

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 OXY USA, INC. FOR A  
NONSTANDARD SPACING AND PRORATION  
UNIT AND COMPULSORY POOLING, LEA  
COUNTY, NEW MEXICO.

CASE NO. 16256

Consolidated with

APPLICATION OF OXY USA, INC. FOR A  
NONSTANDARD SPACING AND PRORATION  
UNIT AND COMPULSORY POOLING, LEA  
COUNTY, NEW MEXICO.

CASE NO. 16257

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

June 28, 2018

Santa Fe, New Mexico

BEFORE: PHILLIP GOETZE, CHIEF EXAMINER  
DAVID K. BROOKS, LEGAL EXAMINER

This matter came on for hearing before the  
New Mexico Oil Conservation Division, Phillip Goetze,  
Chief Examiner, and David K. Brooks, Legal Examiner, on  
Thursday, June 28, 2018, at the New Mexico Energy,  
Minerals and Natural Resources Department, Wendell Chino  
Building, 1220 South St. Francis Drive, Porter Hall,  
Room 102, Santa Fe, New Mexico.

REPORTED BY: Mary C. Hankins, CCR, RPR  
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1 APPEARANCES

2 FOR APPLICANT OXY USA, INC.:

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8 INDEX

9		PAGE
10	Case Numbers 16256 and 16257 Called	3
11	OXY USA, Inc.'s Case-in-Chief:	
12	Witnesses:	
13	Courtney Carr:	
14	Direct Examination by Mr. Feldewert	4
15	Cross-Examination by Examiner Brooks	13
16	Cross-Examination by Examiner Goetze	17
17	Recross Examination by Examiner Brooks	17
18	Cyrus Bina:	
19	Direct Examination by Mr. Feldewert	18
20	Cross-Examination by Examiner Goetze	28
21	Proceedings Conclude	29
22	Certificate of Court Reporter	30

22 EXHIBITS OFFERED AND ADMITTED

23	OXY USA, Inc. Exhibit Numbers 1 through 8	13
24	OXY USA, Inc. Exhibit Numbers 9 through 14	28

25

1 (10:25 a.m.)

2 EXAMINER GOETZE: Let us move on to Case  
3 Number 16256, application of OXY USA, Inc. for a  
4 nonstandard spacing and proration unit and compulsory  
5 pooling, Lea County, New Mexico.

6 This is consolidated with Case Number  
7 16257, application of OXY USA, Inc. for a nonstandard  
8 spacing and proration unit and compulsory pooling, Lea  
9 County, New Mexico.

10 Call for appearances.

11 MR. FELDEWERT: May it please the Examiner,  
12 Michael Feldewert, with the Santa Fe office of Holland &  
13 Hart, appearing on behalf of the Applicant in this  
14 matter -- or in these consolidated matters, and I have  
15 two witnesses here today.

16 EXAMINER GOETZE: Will the witnesses please  
17 stand, identify yourself and be sworn in by the court  
18 reporter?

19 MS. CARR: Courtney Carr.

20 MR. BINA: Cyrus Bina.

21 (Ms. Carr and Mr. Bina sworn.)

22 MR. FELDEWERT: Mr. Examiner, I'd call our  
23 first witness in these consolidated cases.

24 EXAMINER GOETZE: Please.

25

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

4 DIRECT EXAMINATION

5 BY MR. FELDEWERT:

6 Q. Would you please state your name and identify  
7 by whom you're employed and in what capacity?

8 A. Courtney Carr, and I'm a land negotiator for  
9 Occidental Petroleum.

10 Q. How long have you been employed in that  
11 capacity with OXY?

12 A. It'll be five years in July.

13 Q. Have you had the opportunity to previously  
14 testify before the Division?

15 A. No.

16 Q. Would you please outline your educational  
17 background?

18 A. I have a Bachelor's in Business Administration  
19 from Texas Tech University with a concentration in  
20 energy commerce.

21 Q. When did you receive this degree?

22 A. July -- I mean May 2013.

23 Q. And you subsequently joined OXY?

24 A. Yes.

25 Q. And have your responsibilities during your

1     period of five years with OXY included the Permian Basin  
2     of New Mexico?

3             A.     Yes.

4             Q.     Are you a member of any professional  
5     affiliations or associations?

6             A.     Yes, the American Association of Professional  
7     Landmen.

8             Q.     And how long have you been a member of that  
9     organization?

10            A.     Since May 2013.

11            Q.     Are you familiar with the applications that  
12     have been filed in these consolidated cases?

13            A.     Yes.

14            Q.     Are you familiar with the status of the lands  
15     in the subject area?

16            A.     Yes.

17                   MR. FELDEWERT: I would tender Ms. Carr as  
18     an expert witness in petroleum land matters.

19                   EXAMINER GOETZE: She's so qualified.

20            Q.     (BY MR. FELDEWERT) Ms. Carr, would you please  
21     turn to what's been marked as OXY Exhibit Number 1, and  
22     does this exhibit, which is comprised of three pages,  
23     contain the C-102s for the wells that are involved in  
24     these consolidated cases?

25            A.     Yes.

1           Q.    The first case, I believe, Case Number 16256,  
2 involves the first two wells shown on here, the 11H and  
3 the 21H; is that correct?

4           A.    Yes.

5           Q.    What does the company seek under this  
6 particular application?

7           A.    To create a 320-acre nonstandard spacing unit  
8 for the Bone Spring Formation comprised of the west half  
9 of the west half of Sections 27 and 34, Township 22  
10 South, Range 32 East. And this is dedicated to the Taco  
11 Cat 27-34 #11H and #21H.

12          Q.    And if I look at the last page of this  
13 exhibit --

14          A.    Uh-huh.

15          Q.    -- this involves the second case, 16527?

16          A.    Yes.

17          Q.    And do you seek a similar spacing unit for that  
18 particular well?

19          A.    Yes, but for the Wolfcamp Formation.

20          Q.    For the Wolfcamp Formation?

21          A.    Uh-huh.

22          Q.    Okay. And that'll be dedicated to the 31H?

23          A.    Yes, sir.

24          Q.    Do these plats identify the pools that are  
25 involved based on the company's discussion with the

1 district office?

2 A. Yes.

3 Q. And in particular, if I look at the last page,  
4 it indicates that this is going to be a wildcat in the  
5 Wolfcamp Formation?

6 A. Yes.

7 Q. And are both of these pools governed by the  
8 Division's statewide rules?

9 A. Yes.

10 Q. Will the completed interval for each of these  
11 wells comply with the Division statewide rules?

12 A. Yes.

13 Q. Or in this case, potentially with the  
14 horizontal well rules?

15 A. Yes.

16 Q. What is the nature of the acreage that's  
17 involved here in the west half-west half sections?

18 A. Federal.

19 Q. All federal?

20 A. All federal leases.

21 Q. How many leases?

22 A. Three leases.

23 Q. If I turn to what's been marked as OXY Exhibit  
24 Number 2, does this identify the tracts that are  
25 involved and the owners that are involved for the Bone

1     **Spring Formation?**

2           A.     Yes.

3           Q.     And you show the interest that's involved for  
4     each tract; is that correct?

5           A.     Yes.

6           Q.     On this particular page, what working interest  
7     owners remained to be pooled?

8           A.     Marathon Oil Company and Exxon Corporation.

9           Q.     Then if I turn to what's been marked as OXY  
10    Exhibit Number 3, is this a similar plat likewise  
11    showing the working interest owners now in the Wolfcamp  
12    Formation?

13          A.     Yes.

14          Q.     And we have the same companies involved?

15          A.     Yes.

16          Q.     Is the ownership different?

17          A.     The ownership in Tract 3 is different.  
18    Marathon Oil Company owns 100 percent below the base of  
19    the Bone Spring, so they have 100 percent in that  
20    Wolfcamp well.

21          Q.     And in this particular case involving the  
22    Wolfcamp Formation, do you also only seek to pool Exxon  
23    and Marathon?

24          A.     Yes.

25          Q.     If I turn, then, to what's been marked as

1     Exhibit 4, does that contain a sample of the  
2     well-proposal letter that was sent out for the 11H well?

3             A.     Yes.

4             Q.     And if I turn to Exhibit Number 5, does that  
5     contain a well-proposal letter -- a sample of the  
6     well-proposal letter that was sent out for the 21H well?

7             A.     Yes.

8             Q.     Both of those involving the Bone Spring?

9             A.     Uh-huh.

10            Q.     Now, if I turn to what's been marked as OXY  
11     Exhibit Number 6, does that contain the well-proposal  
12     letter for the 31H?

13            A.     Yes.

14            Q.     Okay. Now, did each of these letters include  
15     an AFE?

16            A.     Yes.

17            Q.     And are the costs that are reflected on these  
18     AFEs consistent with what the company has incurred for  
19     drilling similar horizontal wells?

20            A.     Yes.

21            Q.     I noticed, in looking through the AFEs, that  
22     the AFE for the 11H, looking at Exhibit Number 4, was a  
23     little higher --

24            A.     Uh-huh.

25            Q.     -- than what you saw for the other wells,

1     **correct?**

2           A.     That's correct.

3           **Q.     What's the reason for that?**

4           A.     The Lower Avalon contains CO2 issues, so we  
5     have to put a special casing on the well to prevent  
6     corrosion. That's why the higher cost.

7           **Q.     And I also know that these AFEs were put**  
8     **together in December. Will they be updated when you**  
9     **send out -- pursuant to --**

10          A.     Yes, sir.

11          **Q.     What efforts have been undertaken to reach a**  
12     **voluntary agreement with both Exxon and Marathon since**  
13     **these well-proposal letters were sent back in January?**

14          A.     Yes. When I sent these well-proposal letters,  
15     I included a JOA attached and have continued  
16     conversations since then with both Marathon and Exxon.

17          **Q.     And do these communications include both emails**  
18     **and telephone conversations?**

19          A.     Yes.

20          **Q.     What's the status of the discussions with**  
21     **Exxon?**

22          A.     Exxon has elected to participate, and I expect  
23     a signed JOA.

24          **Q.     Did they execute the AFEs that were sent?**

25          A.     Yes.

1 Q. Okay. And what's the status with Marathon?

2 A. Marathon has yet to execute an AFE, but I've  
3 been in discussions with them, and I anticipate they  
4 will participate.

5 Q. Okay. In any event, if both companies agree to  
6 participate in this well voluntarily, then you'll be  
7 able to dismiss the pooling -- well, let me step back.  
8 You'll be able to notify the Division, correct?

9 A. Yes, sir.

10 Q. Because we do have some overriding royalty  
11 interest owners?

12 A. Yes, sir.

13 Q. And did the company then identify those  
14 overriding royalty owners, and out of an abundance of  
15 caution, did you provide them notice of this hearing?

16 A. Yes, sir.

17 Q. Have you estimated the overhead and the  
18 administrative costs while drilling and also while  
19 producing?

20 A. Yes.

21 Q. And what are those costs?

22 A. It would be \$7,500 a month while drilling and  
23 \$750 a month while producing.

24 Q. And are these the rates that were provided in  
25 the JOA that was sent to the parties?

1           A.    Yes, sir.

2           Q.    And are these rates consistent with what OXY  
3   and other operators charge for similar wells?

4           A.    Yes, sir.

5           Q.    In preparation for this hearing, did you  
6   identify the operators and the leased mineral interest  
7   owners in the 40-acre tract surrounding each of your  
8   proposed spacing units?

9           A.    Yes.

10          Q.    And if I look at what's been marked as OXY  
11   Exhibit Number 7, is this an affidavit prepared by my  
12   office with the attached letters providing notice of  
13   this hearing in Case Number 16257?

14          A.    Yes, sir.

15          Q.    And notice was provided to the two working  
16   interests that you seek to pool?

17          A.    Yes.

18          Q.    And a group of overriding royalty interest  
19   owners?

20          A.    Yes, sir.

21          Q.    And then the offsetting operators and lessees,  
22   correct?

23          A.    Yes.

24          Q.    Okay. And then if I look at OXY Exhibit Number  
25   8, is that a similar Affidavit of Notice for Case 16256?

1           A.     Yes.

2           Q.     And do the records reflect that all the  
3     companies received notice at the address that it was  
4     sent?

5           A.     Yes.

6           Q.     Were OXY Exhibits 1 through 6 prepared by you  
7     or compiled under your direction and supervision?

8           A.     Yes.

9                     MR. FELDEWERT:   Mr. Examiner, I would move  
10    the admission into evidence of OXY Exhibit Numbers 1  
11    through 8, which includes the two notice affidavits for  
12    these consolidated cases.

13                    EXAMINER GOETZE:   Exhibits 1 through 8 are  
14    so entered.

15                    (OXY USA, Inc. Exhibit Numbers 1 through 8  
16    are offered and admitted into evidence.)

17                    MR. FELDEWERT:   And that concludes my  
18    examination of this witness.

19                    EXAMINER GOETZE:   Mr. Brooks?

20                                       CROSS-EXAMINATION

21    BY EXAMINER BROOKS:

22           Q.     Okay.   Let me talk a little bit about location  
23    here because I'm having trouble reading these plats.  
24    The first one is the #11H?

25           A.     Uh-huh.

1           Q.    And is there anything on here that shows where  
2   the first and last take points of this well will be?

3           A.    There is the kickoff points.

4           Q.    Okay.  The kickoff point is in vertical section  
5   of the well, right?

6           A.    Yes.  And the top perf, that'll be the first  
7   take point.

8           Q.    That'll be the first take point --

9           A.    Uh-huh.

10          Q.    -- but it does not show footages, or does it  
11   show footages up here, because there are several  
12   footages listed up here, but --

13          A.    I agree.  It is hard to read.

14                   MR. FELDEWERT:  I believe, Mr. Brooks, if  
15   you look at it, it's the 340.

16                   THE WITNESS:  Yeah.  That's what it looks  
17   like.

18          Q.    (BY EXAMINER BROOKS) Okay.  Well, what  
19   concerned me about it was the 3 there got hash-marked  
20   out, and it looked like it was 40 acres, and I wondered  
21   what it was 40 acres from.  So it was confusing.

22                   But you're telling me the first take point  
23   is 340 acres [sic] from the east line.  And how far is  
24   it from the north line?

25          A.    Let me look.  It looks to be 340 acres [sic] as

1 well.

2 Q. Okay. Well, if that's true, that justifies  
3 your conclusion that it is a standard location.

4 Similarly, the last take point as  
5 identified, is that also 340 acres?

6 A. Yes, sir. That's 340.

7 Q. And it only has to be 100 acres now from the  
8 south line, but it has to be at least 330 from the east  
9 line.

10 A. Okay.

11 Q. And do you read this map as saying that it is  
12 at least 330 from the east line?

13 A. Yes.

14 Q. Okay. It's a poorly drawn map. Well, I don't  
15 know if it's poorly drawn. It's just that it has things  
16 that block out the markers. But it's very difficult to  
17 draw when it identifies as many points as we now need to  
18 know.

19 MR. FELDEWERT: Mr. Brooks, I'll interrupt  
20 on one thing. I think you-all were discussing 340  
21 acres, and I think you meant 340 feet.

22 THE WITNESS: Oh.

23 EXAMINER BROOKS: I probably did --

24 THE WITNESS: Yeah.

25 EXAMINER BROOKS: -- because I don't think

1     this -- this isn't 340 acres --

2           Q.     (BY EXAMINER BROOKS) Okay.   The Taco Cat #21H  
3     does not appear to be in any danger of being unorthodox,  
4     so I will pass over that.

5                     And I believe the same is true of the #31H  
6     because it looks like -- yeah.   Both of those are kind  
7     of into the -- in toward the middle of the spacing unit,  
8     so I don't think we'll have any problem with that.

9                     Okay.   Now, when you get to the ownership,  
10    you state all the working interest owners?

11           A.     Correct.

12           Q.     And there is -- there was a statement that  
13    there were some overrides --

14           A.     Uh-huh.

15           Q.     -- and notice was given to them?

16           A.     Yes.

17           Q.     But they're not identified anywhere here,  
18    except in the attachments to the Affidavit --

19           A.     Yes.

20           Q.     -- of Notice.

21                     Okay.   And you have addresses for all of  
22    them?

23           A.     Yes, sir.

24           Q.     And you sent notice to them at the addresses in  
25    your file?

1           A.     Yes.

2           Q.     Okay.  Thank you.

3                               CROSS-EXAMINATION

4  BY EXAMINER GOETZE:

5           Q.     So to follow up on that, there were no  
6  locatable interest owners?

7           A.     No, sir.

8           Q.     Okay.  And there was a discussion or a concept  
9  that we had depth severance in one of the tracts, Tract  
10  2, I believe?

11          A.     Tract 3.

12          Q.     Tract 3?

13          A.     Uh-huh.

14          Q.     And so Marathon has 100 percent of the Wolfcamp  
15  for Tract 3?

16          A.     100 percent below the base of the Bone Spring,  
17  so yes.

18          Q.     Who has it above, just out of curiosity?

19          A.     It's between OXY and Marathon.

20          Q.     Okay.

21                               RECROSS EXAMINATION

22  BY EXAMINER BROOKS:

23          Q.     And OXY -- OXY is the operator, right?

24          A.     Yes, sir.

25          Q.     And Marathon owns above the base of the -- of

1     **what formation?**

2           A.     In Tract 3.  So that would be the southwest  
3     quarter of the southwest quarter of Section 34.

4           **Q.     Yeah.  But what is the depth at which --**

5           A.     So if you want to know the entire scheme, they  
6     own 25 percent surface to the base of the Bone Spring,  
7     and then they own 100 percent below the base of the Bone  
8     Spring in that tract.

9           **Q.     Okay.  So there are no depth severance within**  
10    **the Bone Spring or Wolfcamp?**

11          A.     No.  No.

12          **Q.     Okay.  Thank you.**

13                   EXAMINER GOETZE:  No more questions.  Thank  
14    you.

15                   MR. FELDEWERT:  Call our next witness.

16                   EXAMINER GOETZE:  Please.

17                               CYRUS BINA,

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

20                               DIRECT EXAMINATION

21    BY MR. FELDEWERT:

22           **Q.     Would you please state your name, identify by**  
23    **whom you're employed and in what capacity?**

24           A.     My name is Cyrus Bina.  I'm a geologist at OXY  
25    Oil & Gas.

1           Q.    And how long have you been a geologist with  
2    OXY?

3           A.    In July, I'll be there for five years.

4           Q.    And have your responsibilities throughout that  
5    time included the Permian Basin of New Mexico?

6           A.    Yes.

7           Q.    Mr. Bina, have you previously testified before  
8    this Division as an expert in petroleum geology?

9           A.    No, I have not.

10          Q.    Outline your educational background, please.

11          A.    I have a Bachelor of Science degree from the  
12   University of Texas at Austin in geology. I graduated  
13   from there in December of 2011.

14          Q.    What did you do after you graduated?

15          A.    I went to work for Halliburton as a  
16   microseismic geophysicist, and then that was from 2012  
17   to 2014 where I was subsequently hired by OXY.

18          Q.    Are you a member of any professional  
19   organizations or associations?

20          A.    Yes, the American Association of Petroleum  
21   Geologists, the Houston Geological Society and the  
22   Geological Society of America.

23          Q.    How long have you been a member of the American  
24   Association of Petroleum Geologists?

25          A.    Since 2009.

1           Q.    And what about the comparable Houston  
2   Association?

3           A.    2009 as well.

4           Q.    And then you mentioned -- what was the third  
5   one?

6           A.    The Geological Society of America.

7           Q.    How long have you been a member of that  
8   organization?

9           A.    2017.   Since 2017.

10          Q.    Are you familiar with the applications filed in  
11   these consolidated cases?

12          A.    Yes.

13          Q.    And have you conducted a geologic study of the  
14   formations that are the subject of these applications?

15          A.    Yes.

16                   MR. FELDEWERT:   I would tender Mr. Bina as  
17   an expert witness in petroleum geology.

18                   EXAMINER GOETZE:   He is so qualified.

19          Q.    (BY MR. FELDEWERT) Mr. Bina, I believe we saw  
20   under Exhibit Number 1 that there are three C-102s, one  
21   for the 11H, one for the 21H and one for the 31H.  What  
22   are the target formations for each of these wells?

23          A.    The 11H is a Lower Avalon well.  The 21H is the  
24   2nd Bone Spring Sandstone, and the 31H is a Wolfcamp Y  
25   well, Upper Wolfcamp.

1           Q.    Okay.  And have you prepared a structure map  
2   and a cross section of each of these zones?

3           A.    I have.

4           Q.    If I turn to what's been marked as OXY Exhibit  
5   Number 9, is this the structure map that you have  
6   prepared for the Lower Avalon?

7           A.    Yes.

8           Q.    Explain to us how you show the well on here and  
9   then what you observe with respect to the structure.

10          A.    Okay.  The red line that runs from north to  
11   south is a schematic of the Taco Cat 11H, which is  
12   targeting the Lower Avalon.  There is a slight  
13   structural downdip that we're moving down, and then you  
14   can see a structural nose to the east of that.  The --  
15   this is a subsea structure map, and the blue line that  
16   runs across the page represents the cross section that  
17   we'll be discussing moving forward.

18          Q.    How did you develop your contours here?

19          A.    These are 25-foot contour intervals.

20          Q.    And in your study here, do you observe any  
21   faulting or any pinch-outs or other geologic impediments  
22   to developing the proposed spacing unit with a  
23   horizontal well?

24          A.    No.

25          Q.    You note your cross-section wells at A to A

1     **prime on here.**

2           A.     Yes.

3           **Q.     Why did you choose these particular wells?**

4           A.     These wells are nearest to the Taco Cat 11H,  
5     and the subsequent wells after that, they also  
6     contain -- they also contain the best logs in the area  
7     and are deep enough to cover all three intervals.

8           **Q.     Okay.  Then utilizing this -- that log data,**  
9     **did you create what's marked as OXY Number 10?**

10          A.     Yes.

11          **Q.     Okay.  And would you please explain to us what**  
12     **you show in this exhibit starting with the -- how you**  
13     **designate the various formations -- or zone?**

14          A.     So starting with the logs that we're using in  
15     this cross section -- it's a structural cross section,  
16     so it's not hung on any stratigraphic unit.  The left  
17     track that is colored is a gamma ray log, and it goes  
18     from zero to 150 API.  The cooler colors denote lower  
19     APIs, and the hotter colors denote higher APIs.  The red  
20     line in the track to the right is the resistivity.  It's  
21     a deep resistivity log, and the scale goes from 0.2 ohms  
22     to 2,000.

23                     And then -- sorry -- starting from the top  
24     down, the dashed blue line represents the top of our  
25     Lower Avalon Formation.  The red line denotes the top of

1 the 1st Bone Spring Sandstone, and the subsequent red  
2 line after that, below that, is the top of the 2nd Bone  
3 Spring Limestone.

4 Q. And for the record, on this exhibit, how have  
5 you identified the targeted zone?

6 A. The targeted zone is identified by the red  
7 star.

8 Q. Okay. And that's within the Avalon -- Lower  
9 Avalon?

10 A. Yes, the Lower Avalon.

11 Q. What do you observe about the continuity of  
12 that target interval as you look in this particular area  
13 that's comprised of the spacing unit?

14 A. It is consistent.

15 Q. Okay. Now, have you -- if I then turn to  
16 what's been marked as OXY Number 11, is that a structure  
17 map you've created then for the 21H well?

18 A. Yes. This is a subsea structure map again with  
19 25-foot contour intervals. This is on the top of the  
20 2nd Bone Spring Sandstone. And you can see again that  
21 we have this similar structure, with a down -- downward  
22 dip, as we'll be drilling down the well, and then you  
23 can see that same structural nose to the east.

24 Q. With respect to this targeted zone, do you see  
25 any faults or pinch-outs or any other geologic

1     impediments to developing this area with a horizontal  
2     well?

3             A.     No.

4             Q.     And then utilize the same well logs to create  
5     another cross section?

6             A.     Yes.

7             Q.     So if I turn to what's been marked as OXY  
8     Exhibit Number 12, is this the same -- same logs now  
9     just moving down?

10            A.     Yes.

11            Q.     Okay. And, again, for the record, how have you  
12     identified the various formations that are involved?

13            A.     I'm sorry. I went the wrong way.

14                         So the -- again, we're using the same logs  
15     with the same scales on this cross section. It's also a  
16     structural cross section. The top pick that we have  
17     there is the top of the 2nd Bone Spring Limestone. Then  
18     we go down to the top of the 2nd Bone Spring Limestone.  
19     And the red star, again, denotes the landing point of  
20     the well, and the next top down is the 3rd Bone Spring  
21     Limestone.

22            Q.     And this puts your target zone at the lower  
23     portion of the 2nd Bone Spring Sandstone?

24            A.     Yes, sir.

25            Q.     What do you observe about the continuity of

1     that interval throughout your proposed spacing unit?

2           A.     It's continuous.

3           Q.     Finally then, if I turn to what's been marked  
4     as OXY Exhibit Number 13, this would then involve the  
5     second case here that deals with the 31H and the  
6     Wolfcamp, correct?

7           A.     Yes.

8           Q.     Okay. And what do you observe with respect to  
9     the structure of the Wolfcamp in this particular area?

10          A.     So this structure -- subsea structure map is  
11     the top of the Wolfcamp pick. The contour intervals in  
12     this one are 50 feet, and the red line denotes the  
13     location of the 31H, the Taco Cat 31H. Again, we're  
14     using the same wells, and it's denoted by the blue line  
15     that's in this.

16          Q.     Examine the structure now in the Wolfcamp. Do  
17     you see any faulting or pinch-outs or other geologic  
18     impediments to developing your proposed spacing unit for  
19     horizontal wells?

20          A.     No.

21          Q.     If I then turn to OXY Exhibit 14, do we see the  
22     same logs?

23          A.     Yes. These are the same wells.

24          Q.     Now moving deeper within those logs into the  
25     Wolfcamp?

1           A.     Yes.

2           **Q.     Okay.  And what do you observe here?**

3           A.     The top pick that we have here -- again, we're  
4     using the same logs with the same scales.  The top pick  
5     we have here is the 3rd Bone Spring Limestone pick that  
6     we saw in the previous cross section.  Moving down, we  
7     have the top of the 3rd Bone Spring Sandstone.  Then the  
8     dashed line is the top of the Wolfcamp, and below that  
9     is what we call the top of the Wolfcamp A.  And between  
10    those two, the Wolfcamp and the Wolfcamp A, is the Upper  
11    Wolfcamp X-Y.

12          **Q.     And is that the target interval for your**  
13    **proposed well?**

14          A.     Yes.

15          **Q.     Now, when you just look at these logs --**

16          A.     Yes.

17          **Q.     -- do you see any discrepancies as you move**  
18    **across these three logs with respect to this targeted**  
19    **interval?**

20          A.     So the middle well, which refers to the Red  
21    Tank 34, you can see where the target interval -- it  
22    looks like you have a much lower gamma ray reading and a  
23    higher resistivity reading.  That is associated with a  
24    casing point in that well.  So the log readings,  
25    unfortunately, are right where we were doing it, but we

1 have seismic across the -- and mud log data that  
2 suggests that we do have continuity between these wells.

3 Q. So in your opinion, having examined this  
4 well-log data and then the microseismic, is the targeted  
5 zone continuous across your proposed spacing unit?

6 A. Yes.

7 Q. In your opinion, with respect to all three of  
8 these target zones, do they represent an area that can  
9 be efficiently and economically developed by horizontal  
10 wells?

11 A. Yes.

12 Q. In your opinion, for both of these cases, will  
13 the acreage that's involved contribute more or less  
14 equally to the production from the proposed wells?

15 A. Yes.

16 Q. And in your opinion, will the granting of this  
17 application be in the best interest of conservation, the  
18 prevention of waste and the protection of correlative  
19 rights?

20 A. Yes.

21 Q. Were OXY Exhibits 9 through 14 prepared by you  
22 or compiled under your direction or supervision?

23 A. They were.

24 MR. FELDEWERT: Mr. Examiner, I would move  
25 the admission into evidence of OXY Exhibits 9 through

1 14.

2 EXAMINER GOETZE: Exhibits 9 through 14 are  
3 so entered.

4 (OXY USA, Inc. Exhibit Numbers 9 through 14  
5 are offered and admitted into evidence.)

6 MR. FELDEWERT: And that concludes my  
7 examination of this witness.

8 EXAMINER GOETZE: Mr. Brooks?

9 EXAMINER BROOKS: No questions.

10 CROSS-EXAMINATION

11 BY EXAMINER GOETZE:

12 **Q. First discussion, Bone Spring: This area, what**  
13 **kind of history of production do we have?**

14 A. So the OXY production in the area is kind of  
15 scattered between the -- the vintage production that we  
16 had in the area for laterals is scattered between 1st  
17 Bone and 2nd Bone wells that we've previously drilled.  
18 Those wells were drilled in different orientations when  
19 we did not understand the maximum stress orientation.  
20 So now we're -- we have data points to suggest the ideal  
21 maximum stress -- or the ideal drilling direction would  
22 be north to south in the Bone Spring Formation, as well  
23 as the Upper Wolfcamp.

24 **Q. So let's take a step back. Section 27-34 --**

25 A. Yes.

1           Q.    -- is there part of a larger scheme to develop  
2   these three sections?

3           A.    It is.

4           Q.    Then let's go to the Wolfcamp. Your feeling  
5   that it's going to be an oil producer is suggested by?

6           A.    Offset production to the south of us, as well  
7   as the -- the -- despite having the poor log across the  
8   Wolfcamp section right there, our depositional model and  
9   the regional geology in the area suggests that we do  
10   have continuity in that. And the porosity within the  
11   X-Y -- the porosity and the oil saturation within the  
12   X-Y does not change significantly.

13          Q.    What kind of porosity are we looking at?

14          A.    You're looking -- for the reservoir --

15          Q.    Yeah.

16          A.    -- was between 8 to 10 percent average.

17          Q.    All right. I have no questions.

18                   MR. FELDEWERT: Mr. Examiner, that  
19   concludes our presentation. We ask that this matter be  
20   taken under advisement.

21                   EXAMINER GOETZE: Cases 16256 and 16257 are  
22   taken under advisement. Let's have a ten-minute break.

23                           (Case Numbers 16256 and 16257 conclude,  
24                           10:52 a.m.)

25                           (Recess, 10:52 a.m. to 11:02 a.m.)

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 26th day of July 2018.

21

22

23 MARY C. HANKINS, CCR, RPR  
24 Certified Court Reporter  
25 New Mexico CCR No. 20  
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