

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

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

7 APPLICATION OF COG OPERATING, LLC CASE NO. 15680  
8 FOR A NONSTANDARD SPACING AND  
9 PRORATION UNIT AND COMPULSORY  
10 POOLING, LEA COUNTY, NEW MEXICO.

11 REPORTER'S TRANSCRIPT OF PROCEEDINGS

12 EXAMINER HEARING

13 April 27, 2017

14 Santa Fe, New Mexico

15 BEFORE: WILLIAM V. JONES, CHIEF EXAMINER  
16 DAVID K. BROOKS, LEGAL EXAMINER

17 This matter came on for hearing before the  
18 New Mexico Oil Conservation Division, William V. Jones,  
19 Chief Examiner, and David K. Brooks, Legal Examiner, on  
20 Thursday, April 27, 2017, at the New Mexico Energy,  
21 Minerals and Natural Resources Department, Wendell Chino  
22 Building, 1220 South St. Francis Drive, Porter Hall,  
23 Room 102, Santa Fe, New Mexico.

24 REPORTED BY: Mary C. Hankins, CCR, RPR  
25 New Mexico CCR #20  
Paul Baca Professional Court Reporters  
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## 1 APPEARANCES

2 FOR APPLICANT COG OPERATING, LLC:

3 JORDAN L. KESSLER, ESQ.  
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6

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23 COG Operating, LLC Exhibit Numbers 1 through 8 14

24 COG Operating, LLC Exhibit Numbers 9 through 12 23

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1 (9:17 a.m.)

2 EXAMINER JONES: Back on the record.

3 And let's call Case Number 15680,  
4 application of COG Operating, LLC for a nonstandard  
5 spacing and proration unit and compulsory pooling in Lea  
6 County, New Mexico.

7 Call for appearances.

8 MS. KESSLER: Jordan Kessler, with the  
9 Santa Fe office of Holland & Hart, on behalf of the  
10 Applicant.

11 EXAMINER JONES: Other appearances?

12 MS. KESSLER: Two witnesses today,  
13 Mr. Examiner -- three -- three witnesses today. I'm  
14 sorry.

15 EXAMINER JONES: Three witnesses?

16 Will the witnesses please stand?

17 Oh, we've got Jayne testifying today.

18 And will the court reporter swear the  
19 witnesses?

20 (Ms. Junell, Ms. Flanagan and Ms. Martin  
21 sworn.)

22 MS. KESSLER: I'll call my first witness,  
23 Mr. Examiner.

24 EXAMINER JONES: Okay.

25

1 MEGAN FLANAGAN,  
2 after having been previously sworn under oath, was  
3 questioned and testified as follows:

4 DIRECT EXAMINATION

5 BY MS. KESSLER:

6 Q. Would you please state your full name for the  
7 record and tell the Examiners by whom you're employed  
8 and in what capacity?

9 A. Yes. My name is Megan Flanagan, and I am  
10 employed by COG Operating, LLC as a landman.

11 Q. Have you previously testified before the  
12 Division?

13 A. No, I have not.

14 Q. What is your educational background?

15 A. I graduated from the University of Oklahoma in  
16 May of 2015 with a degree in energy management.

17 Q. What has your work history been since that  
18 time?

19 A. I interned with Concho the summer of 2014 and  
20 have been working for COG as a full-time landman for the  
21 past two years.

22 Q. Has your experience during that time included  
23 the Permian Basin?

24 A. Yes.

25 Q. And are you a member of any professional

1 associations?

2 A. Yes. I'm a member of the AAPL and the PBLA.

3 Q. Are you familiar with the application filed in  
4 this case?

5 A. Yes.

6 Q. And are you familiar with the status of the  
7 lands in the subject area?

8 A. Yes.

9 MS. KESSLER: Mr. Examiners, I would tender  
10 Ms. Flanagan as an expert in petroleum land matters.

11 EXAMINER JONES: Ms. Flanagan is qualified  
12 as an expert in petroleum land matters.

13 Q. (BY MS. KESSLER) Ms. Flanagan, what does COG  
14 seek under this application?

15 A. To create a nonstandard 320-acre unit comprised  
16 of the east half-east half of Sections 6 and 7 of  
17 Township 25 South, Range 35 East of Lea County, New  
18 Mexico, to pool the uncommitted interest owners in the  
19 Wolfbone Pool and also to dedicate the spacing unit to  
20 two initial wells, the Stove Pipe Federal Com 1H and  
21 21H.

22 Q. And you said that you seek to pool the  
23 uncommitted interest owners in the Wolfbone Pool; is  
24 that correct?

25 A. Yes. That's correct.

1 Q. Can you please turn to Exhibit 1? Is this a  
2 draft C-102 for the Stove Pipe Federal Com #1H well?

3 A. Yes.

4 Q. Has an APD been approved for this well?

5 A. It has been submitted, but we are still  
6 awaiting BLM approval.

7 Q. What is Exhibit 2?

8 A. Exhibit 2 is a C-102 for Stove Pipe Federal Com  
9 21H.

10 Q. A draft C-102?

11 A. Yes. Correct.

12 Q. And you're still waiting for BLM approval on  
13 this permit as well?

14 A. Yes. That is still pending as well.

15 Q. Are the pools within the Wildcat Wolfbone Pool?

16 A. Yes, Pool Code 98098.

17 Q. And what is the character of the lands in the  
18 spacing and operation?

19 A. Federal and fee.

20 Q. Is the Wolfbone Pool governed by Division  
21 statewide rules?

22 A. Yes, and the appropriate setbacks will apply.

23 Q. 330 feet?

24 A. Yes.

25 Q. Are there any depth severances in this pool?

1           A.    No.  Ownership is common.  You've got the  
2   Wolfbone Pool in the Bone Spring and the Wolfcamp  
3   Formations.

4           Q.    So there is no change of ownership between the  
5   Bone Spring and the Wolfcamp?

6           A.    Correct.

7           Q.    Are there economic efficiencies associated with  
8   pad drilling these two wells?

9           A.    Yes.

10          Q.    And does COG expect better production from  
11   simultaneously completing these two wells?

12          A.    Yes.

13          Q.    You brought an engineering witness today to  
14   discuss those engineering issues?

15          A.    Yes.

16          Q.    Are these the reasons why COG has requested  
17   that the spacing unit be dedicated to two initial wells?

18          A.    Yes.

19          Q.    Were all of the interest owners provided notice  
20   of COG's plan to drill and simultaneously complete these  
21   two wells?

22          A.    Yes.

23          Q.    Both through the well-proposal letter and  
24   through the hearing application; is that correct?

25          A.    Correct.

1 Q. And nobody objected?

2 A. Correct.

3 Q. Did the well-proposal letter identify the depth  
4 of each of the two wells?

5 A. Yes.

6 Q. Is Exhibit 3 an ownership outline of the tracts  
7 within the proposed spacing unit?

8 A. Yes, it is.

9 Q. This shows the various tracts, and then on the  
10 second page, there is a unit recap; is that correct?

11 A. That is correct.

12 Q. Does this unit recap show the working interest  
13 and unleased mineral interest owners that you seek to  
14 pool?

15 A. Yes, it does.

16 Q. They're bolded and italicized; is that correct?

17 A. That is correct.

18 Q. On the last page of this exhibit, does this  
19 show parties whom you seek to pool with unmarketable  
20 title?

21 A. That is correct.

22 Q. Why are you requesting to pool for unmarketable  
23 title?

24 A. Probate proceedings need to be done on these  
25 estates in the state of New Mexico.



1 Q. Okay. Does this exhibit indicate that each of  
2 the estate owners is deceased?

3 A. Correct.

4 Q. And has COG identified a personal  
5 representative for each of these estates?

6 A. Yes.

7 Q. Did you send notice letters to each of the  
8 personal representatives?

9 A. Yes.

10 Q. Were they locatable?

11 A. Yes.

12 Q. Have you also published notice directed to the  
13 estate?

14 A. Yes.

15 Q. And finally, I'm looking at the second column  
16 here on the last page of Exhibit 3. Has COG also  
17 identified and provided actual notice of the hearing to  
18 the individuals that COG has identified as heirs of the  
19 estates?

20 A. That is correct. Yes.

21 Q. And those folks are identified in the "Party  
22 Who Received Notice" column, correct?

23 A. Correct.

24 Q. Did you recently become aware that there was  
25 one interest owner -- one heir who was not provided

1 timely notice of this hearing?

2 A. That is correct.

3 Q. Who is that interest owner?

4 A. That is William Hollis.

5 Q. Do you have an address for William Hollis?

6 A. Yes, we do.

7 Q. Was he recently sent notice of this application  
8 and hearing?

9 A. Yes, he was.

10 Q. Are you requesting a continuance of this case  
11 for notice purposes?

12 A. Yes.

13 Q. Specifically for William Hollis?

14 A. Yes, ma'am.

15 Q. Is Exhibit 4 a copy of the well-proposal letter  
16 for the 1H well that was sent to all of the interest  
17 owners?

18 A. Yes. That's correct.

19 Q. So this is a copy for Nadel and Gussman, but  
20 it's the same letter sent to all the other interest  
21 owners?

22 A. Yes.

23 Q. What date was this letter sent?

24 A. February 24th, 2017.

25 Q. And does the well-proposal letter include an

1 AFE?

2 A. Yes.

3 Q. Are the costs reflected on this AFE consistent  
4 with what COG has incurred for drilling similar  
5 horizontal wells in this area?

6 A. Yes.

7 Q. And you mentioned that the ownership in the  
8 Bone Spring and the Wolfcamp were all provided notice of  
9 this hearing; is that correct?

10 A. That is correct.

11 Q. And the interest owners, once again, are  
12 identical as to the Bone Spring --

13 A. Yes.

14 Q. What additional efforts did you undertake to  
15 reach a voluntary agreement with the interest owners  
16 that you seek to pool?

17 A. After sending out the well-proposal letters, I  
18 made follow-up calls. I called all of the interest  
19 owners with unmarketable title, explained to them their  
20 title requirements and tried to either lease or come to  
21 an agreement depending on the situation. And then I  
22 negotiated an operating agreement with the working  
23 interest owners, and we are finishing getting some  
24 parties to sign.

25 Q. And you mentioned that you had had contact with

1 the personal representative of each of these estates,  
2 correct?

3 A. Yes.

4 Q. In your opinion, have you made a good-faith  
5 effort to reach a voluntary agreement with the parties  
6 you seek to pool?

7 A. Yes.

8 Q. Have you estimated overhead and administrative  
9 costs while drilling and producing these two wells?

10 A. Yes, \$7,000 a month for drilling and then \$700  
11 a month for producing.

12 Q. Are these costs in line with what other  
13 operators in the area charge for similar wells?

14 A. Yes.

15 Q. Do you ask that these administrative costs be  
16 incorporated into any order resulting from this hearing?

17 A. Yes.

18 Q. Do you ask that the cost be adjusted in  
19 accordance with COPAS accounting procedures?

20 A. Yes.

21 Q. And for any of the uncommitted interest  
22 owners -- working interest owners, do you request that  
23 the Division impose a 200 percent risk penalty?

24 A. Yes.

25 Q. Did COG identify and provide notice to the

1 offset operators or lessees of record?

2 A. Yes.

3 Q. And I think I may have skipped an exhibit here.  
4 I'm going to go back and point you to Exhibit 5. Is  
5 this the well-proposal letter for the 21H well?

6 A. Yes, it is.

7 Q. And this was sent to all of the interest  
8 owners --

9 A. Yes.

10 Q. -- along with an AFE, correct?

11 And each of the well-proposal letters  
12 identified the depth at which the particular well would  
13 be drilled; is that correct?

14 A. That is correct.

15 Q. Is Exhibit 6 a plat of the offset operators or  
16 lessees of record?

17 A. Yes. That's correct.

18 Q. Is Exhibit 7 an affidavit prepared by my office  
19 with attached letters providing notice of this hearing  
20 to the parties whom you seek to pool and the offset  
21 operators or lessees of record?

22 A. That is correct.

23 Q. And finally, is Exhibit 8 a Notice of  
24 Publication in Lea County providing notice of this  
25 hearing?

1           A.     Yes, it is.

2           Q.     Were Exhibits 1 through 6 prepared under your  
3     direction and supervision?

4           A.     Yes.

5                   MS. KESSLER:   Mr. Examiners, I move into  
6     evidence Exhibits 1 through 8, which include my two  
7     notice affidavits.

8                   EXAMINER BROOKS:   There is nobody here to  
9     object.

10                  EXAMINER JONES:   Exhibits 1 through 8 are  
11     admitted.

12                   (COG Operating, LLC Exhibit Numbers 1  
13     through 8 are offered and admitted into  
14     evidence.)

15                   CROSS-EXAMINATION

16     BY EXAMINER JONES:

17           Q.     So Tract 2 is the fee tract; is that correct?

18           A.     Yes, sir.

19           Q.     So that's the only tract that has working  
20     interests that are being pooled?

21           A.     Yes.

22           Q.     Okay.   Now, the unmarketable title --

23           A.     Oh, I'm sorry.   Working interest owners -- let  
24     me go back.

25           Q.     That are being pooled?

1 A. Yes. Yes. Sorry. That is true.

2 Q. Okay. So it's just that northeast of the  
3 southeast --

4 A. Yes. That is correct.

5 Q. -- of 6 that has an issue?

6 So what about this marketable title? Are  
7 these people just also in Tract 2?

8 A. Yes. They are in Tract 2. And the estate's  
9 ancillary probate was never done in the state of New  
10 Mexico.

11 Q. Okay.

12 A. And so probate proceedings, for the most part,  
13 were done in Texas, but they never got over to  
14 New Mexico. So just for force-pooling purposes, we're  
15 going to force pool those estates, and we've notified  
16 all the heirs.

17 Q. Okay. So you don't get involved with the  
18 probate proceedings. You just do this -- this portion  
19 of it?

20 A. Yes, sir. That's correct.

21 EXAMINER JONES: I don't understand any of  
22 this.

23 CROSS-EXAMINATION

24 BY EXAMINER BROOKS:

25 Q. I did want to ask about this unmarketable title

1     that you listed for all the estates. Do you have -- do  
2     you have -- are you convinced that all of these people  
3     are deceased?

4           A.     Yes, sir.

5           Q.     And there are estates located in -- in other  
6     states?

7           A.     Yes, sir. And we are force pooling all of  
8     these estates based off our title opinion and our title  
9     requirements prepared by our title attorney.

10          Q.     And you have -- have you served the foreign  
11     administrators or --

12          A.     The personal representatives, yes.

13          Q.     -- or personal representatives?

14          A.     Yes. Yes, sir.

15          Q.     I guess they used to call them executors or  
16     administrators in Texas. I don't know if they've  
17     updated their -- modernized their lingo since I left or  
18     not.

19                     And you also served the heirs of whom COG  
20     had knowledge?

21          A.     Yes.

22          Q.     Okay. And there are no -- you have not  
23     identified any unmarketable title owners other than the  
24     estates, right?

25          A.     That is correct.



1           Q.    Okay.  I guess just one other question:  Did  
2   the drilling engineer have any input on the naming of  
3   this well?

4           A.    I am unsure as to that, but I could probably  
5   find out.

6           Q.    The district office might want to pursue that.

7                               RE CROSS EXAMINATION

8   BY EXAMINER JONES:

9           Q.    Was there a reason why the federal -- BLM  
10  hasn't permitted these yet?

11          A.    Not that I'm aware of.

12          Q.    Okay.  They're just going through their  
13  process?

14          A.    I believe so, yes.

15          Q.    I don't think I have any more questions.

16                       Oh, the notice to this -- of this hearing,  
17  does that just go out to the parties being pooled, or  
18  does it go to everybody that has an interest in this  
19  well?

20                       MS. KESSLER:  It goes to the parties that  
21  we seek to pool and the offsets --

22                       EXAMINER JONES:  And the offsets.

23                       MS. KESSLER:  -- bearing in mind that  
24  sometimes we reach agreement after we send notice out.  
25  So there may be more parties that receive notice than

1 are actually being pooled.

2 EXAMINER JONES: Thank you very much.

3 Thanks.

4 MS. KESSLER: I'll call my next witness.

5 CARRIE M. MARTIN,

6 after having been previously sworn under oath, was

7 questioned and testified as follows:

8 DIRECT EXAMINATION

9 BY MS. KESSLER:

10 Q. Please state your name for the record and tell  
11 the Examiners by whom you're employed and in what  
12 capacity.

13 A. Carrie Martin with COG Operating, LLC, as a  
14 geologist.

15 Q. Have you previously testified before the  
16 Division?

17 A. Yes.

18 Q. Were your credentials as a petroleum geologist  
19 accepted and made a matter of record?

20 A. Yes.

21 Q. Are you familiar with the application filed in  
22 this case?

23 A. Yes.

24 Q. And have you conducted a geologic study of the  
25 lands that are the subject of this application?

1           A.     Yes.

2                       MS. KESSLER:  Mr. Examiner, I tender  
3  Ms. Martin as an expert in petroleum geology.

4                       EXAMINER JONES:  She's so qualified.

5           Q.     (BY MS. KESSLER) If you could turn to Exhibit  
6  9, Ms. Martin, and identify this exhibit and walk us  
7  through it.

8           A.     This is a location map for the proposed  
9  nonstandard unit for the Stove Pipe Federal Com #1H and  
10  the #21H.  The yellow polygons are the COG acreage.  The  
11  purple-dashed line is the proposed wells.  The red lines  
12  are the producing wells in the Wolfbone Pool.  And I  
13  want to point out the direct offset well is called the  
14  Stove Pipe Federal Com #2H, and the well to the east is  
15  called the Skull Cap Federal Com #22H.

16          Q.     What is Exhibit 10?

17          A.     Exhibit 10 is a structure map on top of the 3rd  
18  Bone Spring Sand.  The contour interval is 50 feet, and  
19  this is represented by the black lines.  The map shows  
20  that there's no faulting in the area.  There are no  
21  pinch-outs or no geologic impediments to drilling  
22  horizontal wells.  The structure map also shows that the  
23  dip for the structure is less than two degrees.

24          Q.     And is Exhibit 11 the same locator map with a  
25  line of section drawn on it?

1           A.     Correct.

2           Q.     Okay.  Is this going to be a three-well cross  
3 section?

4           A.     Yes.

5           Q.     And do you consider the three wells used for  
6 your cross section representative of wells in the area?

7           A.     Yes.

8           Q.     Is Exhibit 12 the corresponding cross-section  
9 exhibit?

10          A.     Yes.

11          Q.     Is there a very large map tucked behind the  
12 smaller map?

13          A.     Yes.  There is a large printout that shows the  
14 cross section in poster size.

15          Q.     Can you please identify the formations shown in  
16 this cross-section exhibit?

17          A.     Yes.  The top -- the black line at the top of  
18 the cross section is the top of the 3rd Bone Spring  
19 Carb.  The purple line is the top of the 3rd Bone Spring  
20 Sand.  The red line is the top of the Wolfcamp  
21 Formation, and the pink line at the bottom of the cross  
22 section is what we call the Wolfcamp B.

23          Q.     Do these logs show the whole Wolfbone Pool?

24          A.     Yes.

25          Q.     Okay.  What are the depths to that pool?  Do

1     you have that?

2           A.     I did not bring my glasses up, but --

3           Q.     Is it identified on the Jamaica log?

4           A.     Yes.  So the recommendation that we made for  
5     the Wolfbone Pool was using the Jamaica 12 Federal #1.  
6     And we recommended that the top would be the top of the  
7     3rd Bone Spring Carb at 11,615, approximately, and the  
8     bottom of the Wolfbone Pool would be the top of the  
9     Wolfcamp B at just below 13,000 feet on this log.

10          Q.     Okay.  Have you also shown your two lateral  
11     intervals on this exhibit?

12          A.     Yes.  The --

13          Q.     Go ahead.

14          A.     The Stove Pipe Federal Com #1H is represented  
15     by the upper bracket, which is just above the Wolfcamp  
16     Formation within the Wolfbone Pool, and then the Federal  
17     Com -- Stove Pipe Federal Com #21H is represented by the  
18     lower bracket, which is within the Wolfcamp A --  
19     Wolfcamp Upper Shale.

20          Q.     Approximately how far are these two wells going  
21     to be landed vertically?

22          A.     They are approximately 250 feet apart.

23          Q.     And why were these targets chosen?

24          A.     These targets were chosen based on the  
25     geological rock quality of the targets.  They are also

1 representative by the producing wells that we have on  
2 the previous Exhibit. The upper target is in the same  
3 landing point as the Stove Pipe Federal Com #2H, and the  
4 #21H is in the landing as the Skull Cap Federal Com  
5 #22H. And so we feel that these are very good targets  
6 and very productive for the area.

7 Q. What have you identified with respect to  
8 continuity across the two lateral intervals where you're  
9 proposing to land your two wells?

10 A. The geologic continuity is consistent across  
11 the area. The thicknesses are also consistent across  
12 the area for both of these intervals.

13 Q. Based on your geologic study of this area, have  
14 you identified any geologic hazards to developing the  
15 area with two-mile wells?

16 A. No.

17 Q. And in your opinion, can the wells be  
18 efficiently and economically developed by horizontal  
19 wells?

20 A. Yes.

21 Q. Do you believe that each tract in the proposed  
22 nonstandard unit will contribute, on average, more or  
23 less equally?

24 A. Yes.

25 Q. And I don't know that this has been discussed

1 yet. Will each of the wells comply with the setbacks  
2 for the Horizontal Well Rule?

3 A. Yes.

4 Q. In your opinion, will granting COG's  
5 application be in the best interest of conservation, the  
6 prevention of waste and the protection of correlative  
7 rights?

8 A. Yes.

9 Q. Were Exhibits 9 through 12 prepared by you or  
10 compiled under your direction and supervision?

11 A. Yes.

12 MS. KESSLER: Mr. Examiners, I'd move  
13 admission of Exhibits 9 through 12.

14 EXAMINER JONES: Exhibits 9 through 12 are  
15 admitted.

16 (COG Operating, LLC Exhibit Numbers 9  
17 through 12 are offered and admitted into  
18 evidence.)

19 EXAMINER BROOKS: No questions.

20 CROSS-EXAMINATION

21 BY EXAMINER JONES:

22 Q. So which one of these two wells that have  
23 already been drilled actually convinced you to drill  
24 these two wells? Which one was the best one?

25 A. They're both very good wells.

1 Q. Okay.

2 A. They're both very good wells.

3 Q. Okay. But they're both a mile-and-a-half  
4 wells?

5 A. Correct.

6 These two wells would be our first two-mile  
7 wells in this particular area. We have drilled two-mile  
8 wells outside of this area.

9 Q. Okay. \$11 million, two miles long, and you're  
10 going to watch it from home if you have to --

11 A. Yes.

12 Q. -- because it sends data in to you?

13 A. Yes. And middle of the night, I'll be watching  
14 it.

15 Q. Yeah. So you get the drill time? You watch  
16 your drill time on your computer at home? You can just  
17 see it as it's coming?

18 A. We get surveys every so many feet. About 90  
19 feet, we get surveys. We will have a mud log  
20 throughout. We have a mud-logging company that watches  
21 it, and they provide the data to us, as well as we get  
22 an MWD gamma ray while the lateral is drilling.

23 Q. Okay. So you're getting a gamma ray and a mud  
24 log to include all the normal things a mud log gets?

25 A. Yes. We get the gas curves and lithologies.



1 Q. Lithologies.

2 And they don't have trouble cleaning the  
3 hole from two miles long? I mean, your lag time --

4 A. No.

5 Q. -- what is your lag time for your --

6 A. The lag time -- I'm not exactly sure what the  
7 lag time is.

8 Q. But they do carbide or whatever to try to  
9 establish that every so often, I guess?

10 A. Yeah. If we have any problems, we'll have  
11 them, you know, circulate bottoms up, if there are any  
12 issues, but we have not seen issues with any of the  
13 wells we've drilled in this area to date.

14 Q. So the lithology -- these other wells were  
15 chosen at -- one right on top of the Wolfcamp, one right  
16 below the top of the Wolfcamp. So why were they chosen  
17 at those spots?

18 A. The one that's just above the Wolfcamp is  
19 chosen based on all of our petrophysical logs that we've  
20 collected and even older logs that are public data. We  
21 make a petrophysical assessment and determine the best  
22 rock quality based on all of our logs that we have to  
23 determine the best target, and that's the same for the  
24 lower target. They are different lithologies. One is a  
25 sand. The other one is a shale, but they're both

1 productive zones within this area.

2 Q. Okay. So the sand is the one on the bottom?

3 A. The sand is the one right at the -- above the  
4 Wolfcamp --

5 Q. Oh, right above.

6 A. -- in the 3rd Bone Spring Sand.

7 Q. Okay. And the other one is kind of a shale on  
8 the top of the Wolfcamp?

9 A. Yeah. It's the -- it's what we call the Upper  
10 Wolfcamp Shale ever.

11 Q. That zone below the 3rd Bone Spring  
12 carbonate -- you have your carbonate there, but then  
13 about 30 feet down, all of a sudden the gamma ray really  
14 changes. But you don't -- you don't call that the 3rd  
15 Bone Spring Sand at that point? It's just kind of a  
16 shale? So you go carbonate, shale and then sand?

17 A. Yes. This particular area has kind of a shaley  
18 section below the 3rd Bone Spring Carb, before you reach  
19 the 3rd Bone Spring Sand. In other areas, that is a  
20 carbonate all the way through.

21 Q. All the way through.

22 A. In this particular area, there are some shales  
23 throughout there.

24 Q. This is Lea County; is that correct?

25 A. Yes.

1           Q.    Okay.  And then how far laterally would this  
2   Wolfbone be designated?  Does Paul Kautz say anything?  
3   Do you talk to him?

4           A.    I have -- I have not had any direct contact  
5   with him on how far this pool plans to be extended.  I  
6   have not actually been in the phone conversations with  
7   him directly.

8           Q.    But it will probably depend on your drilling.  
9   If you pick these targets right around the boundary of  
10  the Wolfcamp and the Bone Spring, they will -- you'll  
11  have to keep extending this?

12          A.    I'm not familiar with the criteria that will be  
13  used.

14          Q.    Yeah.  But ownership's the same either way.  It  
15  will -- you're probably okay.

16          A.    (Indicating.)

17          Q.    No pressure increases as you get below the top  
18  of the Wolfcamp?

19          A.    No.  We don't -- we don't see any pressure  
20  increases, you know, within the third to the top of the  
21  Wolfcamp.  However, based on my knowledge of other wells  
22  in the area, there may be pressure increases once you  
23  get below the Wolfcamp B.

24          Q.    Okay.  Okay.  So which one will you drill  
25  first?

1           A.     These will be drilled simultaneously as a pad  
2     drill project. We plan to walk the wells, where you  
3     drill part of the vertical of one well, you'll then  
4     drill the vertical of the other well, and then the  
5     laterals will then be drilled back-to-back.

6           Q.     Okay.

7           A.     And that's part of the efficiencies.

8           Q.     Okay. Thank you very much.

9                     MS. KESSLER: I'll call my next witness.

10                    JAYNE JUNELL,  
11           after having been previously sworn under oath, was  
12           questioned and testified as follows:

13                    DIRECT EXAMINATION

14   BY MS. KESSLER:

15           Q.     Please state your name for the record and tell  
16     the Examiners by whom you're employed and in what  
17     capacity?

18           A.     My name is Jayne Junell, and I'm employed as a  
19     reservoir engineer for COG Operating, LLC.

20           Q.     Have you previously testified before the  
21     Division?

22           A.     Yes.

23           Q.     Were your credentials as a reservoir engineer  
24     accepted and made a matter of record?

25           A.     Yes.

1           Q.    Are you familiar with the application filed in  
2   this case?

3           A.    Yes.

4           Q.    And are you familiar with the reservoir in the  
5   subject area?

6           A.    Yes.

7                   MS. KESSLER:  Mr. Examiners, I would tender  
8   Ms. Junell as an expert in reservoir engineering.

9                   EXAMINER JONES:  She is so qualified.

10          Q.    (BY MS. KESSLER) Why does COG seek to drill two  
11   wells in the Wolfbone Pool?

12          A.    It will take more than one well to efficiently  
13   drain and effectively drain this location.

14          Q.    Meaning you will leave fewer reserves in the  
15   ground?

16          A.    Yes.  And we want to -- we want to drill two  
17   wells so it will completely drain it.  We want to  
18   complete them at the same time.  Because of frac  
19   efficiencies, we get better rates, reserves and  
20   economics.

21          Q.    Okay.  Is simultaneous completion entering into  
22   a wide trend?

23          A.    Yes.

24          Q.    In fact, are there technical papers showing a  
25   better EUR with simultaneous completion?

1 A. Yes.

2 Q. Approximately what percent better EUR?

3 A. Well, we have -- we don't have data in this  
4 area of the Wolfcamp. We have data in the Avalon and  
5 2nd Bone Spring, which in our well shows an increase of  
6 about 30 percent in the EUR, which is consistent with  
7 the papers we have seen industrywide.

8 Q. What is Exhibit 13?

9 A. Exhibit 13 is an example of a spacing test that  
10 Cimarex performed in the Upper Wolfcamp Shale in  
11 Culberson County, Texas. On the left side is a log  
12 which shows their targets within the shale. The map  
13 shows the location of these wells in Culberson County,  
14 as well as their relative position to each other.  
15 They're mile-and-a-half-long wells, and it's the  
16 equivalent of eight wells per section. The bottom  
17 right-hand box is a cross-sectional view of the eight  
18 wells. The green wells were drilled first about a year  
19 and a half before the other six wells, all of which were  
20 completed at the same time. The red are the closest  
21 wells to the parent, the green wells, and then the blue  
22 are the interior wells. But all six of those middle  
23 wells were completed at the same time, a year and a half  
24 after the parent wells.

25 Q. Does Exhibit 14 summarize the production

1 resulting from this well test?

2 A. Yes. In the green, you see the production from  
3 the original wells that were drilled and completed a  
4 year and a half before the other six. The red wells,  
5 which are the child wells offsetting the parent wells,  
6 you can see have substantially less production than the  
7 parent wells. The remaining four interior wells were  
8 completed at the same time, and you can see those four  
9 wells have the same production and it's very close to  
10 the parent wells. But the offset, the red child wells,  
11 completed a year and a half later are substantially  
12 worse.

13 Q. Does Exhibit 15 show well test results from  
14 simultaneous completion wells?

15 A. Yes. There is another example of that. These  
16 are, again, Cimarex wells, the Prewit Omaha Lease, in  
17 the Wolfcamp. It's also in Culberson County, I believe.  
18 And you can see that all these wells were completed at  
19 the same time, and they have substantially equivalent  
20 performance.

21 Q. Has COG experienced positive production results  
22 from simultaneously completing wells?

23 A. Yes.

24 Q. Why is that?

25 A. When the parent well produces fluids out of the

1 reservoir, the frac network is depleted somewhat. So  
2 when the subsequent well is fracked, it goes to the path  
3 of least resistance, which makes it difficult to  
4 initiate fracs in new rock, so basically you are  
5 restimulating the same rock. And because you're not  
6 stimulating new rock, you don't get as effective a frac  
7 job, and you don't produce those reserves because that  
8 rock is not contacted.

9 Q. What is COG's preferred timing for completion?

10 A. Simultaneous completion when possible.

11 Q. In your opinion, is drilling and simultaneously  
12 completing original and development wells a method to  
13 optimize production from the wells?

14 A. Yes.

15 Q. And in your opinion, does drilling and  
16 simultaneously completing original and development wells  
17 prevent waste?

18 A. Yes.

19 Q. In your opinion, for this application, will  
20 reserves be left in the ground if COG does not  
21 simultaneously complete these two wells?

22 A. Yes.

23 Q. Were you part of a team that put together  
24 Exhibits 13 through 15?

25 A. Yes.



1 MS. KESSLER: Mr. Examiners, I would move  
2 admission of Exhibits 13 through 15.

3 EXAMINER JONES: Exhibits 13, 14, 15 are  
4 admitted.

5 (COG Operating, LLC Exhibit Numbers 13  
6 through 15 are offered and admitted into  
7 evidence.)

8 CROSS-EXAMINATION

9 BY EXAMINER BROOKS:

10 Q. Well, if you simultaneously complete the wells,  
11 you're drilling in the entire -- in this case you're  
12 drilling two?

13 A. Uh-huh.

14 Q. But you would drill however many was optimal to  
15 develop the unit, right?

16 A. Uh-huh. Uh-huh.

17 Q. If you simultaneously complete these wells, the  
18 initial production is going to be quite high, right?

19 A. Yes.

20 Q. And it's always possible that this might exceed  
21 your allowable?

22 A. Well, I think it's -- I'm not an allowable  
23 expert, but we can get a testing allowable. But we try  
24 to work out those details for sure.

25 Q. Yeah.

1           A.    And I think the point can be made that it's  
2   always easier to complete one at a time, facilities,  
3   marketing, allowables, but we do this because it  
4   recovers the most reserves and prevents waste.

5           Q.    Well, that's the point I'm getting to.

6           A.    Uh-huh.

7           Q.    The fact of the matter is since you have  
8   testimony -- and I'm assuming that's the fact that  
9   you've testified -- you've testified, and it's based on  
10  your review of the literature --

11          A.    Uh-huh.

12          Q.    -- that you'll actually have a higher EUR over  
13  the life of these wells --

14          A.    Yes.

15          Q.    -- than if you completed them separately --

16          A.    Yes.

17          Q.    -- which would -- although you'll have a higher  
18  initial production, much higher initial production,  
19  because you're completing two wells simultaneously from  
20  the unit.

21          A.    Uh-huh.

22          Q.    And that would have concern complications, I'm  
23  thinking -- I'm not sure exactly what they are -- for  
24  answering the question that the Oil Conservation  
25  Commission's going to have to answer at some point in

1 time before long, and that is how -- whether the  
2 prevention of waste requires the restriction of  
3 production in the early phases of a horizontal well. I  
4 would gather that your testimony -- there is some  
5 indication maybe that's not the best idea.

6 A. Right.

7 Q. That maybe it's -- maybe that not only doesn't  
8 prevent waste, but in certain instances could cause  
9 waste.

10 A. Yes.

11 Q. Well, thank you.

12 A. Uh-huh.

13 CROSS-EXAMINATION

14 BY EXAMINER JONES:

15 Q. So are we proposing two \$11 million wells to  
16 the nonconsenting parties? So they have to sign up for  
17 \$22 million, their percentage of that?

18 MS. KESSLER: That's correct, Mr. Examiner.  
19 And as the landman previously testified, nobody's  
20 objected to that. In fact, a number of parties have  
21 participated in this.

22 Q. (BY EXAMINER JONES) It's still -- so basically  
23 you can't -- you can't -- because of the advantages  
24 of -- technologically, you can't drill one and then  
25 propose a second under the terms of the compulsory

1 pooling; is that correct?

2 A. Well, the way we have applied for this, we want  
3 to complete them at the same time, without that lag  
4 time. Yes.

5 Q. You want them -- okay.

6 MS. KESSLER: And that is in order to  
7 prevent waste, as I understand it.

8 THE WITNESS: Right.

9 Q. (BY EXAMINER JONES) I think we've had some  
10 Fruitland wells similar to this in the past, where they  
11 brought two wells at the same time. It was probably  
12 Mr. Bruce.

13 EXAMINER BROOKS: They often -- not often,  
14 but from time to time, we have done compulsory poolings  
15 where we provided for two wells. That's not really that  
16 unusual. It's not the usual scenario, but it's been  
17 done many times.

18 EXAMINER JONES: This would be one AFE that  
19 goes out to the consenting parties; is that right?

20 MS. KESSLER: Two AFEs.

21 EXAMINER JONES: But it will all go out in  
22 one letter saying sign this or not?

23 MS. KESSLER: That's correct.

24 EXAMINER BROOKS: But, of course, they  
25 can -- an interest owner can always elect to participate

1 in one and not the other, or they can elect to sell  
2 down, probably would buy --

3 Q. (BY EXAMINER JONES) Okay. So they can make an  
4 election.

5 A. It's two letters and two AFEs.

6 Q. But they have to make a decision at the same  
7 time?

8 A. Same time.

9 Q. Okay.

10 MS. KESSLER: And, Mr. Examiner, we've also  
11 recently gotten approved in a recent case from the  
12 Division. I don't have the case number, but it's for  
13 the Columbus 23H and 24H -- 21H and 22H wells.

14 EXAMINER BROOKS: Yeah. I think I remember  
15 that case. I believe one of the Examiners asked my  
16 advice about it.

17 Q. (BY EXAMINER JONES) So when you say  
18 simultaneously, do you mean the same frac crew out  
19 there; they frac one and hold pressure on that one while  
20 they frac the other?

21 A. They frac one stage in one well, frac the same  
22 stage in the other well.

23 Q. Oh, okay.

24 A. They have a manifold, right, where it goes back  
25 and forth from well to well. So the pressures at each

1 stage help initiate the fracs -- you know, the  
2 offsetting pressures help initiate the fracs and keep  
3 them in that -- close to that wellbore and get you more  
4 frac complexity as well.

5 Q. Okay. Wow. So does that mean Ocean lets you  
6 out of the office with this information? That's a  
7 surprise.

8 A. Well, It's becoming the industry standard, not  
9 just here but all over. So --

10 EXAMINER JONES: Does that mean Mr. Brooks  
11 and I will not be -- probably so.

12 EXAMINER BROOKS: We're dinosaurs.

13 EXAMINER JONES: Yeah. I keep telling  
14 Mr. Catanach he is, but he resists me when I say that.

15 Q. (BY EXAMINER JONES) So the distance apart of  
16 these wells vertically is -- they're going to be exactly  
17 the same?

18 A. Yes. This is a stacked test.

19 Q. Just totally stacked?

20 A. Yes.

21 The targets were chosen because they were  
22 successful in the other wells, as Ms. Martin mentioned,  
23 so this is -- and both of those were good wells. This  
24 is a test to see if we can get as good a well when you  
25 stack it. Because if that's the case, we'll be able to

1 produce more reserves and prevent more waste if we can  
2 develop it that way.

3 Q. Okay. Okay. So this the -- how are the stages  
4 separated in these fracs? Are they -- you pump down a  
5 ball and it seats, and then -- or are you going to go  
6 in -- you don't go in with a wireline and send another  
7 packer down there?

8 A. Yeah. It's plug and perf, right? I'm not a  
9 completions engineer, but yes. Yeah. I mean, it's just  
10 like a single frac, but you just take turns along each  
11 wellbore.

12 Q. Okay. And you won't be collapsing one while  
13 you frac the other?

14 A. Well, we won't because there is not going to be  
15 depleted frac --

16 Q. You build up the same pressure?

17 A. Right. Right.

18 Q. Okay. Okay. Thank you very much.

19 MS. KESSLER: Mr. Examiner, I understand  
20 that there is a lease expiration issue with one of these  
21 leases, so what I would propose to you, if this is  
22 acceptable, is to continue this for notice purposes for  
23 a month and then at the same time, I tender a proposed  
24 order to the Division.

25 EXAMINER JONES: There was a notice issue?

1 I forgot.

2 EXAMINER BROOKS: There was. Somebody was  
3 served late. When was it served?

4 MS. KESSLER: Monday.

5 EXAMINER BROOKS: Okay. So it'll be four  
6 weeks.

7 EXAMINER JONES: Okay. That would put it  
8 on May 26th?

9 EXAMINER BROOKS: 25th.

10 MS. KESSLER: Yeah. I believe it's the  
11 25th.

12 EXAMINER JONES: Okay. So Case 15680 has  
13 been heard, but we're continuing it to May the 25th.

14 MS. KESSLER: Thank you.

15 EXAMINER JONES: Thank you very much.

16 EXAMINER BROOKS: Thank you.

17 (Case Number 15680 concludes, 9:58  
18 a.m.)

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1 STATE OF NEW MEXICO  
2 COUNTY OF BERNALILLO

3

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