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

April 14, 2016  
2:56 p.m.  
Wendell Chino Building  
Porter Hall  
1220 S. St. Francis Drive  
Santa Fe, New Mexico

TRANSCRIPT OF PROCEEDINGS

CASE NO. 15470

APPLICATION OF ENCANA OIL & GAS (USA) INC., FOR APPROVAL  
OF THE Corrales Canyon Unit, SANDOVAL COUNTY, NEW MEXICO

BEFORE: WILLIAM JONES, Lead Examiner  
SCOTT DAWSON, Examiner  
DAVID K. BROOKS, Legal Examiner

REPORTED BY: DEBRA ANN FRIETZE  
PAUL BACA COURT REPORTERS  
500 4th Street, NW, Suite 105  
Albuquerque, New Mexico 87102

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A P P E A R A N C E S

For the Applicant:

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1 EXAMINER DAWSON: And the next case that we  
2 will cover?

3 MS. KESSLER: It's 15470. It's Number 13.

4 EXAMINER DAWSON: Okay, we will start on  
5 Case Number 15470. It's the application of Encana Oil  
6 and Gas, USA, Incorporated, for approval of the Corrales  
7 Canyon Unit, Sandoval County, New Mexico.

8 Call for appearances.

9 MS. KESSLER: Jordan Kessler on behalf of  
10 the applicant.

11 EXAMINER DAWSON: Okay.

12 MS. KESSLER: I have two witnesses today.

13 EXAMINER DAWSON: Two witnesses? They've  
14 both been sworn in previously from the last hearing?

15 MS. KESSLER: Yes.

16 EXAMINER DAWSON: So you may continue,  
17 Ms. Kessler. Thank you.

18 MS. KESSLER: Thank you. I'll call my  
19 first witness.

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1 MONA BINION

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

4 DIRECT EXAMINATION

5 BY MS. KESSLER:

6 Q. Can you please state your name for the record?

7 A. My name is Mona Binion. I'm with Encana Oil  
8 and Gas, USA, Inc., and I am the land negotiator  
9 responsible for the San Juan Basin.

10 Q. Were you previously sworn in before the -- have  
11 you previously testified today before the Division?

12 A. Yes, I have.

13 Q. And your credentials as a petroleum land person  
14 were accepted and made a matter of record?

15 A. Yes.

16 Q. You're familiar with the application in this  
17 case?

18 A. Yes, I am.

19 Q. And you're familiar with the status of the  
20 lands in the subject area?

21 A. Yes.

22 MS. KESSLER: I would ask that Ms. Binion  
23 once again be tendered as an expert in petroleum land  
24 matters.

25 EXAMINER DAWSON: Ms. Binion is admitted as

1 an expert in petroleum land matters.

2 Q. (By Ms. Kessler) Would you please turn to  
3 Exhibit 1 and identify this exhibit and explain what  
4 Encana seeks under this application?

5 A. Exhibit 1 is a map depicting the location of  
6 Encana's proposed Corrales Canyon Unit. It's shown on  
7 the map in bold, black lines. There's also two  
8 additional units that Encana has in effect that are also  
9 shown in blue lines. Those are existing units.

10 The existing oil pools that are in the  
11 vicinity of Corrales Canyon are also depicted on the  
12 map, none of which are within, you know, the boundaries  
13 of the Corrales Canyon Unit. So the Corrales Canyon  
14 Unit would currently be under the rules of the wildcat  
15 rules in the State spacing orders -- I mean spacing  
16 rules.

17 Encana seeks to have the approval of the  
18 Division for the formation of the Corrales Canyon Unit.  
19 There is no new pool being requested for this pool -- I  
20 mean for this unit because the existing pool rules under  
21 the wildcat rules can apply. They already require a  
22 setback of 330 foot from the boundaries.

23 Q. And the Corrales Canyon Unit is approximately  
24 2,560 acres; is that correct?

25 A. Correct.

1 Q. Is it comprised of federal and state acreage?

2 A. Yes.

3 Q. And to reiterate, you are not seeking the  
4 formation of a new pool?

5 A. No, I'm not. We are not.

6 Q. Is Exhibit 2 a copy of the Unit Agreement?

7 A. Yes.

8 Q. Is that first pink tab Exhibit A, and does this  
9 identify the unit outline and leases involved in this  
10 acreage?

11 A. Yes, it does.

12 Q. And it also identifies the percent of federal  
13 and state lands?

14 A. Yes.

15 Q. Exhibit B, does this identify the percent of  
16 all of the ownership?

17 A. Yes.

18 Q. Does the agreement follow the federal form?

19 A. It follows the general form of a federal  
20 undivided exploratory unit. It's been modified to  
21 accommodate limitation of the unitization to horizontal  
22 development only, and it is limited to an existing  
23 unitized interval one formation.

24 It's also been modified recently to  
25 accommodate for payment of compensatory royalty required

1 under the -- go to federal regulations -- to any  
2 unleased federal tract that is located within the  
3 boundaries of the unit. And in this particular unit, we  
4 have a tract that is currently unleased.

5 Q. Will the unit be treated as a single  
6 participating area?

7 A. Yes.

8 Q. And does paragraph 3 of the Unit Agreement  
9 identify the unitized interval?

10 A. Yes.

11 Q. Is that third pink tab, labeled Exhibit C, is  
12 this the type log for the unit interval?

13 A. Yes. It's a visual depiction of the type  
14 log -- I mean of the unitized interval which was  
15 described in paragraph 3 of the Unit Agreement.

16 Q. Have you visited with the BLM, the State Land  
17 Office, and the Oil Conservation Division about this  
18 unit?

19 A. Yes, we have.

20 Q. Is Exhibit 3 an approval letter from the State  
21 Land Office?

22 A. Yes, it is.

23 Q. And is Exhibit 4 an approval letter from the  
24 BLM?

25 A. Yes, it is.

1 Q. How many working interest owners are involved  
2 in this unit?

3 A. There are three working interest owners,  
4 including Encana.

5 Q. Have they agreed to the voluntary unit?

6 A. Preliminarily, yes, they have agreed to the  
7 unit.

8 Q. Turning back to Exhibit 1, you mentioned  
9 earlier that the unit acreage is entirely within a  
10 wildcat oil pool, correct?

11 A. Right.

12 Q. And that would be subject to statewide 330-foot  
13 setbacks?

14 A. Yes.

15 Q. Did Encana identify the -- provide notice to  
16 the working interest owners and the overriding royalty  
17 interest owners within this unit?

18 A. Yes.

19 Q. And did the notice provide them a copy of the  
20 application for hearing and a copy of the Unit  
21 Agreement?

22 A. Yes.

23 Q. Is Exhibit 5 an affidavit with attached letters  
24 providing notice of this hearing to the working interest  
25 owners and overriding royalty interest owners?

1 A. Yes.

2 Q. And they were all locatable?

3 A. Yes.

4 Q. Were Exhibits 1 through 4 prepared by you or  
5 under your direction and supervision?

6 A. Yes.

7 MS. KESSLER: Mr. Examiner, I'd move  
8 admission of Exhibits 1 through 5.

9 EXAMINER DAWSON: Exhibits 1 through 5 will  
10 be admitted to the record.

11 [Exhibits 1 through 5 admitted.]

12 EXAMINER DAWSON: Do you have any  
13 questions, David?

14 EXAMINER BROOKS: No, I have no questions.

15 EXAMINER DAWSON: Any questions, Michael?

16 MR. McMILLAN: I'm just curious -- well, I  
17 guess I'm going back, though. The pink tab, 1, I'm just  
18 curious. Whoever purchased that lease is going to be  
19 subject to the terms of the agreement?

20 THE WITNESS: Yes, sir. The BLM has  
21 advised us that when the lease will be set up for sale,  
22 that it will require that the new lessee join the unit.  
23 And then that new lessee will be responsible from that  
24 point forward for paying the compensatory royalties that  
25 we have been paying before. It would be paid under the

1 lease, a new lease.

2 MR. McMILLAN: Okay. So they don't get a  
3 cut of the previous production --

4 THE WITNESS: Yes, they do. They get  
5 compensatory royalty payments. Under the CFR, when an  
6 unleased tract is included in a spacing unit, that tract  
7 gets allocated royalty, and it's a royalty at the same  
8 rate. A royalty would be issued under a lease. And  
9 then the O&R sets up a dummy lease number to accommodate  
10 that royalty, and then the owners inside the spacing  
11 unit pay that royalty.

12 MR. McMILLIAN: Oh, okay.

13 THE WITNESS: And that's why we had to  
14 revise the Unit Agreement, because it didn't adequately  
15 provide how that happens, but the CFR requires it.

16 MR. McMILLAN: Thank you.

17 EXAMINER DAWSON: Ms. Binion, in the  
18 preliminary discussions with the BLM and the Land  
19 Office, I'm assuming they were okay with including that  
20 open unleased acreage?

21 THE WITNESS: The BLM required that we  
22 include it. We would have chosen, had we been given an  
23 option, to exclude it. It would have been simpler. But  
24 the BLM -- it was necessary for us to include it because  
25 they were concerned about the other acreage being

1 developed. And if they could not lease that tract, you  
2 know, there could be potential drainage, in their  
3 opinion, so they wanted it included in the unit. And  
4 the State was aware of that when we, you know, proposed  
5 it preliminarily. So they were okay with it.

6 EXAMINER DAWSON: Did the BLM give you any  
7 indication as to when that northwest corridor of the  
8 Section 26 unleased acreage that we're talking about,  
9 did they give you an idea as to when that would be put  
10 on? That's going to have to go to a lease sale,  
11 correct?

12 THE WITNESS: They're currently considering  
13 it for an October lease sale, but I don't think there's  
14 any final resolution whether or not it's going to make  
15 it on that sale. But it's being reviewed for the sale.

16 EXAMINER DAWSON: And there have been no  
17 wells drilled?

18 THE WITNESS: Yes. There is a well drilled  
19 in the south half of Section 24, the Lybrook  
20 P-24220601H, and that would be considered the initial  
21 obligation well.

22 EXAMINER DAWSON: Okay. And I could ask  
23 Mr. Graven about that well, so that's all the questions  
24 I have.

25 Thank you, Ms. Binion.

1 EXAMINER DAWSON: You may call your next  
2 witness now, Ms. Kessler.

3 ERIK GRAVEN  
4 having been previously sworn under oath,  
5 was questioned and testified as follows:

6 DIRECT EXAMINATION

7 BY MS. KESSLER:

8 Q. Would you please state your name for the  
9 record?

10 A. Erik Graven.

11 Q. By whom are you employed?

12 A. Encana Oil and Gas.

13 Q. And what is your occupation?

14 A. I'm the senior geologist working the San Juan  
15 Basin.

16 Q. Did you previously testify before the Oil  
17 Conservation Division today?

18 A. Yes, I did.

19 Q. And were your credentials at that time made a  
20 matter of public record?

21 A. Yes.

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

24 A. Yes, I am.

25 Q. And have you conducted a geologic study of the

1 lands that are the subject of this application?

2 A. Yes, ma'am.

3 MS. KESSLER: I'd once again tender  
4 Mr. Graven as an expert witness in petroleum geology.

5 EXAMINER DAWSON: Mr. Graven is admitted as  
6 a petroleum expert in -- an expert in petroleum  
7 geology.

8 Q. (By Ms. Kessler) Are you familiar with the  
9 horizon that is being unitized for the proposed unit?

10 A. Yes, I am.

11 Q. Could you please turn to Exhibit 6 and identify  
12 that horizon?

13 A. Yes. Exhibit 6 shows a type log from the  
14 Navajo allotted Number 1 Well, and it shows the unitized  
15 depths extending from 100 feet below the top of the  
16 Mancos Shale down to the base of the Greenhorn Limestone  
17 or top of the Graneros Shale.

18 Q. Do you believe this interval extends across  
19 acreage that Encana seeks to unitize?

20 A. Yes, I do.

21 Q. What is Exhibit 7?

22 A. Exhibit 7 is a structure contour map on top of  
23 the Mancos Shale. The contour interval on this map is  
24 20 feet. It's showing gentle dips downward to the  
25 north/northeast, approximately 2 degrees down.

1                   It shows the outline of the proposed  
2 Corrales Canyon Unit in red and the adjacent expanded  
3 Venado Canyon in dashed black, just to the north.

4                   It also shows two cross-sections, AA prime,  
5 which is generally from southwest to northeast, and BB  
6 prime, generally from northeast or northwest to  
7 southeast. And it also shows the type log with a green  
8 hexagon located just west of the proposed unit.

9                   There's no indication of faulting or other  
10 structural complications across the unit.

11                  Q. What is Exhibit 8?

12                  A. Exhibit 8 is the cross-sections of AA prime,  
13 shown on the previous map. It shows a series of logs,  
14 like gamma ray, resistivity and porosity logs, which  
15 demonstrate the continuity of the unitized interval  
16 across the proposed unit area.

17                  Well control within the unit itself is very  
18 sparse. There have only been two wells drilled. So a  
19 number of these wells that I'm showing on the cross  
20 sections come from outside of the unit. But they do  
21 surround the unit in a regional sense, so they do seem  
22 to demonstrate the continuity of these intervals across  
23 the unit area.

24                  Q. Exhibit 9?

25                  A. Exhibit 9 is cross-section BB prime, again

1 shown on a previous map.

2 This is the cross section that extends from  
3 the northwest to the southeast. And again, it documents  
4 the continuity of the unitized intervals across the  
5 proposed unit. There's no indication of stratigraphic  
6 pinchouts or truncations within these unitized  
7 intervals.

8 Q. In your opinion, will approval of this  
9 application be in the best interest of conservation for  
10 the prevention of waste and the protection of  
11 correlative rights?

12 A. Yes, it will.

13 Q. Is Exhibit 10 the current development plan for  
14 the unit?

15 A. Yes. This is a preliminary development plan.  
16 We have done some recognizance out there. But once  
17 again, we do not have any existing APDs for any of these  
18 horizontal well sticks that are shown on the map.

19 One exception may be that east-to-west  
20 horizontal well just north of the P-24 or 2206. I  
21 believe we may have an APD for that well, but the other  
22 wells we do not have APDs for yet.

23 Q. Is Encana required to submit an annual  
24 development plan to the authorized officer with the BLM  
25 under the Unit Agreement?

1 A. Yes.

2 Q. And Encana has already drilled the initial  
3 development well, correct?

4 A. Yes. We drilled the P-24 -- the Lybrook P-24  
5 220601H Well.

6 Q. And has the BLM agree to treat this as the  
7 initial unit well?

8 A. Yes, they have.

9 Q. Were Exhibits 6 through 10 prepared by you?

10 A. Yes, they were.

11 MS. KESSLER: Mr. Examiner, I'd move  
12 admission of Exhibits 6 through 10.

13 EXAMINER DAWSON: Exhibits 6 through 10  
14 will be admitted to the record.

15 [Exhibits 6 through 10 admitted.]

16 EXAMINER DAWSON: Do you have any  
17 questions, Mike?

18 MR. McMILLAN: Go ahead.

19 EXAMINER DAWSON: Mr. Graven, that initial  
20 well, the Lybrook P24 2206 01H located in the south half  
21 of Section 24 there?

22 THE WITNESS: Yes.

23 EXAMINER DAWSON: How's that well  
24 performing?

25 THE WITNESS: That is a good well. It's

1 not as strong as some of our wells. It came on at an  
2 initial 30-day average of approximately 250 barrels per  
3 day. It's currently making approximately 40 barrels of  
4 oil per day. It's not a bad well. We certainly are  
5 confident that it will be deemed an economic well.

6 EXAMINER DAWSON: As I look on both the  
7 cross sections, that well is on both cross sections, A  
8 to A prime and B to B prime?

9 THE WITNESS: Yes.

10 EXAMINER DAWSON: And it looks like on the  
11 density porosity curve on that well, it looks like the  
12 porosity on that well is not near as good as some of the  
13 wells to the west or south; is that correct?

14 THE WITNESS: Right. Yes, that's true, and  
15 the whole entire section may not have as many porous  
16 zones. There is still some fairly decent porosity in  
17 the lower part of the Gallup. But you're right, it's  
18 not quite as strong as some of the surrounding wells.

19 EXAMINER DAWSON: Yeah, I see that. Right  
20 above the base of the Gallup, it looks like it's a  
21 little bit better porosity in there?

22 THE WITNESS: Correct. And this is where  
23 we target the horizontal for that well.

24 EXAMINER DAWSON: Okay. On your -- let me  
25 find the exhibit. One of the maps I was looking at --

1 bear with me.

2 The map on Exhibit 10, in the northeast,  
3 northeast of 25, Section 25?

4 THE WITNESS: Yes.

5 EXAMINER JONES: And the  
6 southwest/southwest of 26, and down there in the  
7 southwest quarter of the -- or southwest corner down  
8 there, it would be the southwest corner of the southeast  
9 corridor of Section 35.

10 How are you going to fully develop that  
11 unit? Are you going to eventually probably have wells  
12 in those areas where there's not really any wells?

13 THE WITNESS: If necessary, we'd drill  
14 vertical wells in that area. At this point, shorter  
15 horizontals would not be economic. But certainly in the  
16 future, that may change with reduced well costs --

17 EXAMINER DAWSON: In other words, the  
18 unitized area will be fully developed eventually?

19 THE WITNESS: Yes.

20 EXAMINER DAWSON: Okay. And you will  
21 report any wellbore or interwell communication to the  
22 Division?

23 THE WITNESS: Yes.

24 EXAMINER DAWSON: And if there is an offset  
25 operator to this unit, that requests a 330-foot setback

1 from the unit boundary, you will not oppose it?

2 THE WITNESS: No, we would not.

3 EXAMINER DAWSON: That's all the questions  
4 I have.

5 Do you have any questions?

6 EXAMINER BROOKS: Did you say this was  
7 wildcat area?

8 THE WITNESS: Yes.

9 EXAMINER BROOKS: It's not in the Basin  
10 Mancos Gas Pool?

11 THE WITNESS: No.

12 EXAMINER BROOKS: Now, how would it affect  
13 your development plans if this area were placed in an  
14 oil pool providing for 320-acre spacing units for  
15 horizontal wells and 330-foot setbacks?

16 THE WITNESS: I don't believe it would  
17 change it.

18 MS. KESSLER: I don't think that that would  
19 change anything, Mr. Examiner.

20 EXAMINER BROOKS: Now, the way you have  
21 these wells drawn on Exhibit 10, and if I follow, you're  
22 alleging these brown lines are expected to develop with  
23 wells, right?

24 THE WITNESS: Right.

25 EXAMINER BROOKS: And the way you have them

1 drawn. You have some very short horizontals up in the  
2 corner. I believe that's what Scott was asking you  
3 about, if I interpreted his questions correctly.

4           You say you would probably, in fact, under  
5 current economic conditions would be developing those  
6 particular areas with vertical road and horizontal  
7 wells, rather than the short horizontals depicted on  
8 Exhibit 10?

9           THE WITNESS: No. Currently, we would  
10 drill those short horizontals, but we couldn't drill  
11 anything shorter than that at this time.

12           EXAMINER BROOKS: Okay. Now, with Scott  
13 asking you then about the corners to the northeast of  
14 that well shown in Section 25, and to the southwest of  
15 that shown in the east half of Section 35?

16           THE WITNESS: Yes.

17           EXAMINER BROOKS: Okay.

18           EXAMINER DAWSON: And also, Section 26, the  
19 southwest/southwest corner.

20           EXAMINER BROOKS: Okay. And do you believe  
21 that Mancos at this time, in a situation like that,  
22 vertical wells would be economic?

23           THE WITNESS: At today's prices, probably  
24 not. But hopefully in the future, they will be.

25           EXAMINER BROOKS: Well, I don't know what

1 today's prices are, but I would check the computer. I  
2 can understand that response.

3 Thank you.

4 MR. McMILLAN: I've got a couple of  
5 questions. I'm now going back to Exhibit 9.

6 Where is the -- is the target interval  
7 between the Gallup and what's called the Base Gallup, or  
8 is it the Juana Carlos and Carlile?

9 THE WITNESS: No. It is within the Gallup  
10 at this point. We do see the Juana Lopez and the  
11 Carlile, as well as possibly the Greenhorn as being  
12 perspective, but we haven't targeted those intervals  
13 yet.

14 MR. McMILLAN: The other question refers to  
15 Exhibit 10, looking at these east/west well.

16 Is the lack of reserves in this well versus  
17 the reserves in the previous case related to the  
18 orientation of the well?

19 THE WITNESS: Yes, exactly.

20 MR. McMILLAN: Can you explain why?

21 THE WITNESS: Yes. Maximum horizontal  
22 compressive stress in this entire region is from  
23 northeast to southwest.

24 As we induce fractures in our horizontals,  
25 those induced fractures align parallel with that maximum

1 horizontal stress.

2           So if we drill a well that's oblique to  
3 that stress, such as the P24 Well, we do experience some  
4 near wellbore complications as those induced fractures  
5 try to align with the maximum horizontal stress in the  
6 area. And we believe that is what's causing our reduced  
7 productivity of the wells that are drilled east to west  
8 versus the wells that are drilled from northwest to  
9 southeast or vice versa.

10           MR. McMILLAN: What do you mean wellbore  
11 problems? Expound on that.

12           THE WITNESS: I don't know if I have enough  
13 expertise to expound on that, but there are -- as those  
14 fractures try to align with that maximum horizontal  
15 stress, there is some near wellbore, I guess, damage,  
16 I'll call it, or inefficiencies in the fracture design  
17 at that orientation.

18           We're not sure exactly what's causing that,  
19 but it has played out in all the wells that we've  
20 drilled. I believe we drilled roughly seven wells at  
21 that -- we call it transverse, the northwest to  
22 southeast orientation. And they've all been much better  
23 wells than our east-to-west wells.

24           MR. McMILLAN: Okay. With that in mind,  
25 looking at pilot holes -- I mean are the pilot holes, if

1 applicable, similar in terms of porosity versus  
2 east/west versus diagonal?

3 THE WITNESS: I'm not sure I understand  
4 your question.

5 MR. McMILLAN: Is the porosity of the pilot  
6 holes the same?

7 THE WITNESS: Yes.

8 MR. MCMILLAN: So essentially, comparing  
9 apples to apples, right?

10 THE WITNESS: Yes.

11 MR. McMILLAN: Okay, thank you.

12 EXAMINER DAWSON: I did have one other  
13 question, Mr. Graven.

14 Looking at your map, your structure map on  
15 Exhibit 7, that formation dips south, maybe a bit  
16 southwest, correct?

17 THE WITNESS: It's dipping down to the  
18 northeast, north/northeast. We're above sea level so  
19 it's...

20 EXAMINER DAWSON: Okay. Down to the  
21 northeast. Okay. All right. That's my only question I  
22 had left. Thank you.

23 THE WITNESS: Thank you.

24 EXAMINER DAWSON: And Case Number 15470  
25 will be taken under advisement, and that concludes

1 today's hearing. Thank you.

2 [The proceeding was concluded at 3:22 p.m.]

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1 STATE OF NEW MEXICO.  
2 COUNTY OF BERNALILLO

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REPORTER'S CERTIFICATE

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11 I, DEBRA ANN FRIETZE, New Mexico Certified Court  
12 Reporter No. 251, do hereby certify that I reported the  
13 foregoing proceeding in stenographic shorthand and that  
14 the foregoing pages are a true and correct transcript of  
15 those proceedings and was reduced to printed form under  
16 my direct supervision.

17

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

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DEBRA ANN FRIETZE  
Certified Court Reporter No. 251  
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