

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 IMPETRO OPERATING,                   CASE NO. 15923,  
LLC FOR A NONSTANDARD OIL SPACING                   15924  
AND PRORATION UNIT AND COMPULSORY  
POOLING, LEA COUNTY, NEW MEXICO.

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

January 11, 2018

Santa Fe, New Mexico

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

This matter came on for hearing before the  
New Mexico Oil Conservation Division, Michael McMillan,  
Chief Examiner, William V. Jones, Technical Examiner,  
and David K. Brooks, Legal Examiner, on Thursday,  
January 11, 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  
                  New Mexico CCR #20  
                  Paul Baca Professional Court Reporters  
                  500 4th Street, Northwest, Suite 105  
                  Albuquerque, New Mexico 87102  
                  (505) 843-9241

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APPEARANCES

FOR APPLICANT IMPETRO OPERATING, LLC:

SETH C. McMILLAN, ESQ.  
MONTGOMERY & ANDREWS LAW FIRM  
325 Paseo de Peralta  
Santa Fe, New Mexico 87501  
(505) 982-3873  
smcmillan@montand.com

FOR INTERESTED PARTIES ONE ENERGY, CONCHO MINERALS, LLC  
AND TIERRA ROYALTY, LLC:

JORDAN L. KESSLER, ESQ.  
HOLLAND & HART, LLP  
110 North Guadalupe, Suite 1  
Santa Fe, New Mexico 87501  
(505) 988-4421  
jlkessler@hollandhart.com

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1 (10:21 a.m.)

2 EXAMINER McMILLAN: I'd like now to call  
3 Case Number 15923, application of Impetro Operating, LLC  
4 for a nonstandard oil spacing and proration unit and  
5 compulsory pooling, Lea County, New Mexico.

6 May I ask whether or not this case will be  
7 combined with Case Number 15924, application of Impetro  
8 Operating, LLC for a nonstandard oil spacing and  
9 proration unit and compulsory pooling, Lea County, New  
10 Mexico? Is that correct?

11 MR. McMILLAN: Mr. Examiner, Impetro  
12 requests these matters be consolidated.

13 MS. KESSLER: No objection.

14 EXAMINER McMILLAN: Case Numbers 15923 and  
15 15924 will be combined.

16 Will the witnesses please stand up and be  
17 sworn in?

18 (Ms. Hughes and Mr. Rudderow sworn.)

19 EXAMINER McMILLAN: Oh. I forgot to  
20 mention appearances.

21 MR. McMILLAN: Seth McMillan, with the  
22 Santa Fe office of Montgomery & Andrews, on behalf of  
23 Impetro Operating, LLC.

24 MS. KESSLER: Mr. Examiners, Jordan  
25 Kessler, with Holland & Hart, on behalf of OneEnergy,

1 Concho Minerals, LLC and Tierra Royalty, LLC.

2 MR. McMILLAN: May we call our first  
3 witness?

4 EXAMINER McMILLAN: Yes.

5 MR. McMILLAN: Impetro would call Neal  
6 Rudderow.

7 NEAL RUDDEROW,

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

10 DIRECT EXAMINATION

11 BY MR. McMILLAN:

12 Q. Good morning, sir.

13 A. Good morning.

14 Q. Would you kindly state your full name and place  
15 of residence?

16 A. Yes. Neal Rudderow, Cypress, Texas.

17 Q. By whom are you in employed and in what  
18 capacity?

19 A. My employer is Lilis Energy, Inc. and Impetro  
20 Operating, LLC, a wholly owned subsidiary of Lilis.

21 Q. Are you authorized to testify today on  
22 Impetro's behalf?

23 A. I am.

24 Q. Have you previously testified before the  
25 Division or one of its Examiners and had your

1     **credentials accepted and made a matter of record?**

2           A.     I have not.

3           **Q.     Then can you please provide for the Examiners a**  
4 **brief summary of your educational background?**

5           A.     I attended Baylor University, graduated with a  
6 BBA in entrepreneurship, and also I have an MBA from the  
7 University of Houston specializing in energy and  
8 finance.

9           **Q.     And would you now summarize briefly your work**  
10 **experience?**

11          A.     Sure. I've been a land professional for seven  
12 years, spent about a year in the field. The next six  
13 were in-house with Occidental Petroleum in various land  
14 functions, in various basins, in various states, and  
15 have been with Lilis Energy for the last year as land  
16 manager.

17          **Q.     Are you familiar with the applications filed in**  
18 **these cases?**

19          A.     Yes.

20          **Q.     And are you familiar with the lands involved in**  
21 **these cases?**

22          A.     I am.

23                   MR. McMILLAN: Mr. Examiner, I would tender  
24 Mr. Rudderow as an expert petroleum landman.

25                   MS. KESSLER: No objection.

1 EXAMINER McMILLAN: So qualified.

2 Q. (BY MR. McMILLAN) Mr. Rudderow, would you  
3 please briefly state what Impetro is seeking in these  
4 consolidated cases?

5 A. Yes, sir. In Case Number 15923, Impetro seeks  
6 an order approving a nonstandard oil spacing and  
7 proration unit in the Wolfcamp Formation, comprised of  
8 the east of the east half of Section 19, Township 26  
9 South, Range 36 East, New Mexico Prime Meridian, in Lea  
10 County, New Mexico, and pooling all mineral interests in  
11 the Wolfcamp Formation underlying the nonstandard unit.  
12 The unit will be dedicated to Impetro's proposed  
13 Prizehog BWZ State Com #2H well.

14 And also in Case Number 15924, Impetro  
15 seeks an order approving a nonstandard oil spacing and  
16 proration unit in the Wolfcamp Formation, comprised of  
17 the east half of the east half of Section 20, Township  
18 26 South, Range 36 East, New Mexico Prime Meridian, Lea  
19 County, New Mexico, and pooling all mineral interests in  
20 the Wolfcamp Formation underlying the nonstandard unit.  
21 The unit will be dedicated to Impetro's proposed Wildhog  
22 BWX State Com #2H well.

23 Q. Have you prepared certain exhibits for  
24 introduction in this case?

25 A. I have.

1 Q. Are those exhibits in front of you?

2 A. They are.

3 Q. Great.

4 Let's take a look at your Exhibit 1. Do  
5 these appear to be the approved C-102s for the subject  
6 wells?

7 A. Yes, sir.

8 Q. Are the surface- and bottom-hole locations for  
9 the proposed wells shown on those C-102s?

10 A. They are.

11 Q. Are Wolfcamp -- these are Wolfcamp wells,  
12 correct?

13 A. They are.

14 Q. Are Wolfcamp wells in this area governed by  
15 statewide pool rules?

16 A. Yes.

17 Q. Do you know what the setbacks are for oil wells  
18 in this pool?

19 A. 330 feet.

20 Q. And looking at Exhibit 1, will be --  
21 ultimately, will the take points here be situated within  
22 the setbacks?

23 A. Yes, they will.

24 Q. Remind us what the primary objective for the  
25 well is -- for the wells are?

1           A.    We are targeting the Upper Wolfcamp for both  
2 wells.

3           Q.    And does Impetro own the right to drill this  
4 tract that will be traversed by the wellbore?

5           A.    Yes, we do.

6           Q.    Great.

7                         Let's turn to Exhibit 2.  Is this an  
8 ownership breakdown -- a pair of ownership breakdowns,  
9 one for each of the proposed wells?

10          A.    It is.

11          Q.    It looks like Impetro has 50 percent with  
12 respect to both of these.  How long has Impetro owned  
13 its interests in Sections 19 and 20?

14          A.    They acquired the interest of June 2017.

15          Q.    And when did Impetro first commence its  
16 geologic evaluation of the area?

17          A.    A few months prior to purchasing it.

18          Q.    When did Impetro submit an APD to the OCD for  
19 these wells?

20          A.    Both APDs were submitted on October 13th, 2017.

21          Q.    And were they approved?

22          A.    Yes, sir, October 15th, 2017.

23          Q.    Great.

24                         Can you tell us what experience Impetro has  
25 in drilling and operating the types of -- these types of

1 horizontal wells in the Wolfcamp Formation?

2 A. Yes. Impetro has drilled or is in the process  
3 of drilling approximately a dozen Wolfcamp-targeted  
4 wells in northwestern Winkler County, just over the  
5 state line.

6 Q. Great.

7 Referring back to your Exhibit 2, let's go  
8 through quickly to get it on the record what percentage  
9 of acreage in the proposed unit is voluntarily committed  
10 to the wells.

11 A. We have 80 percent voluntarily committed, being  
12 Impetro and OneEnergy Partners.

13 Q. And who is left over?

14 A. OXY Y-1 Company.

15 Q. Okay. Are there any unleased mineral interest  
16 owners?

17 A. There are not.

18 Q. And are you asking the Division to force pool  
19 the unjoined working interests that you just mentioned,  
20 that being OXY?

21 A. Yes, we are.

22 Q. For Mr. Brooks' benefit, were all overriding  
23 interest owners notified of today's hearing?

24 A. Yes, they were.

25 Q. Okay. However, are you seeking to force --

1                   And to backtrack, were there just two  
2 royalty interest owners involved here?

3           A.    Overriding royalty, yes.

4           Q.    Yes.  I'm sorry.  Overriding royalty.  Yes.

5                   And were these Encanto Minerals, LLC and  
6 Tierra Royalty, LLC?

7           A.    Yes.

8           Q.    Sounds familiar?

9                   Is Impetro seeking to force pool these two  
10 overrides?

11          A.    No, not force pool.  They have pooling  
12 provisions in their assignment creating the override.

13          Q.    Okay.  And do we have -- do you have copies of  
14 that assignment if the Examiners wish to take a look?

15          A.    Yes, we do.

16          Q.    Great.

17                   Is Impetro seeking imposition of a 200  
18 percent risk penalty against the unjoined interests  
19 here?

20          A.    We do.

21          Q.    Does Impetro seek to be designated the operator  
22 of the wells?

23          A.    Yes, we do.

24          Q.    Turn to Exhibit 3.  Is this a compilation of  
25 well-proposal letters reflecting your efforts to obtain

1 joinder?

2 A. Yes, it is.

3 Q. And does this -- do these letters include as  
4 enclosures an AFE?

5 A. They do.

6 Q. Did they include a proposed JOA?

7 A. They did.

8 Q. Great.

9 Can you discuss for us, I guess in broad  
10 strokes, your attempts to obtain voluntary participation  
11 of the unjoined working interest owners?

12 A. Sure. Being a former OXY employee, I have  
13 pretty good contacts over there, so I've been working,  
14 actually, with a good friend of mine, Jonathan Gonzalez.  
15 And I spoke with him on many occasions over the phone  
16 and via email as to OXY's participation in these units,  
17 and he indicated to me that they had looked into it but  
18 would probably not even respond to our proposals. So we  
19 have considered them non --

20 Q. Great. So here we are today.

21 In your opinion, has Impetro made a  
22 good-faith effort to locate all of the interest owners  
23 and communicate with them in order to obtain their  
24 voluntary participation?

25 A. Yes, sir.

1           **Q. Turn to your Exhibit 4. Are these the AFEs for**  
2 **both wells?**

3           A. Yes. These were attached to the initial  
4 proposal letters.

5           **Q. Excellent.**

6                           **Can you just review for us the total**  
7 **estimated completed well costs for these two wells?**

8           A. Yes. The total cost for both wells is  
9 \$8,271,253.97.

10          **Q. And were these AFE cost estimates updated from**  
11 **the time of Impetro's initial well proposals?**

12          A. No.

13          **Q. In your opinion, are these costs in line with**  
14 **what is being charged by other operators in the area for**  
15 **similar wells?**

16          A. Yes.

17          **Q. Mr. Rudderow, have you made an estimate of**  
18 **overhead and administrative costs while drilling and**  
19 **producing these wells?**

20          A. Yes. We estimate \$7,000 per month for overhead  
21 and \$700 a month for producing overhead.

22          **Q. Are these costs in line with what is being**  
23 **charged by other operators in the area?**

24          A. Yes.

25          **Q. Do you recommend that the drilling and**

1 producing overhead rates you just testified be  
2 incorporated into the order that results from this  
3 hearing?

4 A. We do.

5 Q. Does Impetro request that the order to be  
6 issued in this case provide for an adjustment of the  
7 drilling and producing overhead rates in accordance with  
8 the current COPAS bulletin for the area?

9 A. Yes.

10 Q. In your opinion, has Impetro acted diligently  
11 to develop these reserves?

12 A. Yes.

13 Q. In your opinion as an expert petroleum landman,  
14 would the granting of Impetro's applications be in the  
15 best interest of conservation, the prevention of waste  
16 and the protection of correlative rights?

17 A. It would.

18 Q. Were Exhibits 1 through 4 prepared by you or at  
19 your direction and control?

20 A. They were.

21 MR. McMILLAN: Mr. Examiner, I would now  
22 move for the admission of Exhibits 1 through 4.

23 MS. KESSLER: No objection.

24 EXAMINER McMILLAN: Exhibits 1 through 4  
25 may now be accepted as part of the record.

1 MR. McMILLAN: And I would move for the  
2 admission of Exhibit 5. This is an Affidavit of Notice  
3 executed by myself as attorney for Impetro. It includes  
4 an exhibit showing the working interest owners, the  
5 offset operators and the overrides who were served with  
6 notice of today's hearing, and attached thereto are the  
7 green cards we have received to date. I will put on the  
8 record that we haven't yet received green cards from a  
9 handful of folks, including small operators like COG and  
10 EOG. We're waiting on those. We will supplement the  
11 record, I suppose, when those come in and/or publish,  
12 ultimately, if we don't receive green cards.

13 Anyway, I would move the admission of this  
14 Exhibit 5 at this time.

15 MS. KESSLER: No objection.

16 EXAMINER McMILLAN: Exhibit 5 may now be  
17 accepted as part of the record.

18 (Impetro Operating, LLC Exhibit Numbers 1  
19 through 5 are offered and admitted into  
20 evidence.)

21 MR. McMILLAN: Those are all the questions  
22 I have.

23 CROSS-EXAMINATION

24 BY MS. KESSLER:

25 Q. Mr. Rudderow, you're aware that OneEnergy is

1 participating?

2 A. Yes, ma'am.

3 Q. And you've reviewed the documents creating the  
4 overriding royalty interest between OneEnergy Partners  
5 and Encanto Minerals and OneEnergy and Tierra Royalty,  
6 correct?

7 A. I'm aware of them. I haven't reviewed them in  
8 detail, no.

9 Q. But you stated on the record previously that  
10 you agreed that those documents specifically authorize  
11 that the lands be pooled, correct?

12 A. Correct. Yes. That's what's -- that's part of  
13 the title review. Yes.

14 Q. And you're not pooling those overriding royalty  
15 interest owners today?

16 A. Not force pooling them, no, ma'am.

17 Q. And they were still provided notice of the  
18 pooling application?

19 A. Correct.

20 MS. KESSLER: No further questions.

21 Thank you.

22 EXAMINER BROOKS: Okay. I would just  
23 interject, because this pooling issue -- this override  
24 issue has come up, but I have never -- I appreciate your  
25 notifying them, as a special courtesy to me (laughter).

1 But at the same time, I have never asserted it was  
2 necessary to -- to notify overriding royalty interests  
3 if the assignment of override -- assignment or  
4 reservation of override contained a pooling clause that  
5 was applicable to the interest, just to clarify.

6 MR. McMILLAN: And for our clarification,  
7 that came to light after we had served the notice.  
8 That's what we heard from the overrides who shared with  
9 us the instrument.

10 EXAMINER BROOKS: Very good. Thank you.

11 CROSS-EXAMINATION

12 BY EXAMINER McMILLAN:

13 Q. Okay. My question is: Do you know the pool  
14 code? Is it 98234?

15 MR. McMILLAN: I may have that off the top  
16 of my head.

17 Q. (BY EXAMINER McMILLAN) I've got the A, B, C and  
18 whatever else.

19 Were there any unlocatable interests?

20 A. No, sir.

21 Q. Any depth severance within the Wolfcamp?

22 A. Within the Wolfcamp? No, sir, none that we're  
23 aware of.

24 Q. And for Case Number 15923, the API number is  
25 44111 and 15924, 44124; is that correct?

1           A.    Let me confirm.  I don't have the API numbers  
2   in front of me, sir.

3                   MR. McMILLAN:  We could readily supplement  
4   that information.

5                   EXAMINER McMILLAN:  Yeah, if that could be  
6   done.

7                   Go ahead.

8                                   CROSS-EXAMINATION

9   BY EXAMINER BROOKS:

10           Q.    I think I'm satisfied on the notice issues,  
11   which is usually what I'm concerned about here.

12                   So my one question is:  I didn't quite get  
13   what you said about what you were going to do about the  
14   people with whom you've not gotten green cards from,  
15   some of those obscure operators like EOG and COG.

16                   (Laughter.)

17                   MR. McMILLAN:  Right, the little guys.

18                   EXAMINER BROOKS:  Some of the small  
19   interests have difficulty communicating.

20                   Anyway (laughter), are you going to -- are  
21   you going to request that this case be continued rather  
22   than taken under advisement so that you can publish as  
23   to those people if you don't hear from them, you don't  
24   get the cards back?

25                   MR. McMILLAN:  That's our anticipated

1 course of action. I hadn't gotten to the request for  
2 continuance, but that's what we're contemplating.

3 EXAMINER BROOKS: Okay. Thank you.

4 CROSS-EXAMINATION

5 BY EXAMINER JONES:

6 Q. Do you have a breakdown on the land ownership?

7 I mean, this is state trust land, all of it?

8 A. Yes, sir, four state leases that comprise the  
9 entire interest, the mineral interest.

10 Q. And these two wells are in the same section; is  
11 that correct?

12 A. No, sir. They're in adjacent sections, each in  
13 the east half of the east half.

14 Q. Okay. So both of them will be east half-east  
15 half, one Section 20 and one Section 19, same township,  
16 and it's all state trust lands.

17 A. Yes, sir.

18 Q. And so how many different tracts do you see in  
19 these separately owned tracts?

20 A. The orientation of the leases are lay-down 320s  
21 on each section.

22 Q. Okay.

23 A. So it's the north half-south half, north  
24 half-south half.

25 Q. And you've got two separate tracts on each

1 well?

2 A. Yes, sir.

3 Q. Okay. And in what tract does OXY have  
4 ownership?

5 A. They own a 20 percent interest in all of those  
6 tracts, all four of them.

7 Q. So they're evenly owned in all of the tracts?

8 A. Yes, sir.

9 Q. Okay. Thanks.

10 RE CROSS EXAMINATION

11 BY EXAMINER McMILLAN:

12 Q. Looking down the road, is the targeted interval  
13 going to be somewhere kind of in the middle of the  
14 Wolfcamp or on top -- top of the Wolfcamp?

15 A. It will in the Wolfcamp. Yes, sir.

16 Q. Somewhere in the middle, not close to the Bone  
17 Spring?

18 A. It'll be Upper Wolfcamp.

19 Q. I just want to make sure there is no depth in  
20 case -- goes into the Bone Spring, there is no adversely  
21 affected parties.

22 A. Yes, sir.

23 Q. That's what I'm concerned about.

24 Okay. Thank you very much.

25 MR. McMILLAN: May the witness be excused?

1 EXAMINER McMILLAN: Thank you. Yes.

2 MR. McMILLAN: We would now call Mary  
3 Hughes, please.

4 MARY A. HUGHES,  
5 after having been previously sworn under oath, was  
6 questioned and testified as follows:

7 DIRECT EXAMINATION

8 BY MR. McMILLAN:

9 Q. Good morning, ma'am. Would you please state  
10 your full name for the record?

11 A. Mary Ann Hughes.

12 Q. And where do you reside?

13 A. Val Verde, Texas.

14 Q. By whom are you employed?

15 A. Lilis Energy.

16 Q. And what is your current position?

17 A. Senior geologist.

18 Q. Have you previously testified before the  
19 New Mexico Oil Conservation Division and had your  
20 credentials as an expert in petroleum geology accepted  
21 and made a matter of record?

22 A. No.

23 Q. Then will you please review for the Examiners  
24 your educational background?

25 A. I received my bachelor's in geology, Bachelor

1 of Science in geology, from Sam Houston State University  
2 and continued graduate school at the University of Texas  
3 at San Antonio.

4 **Q. And would you please describe for the Examiners**  
5 **your work experience?**

6 A. While doing graduate work, I worked for a small  
7 oil company in San Antonio for four years, at Activa  
8 Resources, followed by becoming an operations geologist  
9 for Apache Corporation, followed by consulting work, and  
10 then -- which led me to Lilis, and I've been at Lilis  
11 for a year.

12 **Q. Are you a member of any professional**  
13 **organizations?**

14 A. AAPG since 2008 and current secretary for the  
15 South Texas Geological Society.

16 **Q. Are you familiar with the applications filed in**  
17 **these cases?**

18 A. Yes.

19 **Q. And are you familiar with the geology in the**  
20 **subject area?**

21 A. Yes.

22 MR. McMILLAN: Mr. Examiner, I would tender  
23 Ms. Hughes as an expert petroleum geologist.

24 MS. KESSLER: No objection.

25 EXAMINER McMILLAN: So qualified.

1           **Q.**    **(BY MR. McMILLAN) Have you conducted a geologic**  
2           **investigation to determine whether the tracts comprising**  
3           **the proposed project areas here are each prospective for**  
4           **production?**

5           A.    Yes.

6           **Q.**    **And what are your conclusions?**

7           A.    Highly prospective for commercial development  
8           in the Wolfcamp.

9           **Q.**    **Will each tract, in your analysis, contribute**  
10          **approximately the same amount of reserves to the well?**

11          A.    Yes.

12          **Q.**    **And can you please discuss with the Examiners**  
13          **an overview of the subject geology here?**

14          A.    A brief overview would be, during the  
15          Wolfcampian time, it was a cyclic system with more  
16          shales than silts and shales, then followed by  
17          carbonate, so moving up from -- in time.

18          **Q.**    **Okay.**

19          A.    Right?

20                         This area on -- so Section 19 is --  
21          Sections 19 and 20 are in the Delaware Basin. Section  
22          20, which is to the east, has the Capitan Reef trend on  
23          its eastern edge. And this area has events such as  
24          turbidite and debris flows through this area.

25          **Q.**    **Have you prepared certain exhibits for**

1 **presentation today?**

2 A. Yes.

3 **Q. Can we turn to your Exhibit 6? Can you tell**  
4 **the Examiners what we're looking at here?**

5 A. This is a structure map on the Wolfcamp A top.  
6 What this is showing here is that we are moving toward  
7 this transitional zone from the Delaware Basin over to  
8 the Central Basin Platform. The two subject sections  
9 are highlighted by where the cross section is. There  
10 are two existing wells that we did drill last year.  
11 They were both tow-down wells, so going from north to  
12 the south. And we expect -- this structure map was  
13 based on well logs only, and on your map, you'll see the  
14 blue circles around the wells that were used for this  
15 map. We do expect to obtain seismic data, and that  
16 should help refine our structure.

17 **Q. Excellent.**

18 **I'm seeing an A to A prime cross-section**  
19 **line on Exhibit 6. Do you have a cross-section exhibit**  
20 **that corresponds to that A to A prime?**

21 A. Yes. That would be Exhibit 7.

22 **Q. Okay. Let's turn there.**

23 A. We have four wells that is going from west to  
24 the east. It is flattened on what we call the Wolfcamp  
25 X-Y, but most operators list that as the top of

1 Wolfcamp.

2                   If you note the two section wells being  
3 Prizehog and Wildhog, you can see that the thickness of  
4 both the X-Y and A are relatively similar and with a  
5 total thick- -- well, we can get to the next one -- but  
6 a total thicknesses of those both combined, which we are  
7 calling Upper Wolfcamp, is about 450 feet on average.

8           **Q. Addressing Examiner McMillan's query earlier,**  
9 **can you identify for us where the target interval is**  
10 **here in your cross section?**

11           A. So we would be targeting -- and we are in  
12 delineations, so, you know, this is a geologic project  
13 as well. But where we would want to be drilling would  
14 be right above that Wolfcamp A line and then down  
15 into -- down 50 to 100 feet below the Wolfcamp A line,  
16 so firmly within the Wolfcamp section and not going into  
17 Bone Spring.

18           **Q. Excellent.**

19                   **Let's turn now to your Exhibit 8, please.**  
20 **And can you explain to us what we are looking at here?**

21           A. The top page is the deeper zone. This would be  
22 a gross thickness map of the Wolfcamp A, which we have,  
23 in general, to be about 300 foot thick through the two  
24 sections.

25           **Q. And the second page of your Exhibit 8?**

1           A.    That is the X-Y.  That is the upper one.  It  
2   tends to be thinner just throughout the area.  And that  
3   would be about 150 foot thick.  So the X-Y zone is top.  
4   A lot of operators do call that just the Upper A, you  
5   know.  Some people include that X-Y into the A.  Lilis  
6   had already set the precedent of dividing it out, so I  
7   maintained that when I arrived.

8           **Q.    Is it your opinion that the target formation**  
9   **here is roughly -- contiguous roughly consistent -- the**  
10  **thickness is roughly consistent throughout the proposed**  
11  **project areas?**

12          A.    Yes.

13          **Q.    Have you developed an opinion as to whether the**  
14  **Wolfcamp reserves in the area, in Sections 19 and 20,**  
15  **are best developed with lay-down or stand-up units**  
16  **dedicated to these horizontal drilling projects?**

17          A.    Yes.

18          **Q.    And what is the basis for your opinion in this**  
19  **regard?**

20          A.    I think stand-up, they need to be north to  
21  south within 30 degrees of that, based on the dipole  
22  sonic log.

23          **Q.    Let's take a look at your Exhibit 9.  Is this**  
24  **an area of development map showing the wells of other**  
25  **operators in the area?**

1           A.    Yes, it is.

2           Q.    And can you tell us what the predevelopment  
3    pattern for the Wolfcamp is in this area?

4           A.    It is prevailing north-south or within 30  
5    degrees of north-south.

6           Q.    And are Impetro's proposed unit orientations  
7    consistent with this prevailing development pattern?

8           A.    Yes.

9           Q.    By developing Sections 19 and 20 with stand-up  
10   unit orientations, will the drilling of unnecessary  
11   wells be avoided?

12          A.    Yes.

13          Q.    And will it result in improved project  
14   economics so that premature abandonment can be avoided?

15          A.    Yes.

16          Q.    Can you please give the Examiners a brief  
17   overview of the drilling and completion plans for the  
18   proposed wells?

19          A.    A brief summary would be that, you know, we  
20   plan to drill into the Wolfcamp -- Upper Wolfcamp with  
21   four strings of casing, that being -- we typically use a  
22   brine up to 10 pounds through the vertical section.  
23   Once we get into the lateral and land it, mud weights  
24   typically range between 11 and 12, although in Texas  
25   we've had to go up to 14 in some cases.

1           For drilling, we do not use oil-based mud.  
2    It's all brine throughout, salt water and a polymer mix.  
3    At completion, we usually do 20 -- somewhere between 20  
4    and 25 stages per lateral, using 2,000 or more pounds of  
5    sand per foot and about -- somewhere between 150 to  
6    200-foot spacing.

7           **Q.    Great.**

8                       **Is Exhibit 10 a wellbore diagram --**

9           A.    Yes.

10          **Q.    -- or two wellbore diagrams, one for each of**  
11 **the proposed wells?**

12                       **Can you briefly explain to the Examiners**  
13 **the casing program for these wells?**

14          A.    The casing program for these wells would  
15    consist of the surface casing, which would be  
16    13-3/8-inch, followed by the first intermediate casing,  
17    which would be 10-3/4-inch. The second intermediate, we  
18    set casing point somewhere between 65 to 70 degrees in  
19    the curve, so it's not a set depth. It's just when  
20    we're building curve. When we hit that 65, 70 degrees  
21    is where we stop for a second intermediate and followed  
22    by a 5-1/2-inch production casing.

23          **Q.    Great.**

24                       **I think that wraps up the substantive**  
25 **testimony. But in your opinion as an expert petroleum**

1 geologist, will the granting of Impetro's applications  
2 be in the interest of conservation, the prevention of  
3 waste and the protection of correlative rights?

4 A. Yes.

5 Q. Were Exhibits 6 through 10 prepared by you or  
6 at your direction?

7 A. Yes.

8 MR. McMILLAN: At this time, Mr. Examiner,  
9 I would move the admission of Exhibits 6 through 10.

10 MS. KESSLER: No objection.

11 EXAMINER McMILLAN: Exhibits 6 through 10  
12 may now be accepted as part of the record.

13 (Impetro Operating, LLC Exhibit Numbers 6  
14 through 10 are offered and admitted into  
15 evidence.)

16 MR. McMILLAN: That is everything I have  
17 for this witness.

18 MS. KESSLER: Nothing. Thank you.

19 CROSS-EXAMINATION

20 BY EXAMINER McMILLAN:

21 Q. The question I've got -- I'm just curious. You  
22 provided two isopachs. Does that mean you're planning  
23 infill drilling?

24 A. No. We are moving to the Upper Wolfcamp, but  
25 those two zones that were identified by previous Lilis

1 employees had them separated. I have just not had time  
2 to make it one contiguous isopach.

3 **Q. All right. So I just want to make -- if you're**  
4 **planning on infills, I just want to make sure the wells**  
5 **are properly measured.**

6 A. No infills at this time.

7 EXAMINER McMILLAN: Go ahead.

8 EXAMINER BROOKS: No questions.

9 CROSS-EXAMINATION

10 BY EXAMINER JONES:

11 **Q. Did you say the carbonates are below the**  
12 **sand -- the silty sand?**

13 A. In deposition. So it's -- you know, as you're  
14 moving down a well log, it's carbonate sand, carbonate  
15 sand. But in times, you know, when it's being  
16 deposited, the sands and the carbonates build up over  
17 and over and over again through the Wolfcamp and the  
18 Bone Spring.

19 **Q. Carbonates are deep water and the sands are**  
20 **shallower water?**

21 A. Not necessarily. Well, when we get into the  
22 Leonardian, the Bone Spring, you know, those are a  
23 little bit more shallow. But the Wolfcamp are deeper  
24 water events.

25 **Q. Okay. It's real expensive with all these**

1 **strings of pipe and you're having to mud up.**

2 A. It is our standard operating for Texas, and the  
3 Wolfcamp has bitten many operators with not having --  
4 trying to go with a long string. So this is a common  
5 practice.

6 Q. So you go all way from the top of the Delaware  
7 through the Bone Spring -- actually through the top of  
8 the Wolfcamp into your second intermediate; is that  
9 correct?

10 A. Yes. The idea being surface to protect  
11 groundwater. The first intermediate is to get through  
12 the anhydrite salt sands to stabilize the wellbore, and  
13 once we're into Bell Canyon, Delaware Canyon -- you  
14 know, Delaware Group -- sorry --

15 Q. Then you can put some salt --

16 A. Put it behind the pipe, and that's where we  
17 start our second intermediate.

18 Q. Okay. You're a good witness. It's hard being  
19 a witness. So thank you very much.

20 MR. McMILLAN: It's her first time.

21 EXAMINER JONES: Really?

22 EXAMINER McMILLAN: You did very good.

23 MR. McMILLAN: That's all we have for our  
24 direct case.

25 MS. KESSLER: Nothing from me. Thank you.

1                   EXAMINER McMILLAN:   Okay.  Let's get on  
2   with closing.

3                   MR. McMILLAN:   I would waive a closing at  
4   this time.  I think we've made the presentation that we  
5   need to make for the Examiners to approve these wells.

6                   I would, however, like to clarify.  Would  
7   you like a supplementation with the pool code and the  
8   API numbers, or is that something you'd like to look up  
9   on your own?  We can help.

10                  EXAMINER McMILLAN:  You can just email it.

11                  MS. KESSLER:   And, Mr. Examiners, my  
12   client's purpose was simply ensure their overriding  
13   royalty interest was not being pooled.  The land witness  
14   affirmed that those interests are not being pooled.  So  
15   that was our purpose here today.

16                  MR. McMILLAN:  And as far as a continuance,  
17   it seems to me, based on prior conversation, it would be  
18   prudent to request a two-week continuance for notice  
19   purposes.

20                  EXAMINER BROOKS:  Okay.

21                  EXAMINER McMILLAN:  Case Number 15923 and  
22   Case Number 15924 shall be continued to January the  
23   25th.

24                  MR. McMILLAN:  Thank you very much.

25                  (Case Numbers 15923 and 15924 conclude,

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10:54 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 January 2018.

21

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

24

25