our second  
20 application is for three Wolfcamp wells, also mile and a  
21 half in the same acreage.

22 EXAMINER BROOKS: Okay. So you're going to  
23 drill three Bone Spring wells. You're proposing three  
24 Bone Spring wells in the east half of 14 and southeast  
25 quarter of 11.



1 MR. LARSON: Right.

2 EXAMINER BROOKS: And where are they  
3 going -- where do you propose to land those?

4 MR. LARSON: Lower Avalon.

5 EXAMINER BROOKS: Lower Avalon. Okay.

6 Are you proposing Wolfcamp wells as well?

7 MR. LARSON: Yes, in the same acreage.

8 Actually --

9 EXAMINER BROOKS: So that would be the  
10 southeast quarter of 14 and -- east half of 14 and the  
11 southeast quarter of 11?

12 MR. LARSON: That's correct.

13 EXAMINER DAWSON: Is that Wolfcamp B?

14 MR. LARSON: A, Wolfcamp A.

15 EXAMINER BROOKS: Wolfcamp A.

16 Now, the Bone Spring, what is the spacing  
17 in the Bone Spring because there seems to be a  
18 difference of opinion here, because you said the east  
19 half of 14 and southeast of 11. So what is the  
20 project -- is the project area -- are there going to be  
21 different project areas? Looks like it is from the --

22 MR. LARSON: They're both 480 project  
23 areas, one for the Bone Spring wells and another for the  
24 Wolfcamp wells.

25 EXAMINER BROOKS: Okay. So you're

1     proposing a 480-acre project area comprising the east  
2     half -- comprising 240-acre spacing units?

3                     MR. LARSON:   That's correct.

4                     EXAMINER BROOKS:   Thank you.

5                     Go ahead.   I think I know what we're  
6     talking about.

7                     MR. LARSON:   If I could, I'd like to make  
8     one comment on the document Mr. Bruce just passed out.  
9     It's marked as "Tap Rock Exhibit 8."   If you look in the  
10    lower, right-hand corner, you'll see a Bates number,  
11    Chevron 001.

12                    EXAMINER BROOKS:   Yes.

13                    MR. LARSON:   And this document was produced  
14    in response to a subpoena from Tap Rock.   The gist of  
15    the question was -- actually, I have the subpoena.   What  
16    Tap Rock asked for was drilling schedules, including  
17    spudding dates, drilling and completion schedules and  
18    approximate dates of first production for each of the  
19    wells.   We didn't have a document available in Chevron's  
20    records addressing the wells that are subject to the two  
21    applications today.   What we do have is sort of a master  
22    schedule.   You're going to hear about a significant  
23    amount of development in this area that Chevron has  
24    planned.   So we pulled -- created this document, pulled  
25    these dates out of the sort of master plan for this

1 area. Obviously, that's going to change if our  
2 application is granted, and Mr. Cooper will address  
3 that. So these are not hard-and-fast dates. These were  
4 just included in a group of schedules for the entire  
5 master plan for this area.

6 EXAMINER BROOKS: Okay. Mr. Padilla.

7 MR. PADILLA: Mr. Examiner, EOG's wells for  
8 this hearing are going to be five wells, two Avalon  
9 wells, two 3rd Bone Spring wells and one Wolfcamp. The  
10 wells will extend the length of Sections 23 and into the  
11 southeast quarter of Section 14.

12 The Wolfcamp is a 480-acre dedication, and  
13 the others are going to be 240-acre dedications. In  
14 terms of where -- the depth of the horizon is the  
15 Avalon, 3rd Bone Spring. Our geologist will explain  
16 that when we put on our case.

17 EXAMINER BROOKS: So, of course, you don't  
18 need to have your plans fully formed because you're not  
19 going to be presenting your case, right?

20 MR. PADILLA: Well, I don't see any choice.  
21 We're going to have to put on whatever we have.

22 EXAMINER BROOKS: Well, you're going to  
23 have to put on whatever evidence you need to prevent --  
24 to show reasons why we should not grant either of the  
25 other parties' applications. Yours is not set for

1     hearing, right?

2                   MR. PADILLA:   That's correct.   We won't be  
3     set for hearing until June 28th.

4                   EXAMINER BROOKS:   Anybody else want to make  
5     a pre-hearing statement?

6                   MR. HALL:   Mr. Examiner, just to explain my  
7     presence here on behalf of what I'll call the Yates  
8     Legacy interest.

9                   Vladin, LLC and potentially Trust Q owns  
10    interests in the south half of Section 14.  There is, to  
11    my understanding, a depth severance in Section 14, and  
12    the Yates Legacy is above 10,000 feet.  Therefore, it's  
13    my understanding that the Tap Rock application does not  
14    implicate depths above 10,000 feet.  However, Yates has  
15    received multiple -- numerous well proposals that cover  
16    the entirety of the Wolfcamp and the Bone Spring and the  
17    Leonard and the Avalon, so -- there's, I think, close to  
18    40 well proposals out there.  So that's why we are here.

19                   But I'll have no witnesses.

20                   I'm actually unsure of the ownership of the  
21    Q Trust in the acreage, but we'll try to understand that  
22    a little more through cross-examination of Tap Rock's  
23    landman.

24                   EXAMINER BROOKS:   Okay.

25

1                                   OPENING STATEMENT

2                                   MS. BRADFUTE:   Mr. Examiner, if I may?  
3   Jennifer Bradfute on behalf of Douglas McLeod.

4                                   I just wanted to address a few points in  
5   Tap Rock's opening statement.

6                                   Throughout the course of the parties'  
7   agreement, the term assignment between Tap Rock and  
8   Douglas McLeod, Tap Rock started to submit well  
9   proposals in September of 2017.  They submitted an AFE  
10   for the Double Diamond 201H and 208H wells in September.  
11   They then submitted additional well proposals and AFEs  
12   for the 224H, 228H, 234H and 238H wells in November of  
13   2017.

14                                  And then in March of 2018, they sent an AFE  
15   and well-proposal letter for one of the wells at issue  
16   today, and that's the 158H well.  And then they  
17   rescinded all of their prior well proposals that they  
18   had sent to Douglas McLeod.

19                                  So Tap Rock has had significant problems in  
20   putting together well-proposal letters.  They've sent  
21   out well proposals, then pulled them back.  They've  
22   indicated they've had a difficult time finding financing  
23   to drill the wells.  At one point in time prior to  
24   drilling the wells, they were going to flip the acreage  
25   to OXY without drilling under the participation

1     agreement executed with Mr. McLeod. And so there's been  
2     a history of issues throughout this year with Tap Rock's  
3     development plans, and that has led Mr. McLeod to wonder  
4     if they are genuine and can they fulfill their plans and  
5     proposals, and are they going to follow through.

6                     Originally, Tap Rock proposed two-mile-long  
7     laterals, and now they're coming back with one-mile-long  
8     proposals. Why is that?

9                     I think these are important questions for  
10    you to look at today, and I think you have to analyze  
11    which well proposal plan is going to result in the least  
12    amount of waste, the best development of the acreage and  
13    the best recovery.

14                    Thank you.

15                    EXAMINER DAWSON: Thank you.

16                    Okay. If that's it for opening statements,  
17    you may start questioning your witness, Mr. Larson.

18                    MR. LARSON: Thank you.

19                    EXAMINER DAWSON: No other appearances?

20                    Okay. Go ahead, Mr. Larson.

21                    CHRISTOPHER C. COOPER,  
22            after having been previously sworn under oath, was  
23            questioned and testified as follows:

24

25

1 DIRECT EXAMINATION

2 BY MR. LARSON:

3 Q. Good morning, Mr. Cooper.

4 A. Good morning.

5 Q. Would you state your name for the record?

6 A. Christopher Collin Cooper.

7 Q. Where do you reside?

8 A. Houston, Texas.

9 Q. And by whom are you employed and in what  
10 capacity?

11 A. Chevron U.S.A., Inc. as a landman.

12 Q. And what is the focus of your responsibilities  
13 as a landman for Chevron?

14 A. I'm responsible for Eddy County, New Mexico in  
15 the Permian Basin.

16 Q. And are you familiar with the land matters that  
17 pertain to Chevron's application?

18 A. Yes, I am.

19 Q. And have you previously testified at a Division  
20 hearing?

21 A. Yes, I have.

22 Q. And at that hearing, were you qualified as an  
23 expert in petroleum land matters?

24 A. Yes, I was.

25 MR. LARSON: Mr. Examiner, I tender

1 Mr. Cooper as an expert in petroleum land matters for  
2 purposes of Cases 16132 and 16133.

3 EXAMINER DAWSON: Any objections?

4 MS. BRADFUTE: No objection.

5 MR. BRUCE: No objection.

6 EXAMINER DAWSON: Mr. Cooper will be  
7 admitted as an expert in petroleum land matters for  
8 Cases 16132 [sic] and 16133 [sic] at this time.

9 MR. LARSON: I had the wrong number, didn't  
10 I? It's 16162 [sic] and 16133. You said it right.

11 EXAMINER DAWSON: Okay. 16132 and 16133.  
12 Thank you.

13 Q. (BY MR. LARSON) Would you identify the document  
14 marked as Exhibit 1?

15 A. These are the C-102s for Chevron's proposed SND  
16 11 14 Fed Com 003 Numbers 4H, 5H and 6H wells.

17 Q. And are the documents in Exhibit 3 true and  
18 correct copies of those C-102s?

19 A. Yes, they are.

20 Q. And will all three of the wells be orthodox?

21 A. Yes, they will.

22 Q. And is all the acreage that's proposed in the  
23 480-acre project area federal?

24 A. Yes, it is.

25 Q. And does Chevron have a working interest or the



1     **consent of a working interest owner in each of the**  
2     **40-acre spacing units within the proposed project?**

3           A.     Yes, it does.

4                   MR. HALL:   Excuse me, Mr. Examiner.   Are  
5     there enough exhibits to go around?

6                   MR. LARSON:   Oh, I'm sorry.   I do have an  
7     extra set.

8                   MR. HALL:   Sorry.

9           Q.     **(BY MR. LARSON) I'll repeat the question.   Has**  
10    **Chevron submitted APDs to the BLM for the three Bone**  
11    **Spring wells identified in its application?**

12          A.     Yes, it has.

13          Q.     **And when were those APDs submitted?**

14          A.     Those were submitted on May 8th, 2018.

15          Q.     **Next I'd ask you to identify the document**  
16    **marked as Exhibit 2.**

17          A.     This is a tract map of the project area for the  
18    associated Numbers 4H, 5H and 6H wells.

19          Q.     **Did you create this document?**

20          A.     Yes, I did.

21          Q.     **And will all three of the wells indicated on**  
22    **Exhibit 2 be drilled from the same well pad?**

23          A.     Yes, they will.

24          Q.     **Has Chevron discussed the well-pad location**  
25    **with the BLM?**

1           A.     Yes, we have.

2           Q.     And has the BLM reviewed the pad location based  
3     on an on-site staking meeting?

4           A.     Yes, they have.

5           Q.     And has the BLM signed off on the use of the  
6     pad for the APD submitted?

7           A.     Yes, they have.

8           Q.     And will the three wells indicated on Exhibit 2  
9     be drilled simultaneously?

10          A.     Yes, they will.

11          Q.     And I don't know if you've had the pleasure of  
12     looking at this exhibit.

13          A.     Yes, sir.

14          Q.     Would it be fair to describe that as a  
15     tentative schedule for drilling the wells?

16          A.     Yes. It is fair to describe it as tentative.

17          Q.     And is the schedule indicated on Tap Rock  
18     Exhibit 8 subject to change?

19          A.     It is subject to change.

20          Q.     And what change would cause the schedule to be  
21     altered?

22          A.     Based on the outcome of this hearing and any  
23     subsequent order by the OCD, then Chevron's plans would  
24     change for these wells.

25          Q.     Would you identify the document marked as

1     **Exhibit 3?**

2           A.     This is a proposed unit in this area.  It would  
3     be called the Javelina Unit.

4           **Q.     And would Chevron be the operator of that unit?**

5           A.     Yes, we would.

6           **Q.     And did you create a map of the proposed unit?**

7           A.     Yes, we have -- yes, I did.

8           **Q.     It will be a federal unit?**

9           A.     It will be a federal unit.

10          **Q.     And it appears to include some State of**  
11 **New Mexico acreage, doesn't it?**

12          A.     Yes, it does.

13          **Q.     Would you point out to the Examiner that state**  
14 **acreage?**

15          A.     Yes.

16                     Mr. Examiner, it is Sections 2 and 16 of  
17 T24S R31E.  The rest of the acreage shown is federal  
18 acreage.

19          **Q.     So what's in blue is the state acreage?**

20          A.     Correct.

21          **Q.     And could you briefly describe Chevron's**  
22 **development plans for the proposed Javelina Unit?**

23          A.     In this proposed unit, Chevron would develop by  
24 pad drilling, and we would develop by two-mile laterals  
25 where allowed.  And where necessitated, Chevron would

1     drill mile-and-a-half laterals such as in Sections 11  
2     and 14. And we would also develop each one of the  
3     benches within the unit based on our own technical  
4     evaluation and economic evaluation.

5           **Q.     And as we sit here today, does Chevron have a**  
6     **sense of how many wells it could drill within that**  
7     **proposed Javelina Unit?**

8           A.     Over the next decade, Chevron could see upwards  
9     of 180 wells drilled in multiple benches within the unit  
10    outline.

11          **Q.     And has Chevron discussed this unit plan with**  
12    **the BLM?**

13          A.     Yes, we have.

14          **Q.     And when did that meeting occur?**

15          A.     The meeting with the BLM occurred this week,  
16    Wednesday.

17          **Q.     And has Chevron also met with representatives**  
18    **of the New Mexico State Land Office regarding the**  
19    **proposed unit?**

20          A.     Yes, we have.

21          **Q.     And when did that meeting occur?**

22          A.     That meeting occurred on Tuesday of this week.

23          **Q.     What formation is Chevron seeking to pool in**  
24    **this case?**

25          A.     In this case it's the Bone Spring Formation.

1           **Q.    And are there any depth exceptions in the Bone**  
2           **Spring?**

3           A.    Yes, there are.

4           **Q.    Could you explain those?**

5           A.    As to the south half of Section 14, it appears  
6           that from the top of the Bone Spring Formation to 10,000  
7           feet, EOG entities, Douglas McLeod and Vladin, LLC have  
8           the working interest of that portion.

9                       And from 10,000 feet and below to the base  
10          of the Bone Spring, it would appear that Douglas McLeod  
11          is the leasehold owner but that pursuant to the comments  
12          made by Tap Rock's attorney that they have a farm-out or  
13          term assignment to Tap Rock Resources from Douglas  
14          McLeod.

15          **Q.    Let's quickly go over the rest of the acreage**  
16          **in the project area.  How about the northeast --**

17                       EXAMINER BROOKS:  Excuse me, Mr. Larson.  
18          Your witness went quite rapidly there.  Could you repeat  
19          your last answer or --

20                       THE WITNESS:  Yes, sir.  As to the  
21          southeast quarter of the project area in Section 14 --

22                       EXAMINER BROOKS:  The southeast quarter of  
23          the Section 14?

24                       THE WITNESS:  Yes, sir.

25                       EXAMINER BROOKS:  Okay.  Go ahead.

1                   THE WITNESS: From the top of the Bone  
2 Spring Formation to 10,000 feet, the working interest  
3 ownership in the leasehold is held by EOG entities,  
4 Vladin, LLC and Douglas McLeod.

5                   From 10,000 feet to the base of the Bone  
6 Spring Formation, it appears that Douglas McLeod is the  
7 100 percent leasehold owner but that he has farmed out  
8 at or term assigned that interest to Tap Rock Resources.

9                   EXAMINER BROOKS: Thank you.

10                  THE WITNESS: You're welcome, sir.

11                  **Q. (BY MR. LARSON) And we were starting to address**  
12 **the other acreage within the proposed project area?**

13                  A. Yes, sir. As to the northeast quarter of  
14 Section 14, Chevron U.S.A., Inc. holds 100 percent  
15 interest in the Bone Spring Formation, leasehold  
16 interest.

17                  And as to the southeast quarter of Section  
18 11, Chevron U.S.A., Inc. holds 100 percent leasehold  
19 interest as to the Bone Spring Formation.

20                  **Q. And are there any depth exceptions in the**  
21 **northeast of 14 or the southeast of 11?**

22                  A. There are no depth exceptions.

23                  **Q. Would you identify the document marked as**  
24 **Exhibit 4?**

25                  A. This is the cover letter that was sent along

1 with the well proposals that was sent to all of the  
2 working interest owners within the project area.

3 Q. And those are all the entities identified at  
4 the top of the letter there in Exhibit 4?

5 A. Yes, sir.

6 Q. And did you prepare and sign this letter?

7 A. Yes, I did.

8 Q. And when did you send the letter?

9 A. The letter was sent on March 13th, 2018.

10 Q. And did all the interests identified in the  
11 letter receive Chevron's --

12 A. Yes, they did.

13 Q. And are the return green cards included in  
14 Exhibit 4?

15 A. Yes, they are.

16 Q. And how did you identify the interests within  
17 that proposed 480-acre project?

18 A. By a public records search in the Eddy County  
19 public records and also a search of the SLO and BLM  
20 lease files.

21 Q. And were there any public records indicating  
22 that Tap Rock had an interest in the project?

23 A. There were no public records.

24 Q. So why did you propose these wells to Tap Rock?

25 A. That was based on Chevron receiving well

1 proposals from Tap Rock. We made the assumption that  
2 Tap Rock held some interest from Mr. McLeod.

3 Q. But you're not sure what the extent or nature  
4 of that interest is?

5 A. I'm not sure until today.

6 Q. After you sent the well proposal on March 13th,  
7 did you have follow-up communication with any of the  
8 interest owners?

9 A. Yes, I did.

10 Q. And have any of the interest owners leased  
11 their interest to Chevron or voluntarily joined the  
12 wells?

13 A. Yes. Douglas McLeod signed each of our AFEs in  
14 the project area, and Vladin, LLC signed each of our  
15 AFEs in the project area.

16 Q. And with regard to Vladin, have you seen a new  
17 development yesterday?

18 A. Yes. Yesterday we received a letter from  
19 Vladin, LLC revoking their AFE execution pending the  
20 outcome of this hearing and any subsequent order by the  
21 OCD.

22 Q. And did you also communicate with Tap Rock  
23 regarding the proposed well?

24 A. Yes, we did.

25 Q. And when did you first communicate with Tap



1     **Rock about Chevron's well proposals?**

2           A.     Subsequent to Chevron sending out our own well  
3     proposals, I spoke with Clayton Sporich with Tap Rock on  
4     March 21st in a phone call.

5           **Q.     And after you spoke to Mr. Sporich, did Chevron**  
6     **conduct an internal analysis of Tap Rock's competing**  
7     **well proposal?**

8           A.     Yes, sir. On that phone call, we discussed  
9     generally Tap Rock's well proposals, Chevron's well  
10    proposals. I also floated the idea to Tap Rock about a  
11    possible operating agreement between the two parties,  
12    and Tap Rock made it known that if we were not able to  
13    come to some sort of agreement or conclusion with our  
14    development plans, that Tap Rock would be forced to move  
15    to compulsory pooling.

16                   After my discussion, Chevron internally  
17    reviewed Tap Rock's proposals in comparison with  
18    Chevron's development plans.

19           **Q.     Okay. And what was the result of that internal**  
20     **analysis by Chevron?**

21           A.     We found that Tap Rock's well proposals  
22    conflicted with Chevron's development plans, and we did  
23    not want to participate in their well proposals.

24           **Q.     And when was your next communication with a Tap**  
25     **Rock representative?**

1           A.     We then had a teleconference between Tap Rock  
2     and Chevron employees on March 27th.

3           **Q.     And what did you discuss during that telephone**  
4     **conference?**

5           A.     In that teleconference, we discussed generally  
6     the idea of an operating agreement between the parties,  
7     and we also talked generally about the target depths of  
8     both parties and how those target depths would be  
9     intertwined with the operating agreement.

10          **Q.     And at that point, did you request any**  
11     **additional information from Tap Rock?**

12          A.     We did. We asked Tap Rock to go back and see  
13     if they could come up with any alternative target  
14     depths.

15          **Q.     And did you receive those alternative target**  
16     **depths?**

17          A.     Yes. The next day, on March 28th, we had a  
18     follow-up meeting between the two parties, and we  
19     discussed more technical aspects of the alternative  
20     target depths and Chevron's development plans. And that  
21     was on a teleconference between the two parties.

22          **Q.     Okay. And during the course of these**  
23     **communications, were you receiving different landing**  
24     **zones for Tap Rock's proposed wells?**

25          A.     We were. Each time we spoke, whether it was

1 March 21st, March 27th or March 28th, there were  
2 different target depths that were being talked about.

3 Q. And if I understand you correctly, during that  
4 final teleconference on March 28th, you asked again for  
5 additional information from Tap Rock?

6 A. Yes. We asked Tap Rock again to see if they  
7 could come up with different target depths that would  
8 align with Chevron's development plans.

9 Q. And did you receive a response to your request?

10 A. Yes, we did. We received a response. It was  
11 the Monday after our teleconference. I believe it was  
12 April 3rd that we received different target depths from  
13 Tap Rock.

14 Q. And was another internal analysis conducted  
15 within Chevron regarding these alternative target  
16 depths?

17 A. Yes, there was.

18 Q. What was the conclusion within Chevron?

19 A. We again viewed the target depths that were  
20 proposed by Tap Rock subsequent to these conversations  
21 to be in conflict with Chevron's own development plans,  
22 and Chevron saw that our own development plans would  
23 better serve the interests in this east half of Section  
24 14.

25 Q. And after analyzing the initial information

1     that Tap Rock provided to you on April 3rd, did you have  
2     any further discussions with Tap Rock?

3             A.     We did not.

4             Q.     And why didn't you have any further  
5     discussions?

6             A.     It was because of the conflict between Tap  
7     Rock's development plans and Chevron's development  
8     plans. And Chevron, we have lost confidence in Tap  
9     Rock's ability to execute their own development.

10            Q.     And did you come to the conclusion that you  
11     didn't see it feasible to partner with Tap Rock any  
12     longer?

13            A.     Correct.

14            Q.     And during the course of these communications  
15     during the month of March, did Chevron ever reach an  
16     agreement with Tap Rock regarding Chevron's well  
17     proposals or Tap Rock's competing well proposals?

18            A.     No.

19            Q.     Were there any firm offers given to you by Tap  
20     Rock?

21            A.     There were no offers given by Tap Rock or  
22     Chevron. There was no acceptance by either party.

23            Q.     And did Tap Rock ever send you a draft JOA?

24            A.     They have not.

25            Q.     And referring back to your well proposal in

1     **Exhibit 4, did you have any follow-up communication with**  
2     **the EOG regarding Chevron's well proposals?**

3           A.     Yes, we did.

4           **Q.     And who did you communicate with at EOG?**

5           A.     I spoke with Chuck Moran, the landman with EOG.

6           **Q.     And at that time, was he aware of Tap Rock's**  
7     **well proposals?**

8           A.     He was not aware of Tap Rock's well proposals.

9           **Q.     Did you send him those proposals?**

10          A.     I did not send those well proposals to him  
11     directly, but I did discuss them on the phone with  
12     Mr. Moran.

13          **Q.     And what did you learn from your discussions**  
14     **with Mr. Moran?**

15          A.     I learned that EOG did not have any knowledge  
16     of Tap Rock's well proposals but that EOG did oppose our  
17     own development plans and informed me that they would,  
18     in turn, seek compulsory pooling of Tap Rock's interests  
19     in the southern half of Section 14.

20          **Q.     And in your opinion, has Chevron made a**  
21     **good-faith effort to obtain Tap Rock's and the EOG**  
22     **entities' voluntary joinder in the proposed Bone Spring**  
23     **wells?**

24          A.     Yes.

25          **Q.     Would you next identify the document marked as**

1     **Exhibit 5?**

2           A.     This is a cover letter that was -- notice  
3     letter that was sent by Hinkle Shanor on behalf of  
4     Chevron to the uncommitted working interests in the  
5     project area.

6           Q.     And were the letters sent under your direction  
7     and supervision?

8           A.     Yes, they were.

9           Q.     And was the letter sent to all of the  
10    uncommitted interest owners?

11          A.     Yes, they were.

12          Q.     And were the green cards received from all of  
13    them?

14          A.     Yes, they were.

15          Q.     And did you identify all of the offset  
16    interests entitled to receive notice of today's hearing?

17          A.     Yes, I did.

18          Q.     And who were those offset interests?

19          A.     Those offset operators were COG Operating, OXY  
20    USA and EOG Y Resources.

21          Q.     And EOG Y is also an interest owner within the  
22    project area?

23          A.     Yes, they are.

24          Q.     Would you identify the document marked as  
25    **Exhibit 6?**

1           A.    This is a sample cover letter that was sent to  
2   those offset operators.

3           Q.    And, again, this was sent under your direction  
4   and supervision?

5           A.    Yes, it was.

6           Q.    And did the offset interests receive a letter?

7           A.    Yes, they did.

8           Q.    Would you next identify the document marked as  
9   Exhibit 7?

10          A.    These are the AFEs that were sent to all the  
11   working interest owners in the project area for the  
12   SND 11 14 Fed Com 003 Numbers 4H, 5H and 6H wells.

13          Q.    And what is the estimated well costs for  
14   these --

15          A.    Estimated well costs are approximating 9.7  
16   million per well.

17          Q.    And are they the same for each of the 4, 5 and  
18   6 wells?

19          A.    They are the same costs.

20          Q.    And are those estimated well costs similar to  
21   costs incurred by Chevron for other mile-and-a-half Bone  
22   Spring horizontal wells?

23          A.    Yes, they are.

24          Q.    Do you have a recommendation for the per-month  
25   amounts Chevron should be paid for supervision and

1     **administrative expenses?**

2           A.     Yes, 7,500 per well while drilling and 750 per  
3     well while producing.

4           Q.     And are those proposed amendments consistent  
5     with those charged by Chevron for similar Bone Spring  
6     mile-and-a-half wells?

7           A.     Yes, they are.

8           Q.     And do you also recommend that the rates for  
9     supervision and administrative expenses be adjusted  
10    periodically pursuant to the COPAS accounting procedure?

11          A.     Yes, I do.

12          Q.     Is Chevron requesting a 200 percent charge for  
13    the risk of drilling and completing the #4H, #5H and #6H  
14    wells?

15          A.     Yes.

16          Q.     And in your opinion, will the granting of  
17    Chevron's application void the drilling of unnecessary  
18    wells, protect correlative rights and serve the interest  
19    of conservation and the prevention of waste?

20          A.     Yes.

21                   MR. LARSON:   Mr. Examiner, I move the  
22    admission of Exhibits 1 through 7.

23                   EXAMINER DAWSON:   Any objection?

24                   MR. BRUCE:   No objection.

25                   EXAMINER DAWSON:   Exhibits 1 through 7 will



1 be admitted at this time.

2 (Chevron U.S.A., Inc. Exhibit Numbers 1  
3 through 7 in Case Number 16132 are  
4 offered and admitted into evidence.)

5 EXAMINER DAWSON: That's Chevron's Exhibits  
6 1 through 7.

7 MR. LARSON: Mr. Examiner, I'm ready to  
8 move on to the next case, if that's acceptable, or would  
9 you like to allow cross of Mr. Cooper for the first  
10 case?

11 EXAMINER DAWSON: Yeah. Let's do cross on  
12 the first case. We'll go forward with that.

13 Mr. Bruce?

14 CROSS-EXAMINATION

15 BY MR. BRUCE:

16 Q. Mr. Cooper, looking at your Exhibit 1, why do  
17 you have 240-acre units --

18 A. That's because this is in the Bone Spring Pool,  
19 and the Bone Spring Pool allows for 320-acre proration  
20 units. Then if you extend into the next section, then  
21 that would allow two more 40-acre units allowed to each  
22 well.

23 So if you compare the first exhibit the 4H  
24 well, you'll see that the west half-east half is  
25 dedicated to that well, but if you look at the 5H and 6H

1 wells, you'll see that the east half-east half are  
2 dedicated to those wells.

3 Q. But in your application, aren't you asking for  
4 a 480-acre well unit for all of these wells together  
5 rather than the 240-acre unit?

6 A. We are. We are asking for 480 for the entirety  
7 of these three wells.

8 Q. I think you testified earlier that all of the  
9 wells were at orthodox locations?

10 A. Yes.

11 Q. What about the 5H well?

12 A. The 5H well would be an unorthodox location  
13 based on the centerline, but as we are requesting a  
14 480-acre proration unit, then that would no longer be an  
15 unorthodox line.

16 Q. Looking at your Exhibit 3, are there any depth  
17 restrictions in the proposed unit?

18 A. The proposed unit will be from the top of the  
19 Bone Spring Formation to the subject area.

20 Q. And this unit has not yet been approved; is  
21 that correct?

22 A. That is correct.

23 Q. Now, you talked about wells potentially being  
24 drilled in the not-yet-approved unit over the next  
25 decade. What are your plans for this year?

1           A.    For this year, we are beginning spudding our  
2   wells in Sections 1 and 12 in the east half.  That spud  
3   will begin in the fall of 2018, and we will -- we will  
4   drill both Avalon wells and Wolfcamp wells.

5           **Q.    Referring to your Exhibit 4, has anybody signed**  
6   **Chevron's JOA?**

7           A.    No, sir.

8           **Q.    No?**

9           A.    No, sir.

10          **Q.    And you are aware that Tap Rock does not own an**  
11   **interest in these three well proposals?**

12          A.    Correct.  However, because of the lack of a  
13   recorded instrument, we did not know who actually would  
14   have that interest in the Bone Spring Pool, and so we  
15   sent these well proposals to both Tap Rock and Douglas  
16   McLeod.

17          **Q.    And do you have any -- will any of these three**  
18   **wells be drilled this year?**

19          A.    That will be determined by the outcome of this  
20   hearing.

21          **Q.    But assuming that Tap Rock owns no interest**  
22   **above 10,000 feet subsurface, even if you drilled the**  
23   **wells starting this month, it would not preserve Tap**  
24   **Rock's farm-out, would it?**

25          A.    Correct.

1 I would add that Chevron's development  
2 plans are based on Chevron's, you know, business  
3 expectations, not on the expectations of other parties.

4 **Q. And in what pool are your Avalon wells?**

5 A. The Avalon -- I can't recall off the top of my  
6 head.

7 **Q. Would it be the Sand Dunes Pool?**

8 A. That may be --

9 **Q. If you don't know --**

10 A. That may be correct. I do not know.

11 I will add, though, that our expectation  
12 with this compulsory pooling hearing is that the Bone  
13 Spring Pool would be all under one order, and so we have  
14 been moving forward with the assumption that the Bone  
15 Spring would not be severed at all by any order of the  
16 Examiners and the OCD.

17 **Q. And what overhead rates were you requesting,**  
18 **again, for these wells?**

19 A. 7,500 per well while drilling and 750 per well  
20 while producing.

21 **Q. And in your proposed JOA that you sent to Tap**  
22 **Rock, what are the overhead rates?**

23 A. I believe those rates -- excuse me. I have not  
24 looked at that operating agreement in a while. They may  
25 have been 10,000 while drilling and 1,000 while

1 producing.

2 Q. Why did you lower them, for the record?

3 A. Those are lowered because we thought that would  
4 be more prudent when asking others to be compulsory  
5 pooled into our project area.

6 Q. In your May 2 letter to the -- you referenced a  
7 letter that you sent to Mr. Sporich at Tap Rock.  
8 What -- you did -- or excuse me. I have the wrong  
9 letter.

10 But what insofar as your development  
11 plans -- once again going into the development plans, as  
12 to Sections 11 and 14, have your development plans been  
13 finalized?

14 A. As to Sections 11 and 14, they have not been  
15 finalized. Those final development plans will be  
16 subject to the outcome of this hearing and any  
17 subsequent order of the OCD.

18 Q. And assuming there is this 10,000-foot depth  
19 severance, which I think everybody agrees, how is your  
20 Bone Spring proposal conflicting with Tap Rock's 3rd  
21 Bone Spring Carbonate proposal?

22 A. It is conflicting based on our assumption that  
23 the OCD will give an order based on the entire Bone  
24 Spring Pool and the entire Bone Spring Formation. If  
25 the OCD will not allow the Bone Spring to be severed in

1 two separate orders, then we would have two operators  
2 within the single Bone Spring Formation.

3 **Q. Don't the OCD's regulations allow for the**  
4 **possibility of two operators in a pool?**

5 A. That may be allowed. However, our discussing  
6 at the pretrial hearing and other discussions with the  
7 OCD in the past have indicated that the OCD prefers to  
8 have a formation under one single order.

9 **Q. But if you have an already existing depth**  
10 **severance, doesn't that make a lot -- to depth**  
11 **severance?**

12 A. That's for the OCD to decide. However, I would  
13 argue that having one single operator of a pool will  
14 lead to better development of the entire pool, the  
15 entire formation.

16 **Q. And how did you allocate interests between the**  
17 **working interest owners and the entire Bone Spring**  
18 **Formation when there is a depth severance setting forth**  
19 **different ownership?**

20 A. In the operating agreement that we sent out, I  
21 believe we set up two contracts areas, one from the top  
22 of the Bone Spring to 10,000 feet and the second from  
23 10,000 feet and below. And based on the target depths  
24 of the individual wells will depend on the ownership of  
25 those entities in that well.

1           Q.    So that's a voluntary depth severance of the  
2 pool?

3           A.    Correct.

4           Q.    Of the Bone Spring?

5           A.    It would be under an operating agreement, which  
6 no one has signed yet.

7           Q.    Thank you, Mr. Cooper.

8                               CROSS-EXAMINATION

9 BY MS. BRADFUTE:

10          Q.    Mr. Cooper, in Chevron's application, it has  
11 not requested the creation of a nonstandard proration  
12 unit, correct?

13          A.    Correct.

14          Q.    And to your knowledge, in Tap Rock's  
15 application for the Bone Spring Formation, have they  
16 requested the creation of a nonstandard proration unit?

17          A.    Not to my knowledge.

18          Q.    And to your knowledge, do proration units that  
19 are standard, which are authorized by the Division,  
20 consist typically of the entire Bone Spring Formation --

21          A.    Yes, they do, typically.

22          Q.    -- on the acreage?

23          A.    Yes, ma'am.

24          Q.    And so if a party wanted to sever the depths  
25 within an existing standard proration unit, would -- to

1     your knowledge, would they need to apply for a  
2     nonstandard proration unit?

3             A.     To my knowledge, yes.

4             Q.     And that would require a separate notification  
5     procedure?

6             A.     To my knowledge, yes.

7             Q.     Thank you.

8                     EXAMINER DAWSON:   Scott, do you have  
9     questions?

10                    MR. HALL:   Briefly.

11                                   CROSS-EXAMINATION

12     BY MR. HALL:

13             Q.     Mr. Cooper, I'm going to hand you what is  
14     marked as Vladin Exhibit Number 1.  In direct response  
15     to direct examination by Mr. Larson, you referred to the  
16     revocation by Vladin of previously approved AFEs,  
17     correct?

18             A.     Yes, sir.

19             Q.     Is this a copy of the letter you received  
20     yesterday informing you of that revocation?

21             A.     Yes, sir.

22             Q.     So as it stands presently, there is no formal  
23     commitment by Vladin, LLC for Chevron's well proposal;  
24     do you agree?

25             A.     Correct.



1 MR. HALL: Okay. Move the admission of  
2 Exhibit 1.

3 EXAMINER DAWSON: Any objections?

4 MR. LARSON: No objection.

5 MR. BRUCE: No objection.

6 EXAMINER DAWSON: So Vladin's Exhibit 1  
7 will be admitted to the record at this time.

8 (Vladin, LLC Exhibit Number 1 is offered  
9 and admitted into evidence.)

10 EXAMINER DAWSON: Mr. Padilla, do you have  
11 any questions?

12 MR. PADILLA: Yes. I have a couple of  
13 questions. I just wanted to get Scott's exhibit.

14 CROSS-EXAMINATION

15 BY MR. PADILLA:

16 Q. Mr. Cooper, did I get it correctly that Tap  
17 Rock's term assignment is not recorded of record?

18 A. Correct.

19 Q. Is that unusual?

20 A. It is. If it is a farm-out agreement, in the  
21 industry sometimes farm-out agreements do not get  
22 recorded. However, memorandums typically do. For term  
23 assignments, those do typically get recorded.

24 Q. And it's my understanding from your testimony  
25 that the first time you heard of Tap Rock's interest is

1     **when they made a proposal to you, correct?**

2           A.     Correct.

3           **Q.     Or did Chevron make the proposal before Tap**  
4     **Rock?**

5           A.     It was after we received Tap Rock's proposals.

6           **Q.     How many proposals did you receive from Tap**  
7     **Rock?**

8           A.     As to the Bone Spring, we have received one  
9     proposal, the initial proposal that was sent the very  
10    beginning of March. And then subsequent to that, by our  
11    internal negotiations with Tap Rock regarding an  
12    operating agreement, we received a couple other target  
13    depths. But the only proposal that we received as far  
14    as this hearing and the Bone Spring would be that first  
15    one we received in early March.

16          **Q.     Were you aware of proposals made in November of**  
17    **2017 or thereabouts?**

18          A.     Yes, sir. Those proposals seemed to be within  
19    the Wolfcamp Pool, and so in my discussions so far,  
20    those have just been about the Bone Spring proposal with  
21    Tap Rock. But yes, we did receive in early November  
22    proposals for the Wolfcamp Formation.

23          **Q.     And to your knowledge, what happened with those**  
24    **proposals?**

25          A.     Those proposals, we received them, and we

1 received little communication from Tap Rock on them.  
2 And I believe one of those wells ended up being the well  
3 that is subject to Tap Rock's Wolfcamp application  
4 today.

5 Q. How long does it typically take to get APD from  
6 the Bureau of Land Management?

7 A. In Chevron's experience, APDs can take anywhere  
8 from, conservatively, seven to nine months, typically,  
9 or more.

10 Q. Do you know whether Tap Rock's application or  
11 APD was approved?

12 A. Based on my conversations with Tap Rock, I  
13 believe they submitted their APD proposal late January,  
14 early February of this year, and we have not seen an  
15 approved APD yet.

16 Q. Do you know whether there were any changes to  
17 that APD over the course of time from January to the  
18 present time?

19 A. We are not aware of any changes. Excuse me. I  
20 am not aware of any changes.

21 Q. Let me direct your attention to your Exhibit  
22 Number 3.

23 A. Yes, sir.

24 Q. You indicated that the unitized -- would be  
25 from the top of the Bone Spring to the center of the

1     **Earth?**

2           A.     Yes, sir.

3           **Q.     Have you notified EOG of your proposed unit?**

4           A.     We have not. This unit is in the very early  
5 stages of the development. We just spoke with the SLO  
6 and the BLM and wanted to make sure that they were okay  
7 with our plans first, and then we would begin  
8 discussions with the other interest owners within the  
9 outline of the proposed unit.

10          **Q.     How long does it typically take to get approval**  
11 **of the unit agreement as you propose?**

12          A.     Based on our conversation with the BLM this  
13 week, a proposed federal exploratory unit of this size,  
14 we could expect to receive initial approval within a  
15 couple of months, and then final approval prior to the  
16 first production of our first obligation well. And our  
17 first obligation well would be brought on, you know,  
18 early next year. So based on those facts, I would say  
19 approval from the BLM would come within the first --  
20 first quarter, the second quarter of next year.

21          **Q.     Okay. To be clear, let me refer you to your**  
22 **Exhibit Number 7, which is your AFE. And I think you**  
23 **testified that no one has signed the AFE other than one**  
24 **of Mr. Hall's clients, and then that was rescinded**  
25 **yesterday?**

1           A.    We also received execution from Douglas McLeod  
2   of all of our AFEs.

3           Q.    And that has not been rescinded?

4           A.    Correct.

5           Q.    What is your understanding of why you received  
6   this May 17th rescission from the Yates holding company  
7   and Vladin?

8           A.    My understanding comes based solely on this  
9   letter, and it would appear to me that Vladin has  
10   received multiple AFEs from multiple parties and would  
11   like to see the outcome of today's hearing and any  
12   subsequent order of the OCD before they sign on to the  
13   ultimate operator.

14                   MR. PADILLA:  That's all I have.

15                   EXAMINER DAWSON:  Anybody else?

16                   Do you have any questions, David?

17                   EXAMINER BROOKS:  I have.  I didn't know if  
18   you and I are going to do it case by case or wait until  
19   they put on both cases.  Which is your preference?

20                   EXAMINER DAWSON:  Which one do you want?

21                   EXAMINER BROOKS:  I don't care.

22                   EXAMINER DAWSON:  Let's do it case by case.

23                   EXAMINER BROOKS:  Okay.  I'll go ahead.

24                               CROSS-EXAMINATION

25   BY EXAMINER BROOKS:

1           Q.    Now, does Chevron own -- Chevron does not own  
2   any interest in the southeast quarter of 14 above 10,000  
3   feet; is that correct?

4           A.    Correct. We do not own any interest. However,  
5   we have received signed AFEs from Douglas McLeod.

6           Q.    And you own 100 percent of the working interest  
7   in the northeast quarter of 14 and the southeast quarter  
8   of 11 as to all depths?

9           A.    Yes, sir.

10          Q.    Okay. Now, Ms. Bradfute asked some questions  
11   about nonstandard proration units, is specifically what  
12   she asked about, and I think there is some confusion  
13   there. I'm not at all sure that the distinction between  
14   proration units and spacing units and the distinction  
15   between nonstandard units and standard units -- I would  
16   respectfully say to everybody I probably understand  
17   those things about as well as anybody, and I don't  
18   understand them (laughter).

19                    So let me ask you: Are not the  
20   applications -- do not the applications that we have  
21   before us today each seek the creation of a nonstandard  
22   spacing unit for each of the wells involved or for --  
23   there are more than one well in some of them?

24          A.    Correct.

25          Q.    Each of the applications to Chevron ask for a

1 nonstandard spacing unit; does it not?

2 A. It would appear that it does.

3 Q. Okay. But you have not asked for a depth  
4 severance for a nonstandard spacing unit?

5 A. We have not.

6 Q. And are you aware that the Oil Conservation  
7 Commission has issued some orders authorizing depth  
8 severances for nonstandard spacing units in certain  
9 limited circumstances?

10 A. I am not personally aware of those.

11 Q. Okay. Very good. I just wanted to get this --  
12 get the testimony straight. We'll get arguments later  
13 on.

14 Now, about revocation of this AFE -- this  
15 was Exhibit Number --

16 MR. HALL: It's Vladin Exhibit 1.

17 EXAMINER BROOKS: Vladin Exhibit 1. Okay.

18 Q. (BY EXAMINER BROOKS) Has Chevron accepted  
19 Vladin's revocation of their -- of the approval of their  
20 AFE?

21 A. Yes, we have.

22 Q. Thank you. I think that's all I have.

23 CROSS-EXAMINATION

24 BY EXAMINER DAWSON:

25 Q. So, Mr. Cooper, you met with both the land

1 office and the BLM on the unit agreement and reviewed --  
2 went and had a preliminary meeting with them?

3 A. Yes, sir.

4 Q. And they have not indicated preliminary  
5 approval, either agency?

6 A. They have -- they have indicated that Chevron  
7 will have our -- I believe they call it an area in-depth  
8 meeting. We set that up with the BLM and July, and that  
9 will be our formal application. And they indicated that  
10 once that application is received, that they would  
11 review and approve in approximately two months' time for  
12 initial approval.

13 Q. And that unit agreement, is that a  
14 state-federal exploratory agreement? Is that what that  
15 is?

16 A. It would be a federal exploratory unit, and  
17 then the State would basically allow their state acreage  
18 to be within that. But it would be a federal  
19 exploratory unit.

20 Q. And that has contraction clauses on it; does it  
21 not?

22 A. Yes, it does.

23 Q. And how many wells did you say you want to  
24 drill this year, by the end of the year? How many do  
25 you have planned?



1           A.     This year, we are set to spud, I know, at least  
2     four, but you'll have to ask the other Chevron technical  
3     witnesses about the additional three. I'm not aware if  
4     those would be spud this year or early next year. But I  
5     can say we're doing pad drilling, and those will all be  
6     drilled back to back, simultaneously.

7           **Q.     Do you know if there are any near-term lease**  
8     **expirations within 11 and 14?**

9           A.     Within 11 and 14, no, sir. To my knowledge,  
10    all of these leases are held by production.

11          **Q.     Okay. What about within your unit?**

12          A.     Within the unit, the only two lease  
13    expirations, first, is an east half of Section 12. NMNM  
14    12901 has an expiration towards the end of this year.  
15    However, we are spudding on that half section in August  
16    of this year. So we expect to have that held by  
17    production shortly.

18                   And then you can see it in Section 16.  
19    It's a small 40-acre lease, VB-2538, and that has an  
20    expiration that is set -- I can't recall the specific  
21    date, but I know it's towards the end of 2020.

22          **Q.     Okay. Do you know when that lease up in**  
23    **Section 2 was awarded? Do you know what the term on**  
24    **that one is? That's an old lease, I suppose?**

25          A.     Yes, sir, it is. I believe it has some Todd

1 State wells.

2 Q. That's held by production?

3 A. Yes, sir.

4 Q. Okay. That's all the questions I have. Thank  
5 you very much.

6 MR. LARSON: I just have a couple of  
7 follow-up questions on the Bone Spring well application.

8 REDIRECT EXAMINATION

9 BY MR. LARSON:

10 Q. Just so the record is clear, is Chevron seeking  
11 proration of a 480-acre nonstandard spacing and  
12 proration unit and pooling of all uncommitted interests  
13 in the Bone Spring Formation?

14 A. Yes.

15 Q. And Mr. Padilla asked you about some APDs. Did  
16 you understand those to be Tap Rock APDs when you were  
17 responding to his question?

18 A. Yes. Yes. Those APDs we were discussing were  
19 Tap Rock's APDs.

20 Q. And for what wells were those APDs addressing?

21 A. I believe those were for their #158H and the  
22 238H wells. I believe the four wells that are part of  
23 Tap Rock's applications today.

24 Q. And the first well, is that the Bone Spring  
25 well?

1           A.     Correct, the 158H.

2           **Q.     And the other would be the --**

3           A.     Correct, the 238H.

4                     MR. LARSON:   That's all I have.   I'm ready  
5   to move on to the --

6                     EXAMINER DAWSON:   Okay.

7                     Mr. Bruce?

8                             RE CROSS EXAMINATION

9   BY MR. BRUCE:

10           **Q.     Mr. Cooper, assuming that it's state land in**  
11 **this unit, will the state land in your proposed unit --**  
12 **are you aware that the Oil Conservation Division will**  
13 **also have to approve the unit?**

14           A.     Yes, sir.

15           **Q.     And so you're looking at the earliest approval**  
16 **of the unit to be very late this year?**

17           A.     Based on the time that we can see now, yes, it  
18 would be late this year, would be when we would bring it  
19 up to the OCD.

20           **Q.     Thank you.**

21                     EXAMINER DAWSON:   Anybody else?

22                     I have one more question for you.

23                     THE WITNESS:   Yes, sir.

24                             RE CROSS EXAMINATION

25   BY EXAMINER DAWSON:

1           Q.    You did talk to the head preliminary approval  
2   unit agreement -- or you had a preliminary meeting with  
3   the land office and the SLO [sic], and you're proposing  
4   your wells over there in the east part of the unit, in  
5   Sections 1 and 12.  Those APDs, have they been approved  
6   from the BLM?

7           A.    To my knowledge, those APDs have not been  
8   approved, but they were submitted previously.  You may  
9   bring that question up to another one of our witnesses  
10   who can speak to that specific APD more than I can.

11          Q.    Okay.  Thank you very much.

12                   EXAMINER DAWSON:  You can call your second  
13   witness.

14                   MR. LARSON:  I was going to go forward with  
15   16133.

16                   EXAMINER DAWSON:  Okay.  Sounds good.

17                   MR. LARSON:  And I have a separate set of  
18   exhibits just to try to keep the record straight.

19                   DIRECT EXAMINATION

20   BY MR. LARSON:

21          Q.    Mr. Cooper, in Case Number 16133, what  
22   formation is Chevron seeking to pool?

23          A.    We're seeking to pool the Wolfcamp Formation.

24          Q.    And are there any depth exceptions in the  
25   Wolfcamp?

1           A.    No, there are not.

2           **Q.    And what are the other working interests in the**  
3 **proposed project area?**

4           A.    The working interests in the proposed project  
5 area are -- as to the southeast quarter of Section 11,  
6 Chevron USA holds 100 percent of the leasehold interest.  
7 As to the northeast quarter of Section 14, Chevron owns  
8 100 percent of the leasehold interest, and as to the  
9 southeast quarter of Section 14, it would appear that  
10 Douglas McLeod owns 100 percent of the leasehold  
11 interest. However, that interest has been farmed out or  
12 term assigned to Tap Rock Resources.

13          **Q.    And how would you identify Tap Rock's interest?**

14          A.    We conducted a public land search -- a public  
15 record search in Eddy County, as well as searching the  
16 BLM and SLO lease files, and we found no record of Tap  
17 Rock's interest in the Wolfcamp.

18          **Q.    Do you have any specific knowledge about the**  
19 **nature or scope of Tap Rock's interest?**

20          A.    I do not have specific knowledge.

21          **Q.    Would you identify the document marked as**  
22 **Exhibit 1?**

23          A.    This is a tract map for the project area and  
24 the associated SND 11 14 Fed Com 004 Numbers 4H, 5H and  
25 6H wells.

1           Q.    Would it be fair to say this is a drilling plan  
2 similar to the proposed Bone Spring wells?

3           A.    It is a similar drilling plan, yes.

4           Q.    So all three of the identified wells would be  
5 drilled from the same pad?

6           A.    Yes, they will.

7           Q.    And will those wells be drilled simultaneously?

8           A.    Yes, they will.

9           Q.    And was the well for the Wolfcamp wells  
10 different from the well pad for the Bone Spring wells?

11          A.    The well pads will be different well pads.

12          Q.    And have you discussed the Wolfcamp well pad  
13 location with the BLM?

14          A.    We have. We had an on-site meeting with the  
15 BLM to discuss the location of the proposed Wolfcamp  
16 pad.

17          Q.    And that on-site review has been conducted?

18          A.    It has been conducted. Yes.

19          Q.    And has Chevron submitted APDs for the  
20 Wolfcamp?

21          A.    We have not.

22          Q.    And why not?

23          A.    We do not have consents for working interests  
24 as to the southeast quarter of Section 14, so we will  
25 not submit those APDs until we have either working

1 interest or consent or an order from the OCD.

2 Q. And am I correct to assume that Chevron intends  
3 these Wolfcamp wells to be part of the proposed Javelina  
4 Unit?

5 A. Yes, we do.

6 MR. LARSON: And, Mr. Examiner, I'd ask  
7 that you adopt Mr. Cooper's testimony about the Javelina  
8 Unit from the previous case.

9 EXAMINER DAWSON: We will do so. We will  
10 adopt it.

11 Any objections?

12 MR. BRUCE: No objections.

13 MR. HALL: (Indicating.)

14 MR. LARSON: I'm trying to move things  
15 along.

16 Q. (BY MR. LARSON) Would you identify the document  
17 marked as Exhibit 3? I'm sorry. It's Exhibit 2.

18 A. This is the cover letter that was sent, along  
19 with the AFE proposals for the subject wells to Tap Rock  
20 Resources and Douglas McLeod.

21 Q. And why did you send this letter to both  
22 Mr. McLeod and to Tap Rock?

23 A. Because there is no public record of Tap Rock's  
24 interest, but there is a public record of Mr. McLeod's  
25 interest. We sent it to Mr. McLeod. But based on our

1 receiving well proposals from Tap Rock, we made the  
2 assumption that Tap Rock held some sort of interest in  
3 these -- in this project area.

4 Q. And when did you send this proposal letter?

5 A. This proposal letter was sent on March 13th,  
6 2018.

7 Q. And did you prepare and sign the letter?

8 A. Yes, I did.

9 Q. And did both Tap Rock and Mr. McLeod receive  
10 the letter?

11 A. Yes, they did.

12 Q. And did you receive a response from Mr. McLeod  
13 to your well proposal?

14 A. Yes. Mr. McLeod signed our AFE for our  
15 proposed wells.

16 Q. And after you sent the well proposals, did you  
17 communicate with Tap Rock about these wells?

18 A. Yes, we did.

19 Q. And were those communications the same as you  
20 discussed in the previous case?

21 A. Yes, they were.

22 MR. LARSON: Mr. Examiner, again I'd ask  
23 that you adopt his testimony regarding the  
24 communications between Chevron and Tap Rock during March  
25 and early April of this year.



1 EXAMINER DAWSON: Any objections?

2 MR. BRUCE: No objection.

3 MS. BRADFUTE: No objection.

4 MR. HALL: (Indicating.)

5 EXAMINER DAWSON: They will be admitted  
6 into the record. We will reflect that record.

7 MR. LARSON: Thank you.

8 Q. (BY MR. LARSON) Did Chevron ever reach an  
9 agreement with Tap Rock regarding Chevron's proposed  
10 Wolfcamp wells or Tap Rock's competing Wolfcamp well?

11 A. No, we did not.

12 Q. Did you receive an offer from Tap Rock to join  
13 in that well?

14 A. We received AFEs from Tap Rock, but we did not  
15 sign those AFEs.

16 Q. And did you ever receive a draft JOA from Tap  
17 Rock?

18 A. No, we have not.

19 Q. In your opinion, has Chevron made a good-faith  
20 effort to obtain Tap Rock's voluntary joinder in the  
21 three Wolfcamp wells identified in the application?

22 A. Yes.

23 Q. Would you next identify the document marked as  
24 Exhibit 3?

25 A. This is a sample cover letter that was sent to

1 the uncommitted interest owners in the project area.

2 Q. And was this letter sent under your direction  
3 and supervision?

4 A. Yes, it was.

5 Q. And were the green cards returned?

6 A. Yes, they were.

7 Q. And am I correct to assume you had the same set  
8 of offset interests entitled to receive notice as you  
9 had in Case 16132?

10 A. Yes.

11 Q. And would you identify Exhibit Number 4?

12 A. This is a sample notice letter that was sent to  
13 those offset operators, being COG Operating, OXY USA and  
14 EOG Y Resources.

15 Q. And were these letters also sent under your  
16 direction and supervision?

17 A. Yes, they were.

18 Q. And were all the green cards returned?

19 A. Yes, they were.

20 Q. Would you identify the document marked as  
21 Exhibit 5?

22 A. These are the AFEs that were sent by Chevron to  
23 the working interest owners in the project area for the  
24 SND 1114 Fed Com 004 Numbers 4H, 5H and 6H wells.

25 Q. And are the documents comprising Exhibit 5 true

1     and correct copies of those AFES?

2           A.     Yes, they are.

3           Q.     And what are the estimated well costs indicated  
4     in the AFES in Exhibit 5?

5           A.     Approximately 10.6 million per well.

6           Q.     Same estimated well costs for each of the  
7     wells?

8           A.     Yes.

9           Q.     And are those costs similar to the costs  
10    incurred by Chevron for other mile-and-a-half Wolfcamp  
11    horizontal wells?

12          A.     Yes, they are.

13          Q.     And do you have a recommendation for the  
14    monthly amount Chevron should be paid for supervision  
15    and administrative expenses?

16          A.     Yes, 7,500 while drilling and 750 per month  
17    while producing per well.

18          Q.     And are those amounts consistent with those  
19    charged by Chevron for similar Wolfcamp mile-and-a-half  
20    horizontal wells?

21          A.     Yes, they are.

22          Q.     And do you also recommend that the proposed  
23    rates be adjusted periodically pursuant to the COPAS  
24    accounting procedure?

25          A.     Yes.

1           Q.    And is Chevron also requesting a 200 percent  
2 charge for the risk of drilling and completing the three  
3 wells?

4           A.    Yes.

5           Q.    And in your opinion, will the granting of  
6 Chevron's application avoid the drilling of unnecessary  
7 wells, protect correlative rights and serve the interest  
8 of conservation and the prevention of waste?

9           A.    Yes.

10                   MR. LARSON:  Mr. Examiner, I move the  
11 admission of Chevron Exhibits 1 through 5.

12                   EXAMINER DAWSON:  Any objections?

13                   MR. BRUCE:  No objection.

14                   MS. BRADFUTE:  No objection.

15                   MR. PADILLA:  (Indicating.)

16                   EXAMINER DAWSON:  Chevron Exhibits 1  
17 through 5 will be admitted into the record at this time.

18                           (Chevron U.S.A., Inc. Exhibit Numbers 1  
19 through 5 in Case Number 16133 are offered  
20 and admitted into evidence.)

21                   MR. LARSON:  And I will pass the witness.

22                   EXAMINER DAWSON:  Scott, do you have any  
23 questions?

24                   MR. HALL:  I have no questions.

25                   EXAMINER DAWSON:  Jim?

1 MR. BRUCE: Just a few.

2 CROSS-EXAMINATION

3 BY MR. BRUCE:

4 Q. Insofar as the Wolfcamp drill sites, when was  
5 the on-site-location visit with the BLM?

6 A. That on-site visit was conducted on May 10th,  
7 2018.

8 Q. And referring to your Exhibit 2, this letter is  
9 dated March 12th, 2018. This is quite a bit after you  
10 received Tap Rock's proposal for the Wolfcamp well; is  
11 it not?

12 A. Yes, sir.

13 Q. Did you receive -- for the Wolfcamp well that  
14 we're here today on, did you receive that in early  
15 November of 2017?

16 A. Yes, we did.

17 Q. In looking at this, look at the second  
18 paragraph. This never mentions Wolfcamp, does it?

19 A. This one does not specifically.

20 Q. And the depth involved, 9,100, that's in the  
21 Bone Spring; is it not?

22 A. It would be. I would chalk that up as a  
23 mistake on my part. But based on our subsequent  
24 conversations with Tap Rock, it was made known that they  
25 were intended to be Wolfcamp A wells.

1           Q.    Looking at your fourth paragraph, it starts out  
2   saying, "Due to lease-retention requirements, Chevron  
3   will be filing a force pooling application at the OCD."  
4   What's the earliest after an order is entered that  
5   Chevron can drill on this acreage?

6           A.    After an order is given?

7           Q.    After an order is entered in these Wolfcamp  
8   cases? How soon thereafter can Chevron commence a well?

9           A.    We wouldn't commence a well until we have an  
10   approved APD from the BLM. However, I will point out  
11   that liken to the 9,100 foot, that line was a mistake on  
12   my part. It was a simple copy-and-paste mistake. We do  
13   not have any lease-retention issues in this project  
14   area.

15          Q.    But Tap Rock certainly has some?

16          A.    They do. However, that is not part of what  
17   Chevron's development plans are based on.

18          Q.    That's of no concern to Chevron?

19          A.    I would not put it that way, but our  
20   development plans -- our development plans are based on  
21   our business decisions.

22          Q.    Thank you, Mr. Cooper.

23                       EXAMINER DAWSON: Jennifer?

24                       CROSS-EXAMINATION

25   BY MS. BRADFUTE:

1           Q.    Mr. Cooper, you testified earlier -- is it also  
2    true that you were not able to locate any indication in  
3    the public records that Tap Rock had an interest within  
4    the Wolfcamp Formation when you performed your title  
5    search?

6           A.    That is correct.

7           Q.    Okay. And you said that you looked at the BLM  
8    records as well?

9           A.    Yes, we did.

10          Q.    And did you find any indicia that Tap Rock owns  
11   a working interest within the Wolfcamp Formation when  
12   you conducted that search?

13          A.    We did not.

14          Q.    And you likewise did not find any indicia that  
15   Tap Rock owned any working interest in the Bone Spring  
16   as well?

17          A.    Correct. We did not.

18          Q.    And you mentioned when you were putting on your  
19   Bone Spring testimony concerning the earlier case that  
20   you did receive a well proposal from Tap Rock in  
21   November of 2017, correct?

22          A.    Correct. That well proposal, I believe, was as  
23   depth sufficient in the Wolfcamp Formation.

24          Q.    And you also indicated that Tap Rock had  
25   certain errors in some of its well proposals that it had

1     **sent Chevron?**

2           A.     Correct.  Some of the depths that we received  
3     did not correlate with what the -- what the described  
4     formation was in the cover letters, and so we had issues  
5     determining exactly what target depth Tap Rock was going  
6     to develop.

7           **Q.     And did Chevron engage in communications with**  
8     **Tap Rock about those various discrepancies that it**  
9     **noticed in the well proposals?**

10          A.     Yes.  As to the Wolfcamp proposal, there was --  
11     there was an email chain between Mr. Sporich with Tap  
12     Rock and my predecessor landman where my predecessor  
13     asked, "What's the nature of Tap Rock's ownership; where  
14     are you looking to develop," those types of questions.  
15     And then there was a follow-up phone call between  
16     Mr. Sporich and my predecessor.  However, I do not have  
17     any personal knowledge of what was discussed in that  
18     phone call, but that was the last communication that  
19     Chevron and Tap Rock had until, I would say, in February  
20     of this year.

21          **Q.     Approximately how long did those conversations**  
22     **last in terms of months to figure out what the actual**  
23     **correct well proposal was that was being submitted by**  
24     **Tap Rock?**

25          A.     I believe my other Chevron witnesses can talk



1 more on this. However, I would say even to date, we may  
2 not know exactly what the specific depth is and  
3 formation is that Tap Rock is looking to produce. We  
4 have made our assumptions.

5 Q. You've made assumptions, but Tap Rock still has  
6 not confirmed to you what depths they are targeting?

7 A. Not to my knowledge.

8 EXAMINER DAWSON: Ernie, do you have any  
9 questions?

10 MR. PADILLA: No, I don't.

11 CROSS-EXAMINATION

12 BY MR. HALL:

13 Q. Mr. Cooper, in Chevron's examination of title,  
14 specifically as to Sections 14 and 11, did you see any  
15 evidence of a record title interest for Yates Trust Q?

16 A. No, sir. We saw an interest all in Vladin,  
17 LLC.

18 Q. Okay. Thank you.

19 CROSS-EXAMINATION

20 BY EXAMINER BROOKS:

21 Q. Okay. We're talking about Case Number 16133  
22 now, and that is the case involving the Wolfcamp?

23 A. Yes, sir.

24 Q. Okay. And the title to the Wolfcamp Formation  
25 is the same as it is to the -- okay. Now, the depth

1 severance at 10,000 feet is above the Wolfcamp, correct?

2 A. Correct. That is within the Bone Spring  
3 Formation.

4 Q. So there is no -- that does not affect the  
5 Wolfcamp at all then?

6 A. Correct. It would appear that Chevron and Tap  
7 Rock Resources/Douglas McLeod have all of the working  
8 interest within Chevron's proposed project area.

9 Q. Okay. Within the -- I'm getting things  
10 confused here. This is -- or I'm getting confused here.

11 As to the -- I'm going to get another sheet  
12 of the paper and we're going to talk only about the  
13 Wolfcamp.

14 For this proposed project area, what do you  
15 understand to be the title to the working interest for  
16 your proposed project area, which consists of the east  
17 half of Section 14 and the southeast quarter of Section  
18 11?

19 A. As to the southeast quarter of Section 11,  
20 Chevron owns 100 percent of the leasehold in the  
21 Wolfcamp Formation. As to the northeast quarter of  
22 Section 14, Chevron owns 100 percent of the leasehold  
23 interest in the Wolfcamp Formation. And as to the  
24 southeast quarter of Section 14, as to the Wolfcamp  
25 Formation, it would appear that Douglas McLeod owns 100

1     percent of the leasehold interest in the Wolfcamp  
2     Formation but has farmed out or term assigned that  
3     interest to Tap Rock Resources.

4           Q.     But Tap Rock Resources' interest is not of  
5     record?

6           A.     Correct.

7           Q.     So the record title -- not record title because  
8     I'm talking BLM speak there. But as to the title as  
9     it's reflected in the public records, in the southeast  
10    quarter of 11 and the northeast quarter of 14, the title  
11    is Chevron 100 percent as to all of the Wolfcamp?

12          A.     Yes, sir.

13          Q.     And as to the southeast quarter of Section 14,  
14    McLeod owns 100 percent as to all of the Wolfcamp?

15          A.     Yes, sir.

16          Q.     Very good.

17                   Now, you probably wouldn't be the -- you  
18    said you're going to drill these three wells  
19    simultaneously. You probably wouldn't be able to tell  
20    me exactly what that means, but you have another witness  
21    that would?

22          A.     That would be a better question for the other  
23    Chevron witnesses. Yes.

24          Q.     Okay. Well, I'll try to find the right one. I  
25    found out during the horizontal well rule hearings

1 recently that that was a much more complicated concept  
2 than I thought, and I don't understand it.

3 Okay. Now, this question was raised: How  
4 soon can Chevron drill after an order is entered? And I  
5 have to go back and see -- any of these wells that were  
6 drilled are going to be in the northeast quarter of 14,  
7 the southeast quarter of 14 and the southeast quarter of  
8 11, right?

9 A. Correct.

10 Q. So regardless of what's state and what's  
11 federal, it's going to require federal AFE approval?

12 A. Correct.

13 Q. And you do not have federal AFE approvals for  
14 any of these Wolfcamp for -- you're only proposing one  
15 Wolfcamp well, right?

16 A. We're proposing three Wolfcamp wells.

17 Q. Three Wolfcamp.

18 A. We do not have APD submittals at this time.

19 APD submittals require that you have a working interest  
20 or consent of the working interest owners as to each of  
21 the 40-acre units within your project area.

22 Q. Yeah. I know ours required that. I didn't  
23 know about --

24 A. As part of the APD submittal process to the  
25 federal government, you have to include your C-102, and

1     that C-102 has that operator certification where you  
2     make that certification.

3           **Q.     Okay. I understand.**

4           **A.     So until Chevron has a consent of someone in**  
5     **the southeast quarter of 14 or we have an order from the**  
6     **OCD, we will not submit our APDs until that time.**

7           **Q.     Sounds to me -- I'm glad that this has been --**  
8     **my wits have been sharpened on this, because it seems to**  
9     **me like maybe we ought to consider amending our rule if**  
10    **we're adding time to the BLM's process, which is already**  
11    **extended. But that's a whole issue for another day.**

12                   **Okay. So you cannot drill in any close**  
13    **time frame?**

14           **A.     We cannot drill until we receive an approved**  
15    **APD.**

16           **Q.     And that is from the BLM?**

17           **A.     Yes, sir.**

18                   **But should we receive any order from the**  
19    **OCD, Chevron would be willing to change our drilling**  
20    **planning times to drill within the order's time frame.**

21           **Q.     Thank you. I think that's all I have.**

22                   **CROSS-EXAMINATION**

23           **BY EXAMINER DAWSON:**

24           **Q.     Okay. Mr. Cooper, you said on May 10th, you**  
25    **had an on-site meeting with the BLM regarding your**

1     Wolfcamp proposed plans out there on the lease?

2           A.     Yes, sir.

3           Q.     And did you also -- on the previous case, you  
4     had an on-site meeting with the BLM on the Bone Spring,  
5     correct?

6           A.     Yes, sir.

7           Q.     And they signed off on it?

8           A.     Yes, sir.

9           Q.     Did they sign off on the Wolfcamp?

10          A.     Yes, sir. They gave their initial go-ahead and  
11     said we could submit an APD at a later time.

12          Q.     So in your view of Mr. McLeod's lease, is  
13     that -- that's a federal lease?

14          A.     Yes, sir.

15          Q.     It's 11600 -- 044 [sic]; is that correct?

16          A.     Yes, sir, I believe so.

17          Q.     Is that -- that covers the whole half south  
18     half of 14, correct?

19          A.     Correct.

20          Q.     And do you know when the expiration date is on  
21     that lease?

22          A.     I do not recall the expiration date on that  
23     lease, but I do know that that lease is held by  
24     production by EOG wells -- operated wells.

25          Q.     Are those in Section -- those are in Section

1     **14, in the east half -- or southeast quarter?**

2           A.     They're in the southern half of Section 14. I  
3     believe those are east-west horizontal Delaware Mountain  
4     Group wells.

5           **Q.     Okay. Would those affect your drilling plans**  
6     **for this area?**

7           A.     They would not affect our drilling plans. I  
8     believe the Bone Spring and Wolfcamp are deep enough  
9     that we wouldn't see any interference, but that would be  
10    a better question for the other witnesses.

11          **Q.     Okay.**

12                               **RECROSS EXAMINATION**

13    BY EXAMINER BROOKS:

14          **Q.     Well, as I understand it, no one has raised any**  
15    **questions about lease expiration. It's about the**  
16    **farm-out expiration that we have an issue?**

17          A.     Yes, sir. I believe, at least from Chevron's  
18    viewpoint, there are no lease-expirations issues here.

19          **Q.     Thank you.**

20                               **RECROSS EXAMINATION**

21    BY EXAMINER DAWSON:

22          **Q.     In your discussions with Tap Rock, did they**  
23    **provide you the assignment that was provided to them?**  
24    **You don't have any privy of that assignment from**  
25    **Mr. McLeod?**

1           A.    No, sir.  We have not seen that document.

2           Q.    You don't have a date or anything?  You don't  
3 know anything about it?

4           A.    I did not know until today how long their term  
5 was for this farm-out or term assignment.  I still don't  
6 know if it's a farm-out or term assignment.

7           Q.    You've already told us that.

8                       That's all the questions I have.  Thank  
9 you.

10                   EXAMINER DAWSON:  Mr. Padilla.

11                   MR. PADILLA:  I have a follow-up question  
12 to a question Mr. Brooks asked.

13                               RE CROSS EXAMINATION

14 BY MR. PADILLA:

15           Q.    My question is:  Is the APD a precondition to  
16 compulsory pooling?  In other words, can you bring a  
17 compulsory pooling before you actually get an APD?

18           A.    I am not aware of any rule that you can't do  
19 that.  In fact, the C-102 specifically says, you know,  
20 "subject to an OCD order," which is part of the APD  
21 packet, so I would assume that you can do that.

22           Q.    So in other words, compulsory pooling can come  
23 way ahead of the APD or the C-102?

24           A.    Yes, sir.

25           Q.    Okay.



1 EXAMINER DAWSON: Mr. Bruce?

2 RECROSS EXAMINATION

3 BY MR. BRUCE:

4 Q. In your review of the southeast quarter of 14,  
5 does EOG own any interest in the Wolfcamp Formation in  
6 the southeast quarter of 14?

7 A. No, sir.

8 Q. And then did you or anyone at Chevron ever  
9 contact Mr. McLeod regarding Tap Rock's farm-out?

10 A. I had a face-to-face conversation with  
11 Mr. McLeod at NAPE. He happened to come up to Chevron's  
12 booth, and I happened to be the one to speak with  
13 Mr. McLeod. And he actually told me that, you know, he  
14 had some interest in the south half of 14, and he knew  
15 we were to the north, and he would be interested in  
16 Chevron developing this general area.

17 Q. Thank you.

18 RECROSS EXAMINATION

19 BY EXAMINER DAWSON:

20 Q. Since Mr. McLeod signed the AFE that you  
21 provided to him, have you had any discussion with him  
22 whatsoever since then?

23 A. Not one on one. We had a phone call after NAPE  
24 just to touch base again, and he asked more about  
25 Chevron's development plans. And we said that based

1 on -- we could foresee what a hearing may look like if  
2 it came to this, that it would be better if we did not  
3 speak personally on this issue, just through our  
4 attorneys. And so the only communication I had with  
5 Mr. McLeod was through our letters that we sent, our  
6 notice letters and such.

7 **Q. Okay. Thank you.**

8 EXAMINER DAWSON: Does anybody else have  
9 any more questions for Mr. Cooper?

10 Okay. You can call your next witness.

11 MR. LARSON: Would it be a good time to  
12 take a break?

13 EXAMINER DAWSON: We can take a break.

14 EXAMINER BROOKS: The attorneys should be  
15 thinking about whether we can realistically finish this  
16 hearing today. I don't know. But we've got a lot of  
17 witnesses.

18 MR. LARSON: I can say from Chevron's  
19 perspective, this was our most testimony.

20 EXAMINER BROOKS: Okay. We'll talk more  
21 about it later.

22 EXAMINER DAWSON: We'll take a ten-minute  
23 break, come back about 10:50. Thank you.

24 (Recess, 10:37 a.m. to 10:50 a.m.)

25 EXAMINER DAWSON: Okay. We are back in

1 session. It's 10:50 a.m. We are currently on Case  
2 Number 16133.

3 And you may now continue, Mr. Larson. Call  
4 your second witness, please.

5 EXAMINER BROOKS: I'm a little confused  
6 about how we're doing this. The Examiner said we're  
7 doing Case Number 16133, but aren't we going to have a  
8 consolidated record here?

9 EXAMINER DAWSON: Yes. We are on  
10 consolidated --

11 MR. LARSON: I was going to say,  
12 Mr. Brooks --

13 EXAMINER DAWSON: We are on consolidated  
14 Cases 16132 and 16133.

15 EXAMINER BROOKS: That's what I thought.

16 EXAMINER DAWSON: Yes. Yes.

17 EXAMINER BROOKS: Okay. So go ahead.

18 TIM O'TOOLE,  
19 after having been previously sworn under oath, was  
20 questioned and testified as follows:

21 DIRECT EXAMINATION

22 BY MR. LARSON:

23 Q. Good morning, Mr. O'Toole. Could you state  
24 your name for the record?

25 A. Good morning. Tim O'Toole.

1           Q.    And where do you reside?

2           A.    In Houston, Texas.

3           Q.    And by whom are you employed and in what  
4 capacity?

5           A.    I'm a geologist with Chevron, and I work the  
6 southeast portion of New Mexico in the Delaware Basin.

7           Q.    And are you familiar with the geological  
8 aspects of the three proposed wells in the matters  
9 addressed in Chevron's application?

10          A.    Yes, I am.

11          Q.    And have you previously testified at a Division  
12 hearing?

13          A.    Yes, I did -- or have.

14          Q.    And at that hearing, were you qualified as an  
15 expert in petroleum geology?

16          A.    Yes, I was.

17                   MR. LARSON:  Mr. Examiner, I tender  
18 Mr. O'Toole as an expert petroleum geologist for  
19 purposes of Cases 16132 and 16133.

20                   EXAMINER DAWSON:  Any objection?

21                   MR. BRUCE:  No objections.

22                   MR. HALL:  (Indicating.)

23                   EXAMINER DAWSON:  Mr. O'Toole will be  
24 admitted as an expert petroleum geologist for Cases  
25 16132 and 16133 at this time.

1           Q.    (BY MR. LARSON) And initially, Mr. O'Toole, I'm  
2   going to ask you questions about the Bone Spring wells,  
3   which is Case Number 16132, and I direct your attention  
4   to what's been marked as Chevron Exhibit 8. Do you have  
5   those in front of you?

6           A.    Yes. I'm getting them.

7           Q.    Make sure we have the right case number.

8           A.    Yeah. I was making sure that I have the right  
9   one.

10          Q.    And could you identify Exhibit 8 for the  
11   record?

12          A.    Yes. Exhibit 8 is a structure map of the top  
13   of the Bone interval on the left. The blue dots you  
14   see --

15                   MR. BRUCE: Excuse me. We don't have any  
16   exhibits for the Bone Spring.

17                   MR. LARSON: It's the exhibits at the back  
18   of that -- didn't I give you a little stack?

19                   MR. BRUCE: No. All we have on the Bone  
20   Spring ends with the AFEs.

21                   EXAMINER BROOKS: Well, I have Exhibit 8  
22   and some others in 16132, which I gather is what you're  
23   looking at.

24                   MR. LARSON: Yes. So we don't have any  
25   issues, everybody should have Exhibits 1 through 12 in

1 Case 16132.

2 EXAMINER DAWSON: Does everyone have it?

3 Okay. Everybody has those exhibits,

4 Mr. Larson.

5 Q. (BY MR. LARSON) Okay.

6 A. I can finish describing it.

7 Q. Sure.

8 A. So the left is a structure map of the top of  
9 the Bone Spring. All the blue dots are the control  
10 points that were used to make the map, and then on the  
11 right-hand side, you'll see a land plat that shows the  
12 surface- and bottom-hole location of the three proposed  
13 Bone Spring wells.

14 Q. And was the map that constitutes Exhibit 8  
15 created by Chevron's geology department?

16 A. Yes.

17 Q. And is there anything further you'd like to  
18 describe in terms of what this document is intended to  
19 depict?

20 A. Yes. This map shows specifically with the  
21 structure map that there is a gentle dip from west to  
22 east in the Bone Spring interval, and there are no major  
23 structural features such as faults or any other  
24 impediments.

25 Q. And in your opinion, is the north-to-south

1     **orientation appropriate for the proposed Bone Spring**  
2     **wells?**

3             A.     Yes, it is.

4             **Q.     Would you identify the document marked as**  
5     **Exhibit 9?**

6             A.     Yes, I can.   This is a gross thickness map of  
7     the Avalon interval in the Bone Spring, and the map also  
8     has a cross section on it from A to A prime that  
9     introduces where the section in the next exhibit will  
10    come from.

11            **Q.     And was this document prepared by Chevron's**  
12    **geology department?**

13            A.     Yes, it was.

14            **Q.     And what is the purpose of this exhibit?**

15            A.     The purpose of this exhibit is to show that the  
16    target interval for Chevron in the Bone Spring over  
17    Sections 11 and 14 is a similar thickness, and it also,  
18    as I stated, shows our control wells that were used to  
19    make the section in the exhibit -- for Exhibit 10.

20            **Q.     And we'll segue into asking you to identify**  
21    **Exhibit 10.**

22            A.     Exhibit 10, you'll see that it's actually on  
23    two pages, and this is a cross section that goes all the  
24    way from the top of the Bone Spring interval to the top  
25    of the Wolfcamp A.   So it encompasses the entire Bone

1 Spring interval. What you see in the logs there, we  
2 just have the standard triple combo plotted. So it's  
3 gamma ray in the far left log, resistivity, and then we  
4 have our density and our neutron plotted in the blue and  
5 the orange lines there. We've displayed the coloring to  
6 show the shales as red and hot and then the purple  
7 colors to show more of the carbonates.

8 **Q. And were these cross sections also prepared by**  
9 **Chevron's geology department?**

10 A. Yes, they were.

11 **Q. And what do the cross sections tell us about**  
12 **the target interval for the three proposed wells?**

13 A. If you take a look at the first page, you'll  
14 see a green dot on the rightmost side of the cross  
15 section. That shows where our current target is for  
16 this interval in the Lower Avalon. And as you track  
17 across, it shows that geologically the target is  
18 consistent over Sections 11 and 14.

19 **Q. And are there any geologic faults or**  
20 **impediments in the target interval?**

21 A. No, there are not.

22 **Q. In your opinion, are all quarter-quarter**  
23 **sections to be included in the target interval expected**  
24 **to be more or less equally productive from the Bone**  
25 **Spring?**



1           A.     Yes.

2           Q.     And while we have this exhibit in front of you,  
3     does Chevron's long-term development plan for this  
4     acreage potentially include multiple benches within the  
5     Bone Spring?

6           A.     Yes, it would. We would plan on developing all  
7     economic benches within the Bone Spring interval, which  
8     is why we would be asking for a pooling of the entire  
9     interval.

10          Q.     Okay. And there's been some discussion this  
11     morning about severing the Bone Spring. In your  
12     opinion, what would be the impact of severing the  
13     depths?

14          A.     I think if you sever the depths that you will  
15     see -- having multiple operators within these sections  
16     would probably create waste and would not maximize the  
17     recovery of all the benches within the two sections.

18          Q.     Would you next identify the document marked as  
19     Exhibit 11?

20          A.     Yes. So what you're looking at here is a  
21     gun-barrel diagram, as we like to call it. That's what  
22     you see on the left here, and it's a schematic showing  
23     the Bone Spring interval. This would be cut  
24     perpendicular to the wellbore, and it shows how Chevron  
25     plans on developing the Lower Avalon in Sections 11 and

1 14.

2 Q. And like the previous three exhibits, was this  
3 created by Chevron's geology department?

4 A. Yes, it was.

5 Q. And looking at Exhibit 11, is Chevron also  
6 planning to drill three mile-and-a-half laterals in the  
7 west half of 14 and the southwest of 11?

8 A. Yes.

9 Q. And will Chevron achieve efficiencies by  
10 drilling mile-and-a-half wells as opposed to one-miles?

11 A. Yes. We will achieve efficiencies by drilling  
12 mile and a half over one mile and prevent waste. And  
13 the reason for this is because when you drill one-mile  
14 wells, both the toe of the well and the heel of the well  
15 have to be 330 feet stepped back from the leaselines,  
16 but when we drill a mile-and-a-half, we can drill  
17 through the sections. And so we actually capture that  
18 extra 660 feet within the target interval and the  
19 lateral. And so on a per-foot perped basis within the  
20 well, you see about a 10 percent uplift by just  
21 capturing that extra -- that extra amount in the  
22 horizontal that you otherwise wouldn't capture when you  
23 drill a one-mile.

24 Now, obviously, the mile-and-a-half would  
25 have the extra, you know, hundreds of feet for that half

1 mile, but specifically you make up that 660 feet that  
2 the one-mile doesn't get.

3       **Q. And the three Bone Spring wells that are the**  
4 **subject of Chevron's application, will those be drilled**  
5 **simultaneously?**

6       A. Yes, they will.

7       **Q. Are there additional efficiencies realized by**  
8 **Chevron by drilling the wells simultaneously?**

9       A. Yes. There are additional efficiencies from  
10 that as well. Not only does it help to minimize the  
11 surface disturbance, but also in unconventional and  
12 specifically within the Permian Basin, we see issues  
13 arise when you drill what we call parent-well and  
14 child-well relationships, and the parent well being the  
15 first well that you drilled in the section, and then the  
16 child well being the subsequent wells that you drill  
17 after that.

18               Within a section, if you just drill a  
19 single parent well and then leave that well on line to  
20 produce for a while and then come back to drill the  
21 child well, what we see is we see that that results in  
22 depletion and interference. And Chevron has done  
23 internal modeling of this and also looked at analogs  
24 within the Midland and Delaware Basins, and we've  
25 determined that you can see upwards of 20 percent

1 reduction in EUR in the child wells when you don't  
2 develop it all together at the same time.

3 What you'll see in Exhibit 11 is we  
4 actually have not only the three wells in what's subject  
5 to today's hearing, but we also have another three wells  
6 to fully develop the section and minimize any waste that  
7 would come from a parent-child relationship.

8 Q. In your opinion, will Chevron's drilling  
9 program for the three Bone Spring wells prevent waste?

10 A. Yes, it will.

11 Q. And in your opinion, will the granting of  
12 Chevron's application avoid the drilling of unnecessary  
13 wells, protect correlative rights and serve the interest  
14 of conservation?

15 A. Yes, it will.

16 MR. LARSON: Mr. Examiner, I'll move the  
17 admission of Chevron's Exhibits 8 through 11.

18 EXAMINER DAWSON: Any objections?

19 MR. BRUCE: No objection.

20 MR. HALL: (Indicating.)

21 EXAMINER DAWSON: Chevron's Exhibits 8  
22 through 11 will be admitted to the record at this time.

23 (Chevron U.S.A., Inc. Exhibit Numbers 8  
24 through 11 in Case Number 16132 are  
25 offered and admitted into evidence.)

1 MR. LARSON: I will pass the witness.

2 EXAMINER DAWSON: Mr. Hall?

3 MR. HALL: I have no questions.

4 EXAMINER DAWSON: Mr. Bruce?

5 MR. BRUCE: Yeah, a couple.

6 CROSS-EXAMINATION

7 BY MR. BRUCE:

8 Q. Could you refer to your Exhibit 10,  
9 Mr. O'Toole?

10 A. Yes.

11 Q. And I believe your proposals are in the Lower  
12 Avalon; is that correct?

13 A. Correct.

14 Q. Are there barriers between the Lower Avalon and  
15 the 1st Bone Spring zone?

16 A. In certain cases, there are here. It would be  
17 difficult to tell just by me looking at these logs. I'd  
18 probably have to do some type of completion modeling to  
19 know if it would prevent the frac from growing into the  
20 1st Bone.

21 Q. What about between the 1st Bone Spring and the  
22 1st Bone Spring Shale?

23 A. There are no frac barriers between the 1st Bone  
24 Spring and the 1st Bone Spring Shale.

25 Q. What about between the 2nd Bone Spring

1     **Carbonate and what's below that?**

2           A.     Between the -- are you talking about the 9,700  
3     depth, that 2nd Bone Spring Carbonate?

4           **Q.     Yeah, right about there.   Yeah.**

5           A.     Between that and the 2nd Bone Spring, yes, I  
6     would see that as being a frac barrier.

7           **Q.     What about the base of the 2nd Bone Spring --**  
8     **between the 2nd Bone Spring and the 3rd Bone Spring?**

9           A.     Between the 2nd Bone Spring and the 3rd Bone  
10    Spring --

11          **Q.     I know it's not on this cross section.**

12          A.     It is on the second (indicating) --

13          **Q.     Okay.   Okay.**

14          A.     -- page.

15                   Between the 2nd Bone Spring Sand and the  
16    3rd Bone Spring Sand is actually an enormous interval  
17    where I don't think it would matter if you had a frac  
18    barrier or not.   It's just the frac's not going to grow  
19    that high.   But yes, there are frac barriers between  
20    there, because you have what we term the 3rd Bone Spring  
21    Carbonate and also the 2nd Bone Spring Shale and then  
22    the 3rd Bone Spring Sand.

23          **Q.     And what's the vertical difference between the**  
24    **base of the Avalon and the top of the 3rd Bone Spring?**

25          A.     Well, the top of the 3rd Bone Spring here is

1 roughly at 11,300 feet, and the base of the Avalon is  
2 roughly at 9,400 feet. I became a geologist so I didn't  
3 have to do math (laughter), so whatever those two are  
4 subtracted from each other.

5 (Laughter.)

6 **Q. I used to be an engineer, so that's the only**  
7 **thing I remember.**

8 A. But we'll say thousands and thousands of feet,  
9 6,000-ish feet, 7,000.

10 **Q. No, no. It's less than that.**

11 MR. BRUCE: He wasn't lying.

12 {Laughter.}

13 MR. BRUCE: Sorry about that.

14 THE WITNESS: That's all right.

15 **Q. (BY MR. BRUCE) Do you consider the Avalon**  
16 **different reservoir than any 3rd Bone Spring zone?**

17 A. Yes, I would. It would be multiple benches.

18 MR. BRUCE: That's all I have.

19 EXAMINER DAWSON: Ms. Bradfute, do you have  
20 anything?

21 MS. BRADFUTE: I don't think I have any  
22 questions for this witness.

23 EXAMINER DAWSON: Okay.

24 Mr. Padilla?

25 CROSS-EXAMINATION

1 BY MR. PADILLA:

2 Q. The only question I have, Mr. O'Toole, is, on  
3 your Exhibit 10 --

4 A. Yes.

5 Q. -- 10,000 feet goes about halfway through the  
6 2nd Bone Spring?

7 A. Yeah. We see 10,000 feet as being right  
8 basically at the top of the 2nd Bone Spring.

9 Q. It doesn't go into the 2nd Bone Spring?

10 A. If you look at the cross section, it's --  
11 it's -- it would be a really close call. It's basically  
12 right at the top.

13 Q. It depends on each particular well --

14 A. Yeah.

15 Q. -- as you look at the log of each well?

16 A. Uh-huh. Yeah. Correct. Yeah.

17 MR. PADILLA: That's all.

18 EXAMINER DAWSON: David, do you have any  
19 questions?

20 EXAMINER BROOKS: No questions.

21 CROSS-EXAMINATION

22 BY EXAMINER DAWSON:

23 Q. Okay. Mr. O'Toole, I have a question for you.  
24 On your explanation of one-and-a-half-mile lateral  
25 versus a one-mile lateral --



1           A.     Yes.

2           Q.     -- you said that since the one-and-a-half-mile  
3     lateral would capture the 660 foot -- 330-foot setback  
4     area on both sections of 11 and 14, have you done a  
5     calculation of estimated ultimate recovery on a one-mile  
6     in that area versus estimated ultimate recovery on a  
7     one-and-a-half-mile well, or do you know what the  
8     difference may be if you drill a one-and-a-half mile  
9     versus a one-mile well?

10          A.     I know internally we've done that analysis. I  
11     know that we would expect a higher recovery from a  
12     one-and-a-half mile versus a one-mile, but I wouldn't be  
13     able to give you specific numbers.

14          Q.     Okay. And do you -- do you have a feeling of  
15     what kind of risk may be associated with a one-mile  
16     versus the one-and-a-half mile? Do you feel like the  
17     one-and-a-half mile is more risky? Drilling a  
18     one-and-a-half mile is much more risky than drilling a  
19     one-mile?

20          A.     No. I wouldn't say so.

21          Q.     Have you had any problems with any  
22     one-and-a-half miles you've drilled in the Wolfcamp or  
23     the Bone Spring?

24          A.     To my knowledge, no.

25          Q.     And you've drilled other Bone Spring?

1           A.    In other development areas, we've drilled Bone  
2   Spring wells, mile-and-a-halves.

3           Q.    Okay.  And on your cross section, on Exhibit  
4   10, of the Bone Spring Formation --

5           A.    Actually, I think two miles.  We've drilled two  
6   miles.

7           Q.    Two miles?

8           A.    Yeah.

9           Q.    And you haven't had any problems drilling a  
10   two-mile lateral?

11          A.    (Indicating.)

12          Q.    On your cross section on Exhibit 10, on those  
13   wells on the cross section --

14          A.    Yeah.

15          Q.    -- has Chevron drilled any of those wells that  
16   are involved in this cross section, other wells?  Are  
17   any of those wells Chevron's wells?

18          A.    Oh, the wells that show the existing Bone  
19   Spring producers around it?  Are you talking about the  
20   wells in this cross section, the verticals?

21          Q.    Yeah.

22          A.    No.  We haven't drilled those verticals.

23          Q.    Those are all from verticals?

24          A.    Yeah.  Those are verticals.

25          Q.    And do you feel that Chevron's plan of

1     development in the area would adequately -- would fully  
2     develop the southeast quarter of Section 11 and the east  
3     half of Section 14 in the Bone Spring?

4             A.     Yes.

5             Q.     Okay. That's all the questions I have. Thank  
6     you.

7                     MR. BRUCE: I have one follow-up.

8                     EXAMINER DAWSON: Okay, Mr. Bruce.

9                             RE CROSS EXAMINATION

10            BY MR. BRUCE:

11            Q.     Mr. O'Toole, you said Chevron drilled  
12     extended-length laterals in other areas. Where is the  
13     nearest extended-length lateral that Chevron has to  
14     this -- to these project wells in the Bone Spring?

15            A.     That would be the Salado Draw.

16            Q.     Do you know the township and range of the  
17     Salado Draw?

18            A.     Off the top of my head, it's probably 25 miles  
19     to 30 miles south.

20            Q.     And how about the Wolfcamp?

21            A.     That would be Salado Draw as well.

22            Q.     Thank you.

23            A.     And we just executed two-mile Wolfcamps  
24     there -- or mile-and-a-half. Sorry.

25                     MR. BRUCE: Thank you.

1 EXAMINER DAWSON: Any other questions?

2 Ms. Bradfute, do you have any questions?

3 MS. BRADFUTE: Let me confer with my  
4 client.

5 EXAMINER DAWSON: Okay.

6 MS. BRADFUTE: I have just a couple of  
7 questions.

8 EXAMINER DAWSON: Okay.

9 CROSS-EXAMINATION

10 BY MS. BRADFUTE:

11 Q. Thank you very much for your testimony.

12 I know you testified earlier that you  
13 haven't calculated estimated recovery by -- between the  
14 difference of drilling a one-and-a-half-mile-long well  
15 and a one-mile-long well?

16 A. Well, internally we have. I just don't know it  
17 off the top of my head.

18 Q. You just don't know it off the top of your  
19 head.

20 Would you believe that, you know, when  
21 you're drilling a one-mile well, that it could recover  
22 something approximating about 500,000 barrels of oil or  
23 so?

24 A. Oh, from this formation?

25 Q. Yeah.

1           A.    I really would prefer not to speak to EURs of  
2   the wells without looking at --

3           Q.    Without looking at your calculations?

4           A.    Yeah, without looking at what we actually have.

5           Q.    So what you do know is that you'll be able to  
6   develop within what would be the setback requirements  
7   where no development has occurred; is that correct?

8           A.    Sorry. Ask your question again.

9           Q.    Yeah. What you do know is that you can develop  
10   and frac within what would be the setback requirements  
11   if one-mile lateral wells were drilled?

12          A.    Oh, yes. Yeah. The point that I was trying to  
13   make with the one-mile versus the one-and-a-half wasn't  
14   necessarily -- that extra half a mile will add  
15   additional EUR to the well. But, specifically, when you  
16   drill a one-mile well, since you have to have that  
17   step-back, you're losing the equivalent of drilling two  
18   one-mile wells in, you know, two different sections  
19   versus like one one-and-a-half or two-mile. You've  
20   gained that 660 feet that would be lost in the two  
21   one-mile wells.

22          Q.    So would the additional half mile provide  
23   approximately one-third more area that could be fracked,  
24   or how much additional area? Is it 660 feet that could  
25   be fracked and potentially --

1           A.    Oh, no.  So the one-and-a-half mile, you're  
2   going to have 7 -- you're going to have roughly a little  
3   over 7,000 foot versus the one-mile of about 46- or  
4   4,700 foot that they perf.

5           Q.    Okay.

6           A.    Yeah.

7           Q.    And what would Chevron's plans be for that  
8   half-mile section in Section 11 if its  
9   one-and-a-half-mile wells are not approved?

10          A.    Chevron's in the half-mile section?

11          Q.    So right now it's a mile-and-a-half going  
12   through 11 and 14?

13          A.    Correct.

14          Q.    And part of that area would be in part of your  
15   unit regardless, correct?

16          A.    Yeah.  The proposed unit encompasses 11 and 14.

17          Q.    And so if Chevron is not designated as the  
18   operator of this acreage, has it discussed alternative  
19   development plans for the areas included within the unit  
20   for that half section in Section 11 -- or that quarter  
21   section in Section 11?

22          A.    Yeah.  I would say that depending upon the  
23   outcome of this hearing, Chevron will have to evaluate  
24   what that would do to the way we go about developing.

25          Q.    Okay.  And you had testified earlier about

1     parent-child well relationships and the depletion  
2     effects. Is it your opinion that if you initially go in  
3     and drill a single well within the Bone Spring Formation  
4     and then later -- let's say a year's time lapses and  
5     subsequent infill wells are later drilled, that waste  
6     will be created?

7           A.     Yes, and significant waste, upwards of 20  
8     percent reduction in EUR for that child well.

9           Q.     Could you explain a little more in detail why  
10    that is? I want to make sure I understand it.

11          A.     Yeah. Essentially, when you just drill the  
12    one-off parent well, you get depletion effects of that  
13    parent well being on production for so long before you  
14    come back. And then when you come back to drill the  
15    child well, you also get interference when you cross  
16    that well, and you can take frac hits actually in your  
17    parent well. And then also your child well doesn't get  
18    as complex of a frac because the pressures have been  
19    changed in the area. So it results in, yeah,  
20    significant waste and a significant reduction in EUR.

21          Q.     Thank you.

22                   EXAMINER DAWSON: I have one more question.

23                   RECROSS EXAMINATION

24    BY EXAMINER DAWSON:

25          Q.     At the beginning of the hearing, Mr. Bruce was

1     talking about development by two operators, that  
2     possibly Tap Rock and Chevron could both develop the  
3     area at the same time.

4           A.     Right.  Uh-huh.

5           Q.     Do you see any problems with two operators  
6     trying to develop the Bone Spring within that area at  
7     the same time?  Can you elaborate on how that -- what  
8     kind of outcome would come from that, in your opinion?

9           A.     Yeah, I do see an issue with it.  And like one  
10    of the primary issues I would see with it is whenever  
11    you decide to have that cutoff of "you get one-half in  
12    the upper, one-half on the lower," it would be very easy  
13    for two operators to not be in communication or not be  
14    seeing eye to eye and one operator lands right above  
15    that and one operator lands right above that, and now  
16    you've taken frac hits or you're not effectively  
17    stimulating the reservoir in order to maximize recovery  
18    because you're spacing wells too close together.

19          Q.     Okay.  That's the only question I have.  Thank  
20    you.

21                   MR. BRUCE:  Could I ask one follow-up?

22                   EXAMINER DAWSON:  Yes.

23                   RE CROSS EXAMINATION

24    BY MR. BRUCE:

25          Q.     But in your proposed unit, your landman said



1     that you're going to, number one, develop on two-mile  
2     laterals, right, in the unit area?

3           A.     Yeah.  I'll defer to what he said.

4           Q.     Couldn't you just -- insofar as your Section 11  
5     goes, you could drill two-mile laterals in Section 2 in  
6     the north, couldn't you?  That's in the proposed unit.

7           A.     We could do that.  That's not the current  
8     development plan.

9           Q.     But I thought -- well, your landman said the  
10    unit was formed for two-mile laterals.

11          A.     We can drill two-mile laterals in Sections 9,  
12    10, 15, but if we -- depending upon the outcome of  
13    today, a preferred development plan would be a  
14    mile-and-a-half north and a mile-and-a-half south.

15          Q.     And are there existing or proposed development  
16    plans in the Delaware, above the Bone Spring?

17          A.     No, not currently.

18          Q.     Not currently.

19                         Is there a different operator in the  
20    Delaware than in the Bone Spring?

21          A.     I don't know.

22          Q.     Again, your landman testified that EOG had --  
23    rights?

24          A.     Yeah.  I mean, I just know the rock.

25                         (Laughter.)

1 EXAMINER DAWSON: You might want to bring  
2 the landman back up here to answer those questions.

3 MR. BRUCE: That's fine.

4 Q. (BY MR. BRUCE) One thing. The -- and maybe you  
5 don't know. When you're drilling the Delaware, isn't  
6 the main zone the Lower Brushy Canyon?

7 A. Oh, the target interval?

8 Q. Yeah.

9 A. Yeah. I can speak to that. Yeah. Uh-huh.

10 Q. That's immediately above the Avalon?

11 A. Yeah. The Delaware Mountain Group is above the  
12 Avalon.

13 Q. All right. Thank you.

14 EXAMINER DAWSON: Is that all the questions  
15 of Mr. O'Toole?

16 MR. LARSON: In the first case, yes, but I  
17 have some --

18 EXAMINER DAWSON: Now, we will go to 16133,  
19 which is consolidated with 16132.

20 MR. LARSON: Exactly.

21 EXAMINER DAWSON: So we'll go to the  
22 Wolfcamp now.

23 EXAMINER BROOKS: I have one other  
24 follow-up question on one of the questions just asked.

25 CROSS-EXAMINATION

1 BY EXAMINER BROOKS:

2 Q. I thought the Delaware Mountain Group was above  
3 the -- was above the entire Bone Spring --

4 A. Yes, it is.

5 Q. -- that there was a division between the  
6 Delaware Mountain Group and the Bone Spring.

7 A. Yeah. The way Chevron designated it, you have  
8 the Lower, Middle, Upper Avalon, then you have the Bone  
9 Spring Lime and then the Delaware Mountain Group  
10 (indicating).

11 Q. And you're going up?

12 A. Yes.

13 Q. You pointed up.

14 A. (Indicating.)

15 Q. I wanted the record to reflect because you were  
16 pointing.

17 A. Yeah.

18 EXAMINER BROOKS: Okay. Go ahead.

19 DIRECT EXAMINATION

20 BY MR. LARSON:

21 Q. Okay. Mr. O'Toole, we're going to move on to  
22 the exhibits for 16133.

23 EXAMINER DAWSON: Does everyone have  
24 exhibits for 16133 in hand?

25 Okay.

1           **Q.    (BY MR. LARSON) Would you identify the document**  
2           **marked as Exhibit 6 in Case Number 16133?**

3           A.    Yes.  This is a structure map of the top of the  
4           Wolfcamp on the left with a 20-foot contour interval.  
5           You'll see the blue dots being the control points that  
6           were used to make the map.  And then on the right is a  
7           land plat showing surface- and bottom-hole locations  
8           showing three proposed Wolfcamp wells.

9           **Q.    And is there anything you'd like to discuss**  
10          **further regarding this exhibit?**

11          A.    Yes.  So similar to the Bone Spring, the  
12          Wolfcamp has a very gentle dip from west to east and no  
13          major faults or structural features.

14          **Q.    And in your opinion, is the north-to-south**  
15          **orientation appropriate for the proposed Wolfcamp wells?**

16          A.    Yes, it is.

17          **Q.    Would you next identify the document marked as**  
18          **Exhibit 7?**

19          A.    Yes, I can.  This is a thickness map or an  
20          isopach map of the Wolfcamp, what Chevron terms the  
21          "Wolfcamp A."  And the lighter colors are less thick,  
22          and the darker colors are more thick.  The contour  
23          interval is 50 feet.

24          **Q.    And what is the overall purpose of this**  
25          **exhibit?**

1           A.    The overall purpose of this exhibit is to show  
2   that the gross thickness of the target interval in the  
3   Wolfcamp A for Chevron is the same over Sections 11 and  
4   14.  And then this is also meant to, again, introduce  
5   the wells that will be used in Exhibit 8 for the cross  
6   section through the Wolfcamp.  And then just to be clear  
7   for everyone here, we are using the same wells that you  
8   saw in the Bone Spring.  We're just shifting deeper in  
9   the depth.

10           **Q.    When you say the same wells, you mean three**  
11 **simultaneously drilled wells?**

12           A.    Oh, no.  Sorry.  I mean the same four wells in  
13   the cross section.  They're the same four wells in the  
14   cross section.  We're just shifting the depths deeper to  
15   the Wolfcamp.

16           **Q.    Understood.**

17                   **Now that you've mentioned Exhibit 8, why**  
18 **don't you go ahead and identify it?**

19           A.    Okay.  Exhibit 8 is a cross section of the  
20   entire Wolfcamp Formation.  And then, again, I stated it  
21   last time, but we're showing gamma ray, resistivity,  
22   density and neutron from left to right in the tracks.

23           **Q.    Are there any geologic faults or impediments in**  
24 **the target interval?**

25           A.    No, there are not.

1           Q.    And in your opinion, are all quarter-quarter  
2   sections to be included in the proposed project area  
3   expected to more or less be equally productive?

4           A.    Yes.

5           Q.    And it's my understanding that Chevron will be  
6   drilling -- simultaneously drilling three  
7   mile-and-a-half Wolfcamp wells in this formation?

8           A.    Yes.

9           Q.    And will Chevron achieve the same efficiencies  
10   drilling mile-and-a-half wells that you testified about  
11   regarding the Bone Spring wells?

12          A.    Yes.  We would achieve the same efficiencies.

13                   MR. LARSON:  Mr. Examiner, I'd ask that you  
14   adopt Mr. O'Toole's testimony regarding the efficiency  
15   of drilling mile-and-a-half wells.

16                   EXAMINER DAWSON:  Any objections?

17                   MR. BRUCE:  No objection.

18                   MR. HALL:  (Indicating.)

19                   EXAMINER DAWSON:  At this point we will  
20   adopt Mr. O'Toole's testimony regarding the drilling of  
21   mile-and-a-half wells.

22          Q.    (BY MR. LARSON) Would you identify the document  
23   marked as Exhibit 9?

24          A.    Yes.  So Exhibit 9 is a gun-barrel diagram that  
25   you should all be familiar with now.  It's the same as

1 the Bone Spring, except now we're just showing the  
2 Wolfcamp. And it cuts perpendicular to the wellbore and  
3 shows Chevron's planned development strategy for the  
4 Wolfcamp in Sections 14 and 11.

5 Q. And so based on this and the similar exhibit in  
6 Case 16132, Chevron proposes an identical drilling  
7 program in the west half of 14 and the southwest of 11  
8 for the Wolfcamp?

9 A. Yes.

10 Q. And similar to the three proposed Bone Spring  
11 wells, three Wolfcamp wells are going to be drilled  
12 simultaneously?

13 A. Yes. They will all be drilled together.

14 Q. Again, will Chevron realize the same  
15 efficiencies previously discussed by drilling those  
16 wells simultaneously?

17 A. Yes. We would achieve the same efficiencies as  
18 mentioned in the Bone Spring interval.

19 Q. And in your opinion, will Chevron's drilling  
20 program for the Wolfcamp prevent waste?

21 A. Yes.

22 Q. And in your opinion, will the granting of  
23 Chevron's application avoid the drilling of unnecessary  
24 wells, protect correlative rights and serve the interest  
25 of conservation and the prevention of waste?

1           A.     Yes.

2           **Q.     And were Exhibits 6 through 9 prepared by**  
3 **Chevron's geology department?**

4           A.     Yes, they were.

5                     MR. LARSON:   Mr. Examiner, I move the  
6 admission of Exhibits 6 through 9.

7                     EXAMINER DAWSON:   Any objection?

8                     MR. BRUCE:   No objection.

9                     EXAMINER DAWSON:   At this point Chevron's  
10 Exhibits 6 through 9 will be admitted to the record.

11                    (Chevron U.S.A., Inc. Exhibit Numbers 6  
12 through 9 in Case Number 16133 are offered  
13 and admitted into evidence.)

14                    MR. LARSON:   Pass the witness.

15                    EXAMINER DAWSON:   Okay.   Mr. Hall?

16                    MR. HALL:   I have no questions.

17                    EXAMINER DAWSON:   Mr. Bruce?

18                                   CROSS-EXAMINATION

19   BY MR. BRUCE:

20           **Q.     Mr. O'Toole, looking at your Exhibit 9 --**

21           A.     Oh, Exhibit 9.   Yup.

22           **Q.     -- for the Wolfcamp --**

23           A.     Uh-huh.

24           **Q.     -- is the Lower Wolfcamp A1 prospective middle**  
25 **or lower?**



1           A.    The lower part of that Wolfcamp A1 section?

2           **Q.    Yeah.**

3           A.    So we believe it to be prospective, and we  
4 actually are going to be drilling an exploration well  
5 later this year to test the lower parts of the A2. And  
6 I guess it would come close to the lower part of the A1.

7           **Q.    Does Chevron have any plans within the next**  
8 **year or two to drill the Wolfcamp B or C or D or E?**

9           A.    I wouldn't be able to speak to our plans over  
10 drilling those lower intervals.

11          **Q.    That's all I have. Thank you, Mr. O'Toole.**

12                       EXAMINER DAWSON: Ms. Bradfute?

13                               CROSS-EXAMINATION

14 BY MS. BRADFUTE:

15          **Q.    Mr. O'Toole, do you observe the same problems**  
16 **with parent-child wells in the Wolfcamp Formation as you**  
17 **testified in the Bone Spring?**

18          A.    Yes. We see the problems actually exist in all  
19 targets within the Delaware Basin.

20          **Q.    Okay. And have you studied the distance**  
21 **between the 3rd Bone Spring Formation and the Upper**  
22 **Wolfcamp Formation that Chevron is targeting in its well**  
23 **proposal?**

24          A.    Yes.

25          **Q.    How many feet of separation, approximately, is**

1     there between the 3rd Bone Spring and the Upper Wolfcamp  
2     Formation that Chevron's targeting?

3           A.     Well, the 3rd Bone Spring sits directly on top  
4     of the Wolfcamp A, so the zone that we are currently  
5     targeting would only be roughly 200 to 300 feet below  
6     the bottommost part of the 3rd Bone Spring.

7           Q.     It's a pretty small separation, about 2- to 300  
8     feet?

9           A.     Correct.

10          Q.     And have you studied the sands in the 3rd Bone  
11     Spring to determine if there is a sufficient  
12     permeability barrier between the 3rd Bone Spring and the  
13     Wolfcamp zones that Chevron is targeting?

14          A.     I could give my best opinion on it.

15          Q.     Okay. And what is that?

16          A.     Because I think ultimately -- you know, when we  
17     look at it internally, we always build a full model  
18     based on using offset analogs and things to come to that  
19     conclusion, but I can speak to what I think would  
20     happen.

21                     So there are operators currently in the  
22     Basin that can land wells where we're landing wells down  
23     in the Wolfcamp A and then also land wells in the 3rd  
24     Bone, because the 3rd Bone Spring -- well, we're not on  
25     those exhibits. If you looked at your other exhibits,

1 it's actually a really thick interval, and the primary  
2 target within the 3rd Bone that we see is about 150 feet  
3 or so off the base of it. So that increases your  
4 separation between these targets and then the 3rd Bone  
5 Spring target.

6 Q. If a different operator was appointed for the  
7 3rd Bone Spring from the operator appointed in the Upper  
8 Wolfcamp zones -- so you have one operator in the Upper  
9 Wolfcamp zone and one operator in the 3rd Bone Spring,  
10 and there is no coordination between where those wells  
11 are placed --

12 A. Yeah.

13 Q. -- could it result in waste?

14 A. Oh, yeah. I could certainly see that creating  
15 issues, because it's not to say that another operator  
16 wouldn't -- there are operators that target the X Sand  
17 within the Wolfcamp. There are operators that drill  
18 really low in the 3rd Bone Spring, and they do this kind  
19 of 3rd Wolf, where they drill a really low 3rd Bone and  
20 kind of frac into the Wolfcamp and 3rd Bone. So yeah,  
21 if you have one operator doing one and one doing  
22 another, that could create issues and waste.

23 Q. And there is nothing, to your knowledge, that  
24 could be done to prohibit one operator from going too  
25 low within the 3rd Bone Spring zone and

1     **stopping development in the Wolfcamp?**

2           A.     Yeah. I don't know as much like with the  
3     regulatory side of things, but I don't know what would  
4     prevent an operator from landing a well really low in  
5     the 3rd Bone and really high in the Wolfcamp.

6           **Q.     Thank you.**

7           A.     (Indicating.)

8                     MR. BRUCE: Could I ask a couple of  
9     follow-up on that?

10                    EXAMINER DAWSON: Yes.

11                             RE CROSS EXAMINATION

12     BY MR. BRUCE:

13           **Q.     None of the applications that we're here for**  
14     **today involves the Lower 3rd Bone Spring Sand, does it?**

15           A.     No, it does not.

16           **Q.     And Tap Rock is proposing a 3rd Bone Carbonate.**  
17     **And looking at your cross sections, that's another**  
18     **1,000, 1,200 feet above the top of the Wolfcamp; is that**  
19     **not correct?**

20           A.     Correct.

21           **Q.     So what Ms. Bradfute was talking about isn't a**  
22     **part of this hearing?**

23           A.     Well, I think the concern would be for  
24     subsequent development plans if the full Bone Spring  
25     interval was pooled.

1           **Q.    But, again, that's not at issue today?**

2           A.    Not currently, but I could see it becoming an  
3   issue in the future.

4           **Q.    Thank you.**

5                       EXAMINER DAWSON:   Is that all your  
6   questions?

7                       MR. BRUCE:   (Indicating.)

8                       EXAMINER DAWSON:   Mr. Padilla, do you have  
9   any questions?

10                      MR. PADILLA:   No questions.

11                      EXAMINER BROOKS:   No questions.

12                      EXAMINER DAWSON:   I just have a few  
13   questions.

14                                       CROSS-EXAMINATION

15   BY EXAMINER DAWSON:

16           **Q.    On Exhibit 6 --**

17           A.    Yes.

18           **Q.    -- and looking at the -- let me get to my --**  
19   **okay. Looking at your structure map --**

20           A.    Yes.

21           **Q.    -- it looks like it -- mostly in the south half**  
22   **of 14, it kind of -- that slope, it kind of gets gentle**  
23   **in that area?**

24           A.    Yes.

25           **Q.    That was both in the previous case, 16132 and**

1     **16133?**

2           A.     Yeah.   You can kind of see that nose on there.  
3     Yeah.

4           Q.     Yeah, kind of a little nose there.   I just  
5     wanted to ask about that.

6                     And on your Exhibit 7 --

7           A.     Uh-huh.

8           Q.     -- the red line on Exhibit 7 --

9           A.     Yes.

10          Q.     -- what's the red line on Exhibit 7?

11          A.     The red line would designate the unit that  
12     Chevron's currently --

13          Q.     Oh, that's the proposed unit?

14          A.     Yeah.

15          Q.     Yeah.   That's what I was thinking.

16                     And then going to your Exhibit 9 --

17          A.     Yes.

18          Q.     -- on the right-hand side there, it says,  
19     "Chevron wells in west half of section are not part of  
20     hearing but were proposed to Tap Rock on March 13th,  
21     2018."

22          A.     Uh-huh.

23          Q.     Were you part of that meeting or those  
24     discussions with Tap Rock?

25          A.     I was not a part of those discussions.

1           **Q.    Okay. All right. That's all the questions I**  
2           **have. Thank you.**

3                       MR. LARSON: I have nothing further,  
4           Mr. O'Toole.

5                       EXAMINER DAWSON: All right. Thank you,  
6           Mr. O'Toole.

7                       THE WITNESS: Yeah. Thank you.

8                       EXAMINER DAWSON: So whenever you're ready,  
9           you can call your third witness.

10                      Again, this is the third witness for 16133,  
11           which is consolidated with 16132 --

12                      MR. LARSON: Correct.

13                      EXAMINER DAWSON: -- the Wolfcamp part of  
14           it.

15                      MR. LARSON: Well, I was going to do the  
16           way I did the other two, Bone Spring first and then the  
17           Wolfcamp.

18                      EXAMINER DAWSON: That's fine.

19                               SEAN E. CHEBEN,  
20           after having been previously sworn under oath, was  
21           questioned and testified as follows:

22                               DIRECT EXAMINATION

23           BY MR. LARSON:

24           **Q.    Good morning, sir. Would you state your full**  
25           **name for the record?**

1           A.    My name is Sean Edward Cheben.

2           **Q.    And where do you reside?**

3           A.    I live in Houston, Texas.

4           **Q.    By whom are you employed and in what capacity?**

5           A.    I'm employed by Chevron as a project manager.

6           **Q.    And what is the focus of your responsibilities**  
7 **as a project manager?**

8           A.    I'm in horizontal projects in southeast Eddy  
9 County, New Mexico, and my responsibilities include  
10 drilling and completions and facilities planning, as  
11 well as the development of our full field development  
12 strategies.

13          **Q.    And I'm looking at the court reporter, and I'm**  
14 **not sure she understood a word you said.**

15                   (Laughter.)

16                   (The court reporter requested the witness  
17 speak louder.)

18          **Q.    And are you familiar with the engineering**  
19 **aspects of the proposed Bone Spring wells in Chevron's**  
20 **application in this case?**

21          A.    Yes, I am.

22          **Q.    Have you previously testified at a Division**  
23 **hearing?**

24          A.    Yes, I have.

25          **Q.    And at each of those hearings, were you**



1     **qualified as an expert in petroleum engineering?**

2             A.     I was.

3                     MR. LARSON:   Mr. Examiner, I tender  
4     Mr. Cheben as an expert in petroleum engineering for  
5     purposes of this case, Case 16133.

6                     EXAMINER DAWSON:   Any objections?

7                     MR. BRUCE:   No, sir.

8                     EXAMINER DAWSON:   Mr. Cheben will be  
9     accepted to the record as an expert petroleum engineer  
10    for Cases 16132 and 16133.

11            Q.     **(BY MR. LARSON) Do you have the set of exhibits**  
12    **for 16132 in front of you?**

13            A.     I do.

14            Q.     **I'd direct your attention to Exhibit 2.   That's**  
15    **the well path map.**

16            A.     Yes, sir.

17            Q.     **And as Mr. O'Toole testified, all three of**  
18    **these wells will be drilled simultaneously?**

19            A.     Yes, that's correct.

20            Q.     **And does Chevron have a plan in place to**  
21    **develop three similar mile-and-a-half laterals in the**  
22    **north half of Section 11 and the east half of Section 2?**

23            A.     Yes, we do.

24            Q.     **And when are those wells expected to be**  
25    **drilled?**

1           A.    We expect those wells to be drilled  
2 simultaneously with the three wells under consideration  
3 today.

4           **Q.    And will all six of those wells be drilled from**  
5 **the same pad?**

6           A.    Yes, that's correct.

7           **Q.    And what efficiencies will Chevron realize by**  
8 **drilling all six wells at the same time?**

9           A.    So Chevron believes that we'll achieve  
10 efficiencies through three different means by drilling  
11 all six of these wells at the same time.  First, we  
12 expect faster drilling times.  Second, we expect more  
13 efficient completions operations by utilizing  
14 zipper-frac methodologies, and finally, we expect a more  
15 efficient drainage of the resource at the end of the  
16 day.

17          **Q.    And why would drilling all six wells**  
18 **simultaneously reduce project time?**

19          A.    So two reasons:  First, by drilling on one pad  
20 with more wells, you reduce the number of mobilizations  
21 and demobilizations of the drilling rigs and the frac  
22 spreads so you can do more work per mobilizations, and  
23 that saves times.

24                   Additionally, while you're drilling the  
25 well -- it goes back to the question of batch drilling

1     that was discussed in earlier testimony, that between  
2     drilling the surface string and the intermediate string  
3     and the production string, the rig has to reconfigure to  
4     drill that next casing string. By drilling more wells  
5     on a pad, in our case, you can take advantage of  
6     drilling six casing strings for each rig,  
7     reconfiguration of that drilling rig, versus having to  
8     recomplete three times for every well. So that also  
9     saves drilling time while executing the drilling phase  
10    of operations.

11           **Q.     And would simultaneously drilling the six wells**  
12           **cause more efficient drainage?**

13           A.     Yes, because with the leveraging zipper-frac  
14     methodology while doing so.

15           **Q.     In your opinion, why does zipper-fracking**  
16           **technology result in more efficient drainage?**

17           A.     So when I say zipper fracking, I mean that you  
18     would frac, for example, the toe of the first well, then  
19     the toe of the second well, the toe of the third, and  
20     then repeat through all three when do you the other  
21     three at the next phase. So by doing that, you create a  
22     more complex fracture network in the subsurface, which  
23     exposes more rock face to production and ultimately  
24     increases the ultimate recovery from the subsurface and  
25     decreases waste in the full field development plan.

1           Q.    If Chevron drills a well simultaneously -- or  
2   I'm sorry.  Conversely, if Chevron were to drill the  
3   wells sequentially at different times, would there be a  
4   negative impact on drainage?

5           A.    Yes, there would.

6           Q.    What would that impact be?

7           A.    So two different factors would increase waste  
8   by drilling sequentially.  The first is the introduction  
9   of the parent-child relationships, as Mr. O'Toole  
10   testified previously, and also it would introduce frac  
11   hits into the parent wells when the child wells are  
12   fracked.

13          Q.    Would you explain what you mean by frac hits?

14          A.    Of course.  So when you frac the well, the  
15   structure network from the child well next to the parent  
16   well would extend, very likely, into that parent well.  
17   Otherwise, you're spacing them too far apart, leaving  
18   resource in the ground and creating waste.

19                   As those fracture networks merge, the  
20   fluids -- the hydraulic fracturing fluids from the child  
21   well would migrate into the parent well's fracture  
22   network, which would displace the oil and gas that would  
23   otherwise be produced.  And it takes about, you know,  
24   four to six weeks, in Chevron's experience, for that  
25   water to get flushed out of the system and for oil and

1 gas production to resume. So you see a curtailment of  
2 production during or while you have a well that's  
3 experiencing that frac hit.

4 Furthermore, as the fluids from the frac of  
5 the child well flush through or sweep through the  
6 fracture network of the parent well, we believe that  
7 that displaces some proppant that was originally set as  
8 part of the frac of the parent well, and that would lead  
9 to -- or we believe would lead to enclosure of some of  
10 those fractures and the degradation of long-term EUR and  
11 the introduction of more waste into that full field  
12 development strategy.

13 **Q. And is simultaneously pad drilling Chevron's**  
14 **current plan for developing its acreage in southeast New**  
15 **Mexico?**

16 A. It is, yes.

17 **Q. And what experience does Chevron have that has**  
18 **led us to this development approach?**

19 A. So Chevron has drilled approximately 280  
20 horizontal wells across the Permian Basin. Of those  
21 280, more than 80 of those were drilled in New Mexico.  
22 Many of them were long laterals so more than -- more  
23 than 5,000 feet. And through that experience, we've  
24 come to understand that reduction of the parent-child  
25 interface, both because of the interference and

1 suboptimal frac that Mr. O'Toole testified to, as well  
2 as the fracking issue I discussed, avoiding those has  
3 led us to develop our current operating philosophy  
4 really across the board of pad drilling, simultaneous  
5 fracking, utilization of the zipper-fracking methodology  
6 to do so.

7 **Q. And approximately how many wells has Chevron**  
8 **drilled in southeast New Mexico that that experience has**  
9 **led you to this simultaneous pad-drilling program?**

10 A. So Mr. O'Toole referred to the Salado drilling  
11 program. Early in the life of that drilling program, as  
12 we were still, you know, learning our way through the  
13 Basin, we were drilling shorter laterals, and we were  
14 drilling with tighter spacing and not -- not respecting  
15 the issues that I just talked about because we hadn't  
16 learned them yet. We experienced significant frac hits  
17 while we were executing our Upper Avalon development  
18 plan down there. And that learning, as well as  
19 learnings that we experienced near Midland, Texas in our  
20 Bradford [phonetic] Ranch development really led us to  
21 take a hard look at how we were operating, and this is  
22 what we landed on.

23 Since we've adopted this operating strategy  
24 and are more sensitive to the parent-child relationship  
25 and the issue of frac hits, the occurrence of those in

1     our operations have decreased substantially.

2           **Q.     And in your opinion, is Chevron's current**  
3     **simultaneous pad-drilling program preventing waste?**

4           A.     Yes, it is.

5           **Q.     I'd direct your attention to what's been marked**  
6     **as Exhibit 12 in Case Number 16132.  Would you identify**  
7     **Exhibit 12 for the record?**

8           A.     Yes.  This is a map of our Sand Dunes work  
9     area.

10          **Q.     Did you create this document?**

11          A.     Engineers under my direction created this  
12     document.

13          **Q.     And what is this map intended to depict?**

14          A.     This map is intended to depict the surface  
15     impact and the surface facilities associated with our  
16     first phase of development in the proposed Javelina  
17     Unit.

18          **Q.     Which includes the acreage that is the subject**  
19     **of our application?**

20          A.     That's correct, yes.

21          **Q.     Will there be a need for Chevron to construct**  
22     **any surface facilities for the proposed Bone Spring**  
23     **wells?**

24          A.     So our intent is to leverage the surface  
25     facilities that, at the time of execution of these three

1 wells under consideration, will already have been  
2 constructed. As Mr. Cooper testified to earlier, we'll  
3 begin drilling activity, I believe, in about August, so  
4 the facilities constructed for that -- those wells will  
5 be leveraged by the wells under consideration today. So  
6 the only facilities that we'll need to construct for the  
7 wells under construction are pipelines securing these  
8 wells to those central facilities.

9 **Q. Will Chevron achieve well-cost savings by using**  
10 **these production facilities?**

11 A. Yes, we will.

12 **Q. And will the utilization of off-lease**  
13 **facilities also reduce the environmental impact?**

14 A. Yes, it will.

15 **Q. And how will it reduce impacts?**

16 A. So we've seen in other New Mexico BLM  
17 development areas where leveraging central facilities,  
18 as well as using or utilizing larger numbers of wells  
19 per pad has a significant impact on the total surface  
20 disturbance in a given development area.

21 In the case of the Javelina Unit, it's nine  
22 sections. So we would decrease surface disturbance on  
23 the order of 20 to 30 percent, which both protects and  
24 conserves the environment, but then also allows for  
25 future plot space to exploit -- well, exploit's never a



1 good word -- to -- to develop other benches that have  
2 yet to be discovered or the economics of them are  
3 underappreciated. So both the environmental impact is  
4 preserved, and we're also, in a way, preventing waste by  
5 allowing more plot space for future development that we  
6 haven't conceived of yet.

7 Q. And in your opinion, will the granting of  
8 Chevron's application avoid the drilling of unnecessary  
9 wells, protect correlative rights and serve the interest  
10 of conservation and the prevention of waste?

11 A. Yes, it will.

12 MR. LARSON: Mr. Examiner, I move the  
13 admission of Chevron Exhibit 12.

14 EXAMINER DAWSON: Any objection?

15 MR. BRUCE: No objection.

16 EXAMINER DAWSON: Chevron Exhibit 12 will  
17 be admitted to the record at this time.

18 (Chevron U.S.A., Inc. Exhibit Number 12 is  
19 offered and admitted into evidence.)

20 MR. LARSON: And I will pass the witness.

21 EXAMINER DAWSON: Mr. Padilla?

22 MR. PADILLA: No questions.

23 EXAMINER DAWSON: Ms. Bradfute?

24

25

1 CROSS-EXAMINATION

2 BY MS. BRADFUTE:

3 Q. Good morning or late morning.

4 Today there's been some discussion during  
5 the hearing about the potential to have different  
6 operators in different portions of the formation. And I  
7 wanted to hear your thoughts on that idea. I don't know  
8 if it's something that my client has considered fully  
9 before the hearing today.

10 In your opinion, if different operators are  
11 appointed to different zones of the Bone Spring  
12 Formation, could it result in waste, from an engineering  
13 perspective?

14 A. Yes, I believe it would.

15 Q. And why is that?

16 A. So since my focus has been operational  
17 issues -- that's what I focused on in this response. So  
18 I mentioned before that in our previous development both  
19 in Texas and New Mexico, we had significant experience  
20 with frac hits, and we changed our operational  
21 philosophies to minimize those.

22 One thing we have seen since we've changed  
23 our approach and others maybe have not is that  
24 interactions between different operators can introduce  
25 those kinds of risks not only from a subsurface

1 efficiency standpoint but also from the safety  
2 standpoint.

3                   So for the case in point, if a different  
4 operator is designated for the Bone Spring Pool below  
5 10,000 feet and above 10,000 feet, for example, the  
6 upper or shallower operator could be fracking a well and  
7 the deeper operator could be drilling through that zone.  
8 We have experienced that situation elsewhere in the  
9 Basin, where the frac fluids from the frac of the  
10 shallower zone have entered the wellbore while drilling  
11 the well seeking to develop the deeper zone, which has  
12 led to significant consequences for those folks who were  
13 drilling in the deeper zone. They're seeing large  
14 waterflows on the surface of the rig. Often they have  
15 to shut in, potentially TA the well. And there have  
16 been instances -- Chevron has not experienced them -- of  
17 safety issues coming from that, with that large rush of  
18 high-pressure fluid coming up to surface unexpectedly.

19                   Introducing additional operators beyond  
20 that, that's already kind of expected through the  
21 New Mexico pool structure. I think there is heightened  
22 risk of those kind of operational and safety concerns.  
23 And so from that perspective, I think it would be  
24 prudent to keep that in mind while making this decision.

25           **Q. And I am not an engineer, so please correct me**

1     in my question. But when you're fracturing, do your  
2     frac fluids typically migrate up into other formations?

3           A.     So it depends.

4           Q.     Okay.

5           A.     And I would say I haven't done the detailed  
6     work to tell you in this instance would your frac  
7     migrate up or down.

8           Q.     Okay. Thank you.

9                     EXAMINER DAWSON: Mr. Bruce?

10                    CROSS-EXAMINATION

11     BY MR. BRUCE:

12           Q.     You're talking about drilling these wells one  
13     after the other. What about your working interest  
14     partners? Doesn't that force them to spend  
15     significantly more money to drill if you're proposing  
16     six or 12 wells at a time?

17           A.     So that's a conversation that we would  
18     definitely have with our working interest owners.

19                     In my past experience in other areas, the  
20     overall economic impact and how -- Tim, Mr. O'Toole,  
21     brought up a couple of -- 20 percent degradation due to  
22     the parent-child relationship, 10 percent improvement  
23     because of the longer lateral lengths, the facilities  
24     efficiencies that I discussed, as well as the  
25     elimination of frac hits, which means production on line

1 longer, those economic arguments have, in my experience,  
2 won the day, and the working interest partners, again  
3 from my past experience, have been comfortable with the  
4 larger capital outlay upfront in order to achieve  
5 greater value and less waste down the road.

6 Q. Mr. O'Toole said that the nearest similar wells  
7 that Chevron has drilled are 25 or 30 miles away. By  
8 drilling all the wells one after another, do you risk  
9 not allowing yourself to learn about this area by  
10 drilling a lot of wells?

11 A. Uh-huh. So in light of the -- so (A) that's a  
12 valid point, and it's something that we discuss  
13 internally, about the rate of development in other  
14 areas. So we've got other areas where we've put five or  
15 ten, and we've opted for that option for exactly that  
16 same reason.

17 Here, I believe that -- our development  
18 plan consists of a single rig, and we're keeping it to a  
19 single rig so we do allow ourselves time to incorporate  
20 the learnings from those earlier wells into the later  
21 wells.

22 Furthermore, the differences between the  
23 Avalon, 2nd Bone Spring and if we go higher up in the  
24 stratigraphic column -- I don't believe that the  
25 differences in developing a single reservoir are so

1 material that we wouldn't be able to apply our learnings  
2 from our initial campaign in the Lower Avalon to, say,  
3 the 2nd Bone Spring -- or 1st Bone Spring. So I do  
4 think that we're allowing ourselves plenty of time to  
5 learn.

6 As Mr. Cooper testified to, we foresee over  
7 180 economic long-lateral opportunities out here, and  
8 that, I believe, affords us plenty of time to learn,  
9 optimize our development plan and maximize value to both  
10 the State, the working interest owners and minimize  
11 waste.

12 **Q. But still you wouldn't have time to do an**  
13 **actual study with actual results -- production results**  
14 **from a well before you -- before you commence**  
15 **completing?**

16 A. That is correct. So in the case of the three  
17 wells that are on the pad, we would not be able to  
18 analyze production results from the one before we do the  
19 other two.

20 **Q. And you're talking -- you're the head guy**  
21 **getting these wells drilled for Chevron in this area,**  
22 **correct?**

23 A. So I'm the project manager over this area.  
24 Chevron has split its project management philosophy into  
25 a planning and execution phase, so I would say that I'm

1 the head guy in charge of the planning phase of it. And  
2 then we have another project manager who handles it from  
3 the detailed design through the execution.

4 Q. I work by myself, so I don't understand those  
5 things (laughter).

6 And I'm asking you the same question I've  
7 asked some of the other witnesses. Assuming you get an  
8 order pooling the Wolfcamp, what -- in your opinion,  
9 since you've done this before, when would Chevron start  
10 drilling in the Wolfcamp at the earliest?

11 A. So at the earliest, you know, as Mr. Cooper  
12 testified to, the BLM permits, on average, take six to  
13 nine months, or I believe he testified seven to nine  
14 months. So if we -- if Chevron receives a successful  
15 opinion in the order that the Division prepares, then we  
16 will hastily move to submit those permits and then move  
17 to, as quickly as possible, execute after that time.

18 Chevron, between Texas and New Mexico,  
19 currently operates 16 drilling rigs. We have a plan to  
20 move one here in August. But if the order of the  
21 Division compels us to expedite another rig into the  
22 area or shift our development sequence with that first  
23 rig, we would do so according to the time in the order.

24 Q. That August rig is only coming to preserve a  
25 lease over in Section 12?

1           A.    That set the timing.  I wouldn't say that's the  
2   only reason it's coming.

3           Q.    So let's assume you got APDs -- sufficient APDs  
4   approved by the end of December --

5           A.    Correct.

6           Q.    -- how long after that would Chevron commence  
7   drilling?

8           A.    I would say the earliest we could commence  
9   after that is probably late first quarter, early second,  
10   if we received the APD at the end of the year.

11          Q.    So you're looking at March, April, something  
12   like that?

13          A.    Hypothetically, yes.

14          Q.    Thanks.

15                   EXAMINER DAWSON:  Mr. Hall, do you have any  
16   questions?

17                   MR. HALL:  I have no questions.

18                   EXAMINER DAWSON:  David, do you have any  
19   questions?

20                   EXAMINER BROOKS:  Yes.

21                               CROSS-EXAMINATION

22   BY EXAMINER BROOKS:

23          Q.    My understanding from your land witness was  
24   that you have no approved APDs in this area as of now;  
25   is that correct?



1           A.     That is correct. We submitted -- excuse me.  
2     We submitted three pads' worth, so I believe it was a  
3     total of -- no -- yeah -- three pads' worth, a total of  
4     ten wells, on November 20th of last year, and we believe  
5     those are making their way through the process.

6           **Q.     That's not -- BLM, I take it?**

7           A.     Yeah.

8           **Q.     Can you give me the short version of a**  
9     **description of what you mean by simultaneously drilling?**

10          A.     Sure. So when we say simultaneously drilling,  
11     another term that's used to refer to it is batch  
12     drilling.

13                         So what Chevron's preferred philosophy is  
14     is that we'll put three to six wells on a pad. We'll  
15     line them all up in a single row. So then on the first  
16     well, the rig will drill the first surface casing  
17     string, and then it will skid over about 25 feet to the  
18     second and drill the second surface casing string, go  
19     all the way through all six. So they're fairly compact.  
20     You've got maybe 25 feet between them, so about 150 feet  
21     total.

22                         When you drill the surface casing string on  
23     the sixth one that's complete, then we'll reconfigure  
24     that rig to drill the intermediate string, and then  
25     we'll skid -- we'll drill the intermediate string on

1     that sixth well, then once that's done, we'll skid to  
2     the fifth well and so on until you've completed all five  
3     or all six intermediate strings. Then you'll  
4     reconfigure the rig again to drill the production  
5     string, and then starting with the first one, repeat the  
6     process and drill them all out.

7                     So as I mentioned before, you're just  
8     getting so much more utility out of each one of those  
9     reconfigurations, which string you're drilling, so that  
10    we knock off a couple of days per well by utilizing that  
11    approach, which over -- substantial difference in the  
12    production brought on line and then ultimately, for us,  
13    minimizing waste.

14            **Q.     With horizontals, my understanding is often you**  
15    **kind of plan drilling and completion separately so there**  
16    **could be longer or shorter periods of time between**  
17    **drilling and completion. But then would you complete**  
18    **the wells all at the same time?**

19            A.     Yes. So we would complete -- we would not move  
20    the frac spread off the pad until all six wells were  
21    completed. With zipper-fracking, the methodology I  
22    referred to before, you get great benefit out of wells  
23    that are stacked right next to each other so you're  
24    running parallel to fracking those more or less at the  
25    same time.

1                   So in the case of our six well pads -- the  
2   three wells that are under consideration today, plus the  
3   other three I discussed in my testimony -- we would frac  
4   three that are all going one direction at once so that  
5   we could achieve those waste-minimizing recovery  
6   enhancing features that I discussed before, and then we  
7   would replumb the surface and frac the northern wells  
8   all at the same time.

9           **Q.    What's the procedure that you use in fracking**  
10 **the three wells at the same time?**

11          A.    So it's referred to as zipper-fracking.

12          **Q.    I've heard that term, but I don't know really**  
13 **understand it.**

14          A.    So it's very similar to the batch drilling that  
15 I just discussed where -- so you'll -- you're fracking  
16 all three wells. You'll frac the toe stage first, and  
17 then while -- so you'll frac the first well. That moves  
18 to the second well and begins fracking the toe of the  
19 second well. While the first well is idle, then your  
20 rig will get on and plug so that you're ready to come  
21 and drill the second stage.

22          **Q.    You drill a stage -- you frac stage by stage?**

23          A.    Uh-huh.

24          **Q.    You've got wells one, two and three. You frac**  
25 **number one -- you frac number one one stage and then you**

1 go -- you move to number two --

2 A. Uh-huh.

3 Q. -- and then you move to number three?

4 A. Uh-huh.

5 Q. Then you go back and start -- land your next  
6 stage in number one and --

7 A. That's correct. Yeah. And we feel that not  
8 only do you get great operational efficiency with that,  
9 but it also yields a much more complex fracturing  
10 network, which improves your ultimate recovery and  
11 minimizes waste.

12 Q. This is not really an engineering question, but  
13 when you're talking about how you -- you gave some  
14 testimony about the working interests -- other working  
15 interest owners. And, of course, working interest  
16 owners have access to varying amounts of resources.  
17 Have you heard the phrase "sell down"?

18 A. No, I have not.

19 Q. Well, no need to go into it then.

20 A. All right.

21 EXAMINER DAWSON: Is that all your  
22 questions?

23 EXAMINER BROOKS: That's all my questions.

24 EXAMINER DAWSON: Okay. I just have a few  
25 questions of you.

1 CROSS-EXAMINATION

2 BY EXAMINER DAWSON:

3 Q. So looking at your Exhibit 1 on both -- well,  
4 we'll say 16133. You're going to drill all three wells  
5 parallel both in the Wolfcamp and the Bone Spring. Then  
6 you anticipate that you would -- the first frac would be  
7 the center well? Is that how you're planning it, to  
8 frac the center well, then go to either the east or west  
9 well?

10 A. I can't speak to the specific sequencing within  
11 the zipper frac.

12 Q. Okay.

13 A. Yeah.

14 Q. All right. And then on the -- you're saying  
15 on -- you and Mr. O'Toole are both talking about the  
16 parent-child wells and how when you drill the wells and  
17 they're not simultaneous operations, then there is less  
18 recovery because of the frac. You didn't really talk  
19 about the pressures --

20 A. Sure --

21 Q. -- the pressure sink or anything like that.  
22 Can you explain that to me?

23 A. I'd love to.

24 So when you drill and frac the parent well,  
25 as Mr. O'Toole testified to, the longer that well

1 produces, it'll start drawing down the pressure down on  
2 the reservoir. When you drill and frac the child well  
3 next to it, that fluid will preferentially migrate  
4 toward the lower pressure -- down the subsurface. So --

5 Sometimes I wish we had white boards in  
6 here.

7 But if you imagine your wellbore, a planned  
8 frac would have a cloud of complex fracture entirely  
9 around that kind of oval shape. What this does is it  
10 shifts the oval over toward the parent well because that  
11 fluid is migrating toward the fracture network that's  
12 been depleted out of production out of that parent well.  
13 So you're missing the frac that would have happened on  
14 the other side. And then as you drill that, it probably  
15 compounds it. So the pressure goes lower from the first  
16 two wells, and then the frac on the third well gets  
17 pulled even further. So it's a problem that does  
18 compound. And then that's a large reason why we adopted  
19 this simultaneous drilling and fracking process as our  
20 preferred operational philosophy.

21 **Q. So in your testimony, you're talking about --**  
22 **well, you and Mr. O'Toole are both talking about the**  
23 **Salado Draw over by Midland?**

24 **A.** So Salado Draw is just on the state line, just  
25 barely in New Mexico.

1           Q.    Okay.  It's on the state line.

2           A.    Yes, sir.

3           Q.    Is Chevron doing three-well plans over there,  
4   too, or do you know?

5           A.    Yes.  Yes, we are.  Yeah.

6           Q.    Have you ever tried to do more than a  
7   three-well simultaneously fracking operation?

8           A.    We have.  So this is another Eddy County  
9   development area.  Our Hayhurst development area, which  
10   is just to the south of Loving, and the Hay Hollow Draw  
11   area, we have been drilling and intend to continue  
12   drilling six-well pads down there in the Wolfcamp C and  
13   D and then some of the A, depending on, you know, the  
14   operational needs and realities.

15                    So we just brought on line earlier this  
16   week our first six-well pad from that campaign.  We have  
17   drilled and I think we're nearing completion of the  
18   second pad that would be brought on line later this  
19   year, and then we are in the middle of drilling the  
20   third and the fourth pad of six wells down there.

21                    So I want to say that of those 280 wells I  
22   talked about, our experienced drilling six-well pads is  
23   a subset of it.  But, you know, we have done it before.

24           Q.    So you've fracked a six-well pad like that --

25           A.    Yes, we have.

1 Q. -- with simultaneous fracking?

2 A. Uh-huh.

3 Q. And how did you -- how did you complete those  
4 wells when you drilled the six wells? Did you start in  
5 the center and move out?

6 A. Again, that's something that I can't comment  
7 to.

8 Q. All right. And then looking at your Exhibit  
9 12 --

10 A. Uh-huh.

11 Q. -- I'm looking at Section 11.

12 A. Yes, sir.

13 Q. And it's kind of hard to see because that print  
14 is real small, but I'm suspecting your pad's that  
15 rectangular shape in like the center of the east half,  
16 is your proposed pad for these wells?

17 A. Yes. And so the two that are labeled Excalibur  
18 and Big Ben would be the two that are under  
19 consideration today between the Wolfcamp and the Bone  
20 Spring.

21 Q. Okay.

22 A. Those are the geologist's code names as we're  
23 developing the legal well name.

24 Q. And from that Excalibur pad, that's where  
25 you're planning to drill your wells in 11 and 14?



1           A.     So the -- and I cannot remember which is which,  
2     but from one of those pads would be the Bone Spring  
3     wells and from the other pad would be the Wolfcamp  
4     wells.

5           **Q.     Does Chevron plan on using those existing pads**  
6     **for other wells that will be drilled within 11 and 2?**

7           A.     So the BLM does encourage us to overlap pads as  
8     much as possible. You do need to keep some safety  
9     ratings between those wellheads and ongoing drilling and  
10    fracking operations, so we wouldn't be able to replicate  
11    the same well spacing as we did when we first executed  
12    those wells. Remember I mentioned that those wellheads  
13    are about 25 feet apart in this initial six-well  
14    deployment. We would have to space them probably a  
15    couple hundred feet apart so that the -- radius of the  
16    drilling derrick wouldn't put those wellheads at risk.

17                   But that is something that we look at.  
18    It's another reason why we do try to use centralized  
19    facilities. It gives us more flexibility around  
20    co-locating stuff versus you have a facility on-site,  
21    now that complicates your ability of re-using already  
22    disturbed surface. So to whatever extent we can, we try  
23    to --

24           **Q.     Okay. That's all the questions I have. Thank**  
25     **you very much.**

1 EXAMINER DAWSON: Is that it?

2 MR. LARSON: I'm going to zip through 16133  
3 very quickly.

4 EXAMINER DAWSON: Okay.

5 DIRECT EXAMINATION

6 BY MR. LARSON:

7 Q. Is Chevron going to employ this same  
8 simultaneous pad-drilling program for the Wolfcamp  
9 wells?

10 A. That's correct, yes.

11 Q. And will Chevron achieve the same efficiencies  
12 and economic benefits of simultaneously drilling the  
13 wells that you discussed in relation to the Bone Spring?

14 A. That's our anticipation. Yes.

15 Q. And will Chevron also achieve more production  
16 by doing simultaneous six-well drilling?

17 A. We believe we will. Yes.

18 MR. LARSON: I'd ask you to adopt his  
19 testimony regarding the efficiencies and economic  
20 benefits of simultaneous six-well drilling from the  
21 previous case.

22 EXAMINER DAWSON: Any objections?

23 MR. BRUCE: No objection.

24 MR. HALL: (Indicating.)

25 EXAMINER DAWSON: We will accept that

1 testimony.

2 Q. (BY MR. LARSON) And I'll ask you to identify  
3 the document marked as Exhibit 10 in Case 16133.

4 A. Got it.

5 Q. Would you identify that for the record?

6 A. Yup. That is also our Sand Dunes work area  
7 that we discussed in the Bone Spring case.

8 Q. And will it also be true for the Wolfcamp well,  
9 that you will not have to construct any surface  
10 production facilities on that well pad?

11 A. Yes, that's correct.

12 MR. LARSON: Again, Mr. Examiner, I would  
13 ask you to adopt his testimony about the advantages of  
14 using off-lease production facilities.

15 EXAMINER DAWSON: Any objections?

16 MR. BRUCE: No.

17 EXAMINER DAWSON: We will accept his  
18 testimony about the adoption -- or about the utilization  
19 of surface facilities.

20 Q. (BY MR. LARSON) And in your opinion, will the  
21 granting of Chevron's application avoid the drilling of  
22 unnecessary wells, protect correlative rights and serve  
23 the interest of conservation and the prevention of  
24 waste?

25 A. Yes, I do [sic].

1                   MR. LARSON: Mr. Examiner, I move the  
2 admission of Chevron Exhibit 10 into the record.

3                   EXAMINER DAWSON: Any objections?

4                   MR. BRUCE: No objection.

5                   MR. LARSON: And I will pass the witness.

6                   EXAMINER DAWSON: Chevron Exhibit 10 will  
7 be admitted to the record.

8                   (Chevron U.S.A., Inc. Exhibit Number 10 is  
9 offered and admitted into evidence.)

10                  EXAMINER DAWSON: No more questions?

11                  Does anyone have any closing arguments?

12                  EXAMINER BROOKS: Other people have to  
13 present their cases.

14                  EXAMINER DAWSON: Oh, yeah, we have the  
15 other people. I mean, I'm talking about Chevron's part  
16 of it.

17                  MR. BRUCE: I don't have. I think closings  
18 should be deferred.

19                  MR. LARSON: I agree.

20                  EXAMINER BROOKS: Normally, we wait until  
21 the whole --

22                  EXAMINER DAWSON: Hear it all?

23                  EXAMINER BROOKS: -- case is presented and  
24 then do closing arguments. The reason for doing that is  
25 because each case depends on the others, you know -- the

1 evidence presented in support of one person's proposal  
2 is going to affect decisions in the other proposals to  
3 some extent. We're talking about all the same thing.

4 EXAMINER DAWSON: So at this point, we'll  
5 just go to lunch break and then come back and listen to  
6 the other two cases.

7 EXAMINER BROOKS: I think that's what we  
8 need to do.

9 Let me ask the attorneys at this point: Is  
10 it reasonable, based on how long we've -- where we are  
11 and how long we've gone, is it reasonable to assume we  
12 can get through all the matters set by, say, 6:00 this  
13 evening?

14 MR. BRUCE: I believe so. Our presentation  
15 won't take three hours, will not.

16 EXAMINER BROOKS: I'm glad to hear it.

17 EXAMINER DAWSON: Okay. So what we'll do  
18 is we'll go on recess at this time, keep these cases on  
19 hold and then come back after lunch and listen to  
20 testimony on Cases 16134 and 16160, which are numbers  
21 three and four on the list.

22 Thank you.

23 (Recess, 12:12 p.m. to 1:30 p.m.)

24 EXAMINER DAWSON: Okay. We're back on the  
25 record. And at this time, we will go to Case Numbers

1 three and four on the list, which is Case Number 16134,  
2 an application of Tap Rock Resources, LLC for compulsory  
3 pooling, Eddy County, New Mexico.

4 Number four on the list is Case Number  
5 16160, which is an application of Tap Rock Resources,  
6 LLC for a nonstandard spacing and proration unit and  
7 compulsory pooling, Eddy County, New Mexico.

8 Please call for appearances.

9 MR. BRUCE: Your Honor -- "Your Honor."  
10 Boy, I thought I was talking to Mr. Brooks there for a  
11 minute.

12 (Laughter.)

13 MR. BRUCE: Mr. Examiner, Jim Bruce  
14 representing Tap Rock Resources in association with Dana  
15 Arnold, in-house counsel for Tap Rock. And for the  
16 record, she will be examining our first witness.

17 EXAMINER DAWSON: Okay.

18 Mr. Padilla?

19 MR. PADILLA: I'm entering an appearance  
20 for EOG Resources, Inc.

21 EXAMINER DAWSON: Okay.

22 MR. LARSON: Gary Larson, from the Santa Fe  
23 office of Hinkle Shanor, on behalf of Chevron U.S.A.,  
24 Inc., with Angela Bible of Chevron.

25 MR. HALL: And Scott Hall, Montgomery &

1 Andrews, Santa Fe, appearing on behalf of Vladin, LLC  
2 and John Yates, trustee of Trust Q under the last will  
3 of Peggy Yates.

4 MS. BRADFUTE: Jennifer Bradfute, with the  
5 Modrall Sperling Law Firm, on behalf of Douglas McLeod.

6 EXAMINER DAWSON: Okay. Whenever you're  
7 ready.

8 (Mr. Sporich, Mr. Smith, Mr. Tonnsen  
9 and Mr. Byrd sworn.)

10 CLAYTON SPORICH,  
11 after having been first duly sworn under oath, was  
12 questioned and testified as follows:

13 DIRECT EXAMINATION

14 BY MS. ARNOLD:

15 Q. Please state your name for the record.

16 A. Clayton Sporich.

17 Q. Who are you employed by and in what capacity?

18 A. Tap Rock Resources, vice president of land and  
19 legal.

20 Q. And have you been previously testified before  
21 the Division?

22 A. Yes.

23 Q. And were your credentials as a petroleum  
24 landman accepted and made a matter of record?

25 A. Yes.

1           **Q.    Would you please walk us through an overview of**  
2           **your experience in the Permian Basin?**

3           A.    I previously worked for Matador Resources from  
4           2013 to 2014 primarily focused in the Delaware Basin  
5           here in New Mexico. I worked for Headington Energy in  
6           2015 to part of 2016 focusing on the Permian Basin and  
7           primarily in New Mexico. And most recently I have been  
8           with Tap Rock since June of 2016 exclusively focused in  
9           on the Permian Basin in New Mexico.

10          **Q.    And are you familiar with the applications**  
11          **filed in this case?**

12          A.    Yes.

13          **Q.    And are you familiar with the status of the**  
14          **lands in the subject area?**

15          A.    Yes.

16                   MS. ARNOLD: I tender Mr. Sporich as an  
17                   expert petroleum landman.

18                   EXAMINER DAWSON: Any objections?

19                   MR. LARSON: No objection.

20                   MS. BRADFUTE: No objection.

21                   EXAMINER DAWSON: Mr. Sporich will be  
22                   accepted to the record as an expert petroleum landman at  
23                   this time.

24          **Q.    (BY MS. ARNOLD) Please turn now to what's been**  
25          **marked as Exhibit 1 in the booklets and explain what Tap**



1     **Rock seeks in its Wolfcamp application.**

2                   MS. ARNOLD:   And for the record, the  
3     Wolfcamp application is Case Number 16134.

4                   THE WITNESS:   Tap Rock seeks to compulsory  
5     pool all of the uncommitted working interest owners in  
6     the east half of Section 14, Township 24 South, Range 31  
7     East in Eddy County, New Mexico for the Double Diamond  
8     24S 31E 1414, well #238H.

9                   EXAMINER BROOKS:   And what was the land  
10    description -- what was the description of the project  
11    area?

12                  THE WITNESS:   The east half of Section 14.

13                  EXAMINER BROOKS:   East half of Section 14.  
14    That's all?

15                  THE WITNESS:   Yes, sir.

16                  EXAMINER BROOKS:   Thank you.

17                  **Q.    (BY MS. ARNOLD) And what is the**  
18    **Division-designated pool for this well?**

19                  A.    Purple Sage; Wolfcamp, Pool Code 98220.

20                  **Q.    And is the well orthodox under the special pool**  
21    **rules for the Purple Sage Pool?**

22                  A.    Yes.

23                  **Q.    And flipping now to Exhibit 2 --**

24                  MS. ARNOLD:   I should say we have a  
25    slightly different format than Mr. Larson presented.   We

1 have the cases together, so we'll be flipping back and  
2 forth. So if anyone gets confused, just let me know.

3 Q. (BY MS. ARNOLD) Flipping now to Exhibit 2, can  
4 you please tell everyone what you seek in your Bone  
5 Spring application, which is Case Number 16160?

6 A. Tap Rock seeks to pool all of the uncommitted  
7 working interest owners in the east half-east half of  
8 Section 14, Township 24 South, Range 31 East, Eddy  
9 County, New Mexico, for the Double Diamond 24S 31E 1414,  
10 well #158H.

11 Q. And has the Division designated a pool for this  
12 well?

13 A. Yes. It is the Cotton Draw; Bone Spring Pool,  
14 Pool Code 13367.

15 EXAMINER BROOKS: And this is also the east  
16 half of 14?

17 THE WITNESS: This is just the east  
18 half-east half.

19 EXAMINER BROOKS: Oh, east half-east half.

20 THE WITNESS: Yes, sir.

21 EXAMINER BROOKS: Thank you.

22 Q. (BY MS. ARNOLD) And is this well orthodox under  
23 statewide rules?

24 A. Yes.

25 Q. Turning now to Exhibit 3, are these units

1     **comprised of BLM land?**

2           A.     Yes.

3           **Q.     And what are the federal lease numbers?**

4           A.     The north half of Section 14 is comprised of  
5     one federal lease, BLM Lease Number NMNM 111960, and the  
6     south half of Section 14 is covered by a BLM lease,  
7     Lease Number NMNM 116044.

8           **Q.     And where is Tap Rock's interest in this**  
9     **section?**

10          A.     South half of Section 14.

11          **Q.     What about Chevron?**

12          A.     North half of Section 14.

13          **Q.     What about EOG?**

14          A.     They don't have any interest for the Wolfcamp  
15     in Section 14.

16          **Q.     And what about for the Bone Spring below 10,000**  
17     **feet?**

18          A.     EOG does not have any interest.

19          **Q.     Were you here earlier when Mr. Cooper testified**  
20     **that he didn't know what sort of agreement Tap Rock had**  
21     **with Mr. McLeod?**

22          A.     Correct.

23          **Q.     I'd like to introduce now Exhibit 29.  And it's**  
24     **three-hole punch, but it's a little less than --  can**  
25     **you please identify what we have on Exhibit 29?**

1           A.    Yes.  This is an email to Chevron regarding  
2    Section 14, Township 24 South, 31 East.  It states in  
3    here that we have an unrecorded farm-out agreement with  
4    Mr. McLeod that covers depths below 10,000 feet.  We  
5    also have in the email that we have a must-spud date of  
6    6/1/2018.

7           Q.    And were you surprised then to hear that he was  
8    unaware of both the nature of the agreement and the  
9    timing that was involved here?

10          A.    Yes.

11          Q.    And also earlier it was mentioned that this  
12    agreement was not recorded.

13          A.    Correct.

14          Q.    And why wasn't it recorded?

15          A.    As a farm-out agreement, it is typical in  
16    New Mexico and elsewhere, in Texas, to not record the  
17    actual farm-out agreement until the interest is earned.  
18    So our participation agreement stipulates that that  
19    agreement is not to be recorded.

20          Q.    So it was to be kept confidential?

21          A.    Yes.

22          Q.    Going back now to Exhibit 4 in your booklet,  
23    can you please identify the ownership breakdown of the  
24    proposed units, including those interests that you seek  
25    to pool?

1           A.     Tap Rock seeks to pool with its 49 --  
2     approximate 49.975 percent interest, along with the  
3     voluntary joinder by Mr. McLeod, with a .025 percent  
4     interest, that has been executed under a JOA, and  
5     Chevron's uncommitted working interest of 50 percent for  
6     all depths below 10,000 in the Purple Sage; Wolfcamp  
7     units and the Cotton Draw; Bone Spring units.

8           Q.     And turning now to Exhibit 5, when did you  
9     begin discussions with Chevron for this particular  
10    Wolfcamp well?

11          A.     We sent our well proposals in October of 2017.

12          Q.     And did you also send an AFE with this well  
13    proposal?

14          A.     Yes, we did.

15          Q.     And is that found on page 3 of this exhibit?

16          A.     Yes.

17          Q.     And what is the total cost of the proposed  
18    Wolfcamp well?

19          A.     \$6,275,463.

20          Q.     And was this proposal for the Wolfcamp B?

21          A.     Correct.

22          Q.     Turning now to Exhibit 6, when did you -- when  
23    did Tap Rock begin discussions with Chevron for the 3rd  
24    Bone Spring Carbonate well?

25          A.     We sent proposals in late February of 2018.

1           Q.    And did you send an AFE with this proposal?

2           A.    Yes, we did.

3           Q.    And is that found on page 3 of this exhibit?

4           A.    Yes.   The total is \$6,048,446.

5           Q.    And were you here earlier when Mr. Cooper  
6 testified that Chevron had never received a JOA for  
7 either of these proposals?

8           A.    Yes.

9           Q.    I'd like to introduce Exhibit 30.   And can you  
10 please identify this exhibit for the record?

11          A.    This is an email from Tap Rock's landman, Erica  
12 Hixson, on Wednesday, March 14th, 2018 to Chevron  
13 employees, sending a JOA covering the Double Diamond 238  
14 and 158 wells from 10,000 feet and below, as well as a  
15 communitization agreement for the two BLM leases.

16          Q.    And just to clarify this, this was sent and  
17 received, it appears, on March 14th?

18          A.    Correct.

19          Q.    For both of the AFEs that you just spoke about,  
20 are these costs consistent with what operators in the  
21 area charge for similar wells?

22          A.    Yes.

23          Q.    And has Tap Rock made an estimate of overhead  
24 and administrative costs while drilling and producing  
25 the well?

1           A.    Yes, 7,000 per month for drilling, \$700 per  
2 month for producing wells.

3           Q.    Do you ask that these costs be incorporated  
4 into any order resulting from this hearing?

5           A.    Yes.

6           Q.    And are those overhead and administrative costs  
7 the exact same as what you offered in the JOA for rates?

8           A.    Yes.

9           Q.    Is that typical to offer the same rates?

10          A.    Yes.

11          Q.    Do you ask that these costs be adjusted in  
12 accordance with the appropriate accounting procedures?

13          A.    Yes.

14          Q.    And for uncommitted working interest owners, do  
15 you request the Division impose a 200 percent risk  
16 charge?

17          A.    Yes.

18          Q.    And in addition to sending well proposals, what  
19 other efforts did you undertake in order to reach an  
20 agreement with Chevron?

21          A.    We've made numerous phone calls, sent emails  
22 and made in-person visits.

23          Q.    And is Exhibit 7 a communication log that you  
24 prepared regarding all of these efforts?

25          A.    Yes.

1           **Q.    And can you walk us through just a few**  
2           **highlights of this communication log?**

3           A.    Sure.  You'll see in September of 2017, we  
4           proposed Wolfcamp A two-mile laterals to Chevron in  
5           Sections 14 and 11.  After speaking with Chevron  
6           regarding the technical plans and understanding their  
7           development plans for the north part of Sections 2 and  
8           11, we decided to shorten our lateral to allow them to  
9           develop their Section 11 on their own with Section 2  
10          versus Tap Rock then producing -- or drilling and  
11          producing from Section 14.

12                         We had a follow-up meeting in Houston at  
13          NAPE with Mr. Cooper discussing our development plans as  
14          well, as well as our timing aspect of a June 1st spud  
15          date.  In the meantime, we went ahead and got on-sites  
16          approved in December from the BLM.  We submitted our  
17          APDs at the beginning of February for four Wolfcamp  
18          wells -- excuse me -- three Wolfcamp wells and one Bone  
19          Spring well.

20          **Q.    So just to unpack that a little bit, you had**  
21          **originally proposed a two-mile lateral, and it was to**  
22          **what depth?**

23          A.    To the Wolfcamp A.

24          **Q.    Okay.  And you revised your plans based on**  
25          **input from Chevron?**



1           A.     We revised it to do one-mile Wolfcamp Bs.

2           Q.     And what deal structures over this time period  
3     had you discussed with Chevron and made offers to them  
4     for?

5           A.     We offered them a term assignment, outright  
6     divestiture, as well as an alternative of splitting up  
7     of the horizons.

8           Q.     And over this time period, it looks like  
9     Chevron requested additional information related to Tap  
10    Rock's plans. Did you provide that information?

11          A.     Yes.

12          Q.     What sort of things did they ask for?

13          A.     Spud dates, completions designs, facilities.

14          Q.     And were you willing to adapt your plans to  
15    accommodate Chevron's development plans when they  
16    provided input?

17          A.     Yes.

18          Q.     And at one point were you under the impression  
19    that you had reached a deal with Chevron?

20          A.     Yes.

21          Q.     Can you tell us a little bit about that deal?

22          A.     We had talked about leaving the Wolfcamp A  
23    Formation open for Chevron for their full development.  
24    Instead, we would go develop two Wolfcamp B wells, a 2nd  
25    Bone Spring Sand and a 3rd Bone Spring Carbonate well to

1 satisfy our participation agreement with Mr. McLeod, and  
2 this would allow Chevron to develop their Avalon wells,  
3 which Tap Rock has no interest, but also the valuable  
4 Wolfcamp A wells.

5 Q. And when did you learn that deal was no longer  
6 on the table?

7 A. We learned that deal was no longer on the table  
8 on April 6th.

9 Q. So after several months of negotiations?

10 A. Yes.

11 Q. Is Exhibit A an illustration of the competing  
12 development plans that are before us today?

13 A. Yes, it is.

14 Q. Can you please just summarize for us what's in  
15 front of us today?

16 A. Sure. You can see the red outline of the east  
17 half of Section 14 is Tap Rock's one-mile proposal for  
18 the 3rd Bone Spring Carbonate and the Wolfcamp B wells.

19 You can see Chevron is the blue hatch that  
20 starts in the southeast quarter of Section 11 and runs  
21 through the east half of section 14 for  
22 one-and-a-half-mile long Upper -- excuse me -- Lower  
23 Avalon and Wolfcamp A wells.

24 And you'll see -- we haven't received  
25 actual proposals from EOG, but we did receive AFEs last

1 Friday for a one-and-a-half-mile long Leonard B 3rd Bone  
2 Spring and a Wolfcamp well.

3 Q. And turning to the next page of this exhibit,  
4 which I believe Mr. Bruce introduced earlier, what is  
5 your understanding of the time frame of Chevron's plans  
6 here?

7 A. Specifically for Tap Rock, we're concerned with  
8 the Wolfcamp Formation, as we're not a part of the Lower  
9 Avalon. The dates they sent over to us was the initial  
10 spud date for the Wolfcamp in the December of 2021.

11 Q. What is your understanding of EOG's time frame?

12 A. We don't have any. We just received AFEs last  
13 Friday.

14 Q. And where are you with the BLM for these wells?

15 A. We have actually received APDs back for the 158  
16 and the 238. However, they have not been scanned into  
17 the BLM records yet.

18 Q. Are APD filings a matter of public record with  
19 the BLM?

20 A. Yes.

21 Q. And have you communicated to Chevron that you  
22 were actively working with the BLM on permitting these  
23 wells?

24 A. Yes.

25 Q. Turning now to Exhibit 9, did you recently send

1     **a letter to Chevron requesting additional data for the**  
2     **proposed wells in this section?**

3             A.     Yes, we did.

4             **Q.     What did you ask for?**

5             A.     We asked for a proposed operating agreement, as  
6     well as well information, spud, completion date, initial  
7     production, what the status of their BLM permitting was  
8     for their wells that they have proposed and then again  
9     any alternative deal structures for both parties to  
10    develop their wells.

11            **Q.     And turning now to Exhibit 10, what was their**  
12    **response?**

13            A.     Chevron made a note in their follow-up letter  
14    that all proposals for alternative deal structures were  
15    subject to final management approval, which was never  
16    broached by the Chevron negotiating team. They did  
17    provide an operating agreement and a spud date that  
18    we've seen here previously, but other than that, no  
19    additional information.

20            **Q.     And on your side, during the time period for**  
21    **negotiations with Chevron, did you either have the**  
22    **authority to negotiate the deals you were discussing, or**  
23    **were you in regular communication with someone who did?**

24            A.     Yes.

25            **Q.     And, again, you asked for information related**

1 to drilling, completion and production plans, and what  
2 did they provide?

3 A. No data.

4 Q. What about alternative deal structures?

5 A. They went back to the original well proposal,  
6 to see [sic] operating agreement.

7 Q. So there was no alternate deal structure?

8 A. No.

9 Q. Do you think, in your landman opinion, their  
10 course of conduct over the last few months was  
11 negotiating in good faith?

12 A. No.

13 Q. Turning now to the Exhibit 11, has Tap Rock  
14 considered waste as it considered mile-long laterals as  
15 opposed to longer laterals?

16 A. Yes, we have.

17 Q. And after consulting with your engineers, what  
18 sort of proposal did you make earlier this week to the  
19 parties?

20 A. We sent out an application, a letter for a  
21 nonstandard wellbore locations. And what we requested  
22 here was for the first and last take points to be  
23 10 feet from the section line, and in return, we would  
24 grant a waiver from the offset operators, being EOG and  
25 Chevron, the same 10-foot waiver for the nonstandard

1 wellbore location.

2 Q. So a reciprocal waiver deal in order to negate  
3 the offset waste that was talked about earlier?

4 A. Correct.

5 Q. Have you heard a response from anyone?

6 A. I heard a response from EOG, and they declined  
7 to grant that waiver.

8 Q. In your opinion, have you made a good-faith  
9 effort to reach an agreement with Chevron?

10 A. Yes.

11 Q. And, again, what is Tap Rock's time frame for  
12 developing this acreage?

13 A. We have a June 1st spud date, 2018. We are  
14 ready, willing and able to move on location and start  
15 operations.

16 Q. And this has been communicated to Chevron and  
17 EOG?

18 A. Yes.

19 Q. How will your correlative rights be impacted by  
20 Chevron's development plan?

21 A. We'll lose all of our correlative rights.

22 Q. Turning to Exhibit 12, is this an affidavit  
23 prepared by Jim Bruce with attached letters showing  
24 notice to the parties of the pooling applications?

25 A. Yes.

1           Q.    And on Exhibit 13, is it an affidavit prepared  
2   by Jim Bruce with notice to the offset parties to the  
3   Bone Spring applications?

4           A.    Yes.

5           Q.    In your opinion, will the granting of this  
6   application be in the best interest of conservation, the  
7   prevention of waste and the protection of correlative  
8   rights?

9           A.    Yes.

10          Q.    And Tap Rock acquired its interest in this  
11   section last June?

12          A.    Correct.

13          Q.    And it's been diligently working to develop the  
14   acreage since then?

15          A.    Yes.

16          Q.    And you have a fast-approaching deadline where  
17   all of your efforts will be lost?

18          A.    Correct.

19          Q.    Were Exhibits 1 through 13 prepared by you,  
20   compiled under your direction or supervision or compiled  
21   from company business records?

22          A.    Yes.

23                   MS. ARNOLD:  I would tender the admission  
24   of Exhibits 1 through 13, as well as 29 and 30.  I'd  
25   tender the admission of those exhibits.

1 EXAMINER DAWSON: Any objection?

2 MR. LARSON: No objection.

3 MS. BRADFUTE: No objection.

4 EXAMINER DAWSON: 1 through 13 -- Tap Rock  
5 Exhibits 1 through 13, as well as 29 and 30 will be  
6 admitted to the record at this time.

7 (Tap Rock Resources, LLC Exhibit Numbers 1  
8 through 13 and 29 and 30 are offered and  
9 admitted into evidence.)

10 MR. BRUCE: Mr. Examiner, I want to point  
11 out one thing. Since I'm responsible for this Exhibit  
12 13, the notice to offsets was only for the Bone Spring  
13 because the Wolfcamp is a standard well unit. I did not  
14 get green cards back from Mr. McLeod nor Trust Q, Yates  
15 from the Peggy Yates estate. However, both parties  
16 entered appearances in these cases, and, therefore, I  
17 believe notice is complete.

18 EXAMINER DAWSON: Okay.

19 MS. ARNOLD: Pass the witness.

20 EXAMINER DAWSON: Mr. Padilla?

21 CROSS-EXAMINATION

22 BY MR. PADILLA:

23 Q. Mr. Sporich, let me first direct your attention  
24 to Exhibit 11, I guess, the May 15, 2018 letter.

25 MS. ARNOLD: Sorry, Mr. Padilla. I



1     couldn't hear you.   Which exhibit?

2                   MR. PADILLA:   May 2018 letter.

3                   EXAMINER DAWSON:   Exhibit 11.

4                   MS. ARNOLD:   Okay.

5                   THE WITNESS:   Yes.

6           **Q.    (BY MR. PADILLA) Why did you wait so long, on**  
7     **the eve of this hearing, to send that letter?**

8           A.    We were just going to file our application  
9     according to the NMOCD, and after hearing from parties  
10    here recently that there could be concerns with waste,  
11    coming from the attorney conference this past week,  
12    earlier in the week, I decided this would be the way to  
13    solve the waste question.

14          **Q.    Who offsets you to the south?**

15          A.    EOG and Yates, the Yates entities.

16          **Q.    So this letter was sent how many days ago?**

17          A.    May 15th, through email, and then followed back  
18    up with a certified mailing.

19          **Q.    Three days ago?**

20          A.    Yes, sir.

21          **Q.    Did you ever contact EOG concerning your Bone**  
22     **Spring proposals?**

23          A.    No, sir.

24          **Q.    Did you notify EOG of your Bone Spring**  
25     **application for compulsory pooling?**

1           A.     We were seeking compulsory pooling of the  
2     Cotton Draw; Bone Spring Field, which is below the  
3     10,000 feet.

4           **Q.     Is it your contention that that's a different**  
5     **pool and not within the Bone Spring Formation?**

6           A.     No, sir. I didn't say that. I said it was in  
7     the Bone Spring, but we were seeking compulsory pooling  
8     of that pool as designated by the NMOCD.

9           **Q.     So you're not asking for -- your application**  
10    **says Bone Spring Formation, doesn't it?**

11          A.     Yes, sir.

12          **Q.     Doesn't that imply, then, that it's the entire**  
13    **Bone Spring?**

14          A.     Our rights only extend from 10,000 feet below,  
15    so that's what we were attempting to pool.

16          **Q.     In your application, did you limit your**  
17    **compulsory pooling application to below 10,000 feet?**

18          A.     From our understanding, the Cotton Draw is  
19    below the 10,000 feet --

20          **Q.     Answer my question, please.**

21          A.     I'm trying to.

22          **Q.     You did not limit your application to intervals**  
23    **below 10,000 feet, right?**

24          A.     What we tried to do was pool for the Cotton  
25    Draw; Bone Spring Formation.

1           Q.    Did you specifically name the Bone Spring;  
2   Cotton Draw Formation?

3           A.    In our proposal?

4           Q.    In your application.

5           A.    I can't answer that right now. I do not know.

6           Q.    When was the first time that there was any  
7   communication between you and Mr. Moran of EOG  
8   Resources?

9           A.    I believe either late -- late April.

10          Q.    And who called whom?

11          A.    I believe I called Mr. Moran.

12          Q.    And what was the reason you called Mr. Moran?

13          A.    I understood that they were going to object to  
14   Tap Rock's applications for Wolfcamp and 3rd Bone Spring  
15   proposals.

16          Q.    Did you at that time send him a proposal for  
17   your drilling in the Bone Spring?

18          A.    No, sir, I did not.

19          Q.    Did you at that time become concerned that  
20   maybe you had not given him -- well, let me ask: When  
21   did you file a compulsory pooling application for these  
22   cases?

23          A.    We initially tried to file April 3rd, 2018, and  
24   it was pushed back to two days after or three days  
25   after.

1           Q.    So why didn't you apply for compulsory pooling  
2 earlier than that date, in light of the fact that you  
3 had an approaching lease problem?

4           A.    We thought that we were going to be able to  
5 work out a deal with Chevron and wanted to extinguish  
6 all of our good-faith efforts to try to come to some  
7 type of understanding.

8           Q.    But you've been negotiating with Chevron since  
9 January, according to your testimony. Didn't you get a  
10 clue at some point that you may have to file a  
11 compulsory pooling application earlier?

12          A.    Up until April 6th, we thought that we could  
13 work something out.

14          Q.    Okay. What did you do between June of last  
15 year, when you got the -- this farm-out agreement, and  
16 January?

17          A.    We sent out proposals to Chevron, as well as  
18 began on-site locations with the BLM.

19          Q.    When did you -- when did you send out the first  
20 proposal for development of the east half of Section 14?

21          A.    For which formation? Either?

22          Q.    Bone Spring.

23          A.    Bone Spring? February of 2018.

24          Q.    And when did you send proposals for the  
25 Wolfcamp?

1           A.    The initial proposals were in September of  
2   2017.

3           Q.    And did you withdraw those proposals at some  
4   point?

5           A.    Yes, sir.

6           Q.    Did those proposals call for drilling two-mile  
7   laterals?

8           A.    Yes, sir.

9           Q.    And why did you change?

10          A.    Based off of Chevron's communications with Tap  
11   Rock to develop the north part of this township, and  
12   specifically Sections 11 and 2, as well as they wanted  
13   to preserve the Wolfcamp A Formation, which Tap Rock was  
14   accommodating for.

15          Q.    To be clear, at no time up until April of this  
16   year did you ever contact EOG?

17          A.    That is correct.

18                   MR. PADILLA:  That's all I have.

19                   EXAMINER DAWSON:  Ms. Bradfute.

20                               CROSS-EXAMINATION

21   BY MS. BRADFUTE:

22          Q.    Mr. Sporich, am I pronouncing that correctly?

23          A.    Sporich.  Yes, ma'am.

24          Q.    Sporich.  Okay.  Thank you.

25                   I would just like to refresh your memory

1 quickly on the application. I'll show this to  
2 Ms. Arnold. It's a clean copy of the application that  
3 was filed for the Bone Spring.

4 MS. ARNOLD: Thanks.

5 MS. BRADFUTE: Can I have that back? I  
6 only have one copy.

7 MS. ARNOLD: Yes. I'm sorry.

8 Q. (BY MS. BRADFUTE) Could you take a look at this  
9 real quickly?

10 A. Yes.

11 Q. And could you please let us know if it  
12 references any particular Bone Spring Pool within the  
13 application itself?

14 A. No.

15 Q. Okay. Thank you.

16 Does that help answer Mr. Padilla's  
17 question as to whether or not the Bone Spring well  
18 application references the Cotton Draw Pool?

19 A. Yes.

20 Q. So just for clarification, it does not  
21 reference any particular pool?

22 A. Correct.

23 Q. Thank you.

24 You've already testified in this matter  
25 that various AFEs were submitted to the parties that

1     you're seeking to pool, correct?

2           A.     Yes.

3           Q.     And you initially sent out well proposals and  
4     AFEs in September of 2017?

5           A.     Yes, ma'am.

6           Q.     Around that same time, was Tap Rock also  
7     discussing or engaging in trade negotiations with OXY  
8     for this acreage?

9           A.     Not in September. In October, we began trade  
10    negotiations with OXY.

11          Q.     Could you tell me a little bit about what those  
12    trade negotiations consisted of?

13          A.     Yes. We had an opportunity for both parties  
14    to, as we call out in this area, block out our acreage.  
15    And OXY identified this particular tract as being  
16    something that was valuable to OXY, as well as valuable  
17    to Tap Rock and approached us, if we could get consent  
18    from Mr. McLeod, to trade acreage for other acreage Tap  
19    Rock has in Eddy County.

20          Q.     And that was in October of 2017?

21          A.     October.

22          Q.     So you were considering at that point in time  
23    just completely trading out of this acreage?

24          A.     We were considering it.

25          Q.     Okay. Great.

1                   And then prior to October of 2017, you had  
2     submitted a well proposal to Mr. McLeod and to other  
3     parties within the area; is that correct?

4           A.     Yes.

5           Q.     And I'm going to go ahead and mark this as  
6     McLeod Exhibit 1. Is this an accurate copy of one of  
7     the proposals that Tap Rock submitted?

8           A.     Yes.

9           Q.     Did you submit any other well proposals other  
10    than this proposal in September of 2017, or is this the  
11    only well proposal that you sent in that time period?

12          A.     For the two-mile laterals, this is what I think  
13    is the only one, but I can't say off the top of my head.

14          Q.     Okay. And this was for the 201H well?

15          A.     Correct.

16          Q.     Okay. And then as you flip through -- there  
17    might be proposals -- there is another proposal about  
18    four pages for the 20H [sic] well?

19          A.     Correct.

20          Q.     And these were two two-mile Wolfcamp wells that  
21    were being proposed by Tap Rock?

22          A.     Yes, ma'am.

23          Q.     And what was the proposed TVD for these wells?

24          A.     As shown on here, the proposed TVD was 11,825  
25    feet on the 201H, and for the 208H, 11,825 feet.



1           Q.    Okay.  And what is the TVD of the Wolfcamp well  
2   that you're proposing in this matter?

3           A.    It is 12,850 feet.

4           Q.    Okay.  So the TVD changed quite a bit from  
5   these two-mile-well proposals to your later proposals,  
6   correct?

7           A.    Yes.  They changed because they're different  
8   portions of the Wolfcamp Formation.

9           Q.    Okay.  And you testified earlier that you had  
10   mainly changed the well proposal because you couldn't  
11   get agreement to drill the two-mile wells, the acreage?

12          A.    Correct.

13          Q.    But it looks like you also changed the targeted  
14   formation for the proposed wells as well?

15          A.    Correct.

16          Q.    I next want to look at a subsequent AFE that  
17   was submitted -- a well-proposal letter that was  
18   submitted to the parties.  And I'm going to mark this as  
19   McLeod Exhibit Number 2.  Mr. Sporich, is this the  
20   well-proposal letters for the 228H well, as well as the  
21   234H well?

22          A.    Yes.

23          Q.    And there is one other -- and there might be  
24   two copies of the 234H well.  I apologize if there is.

25          A.    I've got 228H, 234 --

1           **Q.    And the 224?**

2           A.    The 224, yes, ma'am.

3           **Q.    What are these well proposals for?**

4           A.    These are one-mile -- the 228 is a one-mile  
5    Wolfcamp B.    The 234 is a one-mile Wolfcamp B.    The 238  
6    is a one-mile Wolfcamp B.    And the 224 is a one-mile  
7    Wolfcamp B.

8           **Q.    And were these well proposals later rescinded**  
9    **in March of 2018 by Tap Rock?**

10          A.    I do not believe that all of these have been  
11    rescinded.

12          **Q.    Which ones were rescinded?**

13          A.    Off the top of my head, I do not know.

14          **Q.    Okay.   Okay.   But some of them were rescinded?**

15          A.    I don't know if these were rescinded.   We  
16    definitely sent out the rescissions for the 201 and the  
17    208.   I don't remember if there were rescissions for any  
18    other additional wells.

19          **Q.    Okay.   Is Tap Rock currently not planning to**  
20    **drill any of these wells?**

21          A.    Yes.   Actually, we have those APDs that we  
22    discussed previously.   We have the 158 and the 238 APDs.  
23    We also have the two additional of these Wolfcamp B APDs  
24    approved.

25          **Q.    And let's talk a little bit about those APDs.**

1     **What are the total vertical -- the TVDs in the APDs that**  
2     **have been approved for the wells?**

3           A.     I can't say off the top of my head.

4           **Q.     So you don't know what the approved depths are**  
5     **in the permits obtained?**

6           A.     If I had a copy of them sitting right here, I  
7     could tell you, but off the top of my head, I don't  
8     remember all the TVDs.

9           **Q.     Okay. Do the surface-hole locations and the**  
10    **bottom-hole locations correspond with the new standard**  
11    **locations that you've just recently proposed to the**  
12    **parties?**

13          A.     They should.

14          **Q.     In the APDs that you submitted to the BLM?**

15          A.     Oh. No. No. I misunderstood your question.

16          **Q.     I'm sorry.**

17          A.     Okay.

18          **Q.     Okay. And so in order to get revisions, Tap**  
19    **Rock would need to get approved sundry notices from the**  
20    **BLM?**

21          A.     What we would more than likely do is send out  
22    new proposals for modification of a simple surface- or a  
23    bottom-hole location.

24          **Q.     Okay.**

25          A.     But no change to the AFE cost.

1           Q.    No change to the AFE.

2                       But for the permits that are authorized by  
3 BLM, you would need to get everything approved by the  
4 Bureau of Land Management, correct?

5           A.    Yes.  But those permits we currently have have  
6 been approved.

7           Q.    Yes.  But there would be changes in your  
8 drilling plans for the wells that the BLM would need to  
9 approve for those -- for those wells before you start  
10 drilling?

11          A.    I need to compare that -- the BLM permit with  
12 my proposals to see exactly where the changes are.

13          Q.    Okay.  Okay.  But there definitely would be  
14 changes to the nonstandard locations that you're  
15 submitting?

16          A.    I don't know until I see those permits.

17          Q.    Okay.  You testified earlier that you're ready,  
18 willing and able to drill these wells, so I wanted to  
19 kind of go through what you have lined up currently to  
20 go ahead and drill the wells.  Do you have a contract in  
21 place?

22          A.    Yes, ma'am.

23          Q.    Okay.  And do you have a completion crew  
24 contracted?

25          A.    We do not have one that's fully dedicated to

1 contract, but so far we haven't had any issues obtaining  
2 completion crews.

3 Q. Okay. And when would you anticipate that the  
4 158H and the 238H wells will be completed?

5 A. I'll have to leave that up to my technical  
6 folks. They will be in charge of the completion dates.

7 Q. Do you have agreements in place for people to  
8 purchase the gas that's produced from the wells?

9 A. Yes.

10 Q. Mr. Sporich, do you remember receiving a letter  
11 from Mr. McLeod expressing concerns about the change in  
12 Tap Rock's plans from a one-mile lateral to a two-mile  
13 lateral?

14 A. Yes, ma'am.

15 Q. Yeah, a two-mile lateral. Yeah. You're  
16 changing from a two-mile lateral to a one-mile lateral.  
17 I apologize. I got mixed up.

18 A. Correct.

19 Q. On November 22nd, 2017, did Mr. McLeod inform  
20 you that his preference was that two-mile laterals be  
21 drilled by Tap Rock?

22 A. Yes.

23 Q. And did you have any conversations with  
24 Mr. McLeod about that preference after you received this  
25 letter?

1           A.    We did have a follow-up meeting -- but it was  
2    in March -- stipulating, at Tap Rock's offices. The  
3    reason being was securing of operatorship to go for a  
4    one-mile versus two miles.

5           Q.    Okay. And you say stipulating.

6           A.    Discussing.

7           Q.    Discussing.

8           A.    Sorry.

9           Q.    Okay. Was Mr. McLeod present --

10          A.    Yes, ma'am.

11          Q.    -- at that meeting?

12          A.    Yes, ma'am.

13          Q.    And, again, did Mr. McLeod express to you his  
14    preference for two-mile development within the area?

15          A.    Yes, ma'am.

16          Q.    I wanted to briefly look at your exhibit which  
17    shows the interests within the area, which I think is  
18    Exhibit 4. Are you at Exhibit 4?

19          A.    Yes, ma'am.

20          Q.    Okay. This outlines the different working  
21    interests within the Bone Spring Unit; is that correct?

22          A.    From 10,000 feet below.

23          Q.    Okay. Mr. McLeod did retain some working  
24    interest under the participation agreement that you're  
25    in, correct?

1           A.     Correct.

2           Q.     And this doesn't reflect his ownership working  
3     interest assuming that you earn acreage under the  
4     farm-out agreement?

5           A.     That's correct.

6           Q.     What would his working interest percentage be?

7           A.     He carries a 5 percent on the wellbore that  
8     would be diluted down based off of pooling of additional  
9     acreage.

10          Q.     Okay. For the Bone Spring unit?

11          A.     Below 10,000 feet.

12          Q.     Below 10,000 feet.

13          A.     Correct.

14          Q.     Okay. Has Tap Rock actually earned any working  
15     interest percentage in the proposed Bone Spring or  
16     Wolfcamp project areas?

17          A.     No, not yet.

18          Q.     No, not yet.

19                     So currently it has no working interest  
20     within the Bone Spring --

21          A.     No. That's a typical farm-out agreement until  
22     the first well is drilled.

23          Q.     And I just wanted to look at your well-proposal  
24     letter for your Bone Spring well, which is Exhibit  
25     Number 6.

1           A.     Correct.

2           Q.     If you could look in the first paragraph of  
3     Exhibit Number 6.

4                     MS. BRADFUTE:   And I'll give the Examiners  
5     a second to get there.

6           Q.     (BY MS. BRADFUTE) What is the proposed true  
7     vertical depth of this Bone Spring well in your  
8     proposal?

9           A.     It is 11,020 feet, as shown on the AFE.   There  
10    was a typo in the form letter.

11          Q.     Okay.   But in the form letter, in the first  
12    paragraph, what's the -- what's the true vertical depth  
13    stated in the proposal letter?

14          A.     12,850 feet.

15          Q.     And is that within the Bone Spring?

16          A.     No.   It's in the Wolfcamp.

17          Q.     Mr. Sporich, I'm going to echo Mr. Padilla's  
18    question.   Why did you wait so long before filing a  
19    pooling application if you knew a deadline was  
20    approaching?

21                     MS. ARNOLD:   Objection.   Mr. Sporich  
22    already answered this question.

23                     EXAMINER BROOKS:   Well, if he has anything  
24    to add, I guess we'll let him add it.

25                     MS. BRADFUTE:   And that's fine.   I can



1 rephrase.

2 EXAMINER BROOKS: This is going to be a  
3 long hearing, in my opinion --

4 MS. BRADFUTE: Yeah.

5 EXAMINER BROOKS: -- if we go over things  
6 more than once.

7 MS. BRADFUTE: Good point.

8 Q. (BY MS. BRADFUTE) Mr. Sporich, in the spring of  
9 2018, did you convey to Mr. McLeod that Tap Rock was  
10 only recently able to obtain financing to drill the  
11 wells that it has proposed?

12 A. We obtained DrillCo as an additional financing  
13 tool. We have a large commitment from a private equity  
14 fund with ample room for drilling and acquisition  
15 efforts. We obtained additional financing on better  
16 terms than what we would require from our equity  
17 partners.

18 Q. And prior to the spring of 2018, had you  
19 expressed to Mr. McLeod that you did not have adequate  
20 funding to go ahead and drill the wells that you're  
21 proposing?

22 A. No. We've never not had adequate funding.

23 Q. Okay.

24 MS. BRADFUTE: That concludes my questions.

25 EXAMINER DAWSON: Mr. Hall?

1 CROSS-EXAMINATION

2 BY MR. HALL:

3 Q. Mr. Sporich, are you requesting that any order  
4 that issues from this hearing with respect to the Bone  
5 Spring Pool should only be for those interests for wells  
6 below 10,000 feet?

7 A. Yes.

8 Q. And it's your belief -- you said Cotton Draw;  
9 Bone Spring Pool?

10 A. Yes, sir.

11 Q. Does that correspond with the ownership  
12 severance --

13 A. It's below 10,000 feet, is where that pool code  
14 designation is according to NMOCD's geologist.

15 Q. Okay. In your Exhibits 11 and 13 -- I believe  
16 are your notice letters -- there was notification  
17 provided to the Yates Q Trust?

18 A. Yes, sir.

19 Q. Let me ask you: Did you see any ownership  
20 interest for the Q Trust in Section 14?

21 A. We did not. This is for the offset  
22 notifications that there is no designated operator of  
23 Section 23.

24 Q. Okay. Thank you.

25 MS. ARNOLD: And I have a couple of

1 follow-up questions.

2 MR. LARSON: I haven't had my chance to  
3 cross.

4 MS. ARNOLD: Oh, I'm so sorry.

5 CROSS-EXAMINATION

6 BY MR. LARSON:

7 Q. Good afternoon, Mr. Sporich.

8 A. Good afternoon, Mr. Larson.

9 Q. Directing your attention to Exhibit 30 --

10 A. Yes, sir.

11 Q. -- who is that email directed to at Chevron?

12 A. Kristen Hunter, Lewis Sumrall and Stephanie  
13 Williams.

14 Q. It was not sent to Chris Cooper?

15 A. No, sir. It was sent to Chevron employees who  
16 requested the JOA.

17 Q. So do you know if Mr. Cooper ever received  
18 this?

19 A. I know there was a follow-up mail copied to  
20 Chevron with that JOA -- an actual, physical copy of the  
21 JOA.

22 Q. I repeat the question.

23 A. I do not know if Chris Cooper received it.  
24 Sorry.

25 Q. Mr. Sporich, do you recall this email string on

1     **Exhibit 1 to Mr. Cooper?**

2           A.     Yes, sir.

3           **Q.     And what is the date of your email on page 1 of**  
4     **Chevron Exhibit 1?**

5           A.     February 19th, 2018.

6           **Q.     So you knew at that time that Mr. Cooper was**  
7     **handling the land issues for Chevron?**

8           A.     We had just met at NAPE. It was just a  
9     follow-up from his email previously. Just to clarify,  
10    Mr. Larson, too, we've dealt with numerous Chevron  
11    people for this specific section since the original  
12    proposal.

13          **Q.     Okay. And I'll direct your attention to the**  
14    **second paragraph there, the third sentence, on page 1.**  
15    **It's your February 19, 2018 email. Could you read that**  
16    **third sentence into the record?**

17          A.     Say which one you want again, Mr. Larson.

18          **Q.     Yes. It's page 1 of Chevron 1 --**

19          A.     Okay.

20          **Q.     -- the second paragraph --**

21          A.     Okay.

22          **Q.     -- the third sentence.**

23          A.     Okay. "Since Chevron has not begun permitting,  
24    we don't see a way to meet our spud date deadline."

25          **Q.     So I take it you had the sense as soon as**

1     February 19 that you might not meet your spud deadline?

2           A.     I poorly worded that portion of the email.  
3     What I meant to say was since Chevron had not begun  
4     permitting, we don't see a way for Chevron to meet our  
5     spud line -- for us to sign the JOA and participate  
6     within Chevron's development plans.

7           Q.     I see.   Okay.

8                     Now, go on to page 2 of Chevron Exhibit 1.  
9     And is that an email from Chris Cooper, dated February  
10    13, to you?

11          A.     Correct.

12          Q.     And he references the meeting that you two had  
13    at NAPE?

14          A.     Correct.

15          Q.     And the last sentence in that email says,  
16    "Please be aware that Chevron intends to move forward  
17    with developing Section 14 along with our acreage in  
18    Section 11 to the north and will shortly begin the  
19    permitting process."  Would it be fair to say, as of  
20    mid-February, you were aware that Chevron was moving  
21    forward?

22          A.     Yes.

23          Q.     I'll direct your attention to -- I'd next  
24    direct your attention to Tap Rock Exhibit 7.  It's your  
25    communication log.

1           A.    Yes, sir.

2           Q.    And if you go to page 2 there, that first  
3   bullet point, it says, "4/3/18 . . . Holland and Hart  
4   calls to say Chevron asked them. . . ." Who would  
5   "them" be?

6           A.    Holland & Hart.

7           Q.    No. You're saying, "called Chevron."

8           A.    Oh, I'm sorry.

9           Q.    Why don't you read it into the record, and then  
10   tell me what it's intended to mean?

11          A.    I'll read it. It says, "4/3/18 (4PM) Holland  
12   and Hart calls to say Chevron asked them to not file for  
13   compulsory pooling."

14          Q.    For who?

15          A.    For Tap Rock.

16          Q.    And who at Chevron told that to Holland & Hart?

17          A.    I do not know who. It was communicated from  
18   Holland & Hart to Tap Rock that they would not be able  
19   to file our compulsory pooling application that day.

20          Q.    Okay. That's a little different thought than  
21   what you have in your bullet point there.

22                        So what the bullet point says is that  
23   Chevron communicated to Holland & Hart, telling them not  
24   to file the application on behalf of Tap Rock?

25          A.    They conflicted -- they conflicted Holland &

1 Hart out from filing the application of compulsory  
2 pooling.

3 Q. That's a third thought.

4 So is your bullet point at the top of the  
5 second page meant to say that Chevron asked Holland &  
6 Hart not to file a pooling application for Tap Rock? Is  
7 that what you're intending to say?

8 A. That's what we're intending to say.

9 Q. Okay. Then you said that Holland & Hart was  
10 conflicted out?

11 A. That was the reason why they were -- they could  
12 not file it.

13 Q. Okay. But it wasn't because Chevron told them  
14 not to file it?

15 A. They said that they object -- Chevron objected  
16 to Holland & Hart filing on Tap Rock's behalf, from my  
17 understanding from Holland & Hart's communication to Tap  
18 Rock.

19 Q. That's a little different from saying Chevron  
20 told them not to file it?

21 A. No. I think I'm trying to say the same thing  
22 over and over again.

23 Q. Okay. Do you know who at Chevron communicated  
24 this to Holland & Hart?

25 A. No, sir, I do not.

1           **Q.    Are you aware that Holland & Hart has**  
2           **historically represented Chevron?**

3           A.    Yes, sir.

4           **Q.    So did you -- are you an attorney?**

5           A.    Yes, sir.

6           **Q.    Did you see that there might be a potential**  
7           **conflict there?**

8           A.    Unfortunately, New Mexico does not have enough  
9           regulatory attorneys for as many operators as there are  
10          that operate in the Basin, so I had no clue if that's  
11          Chevron's main client or -- or if you're the main  
12          attorney for Chevron.

13          **Q.    Understood.**

14                    Do you agree with Mr. Cooper that your  
15          **first communication with Chevron about the Wolfcamp well**  
16          **was in November 2017?**

17          A.    For this application, yes, sir.

18          **Q.    When was your next communication with Chevron**  
19          **after November?**

20          A.    Off the top of my head, it would be at NAPE,  
21          but it could have come from another member of Tap Rock  
22          talking with a business member of the team at Chevron.

23          **Q.    So when was NAPE?**

24          A.    February.

25          **Q.    February.**



1                   So we've got a three- or four-month period  
2   there with no follow-up? Would that be correct?

3           A.    Yeah, with the holidays in between, too.

4           Q.    And when was the first time you contacted  
5   Chevron about the Bone Spring?

6           A.    February of 2018.

7           Q.    I believe there was a February 28th letter in  
8   there?

9           A.    Yes, sir. That was the proposal.

10          Q.    And so you send a letter on February 28th. By  
11   April 3rd, you know that there can't be a deal with  
12   Chevron?

13          A.    April 6.

14          Q.    So basically six weeks. Would that be a fair  
15   characterization?

16          A.    Yes, sir.

17          Q.    Are there any contingencies in the BLM APDs  
18   that have been approved?

19          A.    No, sir. I do not know.

20          Q.    Do you know if there is anything in the APD  
21   about owning an interest throughout the project area or  
22   a pooling order?

23          A.    Yes, sir, there is. And due to the lack of  
24   timing for getting the APDs filed and submitted and  
25   approved within a one-year time frame, we felt it was

1     necessary to move forward with it, the APD process.

2           Q.     Okay.  Is the APD going to allow you to drill  
3     by June 1 if you don't have --

4           A.     A pooling order?

5           Q.     -- a pooling order or interest?

6           A.     No, sir.

7           Q.     Do the BLM's regulations require you to have an  
8     interest before you file the APD?

9           A.     Yes, sir.  But again --

10          Q.     You went ahead and filed it anyway?

11          A.     Due to lack of timing of the farm-out  
12     agreement, we determined that it would be the best  
13     interest to protect our correlative rights.

14          Q.     Your attorney used the word "deals" in terms of  
15     your communications with Chevron during the month of  
16     March.  At any time did anybody on Chevron's team say,  
17     "We accept a deal"?

18          A.     In those words, no.

19          Q.     And they did communicate to you that any  
20     proposals you presented would have to be approved by  
21     management?

22          A.     I did not know that was the understanding.  No.

23          Q.     Nobody at Chevron told you that?  Is that your  
24     testimony?

25          A.     No one's told me that.  Your question was:  Did

1     they tell me that. And no one told me that.

2           **Q.     How many horizontal wells has Tap Rock drilled**  
3     **and completed in New Mexico?**

4           A.     We have drilled three. We're in the process of  
5     drilling our -- excuse me. We've drilled four  
6     horizontals, but we have not completed any of those yet.

7           **Q.     And the length of the lateral on those?**

8           A.     I believe they're all one-mile laterals.

9           **Q.     And in what formation?**

10          A.     All of them have been -- excuse me. Some have  
11     been in the Wolfcamp Formation and some in the Avalon  
12     Formation. However, just to clarify, Mr. Larson, most  
13     of our operations department comes from -- are  
14     ex-Matador Resources who have been very active drilling  
15     wells in the Basin. So while Tap Rock is a new  
16     entity -- it has not had the historic reputation -- most  
17     of the employees have been around for numerous years  
18     drilling and completing numerous wells within the Basin.

19                   MR. LARSON: That's all I have.

20                   EXAMINER DAWSON: Any questions, David?

21                   EXAMINER BROOKS: Yes.

22                                   CROSS-EXAMINATION

23     BY EXAMINER BROOKS:

24           **Q.     The Cotton Draw; Bone Spring Pool, that is**  
25     **where you filed your -- that is what you designated as**

1     being in what you wanted -- I mean, that's not in your  
2     application, right?

3             A.     Correct.

4             Q.     But that's what you're asking for now?

5             A.     We would ask for that.   Yes, sir.

6             Q.     You didn't specify any pool?

7             A.     Not in the application.

8             Q.     So it would be whatever pool applied at this  
9     location?

10            A.     Yes, sir.

11            Q.     And the depth is not specified?

12            A.     No, sir.

13            Q.     Now, do you know why the Cotton Draw Pool --  
14     you said the Cotton Draw Pool was below 10,000 feet,  
15     right?

16            A.     (Indicating.)

17            Q.     What's the -- what's the basis of that other  
18     than perhaps Paul Kautz told you?

19            A.     Yes, sir.   It all comes from Mr. Kautz.

20            Q.     Well, Mr. Kautz is a knowledgeable person at  
21     the OCD, but I believe this is a pool established by  
22     order.   So there is probably some more source of  
23     information on that subject.   And I don't know the  
24     answer, so I'm just asking about it.   But I take it you  
25     have no information other than what you've told us?

1           A.    Yes, sir.

2           Q.    This chronology is pretty complicated.  But is  
3 everything that's material in terms of your preparation  
4 here, is it on this Exhibit --

5           A.    To the best of my knowledge, yes, sir.

6           Q.    -- Exhibit 7?

7           A.    Yes, sir, to the best of my knowledge.

8           Q.    When did you file the present APD with the BLM?

9           A.    We filed it in -- I believe it was either very  
10 late January or early February.

11          Q.    Okay.  And you said they have granted it?

12          A.    Yes, sir.

13          Q.    And you said something about that it hasn't  
14 been filed within their system.

15          A.    It hasn't been scanned into their system yet.

16          Q.    Okay.  Do you know -- if that were said about  
17 our -- about our records, I would say it doesn't matter  
18 because that's just an administrative act here, but I  
19 don't know anything about the BLM.  So does that have  
20 any legal significance?

21          A.    I do not know.  I can't answer for the BLM.

22          Q.    Has an issue been raised about the compliance  
23 with their owner consent requirement?

24          A.    No issue until today.

25          Q.    And no issue's ever been raised by BLM?

1           A.     Correct.

2           Q.     Is there a representation that you have to make  
3     on your BLM application?

4           A.     That I know of, yes, sir.

5           Q.     And did you make that representation?

6           A.     Yes, sir.

7           Q.     But you don't know exactly what it says?

8           A.     No, sir.

9           Q.     So you don't know if anybody swore falsely or  
10    not?

11          A.     No, sir. And I don't think that the C-102s  
12    would be the representation of owning the interest in  
13    there. I don't believe that they have been signed  
14    because those are the State C-102s.

15          Q.     Well, this is something I was a little confused  
16    about. The C-102 is our form, and you file that with  
17    the C-101 if you're filing an application here. But if  
18    you're filing an application with the BLM, you file the  
19    C-102 with -- my understanding --

20          A.     What would be shown in Exhibits, I believe, 1  
21    and 2, I think is what was sent over, something similar  
22    that just shows the well name, the footages and the  
23    survey plat right there. It just shows there is a  
24    survey involved.

25          Q.     Now, does BLM have a separate regulation or

1 policy or rule or any kind of -- I know federal --  
2 unlike us -- we have rules and we have orders, but we're  
3 not allowed to have policies. But I know they have  
4 various tiers in federal administrative law that have  
5 legal significance. Does BLM have their own ownership  
6 or consent requirement, or are they just applying ours?

7 A. I do not know off the top of my head.

8 Q. Okay. Now, ours does not require an ownership  
9 interest. That's the reason I'm mentioning it. Ours  
10 requires that you have permission from somebody who has  
11 an ownership interest, which, arguably, you did because  
12 you had a farm-out.

13 A. From Mr. McLeod, yes, sir.

14 Q. Okay. But you don't know if the BLM has some  
15 separate requirement that has to be complied with in  
16 that respect?

17 A. I do not know.

18 Q. Okay. Now, when did BLM communicate to you  
19 that they had approved your APD?

20 A. I believe it was April -- around April 27th,  
21 April 28th.

22 Q. Would that be true for both the Wolfcamp and  
23 the Bone Spring?

24 A. Yes, sir.

25 Q. That was about two weeks ago?

1           A.    Yes, sir.

2           Q.    Okay.  So as far as you know, even though  
3   they've not been scanned into the system there, you're  
4   good to go?

5           A.    With the conditions on the permit as normal,  
6   but we could not go drill without a pooling order from  
7   the State.

8           Q.    Okay.  And the pooling order would be  
9   sufficient without any further conveyance instrument  
10  being presented to BLM?

11          A.    Yes, sir.

12          Q.    Let's see.  I think I had something else I  
13  wanted to ask you, and I kind of put it aside.  I  
14  covered things up here.

15                   Oh, here it is.

16                  No.  I don't have anything else.  Thank  
17  you.

18          A.    Thank you, Mr. Brooks.

19                               CROSS-EXAMINATION

20  BY EXAMINER DAWSON:

21          Q.    So you've talked to Paul on your C-102s, and he  
22  put that pool name on there, Cotton Draw?

23          A.    From my understanding, yes, sir.

24          Q.    But that -- I'm supposing that the BLM -- I  
25  don't know if they've sent it to our office yet, if it



1     was scanned into the system or not.  It's been approved,  
2     so that's where it stands?

3             A.     Yes, sir.

4             Q.     Have you ever discussed with Mr. McLeod any  
5     extension of the farm-out agreement?

6             A.     Yes, sir.

7             Q.     Have you talked to him about that?

8             A.     Yes, sir.

9             Q.     What was his reply on that?

10            A.     "Wait until after the hearing."

11            Q.     Okay.  Do you happen to know -- apparently,  
12     from what I've heard, Mr. McLeod has signed AFEs with  
13     several different operators in there.

14            A.     (Indicating.)

15            Q.     Do you know the reasoning behind that?

16            A.     No, sir.

17            Q.     So you could have a rig out there by June 1st?

18            A.     Yes, sir.

19            Q.     Okay.

20                                 RE CROSS EXAMINATION

21     BY EXAMINER BROOKS:

22            Q.     When would you have to know that you have  
23     permission to have a rig out there?  By 11:59 p.m. on  
24     June 1st?

25            A.     I believe that would be best for one of my

1 technical people to answer. I don't want to make  
2 deadlines for them.

3 Q. Thank you.

4 EXAMINER DAWSON: That's all the questions  
5 I have. Thank you.

6 MS. ARNOLD: I have just a couple of  
7 follow-up questions.

8 EXAMINER DAWSON: Okay.

9 REDIRECT EXAMINATION

10 BY MS. ARNOLD:

11 Q. Earlier you stated that at no point did you  
12 send EOG well proposals for either the 158H or the 238H?

13 A. Correct.

14 Q. And why didn't you send them well proposals?

15 A. Because they didn't have an interest below  
16 10,000 feet.

17 Q. So in your experience, do you have to send well  
18 proposals to parties that don't actually own an interest  
19 in that well?

20 A. No.

21 Q. And, again, just to restate: Why did you  
22 change the targeted formation from -- I believe it is  
23 Exhibits 1 and 2 -- McLeod Exhibits 1 and 2 -- to the  
24 Wolfcamp B? Why did you change --

25 A. To accommodate Chevron for leaving open the

1     Wolfcamp A Formation.

2           **Q.     And why did you change it from a two-mile to a**  
3     **one-mile?**

4           A.     To accommodate Chevron for their development in  
5     Section 11.

6                   MS. ARNOLD:   That's all the questions I  
7     have.

8                   MS. BRADFUTE:   Mr. Examiner, I would  
9     like -- I don't believe I tendered McLeod Exhibits 1  
10    through 3 into the record, and I'd like to do so.

11                   EXAMINER DAWSON:   Any objections?

12                   McLeod Exhibits 1 through 3 will be  
13    admitted to the record at this time.

14                   (McLeod Exhibit Numbers 1, 2 and 3 are  
15    offered and admitted into evidence.)

16                   EXAMINER DAWSON:   Is that all?

17                   MS. BRADFUTE:   Yes.

18                   EXAMINER DAWSON:   Mr. Bruce?

19                   MR. BRUCE:   I just want -- for the record,  
20    I did file the pooling application with respect to the  
21    Bone Spring -- Tap Rock's proposed Bone Spring well, and  
22    I did that on short notice, and I was unaware of the  
23    10,000-foot cutoff. And in part, I based that on  
24    Holland & Hart's draft pooling application. At this  
25    time I would request to amend the application so that

1 Tap Rock's application only applies from 10,000 feet to  
2 the base of the Bone Spring Formation rather than the  
3 entire Bone Spring interval because they do not own in  
4 the entire Bone Spring interval. And since we are  
5 asking for less than we originally requested, I don't  
6 know that a written amended application has to be filed,  
7 but if that's what the Division wants, we will do so,  
8 file an amended application, re-notify and have this  
9 matter continued, which is what we actually asked for a  
10 few days ago.

11 EXAMINER BROOKS: Well, we can't very well  
12 continue it until the next hearing.

13 MR. BRUCE: Not to the next hearing.

14 EXAMINER BROOKS: I think we need to find  
15 out what the definition of the Bone Spring -- of the  
16 Cotton Draw; Bone Spring Pool is. I would think, since  
17 it's not a wildcat pool, it's a pool established by a  
18 nomenclature order.

19 MR. BRUCE: Correct.

20 EXAMINER BROOKS: And since we're talking  
21 about vertical expansion, I'm not aware that the  
22 geologist has any authority to vertically expand the  
23 pool.

24 MR. BRUCE: I thought Mr. Kautz was the  
25 world's foremost authority.

1 (Laughter.)

2 EXAMINER BROOKS: Well, there is some  
3 similarity between Mr. Kautz and Judge Roy Bean when it  
4 comes to the limits of his authority (laughter).

5 MR. BRUCE: And I will get the nomenclature  
6 order and provide that to all the parties by Monday.

7 EXAMINER BROOKS: Yeah. We do need to have  
8 that because that would control whether you need to  
9 limit your application.

10 MR. BRUCE: We don't have a problem in  
11 doing that.

12 EXAMINER BROOKS: I wouldn't be concerned  
13 about it if you got -- if what they're now telling us is  
14 in accordance with -- is pooling an entire pool. But I  
15 think we would need a written application if we're going  
16 to try to divide a pool because we don't normally do  
17 that.

18 MR. BRUCE: I understand. I understand.

19 EXAMINER BROOKS: There are very few  
20 instances in a --

21 MR. BRUCE: My own ignorance.

22 EXAMINER BROOKS: Okay. Well, I have a lot  
23 of that, too.

24 MS. BRADFUTE: Mr. Examiner, before we  
25 define a pool -- I think I'm looking for clarification.

1 Are you just looking for the vertical depth of the  
2 Cotton Draw Pool, or is this going to be amended to  
3 change the vertical depths of the Cotton Draw Pool?

4 EXAMINER BROOKS: No. What I'm concerned  
5 with is if the Cotton Draw Pool is defined in such a way  
6 that it is entirely below 10,000 feet -- and, you know,  
7 what I said about Paul was intended to be humorous. If  
8 he said something, he probably has some basis for saying  
9 it. But he's not a lawyer, so I don't know whether  
10 that's a valid basis or not until the matter is  
11 researched. If it's one of his pools, then I would say,  
12 it's what he said it is. But if a pool has been  
13 established by a nomenclature order, then there either  
14 is or isn't a definition. If the definition is just the  
15 top of the Bone Spring, then that's one thing. But if  
16 the definition is something else, then maybe the  
17 gentleman here -- the witness is right. So I just need  
18 to know some more information about what it states.

19 MS. BRADFUTE: Okay. Thank you.

20 EXAMINER DAWSON: So at this time, can we  
21 go on break for ten minutes?

22 EXAMINER BROOKS: Are you through with this  
23 witness?

24 MS. ARNOLD: Yes.

25 (Recess, 2:44 p.m. to 2:55 p.m.)

1                   EXAMINER DAWSON: At this point we will go  
2 back into session.

3                   EXAMINER BROOKS: Since we do not have time  
4 to continue this case, whether we finish it today or  
5 whether we finish it someday next week, if we can't  
6 get -- hopefully we're going to get through it today.  
7 Since we do not have time to continue this case, and  
8 since we have -- we need clarification on this point  
9 about the Cotton Draw; Bone Spring Pool, what I have  
10 advised the Examiner to do is, when we get all the other  
11 evidence in, to take the case under advisement and  
12 require Mr. Bruce, since he's relying on it, to figure  
13 out what orders govern the vertical limits of the Cotton  
14 Draw and Bone Spring, if it's dependent on a log  
15 interpretation, what log it is, and submit that to us by  
16 a date certain, which will have to be soon enough.

17                  MR. BRUCE: I will -- give me until Tuesday  
18 noon, but I should have it done by Monday.

19                  EXAMINER BROOKS: And send it to us and all  
20 of counsel, and they can respond if they have any  
21 disagreement with it.

22                  MR. BRUCE: Okay.

23                  EXAMINER BROOKS: Okay?

24                  EXAMINER DAWSON: And counsel's response,  
25 would you like to put a date on that?

1                   EXAMINER BROOKS: Yeah. I'd like it to be  
2     within 24 hours when Mr. Bruce submits it. Obviously,  
3     we have been doing things at the OCD, as far as I  
4     know -- as I said to the Examiner on the way up in the  
5     elevator, we have required people to submit additional  
6     evidence after a case was taken under advisement many  
7     times, but I do not recall anytime when we've done it in  
8     such a critical timing situation.

9                   EXAMINER DAWSON: Okay. So we continue,  
10    Mr. Larson, with your questions.

11                  MR. LARSON: I was finished.

12                  I would like to admit or request that  
13    Chevron Exhibit 1 be admitted into the record.

14                  EXAMINER DAWSON: Any objections?

15                  MR. BRUCE: No objection.

16                  MS. BRADFUTE: No objection.

17                  EXAMINER DAWSON: Chevron's Exhibit 1 will  
18    be admitted to the record at this time.

19                  (Chevron U.S.A., Inc. Exhibit Number 1 in  
20                   Cases 16134 and 16160 is offered and  
21                   admitted into evidence.)

22                  MR. BRUCE: Before I begin with Mr. Smith,  
23    I just want to make sure that even though Tap Rock  
24    doesn't object to the continuance of the Bone Spring  
25    application, we do need the Wolfcamp application taken



1 under advisement. And we believe you'll find  
2 everyone -- I mean the Wolfcamp application is complete,  
3 and we need that taken under advisement.

4 EXAMINER BROOKS: Okay. That's understood.  
5 I'm glad you pointed it out because I might have let it  
6 slip. But that's a good point.

7 EXAMINER DAWSON: So both cases, 16134 and  
8 16160, will be taken under advisement with the  
9 stipulations of --

10 MR. BRUCE: Of the pool rules for the  
11 Cotton Draw.

12 EXAMINER DAWSON: -- the Cotton Draw  
13 limits.

14 MS. ARNOLD: The stipulation to apply only  
15 to 16160, which is the Bone Spring.

16 EXAMINER DAWSON: Yes.

17 MS. ARNOLD: Okay.

18 EXAMINER BROOKS: You said it's going to be  
19 taken under advisement. Has it been fully presented?

20 MR. BRUCE: It will be fully presented but  
21 subject to an amendment in the application.

22 EXAMINER BROOKS: Go ahead.

23 ADAM SMITH,  
24 after having been previously sworn under oath, was  
25 questioned and testified as follows:

1 DIRECT EXAMINATION

2 BY MR. BRUCE:

3 Q. Will you please state your name for the record?

4 A. Adam Smith.

5 Q. And where do you reside?

6 A. Littleton, Colorado.

7 Q. Who do you work for and in what capacity?

8 A. I work for Tap Rock Resources as a senior  
9 geologist.

10 Q. Have you previously testified before the  
11 Division?

12 A. No.

13 Q. Could you please inform the Examiners of your  
14 educational and employment history?

15 A. Yeah. I went to Northern Illinois University  
16 for my undergraduate and graduate degrees, graduating in  
17 2007 with a Bachelor of Science in Geology, and I  
18 graduated in 2009 with a Master's of Science in Geology.

19 After that, I went to work for Samson  
20 Resources until 2016, the early part of the year.  
21 Through employment at Samson, I worked in the  
22 Appalachian Basin, the Anadarko Basin, Powder River  
23 Basin, DJ Basin, the Bighorn -- and the Bighorn Basin.

24 After working at Samson, I went to  
25 Kimmeridge Energy for six months working the Powder

1 River Basin and the Central River Basin Platform. After  
2 Kimmeridge Energy, I started at Tap Rock for the past  
3 year and a half solely focused on the Northern Delaware  
4 Basin.

5 Q. And could you provide with us of an overview of  
6 your experience in the Permian Basin since joining Tap  
7 Rock?

8 A. Yeah. Since starting at Tap Rock, I've been  
9 sole geologist for the company providing guidance on the  
10 acquisition of approximately 25,000 net acres across the  
11 Northern Delaware Basin in New Mexico. I have been the  
12 geologic guidance for drilling of the wells and planning  
13 wells in New Mexico, and we've drilled about six wells  
14 to date.

15 Q. And are you involved in the proposals and  
16 execution of future drilling programs for the company?

17 A. Yes.

18 Q. And are you familiar with the geology involved  
19 in both Tap Rock applications?

20 A. Yes.

21 MR. BRUCE: Mr. Examiner, I tender  
22 Mr. Smith as an expert petroleum geologist.

23 EXAMINER DAWSON: Any objections?

24 MS. BRADFUTE: No objection.

25 MR. LARSON: No objection.

1                   EXAMINER DAWSON: Mr. Smith will be  
2 admitted as an expert in petroleum geology at this time.

3           **Q. (BY MR. BRUCE) Mr. Smith, could you identify**  
4 **Exhibit 14 and orient us as to the location of the**  
5 **proposed wells?**

6           A. Yes. So Exhibit 14 is a locator map of both  
7 the Double Diamond 158H and the Double Diamond 238H.  
8 These are located on the eastern boundary of Eddy  
9 County, in Township 24 South, Range 31 East on the west  
10 half -- or east half of Section 14.

11          **Q. Looking at the plat to the eastern side of this**  
12 **exhibit, showing -- the south half of Section 14 is**  
13 **where Tap Rock owns an interest, correct?**

14          A. Yes.

15          **Q. There are a couple of lay-down wells. What are**  
16 **those?**

17          A. Those are EOG's Brushy Canyon wells that were  
18 drilled to a TVD of 8,350 feet and 8,400 feet.

19          **Q. So they're not -- they don't interfere with**  
20 **either company's proposed drilling plans?**

21          A. Correct.

22          **Q. Turning to Exhibit 15, could you identify and**  
23 **discuss its contents?**

24          A. Yeah. This is a subsea structure map on the  
25 top of the Wolfcamp B, as I have described it and

1 interpreted it. On the left is the map of the structure  
2 in subsea and with the location of the Double Diamond  
3 238H, the project area outlined in Tap Rock's leasehold.  
4 On here are points with the subsea number for the top of  
5 the Wolfcamp B that control the grid, and this shows a  
6 monoclinial dip gently dipping towards the east.

7 Q. And as to the referenced cross section, is that  
8 Exhibit 16.

9 A. Yes.

10 Q. And in your opinion, do you consider the wells  
11 used for the cross section representative of the  
12 Wolfcamp B wells in this area?

13 A. Yes.

14 Q. Would you review the other items in this  
15 exhibit for everyone?

16 A. Yeah. This is a stratigraphically hung cross  
17 section on the top of the Wolfcamp A. On here, I have  
18 the proposed Double Diamond 238H well and the landing  
19 target interval highlighted in green. For each one of  
20 these wells, we've used the common triple-combo log. On  
21 the very first track, I have gamma ray colored from zero  
22 to 200 API. The colors on here, the light blue and the  
23 blue colors, are more carbonate or lower API gammas, and  
24 the shales are in brown, which are the higher API  
25 counts. I also have a caliper log in that track from 6

1 to 16 inches.

2 The depth track is in the middle.

3 And then the deep resistivity track would  
4 be track number two, and that is from a .2 to 2,000 ohm  
5 meter on a log rhythmic scale. And the blue shading on  
6 that is anything less than 50 ohms.

7 And the third track is my porosity track,  
8 and this is showing a density and neutron porosity in  
9 percentage, the neutron in the pink and the density in  
10 the blue from 30 percent to minus 10 percent scales.

11 And to note, the green shading on the  
12 density is anything greater than 10 percent porosity.

13 **Q. And what is your proposed landing interval in**  
14 **the Wolfcamp?**

15 A. The proposed landing interval in the Wolfcamp  
16 is in the Lower Wolfcamp B zone, which is defined on the  
17 LOGOS B Federal #1 well, which is the third well on the  
18 section from 12,400 feet TVD to 12,700 feet TVD.

19 **Q. And do you sometimes refer to this as the**  
20 **Wolfcamp B2?**

21 A. Yes, sir.

22 **Q. So it's a Lower Wolfcamp B?**

23 A. Yes.

24 **Q. In your review of the data, is there any -- do**  
25 **you see any difference between the geology -- the**

1     Wolfcamp geology in the north half of Section 14 as  
2     opposed to the south half of Section 14?

3             A.     No.

4             Q.     And throughout the east half of Section 14, do  
5     you see any major thickening or thinning of the Wolfcamp  
6     B reservoir?

7             A.     No.

8             Q.     And based on your study of the area, have  
9     you -- have you identified any faulting or other  
10    impediments or hazards to developing this area on a  
11    horizontal-well basis?

12            A.     No.

13            Q.     And in your opinion, can the east half of  
14    Section 14 be efficiently and economically developed by  
15    horizontal wells?

16            A.     Yes.

17            Q.     In your opinion, is the Wolfcamp B2 or Wolfcamp  
18    B reservoir continuous across the proposed well unit?

19            A.     Yes.

20            Q.     And do you believe that each quarter section in  
21    the proposed well unit will contribute more or less  
22    equally to production from the Wolfcamp?

23            A.     Yes.

24            Q.     What is Exhibit 17?

25            A.     Exhibit 17 a gross isopach map of the entire

1     Wolfcamp B interval. This shows a 25-foot contour  
2     interval across this area and shows a general thickening  
3     toward the west. However, within the Double Diamond  
4     project area, we're looking at anywhere from 850 to 875  
5     feet of gross Wolfcamp thickness.

6           **Q.     So the thickness is consistent across the well**  
7     **unit?**

8           A.     Yes, sir.

9           **Q.     What is Exhibit 18?**

10          A.     Exhibit 18 is just a wellbore schematic of the  
11     Double Diamond 238H showing it is an orthodox location  
12     with 330-foot setbacks from the north and the south  
13     line.

14          **Q.     What about Exhibit 19?**

15          A.     Exhibit 19 is a subsea structure map of the 3rd  
16     Bone Spring Carbonate. This map shows the location of  
17     subsequent A to A prime cross section, and it has the  
18     data points posted on the wells to make this map. This  
19     also shows a gentle monoclinal dip down towards the east  
20     through this region.

21          **Q.     And is the corresponding cross section found on**  
22     **Exhibit 20?**

23          A.     Yes.

24          **Q.     Will you turn to that? And, again, do you**  
25     **consider the logs that you have on this exhibit**



1     **representative of the 3rd Bone Spring, including the 3rd**  
2     **Bone Spring Carbonate for your proposed well?**

3           A.     Yes.

4           **Q.     Could you review this exhibit for us?**

5           A.     Yes. This is slightly different logs than used  
6     on wells, than used on the other cross sections, but the  
7     logs are the same. They're set with the same template.  
8     So it's just shifted up stratigraphically by about 1,500  
9     foot. It does show the proposed Double Diamond 158H  
10    target, the well and the landing interval target zone  
11    that we would be going for.

12          **Q.     Approximately, what is the vertical difference**  
13    **between your landing point and the 3rd Bone Spring**  
14    **Carbonate and the top of the Wolfcamp, roughly?**

15          A.     I think it's roughly -- oh, in the top of the  
16    Wolfcamp? Can you ask that question one more time?

17          **Q.     From your landing zone down to the top of the**  
18    **Wolfcamp, what is the vertical footage?**

19          A.     The base of the landing zone or the landing  
20    zone on the well?

21          **Q.     The base of the landing zone.**

22          A.     Yeah. Okay. It is approximately 600 feet, 550  
23    to 600 feet.

24          **Q.     And, again, for the 3rd Bone Spring Carbonate,**  
25    **do you see any apparent difference between the geology**

1 as to the north half and south half separating [sic]  
2 Section 14?

3 A. No.

4 Q. There is no major thinning or thickening of the  
5 reservoir over that interval?

6 A. No.

7 Q. Based on your study, are there -- is there any  
8 faulting or other impediments that would prevent the  
9 horizontal development of the 3rd Bone Spring Carbonate?

10 A. No, sir.

11 Q. And in your opinion, can the 3rd Bone Spring  
12 Carbonate be efficiently and economically drained by  
13 horizontal wells?

14 A. Yes.

15 Q. And do you believe that each quarter-quarter  
16 section in the proposed east half-east half will  
17 contribute more or less equally to production?

18 A. Yes.

19 Q. What is Exhibit 21?

20 A. Exhibit 21 is a gross isopach map of the 3rd  
21 Bone Spring Carbonate from the top of the 3rd Bone  
22 Spring Carbonate to the top of the 3rd Bone Spring Sand  
23 intervals. This again shows the location of the  
24 previous cross section, A to A prime, and our Double  
25 Diamond 158H location and project area. The intention

1 of this is to show the consistent thickness of 725 feet  
2 across the project area.

3 Q. And Exhibit 22, what is this?

4 A. Exhibit 22 is a wellbore schematic of the  
5 Double Diamond 158H that shows the orthodox location  
6 with 330-foot setbacks from the north and south  
7 declines.

8 Q. And these wellbore diagrams for both the  
9 Wolfcamp well and the Bone Spring well are those that  
10 were filed with the BLM and approved by the BLM?

11 A. Yes.

12 Q. Let's turn to Exhibit 23. What does that  
13 reflect?

14 A. Ask that again.

15 Q. Exhibit 23.

16 A. Okay. Exhibit 23 is the -- is a cross section  
17 just kind of synthesizing both the wellbores with their  
18 landing zone targets and the proposed wells of the 158H  
19 and the 238H. Similar wells between each cross section  
20 that we've previously reviewed are on here with the same  
21 well templates. What this is intended to show is the  
22 vertical separation between the reservoirs that we have  
23 (A) proposed, and (B), we are planning to develop in  
24 this area.

25 So starting at the top of the 3rd Bone

1 Spring Carbonate and the 158H well, we go down -- to  
2 answer Mr. Bruce's previous question. The top of the  
3 Wolfcamp A is 550-foot thick separation between those  
4 two reservoirs, and then we have the Upper Wolfcamp A,  
5 which I have denoted for future Wolfcamp development, is  
6 approximately a 150-foot thick zone. Between the base  
7 of that and the top of our Lower Wolfcamp B is about 400  
8 feet of TVD thickness between those two reservoirs.

9 Q. And although you're proposing two wells here  
10 today, does your full development plan call for  
11 additional wells and additional targets not only in the  
12 Bone Spring but in the Wolfcamp?

13 A. Yes.

14 Q. You're not adverse to multiple infill wells  
15 across Section 14, are you?

16 A. No, sir.

17 Q. You see no problem with that?

18 A. No.

19 Q. So you're not as such contradicting what  
20 Chevron is saying? Yeah, you've got to do multiple  
21 wells in a specific zone?

22 A. Correct.

23 Q. Have you studied nearby operator activity in  
24 the Bone Spring and the Wolfcamp?

25 A. Yes.

1           **Q.    And is that shown on Exhibit 24?**

2           A.    Yes.

3           **Q.    And please go through Exhibit 24.**

4           A.    So this is just the offset operator activity  
5    from the top of the Bone Spring down through the  
6    Wolfcamp.  The major operators that I see on here or  
7    that I have shown are Occidental, Devon and Concho.  
8    One -- one thing to note on here as well is that planned  
9    development or end development in this area is  
10   generally -- or strongly north-south.

11                   Adjacent to Section 14 and Section 13, OXY  
12   is permitted one-mile lateral development, and so we  
13   feel like, you know, one-mile development in Section 14  
14   fits with the pattern that OXY is permitting adjacent to  
15   our section and it's consistent with the other drilling  
16   patterns within the area.

17           **Q.    And does Exhibit 25 show the distance to**  
18   **existing Wolfcamp B horizontal wells?**

19           A.    Yes.

20           **Q.    And first of all, although it's tough to see,**  
21   **right about in the middle of this plat, is that -- there**  
22   **is a red rectangle and then a yellow rectangle lay-down.**  
23   **Is this the section we're talking about here today?**

24           A.    Yes.

25           **Q.    And go on and discuss the nearest Wolfcamp B**

1     **development.**

2           A.     Yes.   So these are all the wells that have  
3     targeted in the Northern Delaware Basin in New Mexico  
4     and targeted the deep Wolfcamp B.   And so the closest,  
5     really, development in the area is 13 to 15 miles away.

6           Q.     And because of that, do you consider Tap Rock's  
7     proposed 238H well a wildcat Wolfcamp B well?

8           A.     Yes.

9           Q.     Would you consider it prudent to drill a  
10    wildcat well with an extended-length lateral?

11          A.     No.

12          Q.     And why is that?

13          A.     I would first -- I do not recommend exploring  
14    with two-mile laterals.   I don't feel like it's prudent  
15    as an operator to test an unknown zone in an area and  
16    spend extra capital of our dollars and have even an  
17    operational or geologic risk happen without really  
18    knowing how the reservoir will perform or will drill?

19          Q.     And for your exploratory well, would you  
20    consider drilling three or six wells in this section at  
21    the same time, in other words, back-to-back like Chevron  
22    is proposing for its Wolfcamp A wells?   Is it better to  
23    drill one well and get the experience?

24          A.     I would recommend drilling one well and being  
25    able to assess, know what your -- what the reservoir

1 will produce before going and spending extra capital.

2 Q. And moving on to Exhibit 26, are there only a  
3 few extended-length Wolfcamp B laterals in this area of  
4 the Basin?

5 A. There are only six extended-length laterals  
6 within the Wolfcamp -- deep Wolfcamp B in New Mexico.

7 Q. And how far away is the nearest well to the  
8 wells at issue here today?

9 A. The nearest well is three townships away, 15  
10 miles.

11 Q. In your opinion, is the granting of Tap Rock's  
12 application in the best interest of the prevention of  
13 waste and the protection of correlative rights?

14 A. Yes.

15 Q. And were Exhibits 14 through 26 prepared by you  
16 or under your supervision?

17 A. Yes.

18 MR. BRUCE: Mr. Examiner, I move the  
19 admission of Tap Rock's Exhibits 14 through 26.

20 EXAMINER DAWSON: Any objection?

21 MR. LARSON: No objection.

22 EXAMINER DAWSON: Tap Rock's Exhibits 14  
23 through 26 are admitted.

24 (Tap Rock Resources, LLC Exhibit Numbers 14  
25 through 26 are offered and admitted into

1 evidence.)

2 MR. BRUCE: And I pass the witness.

3 EXAMINER DAWSON: Mr. Hall?

4 MR. HALL: No questions.

5 EXAMINER DAWSON: Ms. Bradfute?

6 MS. BRADFUTE: Yes.

7 CROSS-EXAMINATION

8 BY MS. BRADFUTE:

9 Q. Good afternoon. I just have a few questions  
10 for you.

11 Looking at Exhibits 25 and 26 and I'll  
12 focus first on Exhibit 25, there doesn't appear to be a  
13 lot of Wolfcamp B development within the immediate area  
14 where you're planning your wells, correct?

15 A. Correct.

16 Q. Are there a number of other Wolfcamp wells,  
17 however, in other portions of the Wolfcamp Formation  
18 drilled within this area?

19 A. Yes.

20 Q. And approximately how many other Wolfcamp wells  
21 are in the sections adjacent to where you propose to  
22 drill the well?

23 A. I don't recall the exact number, so I would  
24 have to --

25 Q. Can you approximate? Was it over ten?



1           A.    It was about ten.

2           Q.    It was about ten.

3                       Okay.  Why has Tap Rock decided to choose  
4   the Wolfcamp B zone since not very many Wolfcamp B wells  
5   have been drilled within this area?

6           A.    One reason for this would be to extend the  
7   Wolfcamp B play to this area, and I think it would even  
8   help extend the Wolfcamp B in northern -- in New Mexico  
9   here.

10          Q.    Okay.  And it's only one Wolfcamp B well that  
11   you're proposing to drill; is that right?

12          A.    We have multiple -- four wells on this pad  
13   proposed in the Wolfcamp B.

14          Q.    Four wells.

15                       Okay.  So when do you plan on drilling the  
16   subsequent three wells?

17          A.    After evaluation of this first one.

18          Q.    After evaluation.

19                       Could it be a year before you drill those  
20   subsequent infill wells?

21          A.    I think I'd have to kind of allow my operations  
22   guys to help with that and the engineers, of when we  
23   would say we need enough time for production and when we  
24   could get a rig in.  So I don't want to limit them on  
25   their timing.

1 Q. Okay. Great.

2 I want to talk a little bit about the data  
3 that you have on the Wolfcamp B zone in this area. Does  
4 Tap Rock have any seismic data that it's obtained  
5 concerning the Wolfcamp Formation?

6 A. No.

7 Q. Do you have any core samples from the Wolfcamp  
8 B zone, anything that tells you more about the rock in  
9 the area?

10 A. No, ma'am.

11 Q. Do you have anything other than the logs that  
12 you've reviewed from other Wolfcamp B wells?

13 A. We have production from those far off and then  
14 just tying my correlations from those wells into this  
15 area. I would love to get more data in this area. I  
16 think any geologist would. But the money is kind of a  
17 limiting factor for us.

18 Q. Yeah. So it's the capital investment to get  
19 the information about the area --

20 A. Right.

21 Q. -- before you make the investment to produce?

22 A. Right.

23 Q. In the other Wolfcamp producers that you've  
24 looked at within Exhibit 25, are these wells that have  
25 produced for a long period of time, for a number of

1     **years?**

2           A.     Some have, yes.

3           Q.     Some have.

4                         **What's the percentage of wells that have**  
5     **produced for over five years?**

6           A.     I don't know the exact answer on that.

7           Q.     Did you study the production of these other  
8     **Wolfcamp B wells in compiling this exhibit?**

9           A.     I studied their landing zones in there, and our  
10    engineer -- reservoir engineer has looked at the  
11    production.

12          Q.     Okay. So he might have the answer to that  
13    **question?**

14          A.     Exactly.

15          Q.     Did Tap Rock put together any modeling of its  
16    **Wolfcamp B well that it's proposing here today?**

17          A.     Can you explain what you mean by modeling?

18          Q.     Did you conduct any modeling to project how  
19    **well this well is likely to produce?**

20          A.     Yes.

21          Q.     Yes, you did.

22                         **Can you explain that modeling?**

23          A.     I didn't put that together. Again, our  
24    reservoir engineer did.

25          Q.     Okay. Great.

1                   I want to look now at Exhibit 26 for the  
2   Wolfcamp B. And I apologize. The last exhibit was  
3   for -- oh, they're both entitled "Wolfcamp B."

4                   Do you have a map that shows the Bone  
5   Spring carbonate activity within the area?

6       A.    I do not.

7       Q.    You do not.

8                   Have you studied what other 3rd Bone Spring  
9   Carbonate wells are drilled within the adjacent sections  
10  to your Bone Spring proposed well?

11      A.    Yes.

12      Q.    How many other 3rd Bone Spring Carbonate wells?

13      A.    I believe -- I can't say an exact number.  
14  Around six.

15      Q.    Around six.

16      A.    Six to eight.

17      Q.    And what is the nearest Bone Spring -- the 3rd  
18  Bone Spring Carbonate well to the proposed well?

19      A.    Three miles.

20      Q.    Three miles.

21                  Okay. And have you looked at the  
22  production history at all for that well?

23      A.    I have not personally.

24      Q.    And likewise, Tap Rock does not have any  
25  seismic data or core data or anything else --

1           A.    No, ma'am.

2           Q.    -- concerning that well?

3                       And does Tap Rock have any planned infill  
4 development within the 3rd Bone Spring Carbonate zone?

5           A.    Depending on the results of the first well, we  
6 would, yes.

7           Q.    Okay. So it's all dependent on how the well  
8 actually performs as to whether or not additional wells  
9 would be drilled?

10          A.    Exactly. Yes, ma'am.

11          Q.    That concludes my questions.

12                       EXAMINER DAWSON: Okay. Mr. Larson, do you  
13 have any questions?

14                       MR. LARSON: I do.

15                               CROSS-EXAMINATION

16 BY MR. LARSON:

17          Q.    Good afternoon, Mr. Smith.

18          A.    Hello.

19          Q.    Did you get the invisible hand?

20          A.    Sorry?

21          Q.    Adam Smith, the invisible hand.

22          A.    Oh. That was the first time --

23                       (Laughter.)

24          Q.    I'm showing my age. Back in school, we studied  
25 Adam Smith, and I get farsighted.

1                   You just mentioned that the closest Bone  
2   Spring Carbonate well was three miles away; is that  
3   correct?

4           A.    Yes, sir.

5           Q.    Do you know the name of that well?

6           A.    Not off the top of my head.

7           Q.    I direct your attention to Exhibit 25 -- I'm  
8   sorry -- 24.

9           A.    The offset operator map?

10          Q.    Yes.

11                   And you refer to a well -- a one-mile well  
12   in Section 12. Is that the OXY well you're referring  
13   to?

14          A.    No. I was referring to the OXY permits  
15   adjacent to Section 14 and Section 13.

16          Q.    And do you know if there was a land issue  
17   involved that restricted the well to one mile?

18          A.    I do not.

19          Q.    Are you aware of OXY's two-mile Bone Spring and  
20   Wolfcamp laterals in Section 34, 23 South, 31 East and  
21   Section 30, 24 South, 31 East?

22          A.    Just outside of this map area?

23          Q.    (Indicating.)

24          A.    We've probably looked at them. Yes.

25          Q.    And are you aware those are approximately three

1     miles away from this acreage?

2           A.     Yeah.

3           Q.     Do you know if Tap Rock employs geosteering  
4     when the well's complete? Is that a question for your  
5     engineer?

6           A.     Well, can you ask that one more time?

7           Q.     Geosteering.

8           A.     An outside geosteerer?

9           Q.     Will you employ geosteering when you complete  
10    the well?

11          A.     Oh. Yes. I will be geosteering each well.

12          Q.     Bear with me a moment.

13          A.     Yes, sir.

14                   EXAMINER DAWSON: Okay.

15          Q.     (BY MR. LARSON) I'd refer you to Tap Rock  
16    Exhibit 16. And in your third log there, it shows your  
17    landing zone. My eyes are not as good as they used to  
18    be. What's the blue line there? What's the depth?

19          A.     That blue line where it goes through is about  
20    12,650 feet.

21          Q.     What is the depth that appears in the AFE?

22          A.     12,850.

23          Q.     What's the reason for the --

24          A.     That well -- the third well is located updip,  
25    looks like at least 100 foot there. So there might --

1     that was kind of -- but its projection back over into  
2     Section 14 is where I picked the landing point for our  
3     well, not from Section -- what would that be? -- Section  
4     10, that well would be in.

5           **Q.     Do you know what depth appears in the APD as**  
6     **submitted to the BLM?**

7           A.     I can't remember off the top of my head. I  
8     would assume it's around what -- I can't remember off  
9     the top of my head, though.

10          **Q.     And why did Tap Rock pick the Bone Spring**  
11     **Carbonate?**

12          A.     Tap Rock chose the Bone Spring Carbonate due to  
13     the offset activity of other operators drilling in it.  
14     It would be a good addition for our inventory to be able  
15     to prove up that zone.

16          **Q.     And how about the Wolfcamp B2?**

17          A.     Similar story, to extend the play into an area  
18     that has unknown results, that have really good log  
19     signatures within the Wolfcamp B, that are similar to  
20     areas that have good Wolfcamp production.

21          **Q.     And in your professional opinion, what**  
22     **constitutes a good landing zone, a positive landing**  
23     **zone, in general?**

24          A.     Pre or post production?

25                     (Laughter.)



1           **Q.    I couldn't top that with a follow-up question.**

2                   **Let's go with pre.**

3           A.    One thing we look for during the exploration of  
4   these areas in picking zones -- the high porosity zones  
5   is where we try to target.  So we've been able to  
6   correlate the high-porosity zone in this Lower Wolfcamp  
7   B to other areas that EOG and Matador and Mewbourne have  
8   drilled in the Basin, and we think that we can get  
9   similar results to those areas and create an area over  
10   here (indicating) that has little to no wells in it to  
11   have a new area for the Wolfcamp B to start developing.

12           **Q.    That's all I have, Mr. Smith.  Thank you.**

13           A.    Thank you.

14                   EXAMINER DAWSON:  Mr. Padilla?

15                   MR. PADILLA:  I don't have any questions.

16                   EXAMINER DAWSON:  I have a few questions.

17                               CROSS-EXAMINATION

18   BY EXAMINER DAWSON:

19           **Q.    In looking at your Exhibit Number 24,**  
20   **Mr. Smith, you were talking about OXY's pattern to the**  
21   **east of you --**

22           A.    Yes, sir.

23           **Q.    -- one-mile laterals.  Is OXY drilling Bone**  
24   **Spring and Wolfcamp wells over there in Section 13 of 24**  
25   **South, 31 East?**

1           A.    I can't say for 100 percent certain what they  
2   are targeting in those wells.

3           Q.    And in looking at your Exhibit Number 19, the  
4   3rd Bone Spring producer test that's located in Section  
5   12 --

6           A.    Yes, sir.

7           Q.    -- did you -- did you correlate that 3rd Bone  
8   Spring producer with the wells that are producing over  
9   to the west of you over there? Are there 3rd Bone  
10   Spring producers over to the west of you?

11          A.    Yes. I think I understand your question. If  
12   you look on cross section A to A prime on Exhibit 20,  
13   those two wells are shown as the last two wells, and  
14   there are pink rectangles right next to the depth track.  
15   It's kind of hard to see there. But those are the  
16   perforations of those wells and where the tests were at,  
17   so they are testing in the zone around there vertically  
18   as well, that we are targeting horizontally.

19          Q.    Okay. So I'm looking at the Texaco Producing,  
20   Incorporated --

21          A.    The Todd State.

22          Q.    -- the Todd State?

23          A.    Yes, sir.

24          Q.    That produced from that 3rd Bone Spring,  
25   correct?

1           A.    Yes, sir.

2           Q.    Do you know how much that well produced?

3           A.    I do not know off the top of my head.

4           Q.    Okay.

5           A.    And sometimes what I've come across for these  
6 wells is they'll do a test in them and then they'll kind  
7 of walk away. But even, you know, producing some oil on  
8 an acid test is a positive exploration idea, in my  
9 opinion.

10          Q.    So when you looked at your logs -- I mean,  
11 they're kind of small for me to tell on the porosity  
12 curves, but that 3rd Bone Spring, the porosity within  
13 that 3rd Bone Spring, your target interval, do you  
14 anticipate that to be about 10 percent? That's kind of  
15 what it looks like.

16          A.    Yes, sir. Yes.

17          Q.    And it looks like that Texaco Producing,  
18 Incorporated Todd State well, that you have your landing  
19 area drawn through there. It looks like there is like a  
20 small porosity spot within that well; is that correct?

21          A.    Yes, sir.

22          Q.    That's your target zone?

23          A.    Yes, sir.

24          Q.    And you talked some about a mile versus  
25 two-mile wells.

1           A.     Uh-huh.

2           Q.     And you felt like a mile would be better in  
3     this area.   What about a mile versus a mile-and-a-half  
4     well, in your mind?

5           A.     For the Wolfcamp B zone?

6           Q.     For a Bone Spring or a Wolfcamp.

7           A.     For a Wolfcamp B zone, yes, I believe that a  
8     mile would be a better test than a mile and a half due  
9     to just some of the geologic risk of not knowing what  
10    the reservoir is going to give up and even some of the  
11    operational risk that is involved in drilling extended  
12    laterals.

13                   As for the Double Diamond for the Wolfcamp  
14    3rd Bone, that's a harder opinion due to some closer  
15    offsets.   But if our unit is a mile long already, I'd  
16    recommend keeping that consistent.

17          Q.     And in your opinion, are north-south wells  
18    better than east-west wells in this area?

19          A.     In this area, yes.

20          Q.     It doesn't look like there are a whole lot of  
21    east-west wells in the area, really, that have been  
22    drilled.   I mean maybe to the southwest there.

23          A.     Right.

24          Q.     And then in the south half of 14, but that's  
25    Delaware?

1           A.     Correct.

2           Q.     When you're talking about Wolfcamp wells to the  
3     west, you're talking about 15 miles away was the nearest  
4     Wolfcamp B producer that you saw?

5           A.     Thirteen miles was the closest one down to the  
6     south in 26 South, 32 East, but the main development by  
7     Mewbourne and Matador, Cimarex and other major operators  
8     is 15 miles to the west of here.    Yes.

9           Q.     And are those -- are those commercial, pretty  
10    good wells, or do you know?

11          A.     Yes.   From our analysis -- and I would defer to  
12    our reservoir engineer on the economics of those -- they  
13    are geologic successes.

14          Q.     So whenever you pick the landing areas for your  
15    wells, you looked at commercially productive good wells  
16    and correlated the vertical logs to the ones -- those  
17    wells depict your landing area?

18          A.     Yes, sir.

19          Q.     Is that how you get -- okay.

20                    You're talking about possibly drilling one  
21    well before expending additional capital to drill  
22    parallel wells to simultaneously frac and complete them.  
23    So your thoughts are just to drill your first well, see  
24    how it produces and see -- kind of let it produce for a  
25    while until you decide to go ahead and drill multiple

1     wells at the same time?

2           A.     Yes, sir.

3           Q.     Okay. And then do you think -- eventually, if  
4     you drilled multiple wells, would you simultaneously  
5     frac them like what Chevron's planning to do, you think?

6           A.     I would defer to our operations -- VP of  
7     operations who will be testifying as well on that  
8     question, but currently we are batch-drilling to the  
9     east of here about ten miles.

10          Q.     Is that your nearest operations in the Bone  
11     Spring or the Wolfcamp, ten miles away, roughly, or do  
12     you have closer wells that you're drilling in the area?

13          A.     I believe this sits in the middle of two of our  
14     areas. One is the Cypress area, which is to the west of  
15     here, and then our current operations are ten miles to  
16     the east, over in Lea County.

17          Q.     That's all the questions I have. Thank you  
18     very much.

19                   EXAMINER DAWSON: So is that it for this  
20     witness?

21                   MR. BRUCE: I have no further questions.

22                   EXAMINER DAWSON: That concludes this  
23     witness.

24                   Thank you very much.

25                   THE WITNESS: Thank you.

1 EXAMINER DAWSON: Would you like to call  
2 your next witness now, Mr. Bruce?

3 MR. BRUCE: Yeah. Ms. Arnold will be  
4 handling the examination.

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

8 DIRECT EXAMINATION

9 BY MS. ARNOLD:

10 Q. Please state your name for the record.

11 A. Full name, Robert Tonnsen.

12 Q. Who are you employed by and in what capacity?

13 A. I'm employed by Tap Rock Resources as --  
14 capacity as VP of exploration, as well as handling all  
15 the reservoir engineering duties for the company.

16 Q. Have you previously testified before the  
17 Division?

18 A. No.

19 Q. Can you walk us through your educational and  
20 work history?

21 A. I graduated in 2000 from Whitman College with a  
22 Bachelor's in Geology. I got my Master's in Petroleum  
23 Engineering from Colorado School of Mines in 2006, and I  
24 got my MBA from the University of Colorado, Denver in  
25 2014.

1 I've been working in the industry about ten  
2 years out of Denver, which is where I've been residing  
3 for the past ten years. And in the capacity for Tap  
4 Rock, I started the company with our CEO, Ryan London,  
5 as well as Clayton Sporich back in 2016, of January, and  
6 I've been working in the Basin ever since.

7 As kind of a side topic, I actually worked  
8 on the first 100 wells in the Wolfcamp Spraberry over in  
9 the Midland side of things back in 2005.

10 Q. And are you familiar with the applications  
11 filed in this case?

12 A. Yes.

13 Q. And are you familiar with the lands in the  
14 subject area?

15 A. Yes.

16 MS. ARNOLD: I'd like to tender Mr. Tonnsen  
17 as an expert petroleum engineer.

18 EXAMINER DAWSON: Any objections?

19 MR. LARSON: No objection.

20 EXAMINER DAWSON: He will be admitted to  
21 the record as an expert petroleum engineer at this time.

22 Q. (BY MS. ARNOLD) Were you here earlier today  
23 when Chevron witnesses testified that they plan to drill  
24 six wells in the section of --

25 A. Yes.



1           **Q.    What are your thoughts on that plan?**

2           A.    So two thoughts on the plan.  Number one, they  
3   talked about the Avalon three wells in the half of the  
4   section as well, which would put six wells per section  
5   across the entire area, and they also talked about their  
6   three wells within the Wolfcamp A.  That would imply  
7   it's six wells per section spacing.

8                   What we have seen in most of these areas is  
9   that that is probably on the more conservative side of  
10   the ultimate spacing of both of those horizons.  And so  
11   in regards to the actual waste involved, we see that as  
12   there could be upwards of two plus other well locations  
13   to be developed within each of those zones.  And as they  
14   testified, with the parent-child relationships, from  
15   their point of view, bringing children on later is going  
16   to be very detrimental and they wouldn't do it.

17                  So it seems to us to be somewhat of a  
18   suboptimal development plan to have six wells per  
19   section for those two horizons.

20           **Q.    So in your opinion and based on what you've**  
21   **seen from other operators in the Basin, six wells per**  
22   **section would actually have more waste than additional**  
23   **wells in the section?**

24           A.    Could you say that one more time so I can be  
25   clear?

1           Q.    So based on what you've seen in the Basin, in  
2   your experience for both the Avalon and the Upper  
3   Wolfcamp, the two proposals that they have before us  
4   today, do you think that six wells per section actually  
5   is not enough and it would, in fact, have more waste  
6   than drilling more than six wells per section in each of  
7   those formations?

8           A.    Yes.   Yes.   Throughout the Basin, especially in  
9   the Wolfcamp A Formation, there are numerous tests  
10   throughout the entire area, including Texas, that  
11   involve eight wells per horizon, sometimes up to ten and  
12   even 12 wells per horizon.   In a lot of these  
13   situations, not only are they developing more in a  
14   horizontal spacing unit, they're also bringing in 3rd  
15   Bone Spring Sand and bringing in deeper Wolfcamp As to  
16   be developed alongside.   If the parent-child  
17   relationship upholds, as they suppose, they would have a  
18   very difficult time coming back and ever adding in a 3rd  
19   Bone Spring Sand or the deeper horizon within the  
20   Wolfcamp A, might suffer from that same problem.

21          Q.    And you mention that those were tests.   Have  
22   those tests been successful?

23          A.    Most of those tests appear to have been  
24   successful.   At least -- with the whole parent-child  
25   relationship, if all those wells come on line at the

1 same time, because they start with a virgin reservoir  
2 pressure, they all come on at the same rates. We don't  
3 have the time to be able to evaluate whether or not  
4 those rates are as sustained as they are in, say, more  
5 spread-out development, but all initial results imply  
6 that those eight-well spacings tend to be successful.

7 In addition to that, there are numerous  
8 applications and permits and rigs drilling those  
9 patterns today.

10 **Q. And you briefly just mentioned the parent-child**  
11 **relationship. Can you explain your opinion of the**  
12 **parent-child relationship?**

13 A. So the parent-child depends on so many  
14 different inputs into the equation. It depends on  
15 how -- what your distance apart from the producing well  
16 is. Is it a Chevron staggered pattern, or is it  
17 completely horizontal pattern in the same horizon. It  
18 also depends on that age.

19 What we have seen is that you can come back  
20 within a year and with certain completion practices,  
21 you're able to mitigate any sort of damage to that  
22 parent well through both shutting in the parent well as  
23 you frac the child, as well as putting in completion  
24 designs to try to divert and try to avoid contacting  
25 that well significantly as you would without. And so

1     within our completions group, we're constantly  
2     re-evaluating the best ways to go about mitigating any  
3     sort of damage to offset operators. And not just  
4     ourselves, offset operators, including our neighbors who  
5     are off section lines.

6           **Q.     And would you classify the parent-child**  
7     **relationship as an economic issue or a recovery issue?**

8           A.     So I would classify it as an economic issue.  
9     With two horizontal wells going into the same horizon,  
10    the same pattern -- in one case, one is four years  
11    later; in one case, they're at the same time -- you  
12    create, essentially, very similar fracture networks  
13    regardless of whether or not you're zipper-fracking.

14                   I nor -- and you can ask -- our operations  
15    manager, we have not seen any sort of evidence that says  
16    that a zipper frac will give you an incremental more EUR  
17    per foot for your completion versus a one-off well. We  
18    haven't seen that within definitive evidence that we can  
19    hang our hats on. And we agree. We would much rather  
20    zipper frac, given the choice, but we don't see that as  
21    a necessary qualification for producing that zone. We  
22    would be more focused on the actual completion designs  
23    themselves as being far more impactful to that  
24    production than necessarily having fracked the  
25    partner [sic].

1           **Q.    In earlier testimony today on frac hits, have**  
2           **you seen frac hits actually increase production?**

3           A.    Very recently on some of our nonoperated wells  
4           within the 2nd Bone Spring Sand, our non-op operator  
5           came in, drilled an infill location four years after the  
6           original well started to produce. After that hydraulic  
7           fracture treatment -- and there is more than one well.  
8           There are three or four of these examples -- the offset  
9           wells gained in production. They gained anywhere from  
10          40 up to 140 barrels of oil per day.

11                        So, in fact, in these parent-child  
12          relationships within this area -- this particular area,  
13          you increase the children's production. More of that,  
14          in my opinion, is due to the inadequacy of the original  
15          frac on those wells. But in those cases, you did not  
16          see any degradation to the children. You actually saw  
17          them increase in production.

18          **Q.    And flipping now to Exhibit 8, which was**  
19          **introduced earlier as part of the land testimony, can**  
20          **you walk us through your opinion on the waste in**  
21          **one-mile versus mile-and-a-half laterals as it's**  
22          **presented here?**

23          A.    So within kind of the four sections of  
24          interest, the two to the north of Chevron and then EOG,  
25          as well as our interest, there is not really a great

1 natural way to split these four sections up.

2 In these cases, they're still going to take  
3 probably three different horizontal wells per horizon in  
4 order to actually develop this efficiently. And what  
5 that results in doing is you have a similar footprint,  
6 you have a similar number of pads, and you have a  
7 similar number of disturbance going on in those  
8 scenarios. In addition, there doesn't seem to be that  
9 incremental piece of improvement of just being able to  
10 access that reservoir.

11 With that said, even in kind of an ethereal  
12 sense, given 330-foot offsets -- I know it was referred  
13 to earlier as a 10 percent uptick. That's actually  
14 slightly deceiving. It's really -- if you have two  
15 mile-and-a-half laterals, your uptick per lateral is  
16 about 5 percent within that zone. I mean, that's that  
17 extra -- extra 330 feet, which equates to about a stage  
18 and a half in the completions design. Normal completion  
19 designs are probably 25-plus stages. So it really  
20 represents about a 5 percent increase.

21 Now, that is going to be there in this  
22 scenario with all four of these conflicting interests in  
23 mind, unless there are other alternative ways to develop  
24 that, which are not currently on the table.

25 **Q. And earlier it was mentioned that a reciprocal**

1 waiver of the offset distance was proposed. Granted, it  
2 was just a couple of days ago. If any of the operators  
3 were able to work together in order to shorten the  
4 offsets, would that waste analysis still apply?

5 A. No. That would eliminate any sort of waste  
6 because of offsets.

7 Q. That's all the questions I have.

8 EXAMINER DAWSON: Okay. Ms. Bradfute?

9 CROSS-EXAMINATION

10 BY MS. BRADFUTE:

11 Q. Good afternoon. I had a few questions about  
12 pads. Has Tap Rock already constructed its pads to the  
13 wells that it's proposing?

14 A. I am unaware. That would be a question for  
15 Aaron Byrd.

16 Q. For Aaron Byrd. And is Aaron Byrd going to be  
17 testifying today?

18 MS. ARNOLD: (Indicating.)

19 Q. (BY MS. BRADFUTE) And how many wells will your  
20 pads accommodate?

21 A. Again, I'm not involved in the actual planning  
22 and construction.

23 Q. You're not involved -- okay. Okay. You were  
24 just talking about pads and surface waste, so I thought  
25 perhaps you might have some background on that.

1                   Do you have any knowledge about what Tap  
2   Rock's NRI will be under the proposed units?

3           A.    Again, that would be a question for Clayton  
4   Sporich.

5           Q.    Okay. Great.

6                   Now, Tap Rock's plan of development under  
7   the agreement with Mr. McLeod is for a total of four  
8   wells that'll be drilled, correct?

9           A.    Correct, my understanding.

10          Q.    And we heard testimony earlier today that  
11   Chevron's total development plan for a unit, if it is  
12   able to get that unit granted, will be approximately 180  
13   wells, correct?

14          A.    Well, now, the statement was for the entire  
15   unit. That involves all three sections of that unit.  
16   In addition to that, they never told us what kind of  
17   spacing in each horizon nor did they tell us how many  
18   horizons they were actually planning on developing. So  
19   I have no idea beyond that. That just seems like a big  
20   number.

21          Q.    But they did testify 180 wells were planned for  
22   the actual unit, right?

23          A.    They said "up to."

24          Q.    "Up to." Okay.

25                   How many wells has Tap Rock drilled in the



1     **adjoining sections to the proposed well area?**

2           A.     As a Tap Rock team or as individuals?

3           **Q.     Tap Rock as a company, as an operator.**

4           A.     As the Tap Rock team, we drilled the Cypress  
5     that -- Avalon, we did two towards the west in the  
6     Wolfcamp A.

7           **Q.     Okay. Where was that located, again? Is it in**  
8     **adjoining acreage?**

9           A.     I'd have to look at a map. I don't know off  
10    the top of my head. It is not adjoining acreage.

11          **Q.     Okay. It is not adjoining acreage.**

12                   **How many wells has Tap Rock drilled in Eddy**  
13    **County total?**

14          A.     The one. We do have a vertical well that I  
15    believe is also in Eddy County down to the south that we  
16    have plans for future development to kick off and do a  
17    horizontal down there as well. So, technically, two as  
18    a team as Tap Rock.

19          **Q.     Two as a team, one vertical and then one**  
20    **horizontal. Did I hear that right?**

21          A.     Yeah, as it currently stands.

22          **Q.     Okay. As it currently stands.**

23                   **Do you know how many wells Chevron has**  
24    **drilled within Eddy County within the last year?**

25          A.     I have not counted them.

1           Q.    You have not counted them.

2                       Have you analyzed how many wells EOG has  
3 drilled within Eddy County in the last year?

4           A.    I have not counted them, but I have analyzed  
5 any [sic] wells in Eddy County right now.

6           Q.    Okay. And you just said you have not analyzed  
7 any wells in --

8           A.    I have analyzed every horizontal well in Eddy  
9 County.

10          Q.    You have analyzed every horizontal well in Eddy  
11 County. Okay (laughter).

12          A.    Yes.

13          Q.    Then turn to Exhibit Number 25. I assume you  
14 have analyzed the production from these Wolfcamp B  
15 producers?

16          A.    Yes.

17          Q.    Are there a number of wells that have produced  
18 for over five years shown -- depicted on this map in the  
19 Wolfcamp B Formation?

20          A.    I couldn't tell you the exact number.

21          Q.    Could you give us approximates?

22          A.    A handful.

23          Q.    A handful?

24          A.    Again, I don't know the exact number. I can  
25 find that number, but I don't know it off the top of my

1 head.

2 Q. Okay. But your testimony is that it's a  
3 handful. It's not a -- it's not half of these wells  
4 that are depicted? It looks like there are  
5 approximately 25 to 30 wells depicted on the map, but  
6 it's definitely a handful that may have produced for  
7 about a five-year period?

8 A. Yes. That would also include any Wolfcamp As,  
9 as I believe our drilling engineer's one of the first --  
10 in both of these horizons in Eddy County.

11 Q. Okay. And so Exhibit 25 depicts not only  
12 Wolfcamp B producers but also Wolfcamp A producers?

13 A. There are no Wolfcamp As on Exhibit 25.

14 Q. Okay. So your Number 5 included a handful of  
15 Wolfcamp B and Wolfcamp A producers that are  
16 producing -- I'm just confused by the testimony.

17 A. I'm saying that not only Wolfcamp B is  
18 generally young, but so is the Wolfcamp A.

19 Q. Okay. Thank you for that clarification.

20 A. They both have been developed on a similar time  
21 frame.

22 Q. Okay. Have you looked at 3rd Bone Spring  
23 Carbonate wells within the immediate area?

24 A. Uh-huh.

25 Q. Are there wells -- are there any 3rd Bone

1     **Spring Carbonate wells in the adjoining sections?**

2           A.     I couldn't tell you exactly the number in the  
3     adjoining sections. I would correct my colleague that  
4     there are about 30 or so 3rd Bone Carbonate penetrations  
5     throughout Eddy and Lea Counties. We are, in fact, in  
6     one of those, the Craig Federal, as a non-op partner  
7     with COG.

8           **Q.     Okay. Great.**

9           A.     It's a fantastic well.

10          **Q.     And out of those 3rd Bone Spring Carbonate**  
11     **wells, how many of those wells have been producing for**  
12     **over a five-year period?**

13          A.     I don't know.

14          **Q.     You don't know.**

15          A.     I don't know exactly.

16          **Q.     Okay. Have you looked at the recovery from**  
17     **those 3rd Bone Spring Carbonate wells in general to**  
18     **determine if they're productive and are good producing**  
19     **wells?**

20          A.     Yes.

21          **Q.     What is -- what is kind of the peak production**  
22     **for those 3rd Bone Spring Carbonate?**

23          A.     It's very similar to any other horizon.

24          **Q.     And what is it?**

25          A.     It depends on what kind of fracture you put on

1 it, as well as what kind of lateral length and  
2 everything else. Would you like a foot number for an  
3 IP?

4 Q. Could you provide some examples for me? I'm  
5 sorry. I don't have an engineering background, so --

6 A. So for a Wolfcamp A, say in one area, it was  
7 1,000 barrels a day, in the same area, I would  
8 anticipate a 3rd Bone carb at 900, 950 barrels a day, so  
9 very similar production to both the 3rd Bone Spring, as  
10 well as the 2nd Bone Spring Sand.

11 Q. Okay. So it's similar to the 2nd Bone Spring  
12 and 3rd Bone Spring Sand?

13 A. Yes. Yes.

14 Q. But you can't put a specific number or a  
15 quantitative value on the specific wells that you looked  
16 at prior to today's hearing?

17 A. I can. I cannot at this moment.

18 Q. You cannot at this point.

19 Okay. You critiqued Chevron earlier for  
20 their plan to drill six wells per section in the various  
21 zones; is that correct?

22 A. Uh-huh.

23 Q. I mean, Tap Rock has proposed one 3rd Bone  
24 Spring Carbonate well and one Wolfcamp B well, correct?

25 A. Correct.

1           **Q.    And it has rescinded the majority of its other**  
2           **AFEs that it sent out to Mr. McLeod and other working**  
3           **interest owners, correct?**

4           A.    I believe so.  I'm not sure of the ones you're  
5           referring to, and there was some discussion earlier, so  
6           to the best of my knowledge.

7           **Q.    So to my knowledge, currently Tap Rock's plans**  
8           **are to drill one well in the 3rd Bone Spring Carbonate**  
9           **and one well in the Wolfcamp B.  Do you have additional**  
10          **plans to add six wells per zone?**

11          A.    It's current state of knowledge, of course.  We  
12          see there as being a potential of three individual zones  
13          within the Wolfcamp A to produce.  We also see two,  
14          maybe even three horizons in the Wolfcamp B as well.  In  
15          addition to that, with the access to the 3rd Bone Carb  
16          and the 2nd Bone Spring Sand, we see additional  
17          locations within both those horizons.

18          **Q.    And does Tap Rock consider the Wolfcamp A to**  
19          **also be what is sometimes called the Wolfcamp X-Y?**

20          A.    Yes.  The X-Y is the upper portion of the  
21          Wolfcamp A.  In our nomenclature, we consider the base  
22          of the 3rd Bone Spring as kind of the W Sand.  And then  
23          the next one down is the top of the Wolfcamp, and that's  
24          what we consider the X Sand.  The next one down is the  
25          Y Sand.  Then we start getting into the Lower Wolfcamp

1 A, which is being developed as well.

2 Q. And do you have any plans to produce the  
3 Wolfcamp D zones?

4 A. I believe what you're referring to is what is  
5 basically a Wolfcamp -- our terminology of Wolfcamp B,  
6 that is the deep Wolfcamp B. In some considerations,  
7 the D zone is actually one step even further down within  
8 the Wolfcamp section. It's a very shaley section. We  
9 have not seen a whole lot of production out of that that  
10 is very encouraging, so there is that deeper part of the  
11 Wolfcamp that we would not be considering developing.  
12 It's very gaseous and not very high pressure.

13 Q. Okay. So that portion of the Wolfcamp would  
14 not be developed under Tap Rock's --

15 A. And that's the deepest -- I haven't heard of  
16 anyone developing that zone.

17 Q. Okay. What about the other Bone Spring zones?  
18 Is Tap Rock planning on developing the 2nd Bone Spring?

19 A. We would be.

20 Q. What was that?

21 A. We would be. The 10,000-foot depth severance  
22 is at the top of the Bone Spring, and in general  
23 development patterns throughout the area, it's a  
24 four-well-per-section kind of number. We have also seen  
25 areas where it has been designated [sic] up to eight

1 wells per section in the 2nd Bone Spring Sand.

2 Q. And is that something that Tap Rock is  
3 proposing under its current application?

4 A. I don't believe that's in any applications at  
5 this point, but I'm unaware of every little detail of  
6 that.

7 Q. That's quite an investment for Tap Rock  
8 considering that you've only drilled two wells in Eddy  
9 County and you plan to drill approximately 12 wells  
10 within this half section area, correct?

11 A. It would be over time.

12 Q. And you say over time. What is the time?

13 A. Well, the time frame would depend upon the  
14 actual results of the initial wells.

15 Q. Okay. So it's very contingent? It's unknown?

16 A. It's contingent upon that. However, with that  
17 said, if there were negative results, we would be very,  
18 very quickly going and developing the Wolfcamp A, as  
19 well as the 2nd Bone Spring.

20 Q. At this point in time, there is nothing  
21 definitive that a working interest owner like Mr. McLeod  
22 or Chevron could rely on to know that the reservoir  
23 underneath this acreage would be adequately developed?

24 A. I don't know that. According to their drill  
25 plans, they weren't going to be there until 2021, and



1 they have suggested that they are able to accelerate  
2 their plans. I would say that we are just as capable.

3 Q. But under Chevron's plans, they're going to be  
4 using a zipper-fracking system for completing these  
5 wells somewhat contemporaneously within the same time  
6 period of one -- correct? So once drilled in the  
7 ground -- wells completed?

8 A. Yes. Upon full development from Tap Rock's  
9 side, we would be intending to do similar drilling, as  
10 well as batch drilling.

11 Q. But as you stated, that depends on first  
12 analyzing the reservoir?

13 A. And our other development plans. Chevron has  
14 other development plans as well.

15 Q. You went to lengths to drill an initial well --  
16 going back for infill well development so you can  
17 protect against frac hits to mitigate some of the  
18 reservoir loss or waste that could occur, correct?

19 A. Uh-huh.

20 Q. What are some of the risks that are posed to  
21 wells by frac hits?

22 A. Some of the risks to the --

23 Q. To the existing wells.

24 A. -- to the existing wells?

25 Q. So you have one well that you drill and it's

1     **producing, and even if you shut it in and there are frac**  
2     **hits, what are some of the risks to that wellbore?**

3           A.     The biggest risk from my perspective is the  
4     reservoir risk. If you are connecting up horizontal  
5     after horizontal with hydraulic fractures, how much of  
6     that is really new rock, I guess? So regardless of how  
7     you hit it, if it's a parent-child or if you're fracking  
8     at the same time, you are interfering with that drainage  
9     and regardless of the zipper frac. A zipper frac will  
10    interfere with the drainage significantly as a  
11    parent-child relationship.

12                So that ultimately comes down to more what  
13    the ultimate spacing in that reservoir should be from  
14    the full encompassing drainage standpoint. And that  
15    goes back to that eight wells per section of being kind  
16    of more what people are driving towards as being that  
17    ultimate development pattern.

18           Q.     But currently Tap Rock hasn't submitted plans  
19    to Mr. McLeod or anyone else for eight wells per section  
20    development, right?

21           A.     I don't know.

22           Q.     You don't know.

23                Isn't it true that most of the major  
24    operators right now are using simultaneous completions  
25    within the Basin, operators such as Apache and Marathon

1     **and Chevron and other large operators?**

2           A.     I don't know because they don't send me their  
3     plans.

4           Q.     Okay. So you're just not aware of those  
5     operations being connected?

6           A.     No.

7           Q.     Were you present at all during the horizontal  
8     well rule hearing to hear Apache's expert testify that  
9     they had seen a 20 percent increase in recoveries after  
10    using zipper fracs --

11          A.     No.

12          Q.     -- to complete their wells?

13                   Okay. And are some of the risks of frac  
14    hits to an existing wellbore an increase in water  
15    production to the well?

16          A.     You will have an increase in water production.  
17    Yeah. Now, if you don't have any offsets, you're still  
18    folding [sic] back that water through your wellbore  
19    anyway. So yes, it may end up in that offset frac well.  
20    If you do that at the same time with the zipper, you're  
21    just producing that water out of both anyway.

22          Q.     And is another possible risk that you're going  
23    to destroy some of the existing fractures, and so, you  
24    know, the first drilled well may stop producing, or  
25    you'll see a significant decrease in production?

1           A.    To me that sounds very speculative, to think  
2   that you're damaging the pre-existing fractures.  I  
3   don't know of any evidence that that actually occurs.  
4   And like I said earlier, I've also seen the cases where  
5   you frac into a neighbor and increase its production.  
6   And in that case, you are enhancing the offset's  
7   production.

8           **Q.    That concludes my questions.  Thank you.**

9                   MR. LARSON:  No questions.

10                  EXAMINER DAWSON:  No questions?

11                  Mr. Padilla, do you have any questions?

12                  MR. PADILLA:  No.

13                  EXAMINER DAWSON:  Anybody else?

14                  David?

15                  EXAMINER BROOKS:  No.

16                  EXAMINER DAWSON:  I have a couple of  
17   questions.

18                               CROSS-EXAMINATION

19   BY EXAMINER DAWSON:

20           **Q.    You were talking about plans about Chevron to**  
21 **drill six wells per section versus eight wells per**  
22 **section.**

23           A.    Uh-huh.  Yes.

24           **Q.    Have you done an estimated ultimate recovery on**  
25 **six wells versus eight wells, what you might be able**

1    to -- what kind of additional oil you could possibly  
2    recover from an eight-well pattern versus a six-well?

3           A.    To answer that question most clearly, in my  
4    past analyses of reservoirs and such, I have done --  
5    looked at that, you know, how many wells and what occurs  
6    with it.  In every case that I have seen, when you go  
7    from a six-well to an eight-well, you will recover more  
8    reserves, and that's regardless of what formation it is  
9    and where you are.  You will get more reserves.  It then  
10   becomes more of an economic question of, you know:  Do  
11   you put them all in at the same time and how that plays  
12   out over time.

13                   With these tests that are going on right  
14   now, the thing that we lack is that long-term production  
15   profile.  What I've seen is that if you come into a  
16   virgin reservoir and you put two wells in and you frac  
17   them at the same time, they will IP at about the same  
18   area and decline similarly.  If you don't have enough  
19   time for that data, what you really can't tell is how  
20   that exists in four or five years, of whether or not  
21   that slope is much steeper on your production profile.  
22   So it's very difficult to get at a six-well versus  
23   eight-well when you only have a year's worth of data.

24                   But with that said, in any case, from a  
25   waste perspective, you will be recovering more of that

1 oil and gas from that reservoir with an eight-well  
2 program.

3 Q. Do you have an idea about how many barrels of  
4 oil could be in place within your development area?

5 A. Quite a bit.

6 Q. You don't have --

7 A. I don't have -- I don't have something that  
8 would encompass the entire 2nd Bone through the base of  
9 the B Wolfcamp.

10 Q. When you're drilling an eight-well pattern  
11 within an area and you're talking about possible frac  
12 hits and -- I mean, you said if you drill an eight-well  
13 pattern and you drill a child well next door, you would  
14 shut in the parent well?

15 A. Uh-huh. Generally speaking.

16 Q. I've heard of operators before that don't  
17 really like to shut in wells. What's your thoughts on  
18 that? I mean, because sometimes if you shut in a well  
19 and you try to regain production on that well, it  
20 doesn't come in as well as it was producing prior to  
21 shutting it in. Do you have any thoughts on that?

22 A. I have my own thoughts, but they are  
23 speculative. They range from if you have a frac hit and  
24 you are indeed producing more water from that offset  
25 frac, there is that possibility you're also producing

1     some sand as well. So you don't know if that wellbore  
2     is entirely cleaned out to begin with. So you've  
3     changed the physical parameters of that wellbore, where  
4     if you were to clean it out, it may come back on just as  
5     well as it was before. Operators don't really do that  
6     very often because it costs a lot more to run that  
7     extra -- and it's not always clear of whether or not  
8     that makes sense to do that.

9           **Q.     What about the pressures? Do you see any**  
10          **pressure sinks when you're drilling -- when you're**  
11          **completing the child well with the parent well?**

12          A.     I have not seen direct pressure measurements to  
13          show that.

14          **Q.     That's all the questions I have. Thank you.**

15          A.     Thank you.

16                     MR. BRUCE: We have one more witness.

17                     EXAMINER DAWSON: One more witness. You  
18          may call your next witness.

19                     MS. ARNOLD: Call Aaron Byrd.

20                                 AARON BYRD,  
21          after having been previously sworn under oath, was  
22          questioned and testified as follows:

23                                 DIRECT EXAMINATION

24          BY MS. ARNOLD:

25          **Q.     I know she's got it, but can you please state**

1     **your name for the record?**

2           A.     Aaron Byrd.

3           **Q.     Where are you employed and in what capacity?**

4           A.     Tap Rock Resources.   I'm vice president of  
5     operations.

6           **Q.     Have you previously testified before the**  
7     **Division?**

8           A.     Yes.

9           **Q.     And it's been said today about Tap Rock**  
10    **entity's limited experience, but can you please provide**  
11    **your experience in the Permian Basin?**

12          A.     I'd be happy to.   I joined Matador in late  
13    2012, and they entered the Delaware Basin in early 2013.  
14    And when they entered the Basin, I served as both the  
15    asset manager and the drilling engineer.

16                   So during the first 18 months, we -- I  
17    helped grow the asset position from 10,000 to 55,000  
18    acres.   At the same time, I also drilled their first 13  
19    exploration and delineation wells into approximately ten  
20    different horizons in the Delaware Basin.   I was the  
21    lead drilling engineer for the first 85 wells of  
22    Matador's horizontal play in the Delaware Basin.   And  
23    after that time, I transferred into the completion  
24    manager role, and over the last 18 months at Matador, I  
25    spent -- I had the entire completions group underneath



1 me, and we completed about 40 horizontal wells.

2 In late -- early 2017, I came over to Tap  
3 Rock Resources, and I joined as VP of operations. I  
4 have responsibilities in all assets of operations,  
5 including drilling, completions, production,  
6 infrastructure and EH&S.

7 Q. So will you be personally overseeing the  
8 drilling and completion of the wells that are at hand  
9 today?

10 A. Yes.

11 Q. Are you familiar with the applications filed in  
12 this case?

13 A. Yes.

14 MS. ARNOLD: I tender Mr. Byrd as an expert  
15 petroleum engineer.

16 EXAMINER DAWSON: Any objections?

17 MR. LARSON: No objection.

18 EXAMINER DAWSON: Mr. Byrd will be admitted  
19 as an expert petroleum engineer at this time.

20 Q. (BY MS. ARNOLD) And over your time in the  
21 Permian Basin, approximately how many Wolfcamp B wells  
22 have you drilled in New Mexico?

23 A. I've probably drilled 15 but have been  
24 associated with, on the drilling and completion side, 20  
25 to 25.

1           Q.    So that's approximately about the number that  
2   was shown on this map which is on Exhibit 25.  Would you  
3   say that you were probably involved in a vast majority  
4   of those wells?

5           A.    I can name most of those wells by sight.

6           Q.    And what sort of operational issues have you  
7   encountered on these Wolfcamp Bs?

8           A.    So Wolfcamp Bs, in my opinion, are one of the  
9   hardest horizons to develop, specifically to drill in  
10  the Delaware Basin.  Again, I drilled probably ten  
11  different horizons in the Delaware Basin.

12                    You typically will have a whole lot more  
13  gas in a Wolfcamp B.  When you drill it, you have to  
14  have the proper surface equipment, maybe manage pressure  
15  drilling in order to handle that much gas.  You  
16  sometimes will run into whole stability issues in the  
17  Wolfcamp B, so you've got to really hone in on your mud  
18  weight and how you want to run your mud system.

19                    But I think probably the most severe issue  
20  operationally that you run into in the Wolfcamp B is  
21  when you're rotating in the laterals.  You can deflect  
22  off of the hard nodular formations, whether it be chert  
23  or a limestone down there.  In rotation, you'll deflect  
24  off, and you'll get 20 and 30 doglegs in the rotation,  
25  which can cause your bottom-hole assemblies to break and

1    snap, which sometimes leads you to go back and actually  
2    sidetrack the well and cause operational issues moving  
3    further in the well.

4                    When I was at Matador, we would -- like I  
5    said, these are in rotation, so you're not doing this  
6    yourself. This is environmental downhole that you can't  
7    really steer around. You don't even know that it's  
8    there. Probably one of every five or six wells, you  
9    have an operational sidetrack due to that extreme dogleg  
10   in rotation.

11            **Q.    But based on your experience drilling**  
12 **Wolfcamp Bs, would you say you know how to navigate**  
13 **around these issues?**

14            A.    I would say I would expect to be better at it,  
15   but they -- I mean better than I was before. However,  
16   you can't see what's in front of you sometimes.

17            **Q.    And do you think that those issues that you**  
18 **just named would be compounded with an extended-length**  
19 **lateral?**

20            A.    Absolutely. If you have those high doglegs and  
21   you get further out to a one-and-a-half or two-mile  
22   laterals, you actually can have problems steering the  
23   and possibly getting casing to bottom.

24            **Q.    And did you hear the earlier testimony that**  
25 **this Wolfcamp B, by the geologist, was considered a**

1     wildcat Wolfcamp B well?

2           A.     Yes.

3           Q.     And would you consider it prudent from a  
4     drilling and operations standpoint to drill an  
5     extended-length lateral on this well?

6           A.     No. We would advocate drilling a one-mile and  
7     then moving to a one-and-a-half or two-mile if it was  
8     feasible.

9           Q.     Moving to a longer lateral maybe after --

10          A.     Moving to longer laterals after you've proven  
11     it up.

12          Q.     Moving to longer laterals after you have more  
13     experience and you know what you're dealing with for  
14     that particular area?

15          A.     That is correct.

16          Q.     Earlier today there was testimony about  
17     multiple operators working in close proximity to one  
18     another, whether that was vertically or on a surface  
19     basis. In your experience, how have operators navigated  
20     working so closely together?

21          A.     Every development area I've been in, every play  
22     I've been in, you tend to talk to your offset operators.  
23     You sometimes do as much as exchange drill schedules,  
24     which has your spud dates, completion dates, first  
25     production.

1                   And, actually, a recent case in the last  
2   two months, we had an operator that was drilling  
3   Wolfcamp wells and we were completing 2nd Bone Spring  
4   wells and our vertical part of our wells -- so we were  
5   completing here (indicating), and they were drilling  
6   past us here (indicating). And I think that example --  
7   that exact example was brought up earlier.

8                   And what we did was we actually sat down,  
9   in Operator XYZ's office. We talked to them. We had  
10   email exchanges. We went there, followed up with their  
11   drilling manager, talked to their drilling engineer.  
12   And from that point forward, during the completion of  
13   our well, we actually sent correspondence back and forth  
14   just making sure that there was no issue with their  
15   wells while we were completing ours and they were  
16   drilling theirs.

17                  And like I said, the two vertical wells --  
18   I don't know if it was mentioned -- were probably about  
19   200 feet apart at its closest.

20           **Q.    So would you, in your experience, say it's**  
21   **possible for operators to work well together in a way**  
22   **that doesn't cause waste in such close proximity?**

23           A.    Yes. And I think you have to.

24           **Q.    Would you say that it's common practice for**  
25   **operators to work together?**

1           A.    Absolutely.

2           **Q.    That's all the questions I have.**

3                   EXAMINER DAWSON:   Scott, do you have any  
4   questions?

5                   MR. HALL:   No questions.

6                   EXAMINER DAWSON:   Mr. Larson?

7                   MR. LARSON:   No questions.

8                   EXAMINER DAWSON:   Mr. Padilla?

9                               CROSS-EXAMINATION

10   BY MR. PADILLA:

11           **Q.    I have one.   Have you constructed a drill pad**  
12 **out there?**

13           A.    We have not.   However, we have a contractor  
14 on --

15           **Q.    When is that supposed to happen?**

16           A.    As soon as I'm allowed.

17           **Q.    That's all I have.**

18                   MS. BRADFUTE:   I have no questions.

19                   EXAMINER DAWSON:   David, do you have any  
20   questions?

21                   EXAMINER BROOKS:   No questions.

22                   EXAMINER DAWSON:   I have a couple of  
23   questions.

24

25

1 CROSS-EXAMINATION

2 BY EXAMINER DAWSON:

3 Q. You were just talking about two wells that were  
4 200 feet apart from each other --

5 A. Uh-huh.

6 Q. -- that were drilled, and you communicated with  
7 the offset operator who was drilling the other well.  
8 Did you have any frac hits on those wells?

9 A. They're in this room. However, to my  
10 knowledge, no.

11 Q. No frac hits.

12 And what's your thought on six wells versus  
13 eight wells per section?

14 A. We've looked into it. Again, our full  
15 development plan includes four to as much as eight,  
16 depending on the horizon, from down -- from 10,000 foot  
17 down. Previously in my career, we honed in on eight,  
18 and we proved that numerous times across the Wolfcamp.

19 Q. Okay. So with your depth limitation at 10,000  
20 feet, that's within the top of the 2nd Bone Spring,  
21 right?

22 A. Uh-huh.

23 Q. Do you see any production potential between  
24 your 10,000-foot depth limitation and the top of the  
25 Bone Spring Formation?

1           A.     From the top of the Bone Spring, meaning --

2           Q.     The 10,000 --

3           A.     All the way to the very top?

4           Q.     I mean the top of the B, B zone. Is it a  
5     B zone where the 10,000-foot cutoff is?

6           A.     The 10,000 foot is right at the top of the 2nd  
7     Bone Spring.

8           Q.     2nd Bone Spring. Yes. I'm sorry. Okay. 2nd  
9     Bone Spring, 10,000 foot.

10                   Do you see any production potential between  
11     the 10,000-foot depth limitation and the top of the 2nd  
12     Bone Spring?

13           A.     I'm still not following the question, because I  
14     think those are the same thing. 10,000 foot down to the  
15     top of the 2nd Bone Spring?

16           Q.     Okay. You have the top of the 2nd Bone Spring,  
17     right?

18           A.     Uh-huh.

19           Q.     And then your depth limitation is at 10,000  
20     feet below that, correct? It's in the 2nd Bone Spring,  
21     right, your depth limitation?

22           A.     I think the top of the 2nd Bone Spring is  
23     almost right at the 10,000 feet.

24           Q.     Oh, it's right at the top of the Bone Spring?

25           A.     Yes, the 2nd.



1           Q.    I thought it was down in the Bone Spring a  
2   little bit.

3           A.    Yeah.  It's in the Bone Spring.

4           Q.    It's down in the 2nd Bone Spring a little bit.  
5   So do you see any production potential between your  
6   10,000-foot depth limitation and the top of the 2nd Bone  
7   Spring?  Are there any zones in there that would --

8                   UNIDENTIFIED SPEAKER:  Are you asking me?

9                   (Laughter.)

10                  EXAMINER DAWSON:  I'm asking him, but I --

11                  THE WITNESS:  I'm not fully understanding  
12   your question.  Maybe Adam would be better --

13                  MS. ARNOLD:  Would you like us to bring  
14   Adam back up?

15                  EXAMINER DAWSON:  Yeah.  Could I bring Adam  
16   back up?

17                  THE WITNESS:  Any other questions for me?

18                  EXAMINER DAWSON:  Yeah.  I have a couple  
19   more questions for you first before I bring Adam back  
20   up.

21                  UNIDENTIFIED SPEAKER:  So I think that's in  
22   the cross section in one of these exhibits.  I think  
23   it's Number 20.

24                  EXAMINER DAWSON:  Well, 20 just has the 3rd  
25   Bone Spring on it.  It doesn't have the 2nd.

1 UNIDENTIFIED SPEAKER: It's our  
2 understanding that that 10,000 foot is right about at  
3 the top of the 2nd Bone Spring. It's very limited up or  
4 down -- under that landing zone potentially for  
5 horizontal wells. I believe they testified earlier that  
6 within that 2nd Bone Carbonate that lies right above the  
7 2nd Bone Sand, they refer to that 9,700 feet as being a  
8 frac barrier. So at that 10,000 foot, you'd be  
9 hard-pressed to really want to land that high in the 2nd  
10 Bone with such a significant frac barrier, as was  
11 testified, to right above it. So I would say it's  
12 pretty limited for landing that high in the 2nd Bone and  
13 most of the potential, most of the landing zones in the  
14 2nd Bone Spring are well below that 10,000-foot mark.

15 EXAMINER DAWSON: Okay. That's what I was  
16 trying to ask. Thank you.

17 Q. (BY EXAMINER DAWSON) Okay. You were saying  
18 that you drilled a lot of Wolfcamp wells in the Permian  
19 Basin.

20 A. Yes.

21 Q. And you were talking about hitting nodules or  
22 hitting barriers, that the drill bit may bounce off and  
23 go at an angle and maybe go out of zone.

24 A. Is that your full question? I can answer.

25 Q. Yeah. That's part of it.

1           A.     Okay.  So in the Bone Spring B, previously at  
2     Matador, we would get a pretty large zone, maybe 100  
3     foot, because it looked -- as far as the steering target  
4     goes.  And so you would deflect off, but you would try  
5     to keep drilling.  What I was referring to before is --  
6     if you could still drill it -- could still drill it,  
7     what I was referring to before is, we had a couple of  
8     times where we would break the motor downhole and then  
9     do it again, and then we'd go in there and just do check  
10    shots.  And actually it was an unmanaged dogleg, and we  
11    had to back up and sidetrack in.

12           **Q.     Did you lose any wells when you were --**

13           A.     No.  We sidetracked.

14           **Q.     Okay.**

15           A.     Yeah.

16           **Q.     That's all the questions I have.  Thank you.**

17                     MR. BRUCE:  We rest our case.

18                     EXAMINER DAWSON:  You rest your case?

19                     MS. ARNOLD:  Cases.

20                     EXAMINER DAWSON:  Anybody else have any  
21     questions?

22                     EXAMINER BROOKS:  I was going to ask Adam  
23     Smith about the invisible hand, but Gary beat me to it.

24                     (Laughter.)

25                     EXAMINER BROOKS:  Besides, I was afraid

1     somebody would ask me for my comments on foreign policy.

2                   MR. PADILLA:   Mr. Examiner, shall we put on  
3     our case?

4                   EXAMINER BROOKS:   How long do you need?   Do  
5     you have any idea?

6                   MR. PADILLA:   Well, given -- I was here  
7     with the Premier case and Chisholm not long ago, and we  
8     thought it was a three-hour case.   We got out of here at  
9     7:30.

10                  EXAMINER BROOKS:   I remember it well.

11                  MR. PADILLA:   And so I'm not even guessing,  
12     but I think it would take an hour and a half to finish.  
13     And I don't know about cross-examination.   I think it  
14     would be hopefully --

15                  EXAMINER BROOKS:   I haven't discussed this  
16     specifically with the Examiner, what the timing would be  
17     if we were going to run over, but I think we kind of  
18     assumed we probably would.   If we turn everybody loose,  
19     it's going to be really hard to get them back -- or to  
20     find a time to get everybody back next week, I suspect.

21                  EXAMINER DAWSON:   I think we should go on  
22     because most these people don't even live here.   They're  
23     all going to be -- they're going to be flying back this  
24     weekend.

25                  EXAMINER BROOKS:   Most of them live in

1 Houston.

2 EXAMINER DAWSON: So let's continue, if  
3 that's okay with everybody.

4 MR. LARSON: Quick break?

5 EXAMINER DAWSON: Yeah. Let's do like a  
6 seven-minute break, and we'll come back.

7 (Recess, 4:27 p.m. to 4:36 p.m.)

8 EXAMINER DAWSON: Okay. Back on the record  
9 in Cases 16132, 16133, 16134 and 16160.

10 And now we're going to -- we're going to  
11 have EOG and Mr. Padilla call his witnesses at this  
12 time.

13 Have your witnesses been sworn in?

14 (Ms. Baline, Mr. Moran and Mr. Kelly  
15 sworn.)

16 EXAMINER DAWSON: When you're ready,  
17 Mr. Padilla and Mr. Moran.

18 MR. BRUCE: Mr. Moran is always ready.

19 THE WITNESS: I don't know. I'm a little  
20 hot right now.

21 CHARLES "CHUCK" MORAN,  
22 after having been previously sworn under oath, was  
23 questioned and testified as follows:

24

25

1 DIRECT EXAMINATION

2 BY MR. PADILLA:

3 Q. Mr. Moran, please state your name.

4 A. Charles Moran.

5 Q. You've testified before the Oil Conservation  
6 Division as a petroleum landman; is that right?

7 A. Yes, sir.

8 MR. LARSON: Mr. Padilla, can I interrupt?

9 We have an issue with a company plane that  
10 wants to go back to Houston, and we're trying to figure  
11 out who might need to stay. Would you give me two  
12 minutes?

13 EXAMINER DAWSON: Sure.

14 (Pause in proceedings, 4:37 p.m. to 4:39  
15 p.m.)

16 Q. (BY MR. PADILLA) Mr. Moran, I think I asked you  
17 if you're a petroleum landman and if you've testified  
18 before the Oil Conservation Division and had your --

19 A. Yes, I have.

20 Q. You have?

21 A. Yes.

22 Q. And you had your credentials accepted and made  
23 a matter of record?

24 A. My credentials have been accepted as a matter  
25 of record.

1           Q.    I know you worked for Yates Petroleum for a  
2   long time, and now you're working for EOG Resources,  
3   Inc.

4           A.    That is correct.

5           Q.    And what is your position there now?

6           A.    My title is land advisor.

7           Q.    Okay.  And are you familiar with the matters  
8   involving EOG Resources here today, more or less?

9           A.    I have been getting up to speed very, very  
10   quickly.

11          Q.    And have you -- are you familiar with the land  
12   matters involving the EOG position here and the  
13   competing applications that have been filed by the other  
14   parties?

15          A.    I am aware of the Chevron application filed,  
16   and I have a good sense of what Tap Rock did file,  
17   although I have not been provided a copy of it.

18          Q.    Okay.  When did you become aware that --  
19                   Well, let me stop there.

20                MR. PADILLA:  We ask that Mr. Moran be  
21   qualified as an expert in petroleum land matters.

22                EXAMINER DAWSON:  Any objections?

23                MR. BRUCE:  No objection.

24                MR. LARSON:  No objection.

25                MR. HALL:  (Indicating.)

1 MS. BRADFUTE: No objection.

2 EXAMINER DAWSON: Mr. Moran will be  
3 accepted into the record as an expert in petroleum land  
4 matters at this time.

5 Q. (BY MR. PADILLA) Mr. Moran, when did you become  
6 aware of the Tap Rock application?

7 A. I don't have the exact date in my head, but it  
8 was at the end of the month of April, towards, you know,  
9 the last week or so in April.

10 Q. And tell us about the conversation or how you  
11 became aware.

12 A. I was talking to Chevron's landman about their  
13 application and their force pooling us. And we prefer  
14 to develop our own resources. And at that point, he  
15 told me that they had to file their plan in response to  
16 what Tap Rock had done.

17 Q. Okay. And what did you do about -- once you  
18 learned that you had problems in that area?

19 A. I visited with my geologic team and engineering  
20 team, and we came up with a development plan for our own  
21 leasehold in the area.

22 Q. Briefly describe for us what you came up with.

23 A. EOG believes that we can develop  
24 mile-and-a-half laterals in both the Bone Spring and  
25 Wolfcamp Formations drilling from the south part of



1 Section 23 up into the north -- into the south half of  
2 Section 14.

3 Q. Mr. Moran, I notice you're looking at  
4 Exhibit 1. Tell us what that is.

5 A. Exhibit 1 is what I anticipate -- well, the  
6 exhibit displays the blue spacing units that EOG would  
7 propose to develop to the Bone Spring Formation, what I  
8 anticipate will be Chevron's spacing units coming from  
9 the south half of 11 down into the bottom of 14. And  
10 the only thing I was aware of for Tap Rock was the  
11 east half-east half application, which is shown in the  
12 green, in the east half-east half of Section 14.

13 Q. So as between you and Chevron, you have an  
14 overlap in the southeast quarter, correct?

15 A. Correct.

16 Q. And as between you and Tap Rock, you have the  
17 same conflict except that their laterals are only one  
18 mile?

19 A. That's correct.

20 Q. All right. Let's go on to Exhibit 2. What is  
21 that, or what are you trying show there?

22 A. Exhibit 2 is the proposed spacing units for the  
23 Wolfcamp development, again showing EOG's in blue being  
24 a mile-and-a-half, coming from the bottom of Section 23  
25 up into the south half of Section 14, what I understand

1 Chevron's Wolfcamp proposals would be coming from the  
2 south half of 11 into 14, and then the one Tap Rock  
3 Wolfcamp proposal. And it shows the overlapping area.

4 **Q. Have you made well proposals for your acreage**  
5 **in Section 23 and the south half of 14?**

6 A. Yes. I have made well proposals.

7 **Q. And how many well proposals did you make?**

8 A. I put a well proposal out in each one of the  
9 160-acre spacing units for the Bone Spring into the  
10 Leonard Formation, i.e., the Avalon. Also, a same  
11 proposal in each one of the spacing units for the 3rd  
12 Bone Spring and a proposal out for each one of the  
13 Wolfcamps, for a total of ten.

14 **Q. And have you directed me to file applications**  
15 **for compulsory pooling and nonstandard proration units?**

16 A. I have.

17 **Q. And when did we do that?**

18 A. We filed them yesterday.

19 **Q. Okay. And they cover the same area as shown on**  
20 **Exhibit Number 1 and Exhibit Number 2; is that right?**

21 A. That is correct.

22 **Q. All right. But you're only -- the five**  
23 **compulsory pooling applications only cover the east half**  
24 **of Section -- of Section 23 --**

25 A. Correct.

1           Q.    -- and the southeast quarter of 14?

2           A.    Yes.

3           Q.    All right.  Let's turn to Exhibit 3.  What is  
4   that?  Matter of fact, let's look at -- to shorten the  
5   time period here, let's look at Exhibits 3 through -- it  
6   would be Exhibit 3 through 7.  What are they?

7           A.    These are the well proposals that I drafted up  
8   on -- let me back up.  These are the corrections to the  
9   well proposals that I sent out May 10th.  I had some  
10   typos, so I fixed my typos and re-sent them out on May  
11   16th.

12          Q.    Okay.  And these are the -- Exhibits 3 through  
13   7 are five well proposals?

14          A.    Yes.

15          Q.    And they cover, again, the east half of 23 and  
16   the southeast quarter of 14?

17          A.    Yes.

18          Q.    To whom did you send these well proposals?

19          A.    The address list is on page 3 of each one of  
20   the exhibits.  I mailed them to the owners of record of  
21   the leasehold.

22          Q.    Did you send one to Tap Rock?

23          A.    I did not send one to Tap Rock because I  
24   couldn't find nothing that says they have an interest.

25          Q.    And it's consistent with the testimony that

1     there is no filing of record of their interest here?

2           A.     Of record, correct.

3           Q.     At any time did Tap Rock send you a copy of  
4     their farm-out agreement?

5           A.     They did not.

6           Q.     After you communicated with them --

7                     Who did you communicate with? Let me ask  
8     that.

9           A.     I was communicating with Clayton Sporich.

10          Q.     Did he send you any well proposal after you  
11     talked to him?

12          A.     I received no well proposals from Tap Rock.

13          Q.     Did you receive any notice of their compulsory  
14     pooling application?

15          A.     I did not.

16          Q.     You found out from Chevron that they had  
17     filed --

18          A.     Yes. I found out from Chevron that it had been  
19     filed.

20          Q.     Let's look at the AFE -- the first AFE you have  
21     here, and that's attached to Exhibit Number 3. How much  
22     do your wells cost?

23          A.     This is the AFE for a Leonard well, and we have  
24     estimated it to be \$6,700,000 to drill.

25          Q.     When you say Leonard, is that equivalent to

1     **Avalon?**

2           A.     That is equivalent to the Avalon.

3           **Q.     As far as you know?**

4           A.     As far as I know.  It's been explained to me by  
5     Geology.

6           **Q.     Okay.  This is a Bone Spring well proposed,**  
7     **right?**

8           A.     It is a Bone Spring well.  Yes.

9           **Q.     How does this compare with the -- well, you**  
10    **haven't seen the Chevron Bone Spring proposals?**

11          A.     I actually have seen them.

12          **Q.     Okay.  And how does this compare with their**  
13    **well proposals?**

14          A.     It is significantly less.

15          **Q.     How many wells has EOG drilled in southeast**  
16    **New Mexico?**

17          A.     Hundreds.  I think I heard -- in the discussion  
18    this morning, I think we said 400-plus in the last 20  
19    years.

20          **Q.     And how many rigs do you have running in**  
21    **southeast New Mexico, more or less?**

22          A.     20, 21 rigs.

23          **Q.     Would you say that EOG is a pretty experienced**  
24    **operator?**

25          A.     I believe EOG is a very experienced operator.

1 Q. Are they an aggressive operator?

2 A. Yes. We are an aggressive operator.

3 Q. Let's go on to the -- now, all of the Bone  
4 Spring proposals or the AFE for those are attached,  
5 right?

6 A. Yes.

7 Q. Okay. Before we move on, let me go on to the  
8 front of the page there on Exhibit 3. In the middle of  
9 that letter, you have a nonconsent provision, drilling  
10 and producing rates and that EOG wants to be named the  
11 operator. But that nonconsent condition on the  
12 compulsory pooling order would be 100 percent, which is  
13 200 percent --

14 A. Both --

15 (The court reporter requested the parties  
16 not speak at the same time and that the  
17 witness speak louder.)

18 Q. And here you're referring to what your JOA  
19 that's set in the -- these are the provisions that  
20 you're proposing for your JOA, correct?

21 A. The letter states what I would propose to  
22 include in the JOA that I know I need to send, that  
23 being nonconsent provisions of the 100/300 percent, a  
24 drilling and producing rate of 7,500, 750 for monthly  
25 operations and EOG being named as operator.

1           Q.    And compulsory pooling order you would be  
2   asking for --

3           A.    100 percent cost recovery and 200 percent risk  
4   penalty.

5           Q.    You have here drilling and producing rates for  
6   overhead charges to be 7,500 for drilling rate and 750  
7   for nondrilling, correct?

8           A.    Correct.

9           Q.    And are those consistent with what other  
10   operators have testified here today?

11          A.    They are consistent with what I've heard  
12   testified today.  Yes.

13          Q.    And would your JOA have provisions for  
14   adjusting these figures with COPAS provisions?

15          A.    Yes, they would.

16          Q.    All right.  Let's go on --

17                   MR. HALL:  Mr. Examiner, I need to make a  
18   procedural objection.  I'm not really sure what we're  
19   doing here.

20                   Are we here on your pooling application?

21                   MR. PADILLA:  We're here in anticipation of  
22   our pooling, and we obviously are objecting to both  
23   applications here.

24                   MR. HALL:  Okay.  So this is rebuttal?  
25   This is your rebuttal case, right?

1                   MR. PADILLA: Well, it has to be. But, you  
2 know, we don't even have case numbers.

3                   EXAMINER BROOKS: The decision that I made  
4 at the pre-hearing conference was to the effect that  
5 under these circumstances, the Division has the power,  
6 although it's been contrary to longstanding policy, to  
7 consider evidence of a plan of development that a  
8 working interest owner in the area can propose as  
9 indication -- that would be, in their opinion, more  
10 efficient than those before the Division as indication  
11 that granting either of the other applications would  
12 cause waste. And we don't do that. And we're only  
13 doing that here because of the problems arising from  
14 Mr. Bruce's client's farm-out.

15                  MR. HALL: Got it. Thank you.

16                  MS. ARNOLD: I apologize. I wasn't at the  
17 pre-hearing conference. But has anybody made an  
18 objection yet -- and if they have not, I'd like to -- as  
19 to their standing for certain of these cases, because I  
20 think it was testified earlier that they don't own  
21 anything below 10,000 feet, and several of these  
22 proposals involve depths below 10,000 feet.

23                  EXAMINER BROOKS: Okay. You are welcome to  
24 make that objection. I don't believe anyone has made  
25 it.



1                   And I'm also going to advise the Examiner  
2   to overrule it.

3                   EXAMINER DAWSON: Overruled.

4           **Q.    (BY MR. PADILLA) Okay. The Bone Spring**  
5 **proposals are the name in Exhibits 4 and 5 and 6, right?**

6           A.    No. The Bone Springs are not. There are --

7           **Q.    I haven't asked you about the Bone Spring.**  
8 **Well, I'm sorry. The Wolfcamp.**

9           A.    There are Leonard and 3rd Bone Spring proposals  
10 here.

11          **Q.    Okay. Show us -- direct us to a Bone Spring --**  
12 **3rd Bone Spring proposal.**

13                  MR. PADILLA: I'm trying to move fast.

14                  THE WITNESS: That would be Exhibit 5.

15          **Q.    (BY MR. PADILLA) Exhibit 5. Okay. What**  
16 **changes on the 3rd Bone Spring in the Avalon or the**  
17 **Leonard?**

18          A.    The AFEs get more expensive to drill the deeper  
19 formation, so our costs to drill the well have gone up  
20 for the 3rd Bone Spring.

21          **Q.    So what is the total cost that you have here**  
22 **for the 3rd Bone Spring?**

23          A.    We have a cost of 7,425,827.

24          **Q.    Did you see that the AFE today proposed by Tap**  
25 **Rock is somewhere around \$6 million for similar wells?**

1           A.    Yes, I saw that.

2           Q.    Do you have an opinion of that figure?

3           A.    I question whether they can get it done with  
4   that or not.

5           Q.    Let's go on to Exhibit Number 7. That is the  
6   Wolfcamp proposal; is that right?

7           A.    That is correct.

8           Q.    Now, the ownership that you have for Exhibit  
9   Number 7 -- or correction. That is the Wolfcamp  
10  proposal, right?

11          A.    That is the Wolfcamp proposal. Yes.

12          Q.    And the letter that you wrote concerning that  
13   is pretty much the same as the others except for the  
14   price stated in the AFE, correct?

15          A.    I've got to excuse myself.

16                   (Pause in proceedings, witness not feeling  
17                   well, 4:59 p.m. to 5:03 p.m.)

18                 EXAMINER BROOKS: Let me raise a question  
19   here. I guess I need Mr. Padilla's attention for a  
20   minute. Well, our witness is back.

21                   THE WITNESS: Excuse me, folks. I think  
22   I've got a little bit of food poisoning.

23                 EXAMINER BROOKS: Well, we will make every  
24   possible accommodation.

25                   Let me ask this question: Is there a

1 factual controversy about whether or not EOG has title  
2 to an interest in Section 14 -- in the southeast quarter  
3 of Section 14?

4 MR. BRUCE: I don't think so. EOG -- there  
5 are -- as to 10,000 feet below the surface through the  
6 Wolfcamp, EOG does not own an interest in the southeast  
7 quarter of Section 14. But EOG does own an interest in  
8 Section 23, and, therefore, since they own an interest  
9 in the well units that they are proposing, they do have  
10 the right to seek to force pool.

11 EXAMINER BROOKS: But they do not own an  
12 interest in Section 14, or do they own --

13 THE WITNESS: Can I answer that?

14 EXAMINER BROOKS: Please do.

15 THE WITNESS: The ownership in Section 14  
16 is a federal lease. When Yates Petroleum drilled the  
17 Delaware wells that are shown there, an assignment was  
18 made under a farm-out from Douglas McLeod to Yates from  
19 surface to 10,000 feet. It was done in two separate  
20 assignments, one for the north half-south half and one  
21 for the south half-south half.

22 EXAMINER BROOKS: Of Section 14?

23 THE WITNESS: Of Section 14.

24 EXAMINER BROOKS: Okay. That's all in  
25 accordance with the notes I made of the landman's

1 testimony this morning.

2 So then I believe that establishes, then,  
3 that they have standing, do they not, by virtue of  
4 ownership in Section 14, whether or not we impute  
5 standing by ownership of --

6 MR. BRUCE: They do not own -- EOG does not  
7 own an interest in Tap Rock's proposed wells.

8 EXAMINER BROOKS: Well, my understanding  
9 was they own an interest in Section 14 -- in the  
10 southeast of Section 14.

11 MR. BRUCE: No. No, not as --

12 MS. ARNOLD: Only down to 10,000 feet.

13 MR. BRUCE: Excuse me. Only down to 10,000  
14 feet.

15 EXAMINER BROOKS: Well, but we have not  
16 resolved where the top of the formation is.

17 MR. BRUCE: True.

18 MS. ARNOLD: Yeah. So my objection earlier  
19 was specifically -- and I should have made it clear --  
20 specifically related to Case Number 16134, which is for  
21 the Wolfcamp Formation. And I think, as we stated  
22 earlier, that the 10,000 foot and the pool limitations  
23 should not apply to any of the Wolfcamp obligations  
24 [sic] today, whether it's Tap Rock's or Chevron's.

25 EXAMINER BROOKS: Okay. Let me ask the

1 witness then.

2 CROSS-EXAMINATION

3 BY EXAMINER BROOKS:

4 Q. Does EOG own any interest in the Wolfcamp in  
5 Section 14?

6 A. We do not own an interest in the Wolfcamp.  
7 However, we have received signed AFEs back indicating  
8 that we have an agreement.

9 Q. And you also do own an interest in the Wolfcamp  
10 in Section 23?

11 A. Yes, we do.

12 Q. Okay.

13 EXAMINER BROOKS: Now that we've got the  
14 facts clarified, this does not change my ruling because  
15 I believe that -- I just wanted to make sure I'm making  
16 it on known facts, not on unknown facts. But I believe  
17 that owning -- under the horizontal well situation as it  
18 is developing, that if you own an interest in an area  
19 that can be included in the spacing unit with an  
20 interest that you own, that you have the right to -- you  
21 have standing to assert an interest -- to assert a  
22 pooling application for that area, which, if it is  
23 granted, gives you the right to drill the well even  
24 though otherwise you don't have it.

25 Okay. I'm done. You may proceed.

1 EXAMINER DAWSON: Go ahead.

2 CONTINUED DIRECT EXAMINATION

3 BY MR. PADILLA:

4 Q. Mr. Moran, we were talking about the AFE for  
5 the Wolfcamp well.

6 A. Yes.

7 Q. How does that compare to Chevron's AFE total  
8 well costs?

9 A. It was significantly less. We are able to do  
10 the Wolfcamp wells for a couple million less.

11 Q. Now, going back to the -- to the applications  
12 that we filed yesterday, as far as the Bone Spring is  
13 concerned, did you ask to force pool the entire Bone  
14 Spring Formation?

15 A. Yes, we did.

16 Q. Now, you just mentioned that you got some  
17 signed AFEs. From whom did you get signed AFEs?

18 A. I received a signed AFE from Douglas McLeod.

19 Q. For all ten well proposals that you made?

20 A. I believe it was all ten of them. Yes.

21 Q. Do have anything to add to your testimony?

22 A. Where you took me for lunch was not a good  
23 place.

24 (Laughter.)

25 Q. Well, that's --

1                   MR. PADILLA: I have nothing further. Pass  
2 the witness.

3                   MR. LARSON: No questions.

4                   EXAMINER DAWSON: Mr. Hall?

5                   MR. HALL: I don't have any questions.

6                   I just want to make an objection for the  
7 record that this is such a substantial departure from  
8 established practice here at the Division for compulsory  
9 pooling cases, to put on proof before we see the  
10 application. So I'm just making an objection for the  
11 record.

12                  EXAMINER BROOKS: Okay. Yes. I understand  
13 that it is a substantial departure. And it's what we do  
14 today -- as the Supreme Court of the United States said  
15 in Bolling versus Sharp: What we do today has no  
16 precedent for any proven decision.

17                  MR. HALL: You've never let stare decisis  
18 [sic] get in the way of your decisions before.

19                  EXAMINER DAWSON: Mr. Bruce?

20                               CROSS-EXAMINATION

21 BY MR. BRUCE:

22               **Q. Mr. Moran, as to the Wolfcamp, under Tap Rock's**  
23 **application, this is a standard well unit with standard**  
24 **setbacks; is it not?**

25               A. Yes.

1           Q.    It's in the Purple Sage; Wolfcamp?

2           A.    What I understand is the Purple Sage; Wolfcamp,  
3   yes.

4           Q.    So no notice is necessary to the EOG entities  
5   for a standard well unit and standard setbacks?

6           A.    Correct.

7           Q.    And whether Tap Rock filed the applications or  
8   whether it was making well proposals to Chevron, EOG had  
9   no interest in the Wolfcamp or in the Bone Spring below  
10   10,000 feet?

11          A.    That is what I understood, that we did not have  
12   any Wolfcamp in Section 14 and that they were targeting  
13   a formation below 10,000 foot, which would lead me to  
14   believe that they perceive they did not need to notice  
15   me. But the force pooling application was for all the  
16   Bone Spring, which does include our rights.

17          Q.    I apologize. That was my mistake.

18                   And I know you haven't seen Exhibit 13, but  
19   it's the notice to offsets for Tap Rock's Bone Spring  
20   Pool. And I would represent to you that EOG did receive  
21   actual notice. Do you dispute that, as an offset to Tap  
22   Rock's application in the Bone Spring?

23          A.    I don't remember seeing it. I believe that you  
24   might have sent it.

25          Q.    And finally, when did your drilling plan, as



1     evidenced by your various AFEs, get formulated by EOG?

2           A.     I believe we were working on it at the end of  
3     April.

4           Q.     Okay. And insofar as executing the plan of  
5     development, in other words, when are you going to  
6     commence drilling? Do you have an estimate of that  
7     time?

8           A.     I do not have an estimate. What I do know is  
9     that we have the ability to change our drill schedule,  
10    which they do to me on a weekly basis.

11          Q.     Only weekly, Mr. Moran (laughter)?

12          A.     Yes.

13          Q.     Have you started BLM permitting?

14          A.     We are moving forward with getting notice of  
15    stakings done.

16          Q.     Thank you, Mr. Moran.

17                   EXAMINER DAWSON: Ms. Bradfute?

18                   CROSS-EXAMINATION

19    BY MS. BRADFUTE:

20          Q.     I'm going to mark this as McLeod Exhibit Number  
21    4. Mr. Moran, does this exhibit reflect EOG's  
22    development plan for the south half of Section 14 and  
23    all of Section 23?

24          A.     Yes. That is what we were discussing  
25    internally, coming up with our drilling plan for the

1 area.

2 Q. Okay. And the second page of this plan, do you  
3 know how many wells are contained on the second page?

4 A. I think there's 34.

5 Q. 34.

6 So EOG is planning to develop 34 wells  
7 under an established plan of development for this area?

8 A. That is what we were looking at in coming up  
9 with a plan for developing the south half of 14 and all  
10 of 23.

11 Q. Okay. Great. Thank you.

12 MS. BRADFUTE: Oh, and I'd like to tender  
13 admission of McLeod Exhibit 4 into the record.

14 MR. HALL: I'm sorry. I didn't catch the  
15 number.

16 MS. BRADFUTE: McLeod 4.

17 EXAMINER DAWSON: Any objections?

18 MR. HALL: No.

19 MR. LARSON: No objection.

20 MR. PADILLA: No objection.

21 EXAMINER DAWSON: McLeod Exhibit 4 will be  
22 admitted into the record at this time.

23 (McLeod Exhibit Number 4 is offered and  
24 admitted into evidence.)

25 EXAMINER DAWSON: David, do you have any

1 questions?

2 EXAMINER BROOKS: No questions.

3 EXAMINER DAWSON: No questions.

4 MR. PADILLA: I don't have any further  
5 questions.

6 EXAMINER BROOKS: I hope you get to feeling  
7 better, Mr. Moran.

8 THE WITNESS: Thank you.

9 EXAMINER DAWSON: You may call your next  
10 witness, please.

11 LORRAINE BALINE,  
12 after having been previously sworn under oath, was  
13 questioned and testified as follows:

14 DIRECT EXAMINATION

15 BY MR. PADILLA:

16 Q. Ms. Baline, spell your last name for the court  
17 reporter.

18 A. It's Lorraine Baline, B-A-L-I-N-E.

19 Q. Ms. Baline, have you testified before the Oil  
20 Conservation Division and had your credentials as a  
21 petroleum geologist accepted as a matter of record?

22 A. Yes, I have.

23 Q. Did you make a study of the proposals that are  
24 under review here today?

25 A. Yes.

1                   MR. PADILLA: We tender Ms. Baline as an  
2 expert petroleum geologist for purposes of the testimony  
3 here today.

4                   EXAMINER DAWSON: Can you give us some of  
5 your experience, Ms. Baline?

6                   THE WITNESS: Sure. I received my  
7 undergrad degree in geology in 2004 from Colby College  
8 in Maine. Following that, I attended the University of  
9 Texas at Austin with a -- graduating with a master's  
10 degree in 2007. I've been employed by EOG Resources as  
11 a geologist for 11 years. I've worked the Fort Worth  
12 Basin. I have worked the DJ Basin briefly, the Greater  
13 Green River Basin, the Williston Basin.

14                   And then starting in January of 2017, I  
15 moved down to our Midland office and began working as a  
16 lead geologist in the Delaware Basin in New Mexico.

17                   EXAMINER DAWSON: Okay. Any objections?

18                   MR. BRUCE: No objection.

19                   MR. HALL: No objection.

20                   EXAMINER DAWSON: Ms. Baline will be  
21 admitted to the record as an expert petroleum geologist  
22 at this time.

23                   **Q. (BY MR. PADILLA) Ms. Baline, did you prepare --**  
24 **I picked up the wrong -- did you prepare Exhibit 8?**

25                   A. I don't have a copy of that, but yes.

1 Thank you.

2 Q. Did you prepare Exhibit 8?

3 A. Yes, I did.

4 Q. Tell us briefly what -- there are multiple  
5 pages on this. What does it show?

6 A. Sure. There are four pages to Exhibit 8. The  
7 first two of the pages are structure maps on the 1st  
8 Bone Spring Sand structure, and the second one's the top  
9 of the Wolfcamp structure. And then the following two  
10 pages are two cross sections, A, A prime and B, B prime,  
11 which run approximately north-south and east-west across  
12 the sections we are discussing today.

13 Q. Let's look at the first page of Exhibit 8.

14 A. Uh-huh.

15 Q. You have, in yellow, depicted the south half of  
16 Section 14 and all of Section 23; is that right?

17 A. That's correct.

18 Q. And you show some green lines and some red  
19 lines running vertically through those -- through that  
20 area.

21 A. Uh-huh.

22 Q. What are those?

23 A. Those are the ten AFEs that Chuck testified to,  
24 Mr. Moran testified to earlier that were sent out.

25 Q. But we're only talking about the east half --

1     the southeast quarter of 14 as far as EOG's concerned  
2     and Section 23, right?

3             A.     Sure.    Yeah.

4             Q.     Okay.   What are the green circles?

5             A.     So the circles on the maps are the horizontal  
6     producers in this general area, with the target  
7     formation designated by the blue circles.   That will be  
8     the Delaware Formation.   And then the green circles are  
9     the Bone Spring producers in this area.

10            Q.     You also have two lines of the cross section  
11    there, correct?

12            A.     Yes.

13                    Are you referring to the A, A prime and B,  
14    B prime?

15            Q.     That's right.

16            A.     Yes.   Those are the two cross sections that are  
17    shown on the last two pages of Exhibit 8.

18            Q.     What else is relevant here in terms of -- do  
19    you show any Wolfcamp wells, for example?

20            A.     No, I do not show any Wolfcamp wells on this  
21    map.   There are no Wolfcamp horizontal producers in this  
22    area, to my knowledge, at the moment.

23            Q.     Are there any Avalon or Leonard wells depicted  
24    here other than just generally Bone Spring?

25            A.     There are Bone Spring producers shown on this

1 map. The majority of those would be 2nd Bone Spring  
2 Sand producers in the Bone Spring.

3 Q. Can we turn to the second page now?

4 A. Sure.

5 Q. What is this structure map about?

6 A. So this is a structure map on the top of the  
7 Wolfcamp, and the control points are denoted by the  
8 small red numbers by the wells. It shows a gentle dip  
9 of the formation off to the east as a little less than a  
10 degree. That's very similar to the dip of the formation  
11 that is shown on the 1st Bone Spring structure. And  
12 these structure maps are intended to show that there are  
13 no faults or structural -- significant structural  
14 features in this area.

15 Q. You looked at the other structure maps that  
16 have been submitted before, and they're not  
17 substantially different than what you're presenting  
18 here?

19 A. No. I don't believe they are.

20 Q. So let's look at your cross sections.

21 A. Sure.

22 Q. Yeah, your cross sections. The one on the  
23 third page, what is that?

24 A. That's a cross section, A, A prime, which runs  
25 approximately north-south through this area. It shows

1 five wells on the cross section. The logs are very  
2 similar to the ones that were shown in earlier geologic  
3 testimony. The left track is the gamma. Then you have  
4 a depth track in the center. To the right of that is a  
5 deep resistivity, and then the last track on the right  
6 is a porosity log with the density porosity shown in red  
7 and the neutron porosity shown on the blue in this  
8 track.

9 I've labeled on here several different  
10 formation tops. The uppermost one is the top of the  
11 Bone Spring, which would be the Bone Spring Lime. Below  
12 that is the 1st Bone Spring Sand top, as denoted by the  
13 FBSG. Below that is the 2nd Bone Spring top, then the  
14 3rd Bone Spring top, and then the last one on the -- the  
15 lowermost one on this cross section is the Wolfcamp top.

16 I've also put on there for reference the  
17 center well. The Heavy Metal 14 Federal #1 is a green  
18 line, which denotes the 10,000-foot depth, and that well  
19 is located in the south half of Section 14, for  
20 reference.

21 **Q. You also have depictions -- target depictions**  
22 **in red?**

23 **A.** Yes, that's right. I have arrows pointing to  
24 the depths that correspond to the well proposals.

25 **Q. So the upper target is the Leonard or Avalon?**



1           A.    Yes.  The upper target is the Leonard.  EOG  
2   refers to it as the Leonard.  That's equivalent to the  
3   Avalon.  Two further targets down in section would be in  
4   the 3rd Bone Spring Sand and then the Upper Wolfcamp.

5           **Q.    What does the last page -- the last cross**  
6   **section, what are you trying to tell us there?**

7           A.    So that's the -- the same logs are shown in  
8   each of these wells.  That is cross section, B, B prime,  
9   which run the approximately east-west in this area.  It  
10   points out the same targets as the -- the same  
11   correlative targets as shown on A, A prime.  And what  
12   these cross sections intend to show is the correlative  
13   nature and relatively uniform thickness of the Bone  
14   Spring and Upper Wolfcamp Formations in this area.

15          **Q.    Ms. Baline, in terms of risk factor, is there a**  
16   **risk in drilling these wells?**

17          A.    Is there a risk in drilling --

18          **Q.    Any horizontal wells.**

19          A.    -- any well?

20          **Q.    Yes.**

21          A.    Yes.  There is risk in drilling a well.

22          **Q.    Are you recommending for nonconsenting owners**  
23   **the maximum penalty allowed under a compulsory pooling**  
24   **order?**

25          A.    Yes.

1           **Q.    Do you have anything further to add to your**  
2 **testimony?**

3           A.    Not at this time.

4                   MR. PADILLA:   Pass the witness.

5                   EXAMINER DAWSON:   Mr. Larson?

6                                   CROSS-EXAMINATION

7 BY MR. LARSON:

8           **Q.    Good afternoon.**

9           A.    Good afternoon.

10          **Q.    Have you had a chance to take a look at Tap**  
11 **Rock's target in the Wolfcamp?**

12          A.    No.   I saw it briefly.   It was in a binder  
13 today, but I haven't looked at it.

14          **Q.    What I've put in front of you is Tap Rock**  
15 **Exhibit 24.**

16          A.    Uh-huh.

17          **Q.    I'll give you a moment to take a look at it.**

18                   EXAMINER DAWSON:   Did you say Exhibit 24?

19                   MR. LARSON:   Yes.   Tap Rock 24.

20                   MR. PADILLA:   I think that's 23.

21                   EXAMINER DAWSON:   Are you looking at the  
22 cross section?

23                                   23, yes.

24          **Q.    (BY MR. LARSON) Would you consider the target**  
25 **in the Wolfcamp to be a viable target for an economic**

1     **well?**

2           A.     I would say that that -- I wouldn't exclude it  
3     entirely, but that would not be the first target that we  
4     would likely choose. I think that it's relatively  
5     unproven in this area. Yeah. That would be my  
6     comments.

7           **Q.     I'll ask you a similar question about the**  
8     **target in the Bone Spring.**

9           A.     And I would have similar comments to that as  
10    well. I wouldn't preclude it from being a potential  
11    target, but being that it's not very established, I  
12    think, in this exact area, that it would not probably be  
13    our first choice for a target in this area.

14          **Q.     That's all I have. Thank you.**

15                   EXAMINER DAWSON: Mr. Hall?

16                   MR. HALL: No questions.

17                   EXAMINER DAWSON: Mr. Bruce?

18                               CROSS-EXAMINATION

19    BY MR. BRUCE:

20          **Q.     Ms. Baline, in your job with EOG, are you in**  
21     **charge of exploratory wells or developmental wells?**

22          A.     The vast majority of what we do in our office  
23     is developmental wells. However, we do also look at  
24     exploratory opportunities as well.

25          **Q.     Thank you.**

1 CROSS-EXAMINATION

2 BY MS. BRADFUTE:

3 Q. Just a couple of questions. I wanted to  
4 clarify something for the record.

5 You said within the adjacent areas to EOG's  
6 well proposal area, there are no drilled Wolfcamp wells;  
7 is that correct?

8 A. Not on this map. There are some others that  
9 lie outside of this particular map area.

10 Q. Okay. But any of the Wolfcamp development is  
11 going to lie outside of the map that you put together  
12 for your structure map?

13 A. Yes.

14 Q. And were you present earlier for Tap Rock's  
15 technical witnesses testimony?

16 A. Yes.

17 Q. And do you remember them testifying that there  
18 were Wolfcamp wells drilled in the adjacent -- adjoining  
19 sections or within this area of certain Wolfcamp  
20 Formations?

21 A. I don't believe it was within the adjacent  
22 sections of the Wolfcamp as located. It was further  
23 away.

24 Q. It was further away?

25 A. Yes.

1           Q.    So the Wolfcamp development has largely been  
2 not done in this area?

3           A.    In this specific area.

4           Q.    So I'd like a little additional explanation as  
5 to why EOG is targeting portions of the Wolfcamp other  
6 than the Wolfcamp B as its primary target.

7           A.    Sure. So we look at a variety of factors when  
8 choosing our targets. One of those things is the  
9 porosity as noted on the well logs. We look at the  
10 lithology type. We have a variety of information that  
11 we can access, not specifically in this area, but  
12 permeability measurements in core. We look at seismic  
13 data. And so we combine all of those, in addition to  
14 our historical production from various targets in the  
15 Wolfcamp and the Bone Spring. We've drilled -- as Chuck  
16 referenced, we've drilled over 500 wells in the Basin in  
17 the last four years, and we utilized that data set to  
18 help us make informed decisions on our targeting.

19          Q.    Okay. And all of that data that you've been  
20 able to review has indicated that it's prudent to begin  
21 development in other portions of the Wolfcamp within  
22 that area?

23          A.    That's correct.

24          Q.    Have you made a similar conclusion about the  
25 Bone Spring Formation as compared to the formation that

1 Tap Rock is targeting for its 3rd Bone Spring Carbonate  
2 wells?

3 A. Yes, ma'am.

4 Q. I just wanted to real quickly look at the cross  
5 section that you've prepared on page 2 of Exhibit 8.

6 A. Okay. Is that the B, B prime or the A, A  
7 prime?

8 Q. It's the A to A prime. And there is a green  
9 line kind of in the middle of this cross section for the  
10 LKB, looks like. No. I'm sorry. I'm not reading the  
11 right name.

12 A. The Heavy Metal 14?

13 Q. Yes, the Heavy Metal 14.

14 A. Yes.

15 Q. What does that green line represent?

16 A. That represents the marker at the 10,000-foot  
17 depth on this particular well, which is located in the  
18 south half of Section 14.

19 Q. And the black solid line that just runs through  
20 your cross section, is that the marker for the 2nd Bone  
21 Spring Formation?

22 A. It is.

23 Q. So it looks like below EOG's 10,000-foot line,  
24 that there is some interest included within the 2nd Bone  
25 Spring Sand; is that correct?

1           A.     So that 10,000-foot marker is within feet of  
2     the 2nd Bone Spring. In this particular well log, that  
3     10,000-foot mark lies above that 2nd Bone Spring top.  
4     However, it is so close that I imagine that 10,000-foot  
5     mark is right at or below -- just below that 2nd Bone  
6     Spring top, potentially in other areas of the south half  
7     of Section 14. I don't -- with the limited well log  
8     control, that is the well that's located there. But as  
9     we -- you know, as others wells will be drilled on that  
10    lease, you would see where that 10,000-foot mark lies  
11    relative to the top of the 2nd Bone Spring.

12           **Q.     Okay. So there is the potential, maybe not a**  
13    **large potential, that that 10,000-foot mark could fall**  
14    **somewhere within the end of the 2nd Bone Spring?**

15           A.     It's right above or right below, I believe,  
16    depending on where you are in the lower half of Section  
17    14, south half of Section 14. It's almost right at it.

18           **Q.     And there is a structural dip within this area?**

19           A.     It's a relatively gentle dip to the east at a  
20    little bit less than a degree, and that's for both the  
21    Bone Spring and the Wolfcamp.

22           **Q.     Okay. Thank you.**

23                   EXAMINER DAWSON: Questions, David?

24                   EXAMINER BROOKS: No questions.

25                   EXAMINER DAWSON: I just have a few

1 questions.

2 THE WITNESS: Sure.

3 CROSS-EXAMINATION

4 BY EXAMINER DAWSON:

5 Q. Did you review Wolfcamp wells in the area --  
6 other Wolfcamp wells in the area?

7 A. I have knowledge of other Wolfcamp wells  
8 outside of this mapped area.

9 Q. In the immediate area, within like the adjacent  
10 sections of the Wolfcamp producers?

11 A. As far as I know, the public data reflects  
12 there are no Wolfcamp producers in the adjacent sections  
13 to 14 and 23.

14 Q. When you picked your targets -- what wells did  
15 you use when you picked your target in these formations?

16 A. So those are the vertical wells that are shown  
17 on the cross sections. There are a number of vertical  
18 wells that go into the upper part of the Wolfcamp and  
19 deeper that are historical gas producers, but the  
20 horizontal producers is what I'm referring to as being  
21 the horizontal Wolfcamp producers.

22 Q. So you're picking your targets pretty much  
23 based on the porosities of the logs?

24 A. Yeah. The porosity of the log is one way that  
25 we determine our targets. The others are -- we use a



1 variety of techniques, petrophysical modeling, reservoir  
2 modeling, looking at a lot of our past production  
3 history, other geologic data that we have, proprietary  
4 data that we look at.

5 **Q. And your target there in the Bone Spring up**  
6 **there -- what is the -- what did you calculate the**  
7 **porosities to be in the Bone Spring in those wells?**

8 A. So there are two Bone Spring targets shown.  
9 Are you referring to the --

10 **Q. The upper.**

11 A. The Leonard/Avalon target, right.

12 **Q. Leonard up there.**

13 A. So the porosity is there. The scale is 30  
14 percent to negative 10 percent. So the porosity is  
15 there like 15 percent or so, as denoted by the density  
16 porosity, 15 to 20 percent.

17 **Q. And in the 3rd Bone Spring?**

18 A. Those are closer to around 10 percent -- 8 to  
19 10 percent in the 3rd Bone Spring Sand.

20 **Q. And the Wolfcamp?**

21 A. Those are 8 to 10 percent as well, as denoted  
22 on the density porosity.

23 **Q. And in your mind, 8 to 10 percent or 15 percent**  
24 **in a lot of those zones, they yield good production?**

25 A. Yes, sir.

1           **Q.    And you said that on Tap Rock's Exhibit 23,**  
2           **their target is unproven. Can you elaborate on that?**

3           A.    It's much less proven than other targets in the  
4           Bone Spring in New Mexico. I think as they testified to  
5           earlier, there are five to ten producers, if I'm  
6           remembering correctly, in that 3rd Bone Spring  
7           Carbonate. And then on their map, they showed 26 -- 25,  
8           26 producers in the Wolfcamp B, in their testimony.

9           **Q.    Has EOG drilled 3rd Bone Spring Carbonate**  
10          **wells?**

11          A.    We have not drilled that many. We have a very  
12          small number that we inherited from -- in the Yates  
13          merger. So I do have some data, but it's very limited,  
14          much more limited than other targets, I would say.

15          **Q.    And those wells -- I'm looking at your Exhibit**  
16          **Number 8.**

17          A.    Uh-huh.

18          **Q.    And there are some wells to the southwest that**  
19          **look like they're diagonal wells. Are those Delawares?**

20          A.    Yes. So the blue circles located at the, yeah,  
21          TVD are the Delaware producers.

22          **Q.    All right. Okay. That's all the questions I**  
23          **have. Thank you very much.**

24          A.    Thank you.

25                   MR. PADILLA: I have nothing further.

1 I have another witness.

2 EXAMINER DAWSON: Yes.

3 Thank you, Mr. Baline.

4 THE WITNESS: Thank you.

5 SHANE KELLY,

6 after having been previously sworn under oath, was

7 questioned and testified as follows:

8 DIRECT EXAMINATION

9 BY MR. PADILLA:

10 Q. Mr. Kelly, state your full name, please.

11 A. Shane Kelly.

12 Q. Mr. Kelly, you have not testified before the  
13 Oil Conservation Division, have you?

14 A. No, I have not.

15 Q. Please state your educational background in  
16 engineering.

17 A. Sure. I graduated from the Texas Tech  
18 University with a business degree, as well as a  
19 petroleum engineering degree. Since then, I moved to  
20 Midland with EOG Resources, where I have been an  
21 engineer with them for the last four years, the last  
22 three as a reservoir engineer in the Delaware Basin.

23 Q. How many wells have you been involved in  
24 drilling, Wolfcamp or Bone Spring wells?

25 A. Over 150 wells.

1           **Q.    Are you familiar with the area concerning this**  
2           **case?**

3           A.    I am.

4           **Q.    Have you prepared studies relating to EOG's**  
5           **position in this case?**

6           A.    I have.

7                       MR. PADILLA:  I would tender Mr. Kelly as  
8           an expert petroleum engineer.

9                       EXAMINER DAWSON:  Any objections?

10                      MR. BRUCE:  No objections.

11                      MR. LARSON:  No objection.

12                      EXAMINER DAWSON:  Mr. Kelly will be  
13           admitted as an expert petroleum engineer at this time.

14           **Q.    (BY MR. PADILLA) Mr. Kelly, do you have Exhibit**  
15           **Number 9?**

16           A.    I do.

17           **Q.    Did you prepare Exhibit Number 9?**

18           A.    I did.

19           **Q.    Let's start off on the first page and tell us**  
20           **what you did there.**

21           A.    Sure.  So what I have put together here are two  
22           charts, the first one being our EOG Wolfcamp wells in  
23           New Mexico.  And what I'm showing here is our one-mile  
24           laterals and their production versus our mile-and-a-half  
25           laterals and their production, and specifically the

1     Wolfcamp of New Mexico. So your chart on the left is  
2     your oil rate per day -- that is a barrels per day --  
3     versus the producing days. And then on the right is the  
4     cumulative oil that those wells have made throughout the  
5     life of those wells.

6           **Q.     What is shown by the red lines?**

7           A.     The orange and red or whatever you see is a  
8     mile-and-a-half lateral, and the blue would be our  
9     one-mile laterals.

10          **Q.     What's the difference between those two lines?**

11          A.     So the one-mile laterals are typically 4,500  
12     feet in New Mexico, and the mile-and-a-half laterals are  
13     an average of 7,100 feet. So these are just the oil  
14     rates for those two lengths of wells.

15          **Q.     So what does that mean in terms of ultimate  
16     recovery or -- yeah, ultimate recovery?**

17          A.     Sure. We have seen in our mile-and-a-half  
18     laterals that we have no degradation with a longer  
19     lateral for our completion design. They are producing  
20     the same number, amount of oil per foot as our one-mile  
21     laterals, thus making them a lot more economic, which I  
22     will show on a later exhibit.

23          **Q.     So when you look at the right side of this  
24     first page, what does that -- let me back up.**

25                   **How many wells are you including in this**

1     **plot?**

2           A.     Yeah.   So I didn't take any wells out.   I used  
3     all of our one-mile versus the mile-and-a-half.   There's  
4     about 35 mile-and-a-half wells, and we have roughly 65  
5     or 70, I believe, one-mile wells.

6           **Q.     And they're in New Mexico?**

7           A.     All in New Mexico.

8           **Q.     All in southeast New Mexico?**

9           A.     Correct.   All in Lea County, New Mexico.

10          **Q.     Let's go to page 2.   And that's the 3rd Bone**  
11     **Spring Sand, right?**

12          A.     Correct.   We don't have as many wells as the  
13     Wolfcamp, but we still have quite a few in this study.  
14     We have seven mile-and-a-half 3rd Bone wells versus  
15     around 15 one-mile wells.

16          **Q.     Earlier today there was some discussion about,**  
17     **number one, from Tap Rock trying -- with a 10 -- 10-foot**  
18     **offset from the end line or section line, and then there**  
19     **was also testimony about -- from Chevron about picking**  
20     **up the extra 660 feet of pay between -- between 330 feet**  
21     **on one side and 330 feet on the other side.   So do these**  
22     **graphs that you have here take that into consideration**  
23     **in terms of producing more?**

24          A.     Correct.   So our mile wells, we typically have  
25     to end at the hard line of 330 feet.   Whereas, our

1 mile-and-a-half wells tend to produce all of those  
2 minerals effectively as you cross that east line. So  
3 that is shown in these graphs here.

4 **Q. That is one of the factors that shows the**  
5 **difference between the orange and the blue lines --**

6 A. Correct.

7 **Q. -- right?**

8 **Okay. What's on the third page, the Avalon**  
9 **Shale?**

10 A. Third page is our Avalon Shale. This is one of  
11 our first targets that we drilled in Lea County, so we  
12 have a lot more data here than you see in the Wolfcamp  
13 and the 3rd Bone. But, again, it's our mile-and-a-half  
14 wells versus our one-mile wells. I believe we have  
15 upwards of 80 one-mile Leonard wells and 20 to 25  
16 one-and-a-half-mile wells.

17 **Q. And the ultimate conclusion is that --**

18 A. Again, throughout the 1,400 days that we've  
19 seen on these mile-and-a-half wells, they have continued  
20 to outperform our one-mile wells and have not lost any  
21 oil per foot.

22 **Q. Is that a factor of waste?**

23 A. Correct. The more laterally you can drill  
24 without losing oil per foot, the cheaper it's going to  
25 be for all parties, as well as efficiently correcting

1 all the --

2 Q. There might be an argument if you go beyond a  
3 mile and a half in terms of losing space or trying --  
4 having further problems beyond that?

5 A. Correct. Going past a mile and a half has  
6 proven to be a lot more difficult. That extra half mile  
7 has proven to be a lot more difficult than the first  
8 extra half mile to get to mile and a half, as well as  
9 there is some question on how effective your completion  
10 is at that length. But we do not have that data yet to  
11 show.

12 Q. Your ultimate recommendation based on these  
13 three graphs that you've seen is that mile-and-a-half is  
14 better?

15 A. So far, mile-and-a-half has proven to be a  
16 sweet spot of our lateral for the best production.

17 Q. And you have two-mile laterals as well, right?

18 A. We do.

19 Q. Let's go on to the last page and tell us what  
20 you're trying to show there.

21 A. I'm really showing the economic impact that our  
22 mile-and-a-half wells have had, as well as the amount of  
23 EUR, estimated ultimate recovery, of each of these wells  
24 and how do they compare to the one-mile laterals.

25 So starting with the Wolfcamp, I have all



1 of our drill -- our well costs for mile-and-a-half  
2 versus one-mile. You can see where not as much -- not  
3 much more money for producing a lot more oil than what a  
4 one-mile can do. Noted by the EUR per foot, we're  
5 actually showing a little bit better EUR per foot on our  
6 mile-and-a-halves.

7 **Q. Why is that important?**

8 A. It's important because you're effectively  
9 draining the minerals at a mile and a half, as well as  
10 at a mile, and you're not losing any -- you're not --  
11 you don't have any waste.

12 **Q. Are you saying that these mile-and-a-halves are**  
13 **more efficient? Is that basically what you're saying,**  
14 **as far as drainage?**

15 A. I wouldn't say they're more efficient as far as  
16 drainage, but the same EUR per foot is draining the same  
17 minerals that you would be draining with a mile lateral,  
18 but you would need two of those mile laterals to produce  
19 the same amount of minerals.

20 **Q. So on the right-hand side of, say, the**  
21 **Wolfcamp, the third column you have there, 1.0 mile**  
22 **column, the third line from the bottom, you have**  
23 **9,902,000. What is that -- what is that figure?**

24 A. That is the net present value of a one-mile  
25 well discounted at 10 percent.

1           Q.    Okay.  And in comparing -- in comparing the 1.5  
2   mile and the one-mile, net present value discounted at  
3   10 percent, it's way better?

4           A.    It is.  As you can see in the total costs, your  
5   cost per foot is going down by almost \$300.  You don't  
6   need 50 percent more cost in these wells to get the 50  
7   percent what you're seeing in a mile-and-a-half.  So it  
8   really boosts your economics for all mineral owners.

9           Q.    So if you're looking at -- effectively you  
10  would have to -- as far as the drilling and completion  
11  costs and all that, except maybe for facilities, you  
12  would have to have two wells, double the cost, right, if  
13  you're having to drill two wells?

14          A.    For drilling, you would have to drill two  
15  wells, and you would effectively get another half mile.  
16  So it would be two miles.

17          Q.    So going on to the 3rd Bone, we see the same  
18  thing, right?

19          A.    Correct.

20          Q.    And the Avalon is not -- well, that seems like  
21  the net present value is almost three times as much,  
22  right?

23          A.    Correct.  It is.

24          Q.    So in your opinion, would drilling  
25  one-and-a-half-mile laterals be in the best interest of

1     **conservation of oil and gas and the protection of**  
2     **correlative rights?**

3             A.     It is, in my opinion.

4             **Q.     And would it prevent waste and prevent drilling**  
5     **of unnecessary wells?**

6             A.     Yes, it would.

7                     MR. PADILLA:   Mr. Examiner, we offer  
8     Exhibits 1 through 8, and we pass the witness -- I'm  
9     sorry -- 1 through 9.

10                    EXAMINER DAWSON:   Any objections?

11                    MR. LARSON:   No objection.

12                    MR. BRUCE:   No objection.

13                    MR. HALL:   No objection.

14                    EXAMINER DAWSON:   Okay.   At this point EOG  
15     Resources Exhibits 1 through 9 will be admitted to the  
16     record.

17                    (EOG Resources, Inc. Exhibit Numbers 1  
18     through 9 are offered and admitted into  
19     evidence.)

20                    EXAMINER DAWSON:   Mr. Larson?

21                                        CROSS-EXAMINATION

22     BY MR. LARSON:

23             **Q.     Afternoon.**

24             A.     Afternoon.

25             **Q.     Are you familiar with the Cotton Draw; Bone**

1     **Spring Pool?**

2           A.     The Cotton Draw; Bone Spring, I'm not.

3           Q.     So you wouldn't know if it has a vertical  
4     **extent?**

5           A.     I'm not sure.

6           Q.     That's all I have.   Thank you.

7           A.     Sure.

8                     MR. HALL:   I have no questions.

9                     EXAMINER DAWSON:   Mr. Bruce?

10                    CROSS-EXAMINATION

11   BY MR. BRUCE:

12           Q.     Yeah.   Mr. Kelly, looking at the first page of  
13   **Exhibit 9, you gave us the number of wells, and you said**  
14   **they were all located in Lea County?**

15           A.     Correct.

16           Q.     From this, I can't tell where the wells are  
17   **located, can I?**

18           A.     No.

19           Q.     How far away from Section 14?

20           A.     No, sir.

21           Q.     I can't tell when these wells were completed  
22   **either, can I?**

23           A.     No, you cannot.

24           Q.     Have frac treatments for wells improved  
25   **significantly over the past couple of years from, say,**

1     **five, six, seven years ago?**

2           A.     Yes, they have.

3           Q.     And generally, aren't the one-mile laterals the  
4     **older wells?**

5           A.     In this case they're not much older, 200 days.

6           Q.     I can't tell from here.

7           A.     You can see by the days they've been producing.

8           Q.     Well, that's just an average.

9                     How many of these wells were completed in  
10    **2013, the one-mile laterals?**

11          A.     Zero in 2013.

12          Q.     What is the oldest one?

13          A.     The oldest well would be the end of 2014.

14          Q.     But, again, there is nothing from this exhibit  
15    **where I can tell the dates of the various wells and make**  
16    **comparisons as to frac treatments, can I?**

17          A.     No, you cannot.

18          Q.     Thank you.

19                     EXAMINER DAWSON:   Ms. Bradfute.

20                     CROSS-EXAMINATION

21    BY MS. BRADFUTE:

22          Q.     I just have a couple of questions.

23                     Were you present and here when Chevron and  
24    **Tap Rock offered testimony concerning the relationship**  
25    **between parent and child wells?**

1           A.     I was.

2           Q.     In your opinion, when you drill a well -- a  
3     parent well within a section and later you come back in  
4     with infill wells, let's say a year later, is waste  
5     potentially created within the section when that occurs?

6           A.     It is.

7           Q.     Why is that?

8           A.     Like they testified earlier, as you produce a  
9     well, the longer you produce it, the more pressure that  
10    you are drawing down in that reservoir. So when you  
11    come back in and drill another well, your frac -- your  
12    frac is not as efficient because of that lower pressure  
13    regime, so you do create a little bit of waste from that  
14    depleted well.

15          Q.     And does EOG use zipper-fracking in its  
16    completion operations?

17          A.     It does.

18          Q.     Has EOG experienced increased recovery in  
19    its -- completions?

20          A.     Versus not zipper-fracking?

21          Q.     Yeah.

22          A.     We have not seen that information.

23          Q.     Okay.

24          A.     Zipper-fracking does add efficiencies to costs,  
25    as well as timing, which makes -- lets you produce your

1 wells quicker.

2 Q. Would it surprise you to hear that other  
3 operators in other cases have testified that they've  
4 seen up to a 20 percent increased recovery from wells  
5 when they've zipper-fracked?

6 A. I'd be surprised at 20 percent. Yes.

7 Q. In your review of Tap Rock's development  
8 proposal, in your opinion, will Tap Rock's proposal  
9 result in waste?

10 A. It would. It would create quite a bit of  
11 depletion, as well as you still have the issue with your  
12 hard lines at the north and south of your well, the 660  
13 feet that was talked about earlier, or if they can get  
14 their 10 foot approved, you still have 20 feet that  
15 you're leaving in the ground.

16 Q. And if they get all the parties to approve the  
17 10 foot today -- I mean, it was just recently proposed,  
18 right? -- in your experience, would they still need to  
19 go back and get federal permits amended? Do you know?

20 A. I am not sure on that.

21 Q. Okay. You said that their development plan  
22 will result in reservoir depletion. Is that just  
23 because of the parent-child relationship, or is there  
24 another reason that depletion would result from their  
25 development plan?

1           A.    No.  That would just be the parent-child, as  
2   they're doing one well at a time.

3           **Q.    Great.  Thank you.**

4           A.    Uh-huh.

5                               CROSS-EXAMINATION

6   BY EXAMINER DAWSON:

7           **Q.    Mr. Kelly, I have a couple of questions.  EOG**  
8   **has drilled -- looks like -- did you guys drill a well**  
9   **in Section 24, 24 South, 31 East?**

10          A.    Section 24?

11          **Q.    Just to the southeast of this project.  I don't**  
12   **know if you have Tap Rock's exhibit.**

13          A.    I do not.

14                       MR. PADILLA:  Mr. Examiner, what --

15                       EXAMINER DAWSON:  Tap Rock Exhibit Number  
16   24.

17          **Q.    (BY EXAMINER DAWSON) And it has a legend on the**  
18   **right-hand side of the map.  This is an operator**  
19   **activity targeting the Bone Spring and Wolfcamp.**

20          A.    Okay.

21          **Q.    And it looks like in Section 24 of 24 South, 31**  
22   **East, that color looks like it's an EOG well.  Do you**  
23   **know about that well, or is that your well?**

24          A.    I believe that was a previously drilled Yates  
25   well in the 2nd Bone Spring Sand.  We inherited that



1 well.

2 Q. Do you have an idea how that well performed?

3 A. I do. It was a decent well. Again, their  
4 wells -- Yates wells were much different than EOG's  
5 wells.

6 Q. Do you know when that well was drilled?

7 A. I do not have an exact date for you.

8 Q. Do you have an idea how much that well's  
9 produced?

10 A. I do not. I believe it's around 180,000  
11 barrels, but I do not have the exact number.

12 Q. 180,000.

13 And you were here earlier on the testimony  
14 regarding -- Chevron was talking about six wells per  
15 section --

16 A. I was.

17 Q. -- and then Tap Rock was talking about eight  
18 wells per section.

19 A. I was.

20 Q. Does EOG have a preferred number of wells they  
21 would drill in the Bone Spring or Wolfcamp? I guess it  
22 depends on the area. But in this area, I mean, what  
23 would you think would be better, six or eight?

24 A. Our base is eight. We don't usually go below  
25 eight wells for the Wolfcamp. We start at eight, and we

1 start getting tighter based on the geology and what  
2 we've learned from our other packages throughout the  
3 Basin. But we have never done six Wolfcamp wells in a  
4 section.

5 Q. In looking -- and I'm going to refer back to  
6 this map, Exhibit Number 24, Tap Rock exhibit, with the  
7 wells in the area. It looks like a lot of the operators  
8 in that area are drilling four. Some are drilling six  
9 wells per section.

10 A. I believe those are mostly 2nd Bone wells, and  
11 a lot of operators are drilling four wells per section  
12 in the 2nd Bone.

13 Q. Okay.

14 A. We typically start at six in the 2nd Bone.

15 Q. Okay. Can you talk a little bit about the -- I  
16 guess you heard me ask questions about the pressure sink  
17 on the parent versus child wells.

18 A. Correct.

19 Q. What's your thoughts on that?

20 A. From what we've learned over drilling hundreds  
21 of wells, we have switched our schedule to -- over 80  
22 percent of our packages are more than five wells at a  
23 time to eliminate that pressure sink and that waste,  
24 because it is very tough to come in and drill wells to  
25 offset that depletion. We've tried numerous completion

1 techniques. Some have been effective in ways, but none  
2 of them have gotten us a true well offset depletion.

3 Q. When you zipper-frac your wells -- say you have  
4 five wells per section. Do you start out with the  
5 center well and then frac it first and then move to the  
6 next well over? How do you guys do it? I guess it  
7 depends on the lay of the land?

8 A. It really depends on the layout. And when we  
9 have five wells, we usually have two frac groups going  
10 at once, zippering at the same time, so one on two  
11 wells. The other would be on three wells. But we don't  
12 do all five with one group.

13 Q. So that really helps in your efficiencies and  
14 costs --

15 A. Correct.

16 Q. -- and in your resulting production from the  
17 wells?

18 A. Correct.

19 Q. Does EOG -- do you guys still drill a lot of  
20 one-mile laterals?

21 A. We have switched our acreage position to do all  
22 mile-and-a-halves where possible. If we do not have the  
23 acreage anywhere near, then we have to stick to  
24 one-miles.

25 Q. Okay. And you're saying -- in your mind, a

1     decent well out there in this area would be 180,000  
2     barrels or greater?

3           A.     Not as an EUR. That well is still producing.  
4     I expect that well to get upwards toward 260 or 300 for  
5     that well over the life.

6           Q.     So do you have an idea about how much more a  
7     six-well-per-section drilling plan versus an  
8     eight-well-per-section drilling plan -- do you have an  
9     assessment of how much more the eight wells would  
10    produce versus six wells in the section?

11          A.     From what we have seen, we don't have a lot of  
12    six-well packages in the Wolfcamp. But what I've looked  
13    at in other operators -- it's sometimes hard to compare  
14    because we do so many different completion designs, and  
15    you can't really see what they're doing. But I'd expect  
16    that the uplift for six wells would not compensate for  
17    the loss of those two wells that you're leaving behind.

18          Q.     Okay. That's all the questions I have. Thank  
19    you.

20                   EXAMINER BROOKS: I have one question.

21                   MR. BRUCE: Go ahead.

22                   EXAMINER BROOKS: I'm sorry.

23                   MR. BRUCE: Go ahead.

24                   CROSS-EXAMINATION

25    BY EXAMINER BROOKS:

1           Q.   Well, this is really two questions. The first  
2 one: Are you aware that the Commission is presently  
3 considering a reduction in the setback at the heel and  
4 toe of horizontals from 330 feet to 100 [sic]?

5           A.   I believe I heard that. Yes.

6           Q.   Would that affect the efficiency advantage of a  
7 mile-and-a-half well, and, if so, would that effect be  
8 significant?

9           A.   It would not affect the efficiency. You're  
10 still able to drill an extra 3,000 feet of lateral for  
11 not much incremental cost.

12          Q.   You wouldn't be able to -- you would be able to  
13 drill a little more on a one-mile well than you  
14 presently can?

15          A.   Correct.

16          Q.   You'd be able to drill more on the  
17 mile-and-a-half well than you presently can, but it  
18 wouldn't -- it wouldn't affect the per-foot efficiency?

19          A.   No, it would not.

20          Q.   Okay. Thank you.

21                   EXAMINER DAWSON: Mr. Bruce?

22                   RE CROSS EXAMINATION

23 BY MR. BRUCE:

24          Q.   Just looking at the Wolfcamp, would -- in an  
25 exploratory area, would EOG go ahead and drill up a

1     **section of land real quick with eight Wolfcamp wells?**

2           A.     An exploratory, of course not.

3           **Q.     Okay. Thank you.**

4                   EXAMINER DAWSON: Any other questions?

5                   Thank you, Mr. Kelly.

6                   MR. PADILLA: Nothing further.

7                   EXAMINER DAWSON: Okay.

8                   MR. BRUCE: I've talked with all the  
9 attorneys, and we all want a martini, especially  
10 Chevron's counsel.

11                   (Laughter.)

12                   MR. BRUCE: And to close this up, I  
13 suggested to them all that I will get the nomenclature  
14 orders for the various pools to everyone. I should be  
15 able to do that Monday morning. And if people want to  
16 submit written closings, we can do that within the next  
17 couple of days.

18                   EXAMINER DAWSON: That would be preferable.  
19 You guys want this case expedited?

20                   MR. BRUCE: Yeah.

21                   EXAMINER DAWSON: If we can get that in by  
22 Tuesday noon.

23                   MR. BRUCE: Jennifer has a time --

24                   MS. BRADFUTE: Until Wednesday. I'm going  
25 to be out of town Monday and Tuesday.

1 EXAMINER BROOKS: The sooner the better.

2 So you think you can get arguments by end of Wednesday?

3 MS. ARNOLD: Yes.

4 MR. HALL: I want to state something for  
5 the record. I want to refer you to our brief hearing  
6 statement. I think we filed this yesterday. But we  
7 specifically reserved the right to assert objections to  
8 jurisdictional and procedural defects. I think we have  
9 some in this case.

10 EXAMINER BROOKS: Okay. What did they do  
11 in a case that's appealable by de novo, I don't know,  
12 but --

13 EXAMINER DAWSON: You need to add anything?

14 EXAMINER BROOKS: No. I don't need to add  
15 anything. I'll tell you what I'm assuming, but I don't  
16 think it's necessary or appropriate.

17 EXAMINER DAWSON: Okay. So at this point,  
18 we are done. Cases 16132, 16133, 16134 and 16160 will  
19 be taken under advisement.

20 Thank you very much.

21 (Case Numbers 16132, 16133, 16134 and 16160  
22 conclude, 6:07 p.m.)

23

24

25

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 29th day of May 2018.

21

22

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