

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

6 APPLICATION OF ENCANA OIL & GAS
7 (USA), INC. FOR APPROVAL OF THE
8 NAGEEZI UNIT, CREATION OF A NEW
9 POOL FOR HORIZONTAL DEVELOPMENT
10 WITHIN THE UNIT AREA, AND FOR
11 ALLOWANCES OF 330-FOOT SETBACKS
12 FROM THE EXTERIOR OF THE PROPOSED
13 UNIT, SAN JUAN COUNTY, NEW MEXICO.

CASE NO. 15153

ORIGINAL

10 REPORTER'S TRANSCRIPT OF PROCEEDINGS

11 EXAMINER HEARING

12 May 29, 2014

13 Santa Fe, New Mexico

14
15 BEFORE: SCOTT DAWSON, CHIEF EXAMINER
16 GABRIEL WADE, LEGAL EXAMINER

RECEIVED OCD
2014 JUN -2 P 3:44

17
18 This matter came on for hearing before the
19 New Mexico Oil Conservation Division, Scott Dawson,
20 Chief Examiner, and Gabriel Wade, Legal Examiner, on
21 Thursday, May 29, 2014, at the New Mexico Energy,
22 Minerals and Natural Resources Department, Wendell Chino
23 Building, 1220 South St. Francis Drive, Porter Hall,
24 Room 102, Santa Fe, New Mexico.

25
22 REPORTED BY: Mary C. Hankins, CCR, RPR
23 New Mexico CCR #20
24 Paul Baca Professional Court Reporters
25 500 4th Street, Northwest, Suite 105
Albuquerque, New Mexico 87102
(505) 843-9241

1 APPEARANCES

2 FOR APPLICANT ENCANA OIL & GAS INC.:

3 ADAM G. RANKIN, ESQ.
 4 HOLLAND & HART
 110 North Guadalupe, Suite 1
 Santa Fe, New Mexico 87501
 5 (505) 988-4421
 agrankin@hollandhart.com

6

7

8 INDEX

PAGE

9 Case Number 15153 Called

3

10 Encana Oil & Gas, Inc.'s Case-in-Chief:

11 Witnesses:

12 Mona L. Binion:

13	Direct Examination by Mr. Rankin	4
14	Cross-Examination by Examiner Dawson	17

15 Erik Paul Graven:

16	Direct Examination by Mr. Rankin	21
17	Cross-Examination by Examiner Dawson	27

18 Daniel J. Camper:

19	Direct Examination by Mr. Rankin	29
20	Cross-Examination by Examiner Dawson	33

21 Erik Paul Graven (Recalled):

22	Recross-Examination by Examiner Dawson	34
----	--	----

23 Proceedings Conclude/Certificate of Court Reporter 37/38

24

25 EXHIBITS OFFERED AND ADMITTED

26	Encana Oil & Gas, Inc. Exhibit Numbers 1 through 8	17
27	Encana Oil & Gas, Inc. Exhibit Numbers 9 through 13	27
28	Encana Oil & Gas, Inc. Exhibit Number 14	32

1 (11:29 a.m.)

2 EXAMINER DAWSON: Good morning. Today is
3 Thursday, May 29th, 2014. We are located at Porter Hall
4 of the Wendell Chino Building at 1220 South St. Francis,
5 Santa Fe, New Mexico.

6 My name is a Scott Dawson. I'm director of
7 the New Mexico Oil Conservation Division.

8 And to my right is Gabriel Wade. He is
9 general counsel for EMNRD, Energy, Minerals and Natural
10 Resources Department, in representing the Oil
11 Conservation Division.

12 Today we are present to hear Case Number
13 15153, and this involves the application of Encana Oil &
14 Gas (USA), Inc. for approval of the Nageezi Unit,
15 creation of a new pool within the unit area and for
16 allowance of 330-foot setbacks from the exterior of the
17 proposed unit, San Juan County, New Mexico.

18 I've had a chance to read the draft order
19 in Case 15153.

20 Mr. Rankin, at this time, I'm going to ask
21 for you appearances and witnesses.

22 MR. RANKIN: Thank you, Mr. Examiner. Adam
23 Rankin, with Holland & Hart, on behalf of Encana Oil &
24 Gas. We have three witnesses to be sworn in --
25 actually, only one witness has not yet been sworn in

1 today. I've got three witnesses altogether.

2 EXAMINER DAWSON: Will the remaining one
3 witness please stand up and be sworn in? State your
4 full name.

5 MR. GRAVEN: Erik Graven.

6 (Mr. Graven sworn.)

7 MR. RANKIN: Thank you, Mr. Examiner. Call
8 my first witness.

9 EXAMINER DAWSON: You may call your first
10 witness.

11 MR. RANKIN: Call Mona Binion.

12 MONA L. BINION,
13 after having been previously sworn under oath, was
14 questioned and testified as follows:

15 MR. RANKIN: Mr. Examiner, I would request
16 that the record reflect that Ms. Binion has already been
17 accepted as an expert in petroleum land matters today.

18 EXAMINER DAWSON: She is so accepted.

19 DIRECT EXAMINATION

20 BY MR. RANKIN:

21 Q. Ms. Binion, would you please state for the
22 Examiners what Encana is seeking with this application
23 today?

24 A. Yes. Encana is seeking the Division's approval
25 to the Nageezi Federal Unit as a voluntary federal

1 exploratory undivided unit and the creation of a new
2 pool for horizontal development within the unit area
3 divided to 330-foot setbacks from the exterior boundary
4 of the unit.

5 Q. And, Ms. Binion, did you prepare a map
6 depicting the exterior boundaries of the proposed unit?

7 A. I did prepare a map, which is depicted in
8 Exhibit 1, for this application.

9 Q. And would you please review for the Examiners
10 what that map shows?

11 A. The map shows the boundary of the unit area in
12 bold block, which covers slightly over 9,000 acres. To
13 be exact, it is 9,135 -- 9,135.51 acres, to be exact, of
14 mixture of federal, state and Indian-allotted mineral
15 acres.

16 Q. Does this map also indicate the existing pools
17 within the proposed unit area?

18 A. Yes. It shows the existing -- there are four
19 existing pools that fall within the confines of the
20 proposed unit boundary. Those four existing pools are
21 the Bisti Lower Gallup oil pool, the South Bisti
22 Lower -- I'm sorry -- the South Bisti Gallup oil pool,
23 the Nageezi Gallup oil pool and the Basin-Mancos gas
24 pool, which is depicted on the map in yellow.

25 Q. So in addition to seeking to unitize the area,

1 Encana is also seeking to combine those pools within the
2 unit area boundary; is that correct?

3 A. Correct.

4 Q. And what other -- and the setbacks would be
5 what for the proposed new pool?

6 A. Right. We're asking to form a single oil pool
7 to extend to the exterior boundaries of this unit area
8 to encompass one pool with 330-foot setbacks at the
9 exterior boundary of the pool.

10 Q. Are there any other limitations to that pool,
11 or is it limited to only horizontal wells?

12 A. Right, just for horizontal drilling.

13 Q. Ms. Binion, with respect to the formation of
14 the unit, is Exhibit 2 a copy of the proposed unit
15 agreement?

16 A. Yes. Exhibit 2 is the -- the BLM-formed
17 undivided federal unit agreement, which incorporates
18 federal, state and allotted Indian mineral acreage.

19 Q. Is this a standard federal form for formation
20 of units?

21 A. It's a standard exploratory undivided federal
22 form of unit, which has been modified to accommodate the
23 drilling of horizontal drilling -- development of the
24 area by horizontal drilling, and it is limited to
25 unitized substances to cover a single identified

1 formation or interval.

2 Q. And your geologist will testify about what that
3 interval is, correct?

4 A. Yes. And that interval is depicted on Exhibit
5 C to the unit agreement.

6 Q. So walking through the exhibits to the unit
7 agreement, Exhibit A, which is marked as Exhibit 3 in
8 the packet, will you please review for the Examiners
9 what that is?

10 A. Examiner A is a map of the unit area which
11 describes in detail the different tracts within the
12 unit. Each tract identifies an existing oil and gas
13 lease. The oil and gas leases are described on the
14 exhibit with a tract number. The tracts have the
15 existing record titleholder, the expiration date and the
16 serial number for either the BIA, the state or the
17 federal oil and gas lease. It also describes the
18 percentage of acreage that is covered by the federal
19 minerals, state minerals or allotted Indian minerals.

20 Q. And the next exhibit in the packet, Number 4,
21 is that Exhibit B to the unit agreement?

22 A. It is Exhibit B to the unit agreement, and it
23 corresponds with Exhibit A by depicting the tract, the
24 relative description of that tract that corresponds to a
25 federal, state or BIA oil and gas lease. It describes

1 the lessee of record and their percentage, the royalty
2 owner, any overriding royalty owners and the working
3 interest owners under those leases.

4 Q. And the next exhibit, Number 5, is Exhibit C to
5 the unit agreement. What is that?

6 A. Exhibit C is the type log which describes the
7 interval being unitized, and that's been provided by our
8 geologist.

9 Q. And your geologist will testify on that later
10 today?

11 A. Yes.

12 Q. Now, are there any remaining uncommitted
13 mineral interest owners in the unit?

14 A. There are two interest owners depicted on
15 Exhibit B to the unit. Their interest is represented as
16 fee mineral interests under two allotted mineral tracts.
17 They are fee owners of minerals. They are currently
18 being leased. We are in contact with them. They have
19 agreed to sign fee leases, which they are signing right
20 now. They may have already been signed. They will be
21 shown as leased, and those leases contain pooling
22 clauses -- pooling and unitization clauses. Those
23 clauses give the lessee, which will be Encana, the right
24 to commit these leases to the federal unit agreement,
25 which those leases will be represented as being

1 committed to this agreement at the time the agreement
2 will be submitted to the State Land Office and the BLM
3 for final approval.

4 So at this point, as this application is
5 being filed with the Division, they are still considered
6 uncommitted. However, they will be committed at the
7 point that they will be filed with the State Land Office
8 and the BLM for final approval.

9 Q. What percentage of the unit area do these
10 uncommitted interests make up?

11 A. They represent, I would say -- and this is
12 rough, but approximately less than maybe 2 percent of
13 the unit. So we would still have over the 85 percent
14 effective control required to form this unit under the
15 BLM guidelines.

16 Q. Has Encana presented this proposed unit
17 agreement and development to the State Land Office?

18 A. Yes, we have.

19 Q. And have you done so with the BLM as well?

20 A. Yes, we have.

21 Q. And have you received preliminary approval from
22 both of those agencies?

23 A. Yes, we have.

24 Q. And those are identified at Exhibit Number 6?

25 A. Yes, they are. Exhibit Number 6, there is a

1 letter from the State of New Mexico Commission of Public
2 Lands, dated May 20th, representing their preliminary
3 approval to the formation of the Nageezi Unit. There is
4 also a letter from the BLM, dated May 2nd, representing
5 their preliminary approval to the formation of the
6 Nageezi Unit.

7 Q. And you mentioned earlier that there are
8 Indian-allotted lands included in this proposed unit?

9 A. Yes.

10 Q. Did you also discuss the proposed unit with the
11 Federal Indian Minerals Office?

12 A. Yes, we have.

13 The former director of the Federal Indian
14 Minerals Office was present and participated in the
15 discussions with the BLM. They were present at the
16 presentation that Encana conducted to the BLM when we
17 presented the materials for the formation of the unit
18 and we requested their approval of the area and depth
19 for this Nageezi Unit. They gave their verbal approval
20 of the area and depth and the unit area circumference
21 for this area.

22 At the time, the leases -- the allotted
23 tracts were unleased. They agreed to give Encana and
24 others the opportunity to lease these minerals, which,
25 since, Encana and WPX have leased the minerals under all

1 of the allotted tracts within the unit boundaries. And
2 since then, we have also met about the current acting
3 director of the FIMO office, and we met with the
4 regional director of the BIA. And we have presented
5 current application and the current presentation of both
6 the Nageezi and the proposed Pinon Unit areas, and they
7 have confirmed their support of the unit area and the
8 continued development of these areas under the unitized
9 plan.

10 Q. Now, Ms. Binion, when you had your discussions
11 with the BLM, did you also discuss the formation of a
12 participating area?

13 A. We didn't discuss formation of a participating
14 area in the sense of a separate formation of a
15 participating area, but the formation of the unit itself
16 as an undivided unit creates a participating area,
17 because the unit format -- the unit agreement creates a
18 participating area under the agreement terms.

19 Q. So the idea there is that the participating
20 area will be the same as the unit exterior boundaries?

21 A. Correct.

22 Q. So there will be only one participating area,
23 and it will be the same size, same boundaries as the
24 unit area?

25 A. Correct.

1 Q. And how does that -- what's the effect of that
2 creating a unit -- participating area of that size
3 continuous with the unit area with respect to the
4 Division rules and project areas for horizontal wells?

5 A. Under the Division rules -- the horizontal
6 wells, the entire unit area being a single participating
7 area would create a single project area under the
8 Division's Horizontal Well Rules. Everyone shares in
9 the production from any well drilled in the unit area
10 horizontally on an acreage basis.

11 Q. What operational benefits does that provide
12 Encana in developing and producing from the unit?

13 A. Well, having a single project area within the
14 unit, it provides us the opportunity to flexibly locate
15 our wells either north-south or east-west or west-east
16 or transverse, in any manner that we deem, you know,
17 logical to maximize the reservoir drainage and maximize
18 the potential of recovering all the reserve within the
19 unit boundary.

20 Q. Now, with respect to this proposed unit, does
21 Encana have a well already proposed -- initial well
22 already proposed?

23 A. There are several wells already proposed and
24 permitted, and we do have, on our drilling schedule,
25 actually several wells. We propose our drilling

1 schedule to be commenced within a very short period of
2 time.

3 Q. And how soon is the first well scheduled to be
4 spudded?

5 A. The first well is scheduled to be spudded in
6 about 35 days from today.

7 Q. As a consequence of the drilling schedule and
8 timing, are you requesting an expedited order in this
9 case?

10 A. We are requesting an expedited order. It's our
11 understanding that the State Land Office is unable to
12 get final approval to the unit agreement until the order
13 is issued from the Division approving the unit and
14 creating the pool, you know, within the unit boundary.
15 And we need the approval -- the final approval from the
16 State Land Office and the BLM, you know, prior to the
17 time that we spud our initial well, because the initial
18 well is going to be the obligation well under the
19 agreement.

20 Q. Now, moving on to -- actually, going back to
21 your discussions with the State Land Office and the Oil
22 Conservation Division about this proposed unit, did
23 those agencies express any concerns with respect to
24 creating a unit with these multiple or existing pools in
25 place?

1 A. It was our understanding that there was some
2 concern with the fact that there were multiple pools
3 within the unit boundary, that the fact we would be
4 reporting these wells to be producing from multiple
5 pools. Even though some of the wells would not be
6 physically penetrating these pools, there would be some
7 difficulty in applying the production to these multiple
8 pools under the existing ONGARD System with the
9 Division.

10 So we met with State Land Office and the
11 Division and the people that are responsible for
12 reporting, and there was some discussion regarding how
13 we would resolve this conflict and, you know, forming
14 the unit, drilling the wells this way and filing
15 reports.

16 Q. And what was the solution that was proposed?

17 A. The suggestion was made that we propose the
18 formation of a single pool to encompass the same area
19 that the unit encompasses, and that single pool
20 encompass the report -- or accept the reports of all the
21 production from the unit -- or just the horizontal
22 drilling within the unit area, all the reports be filed
23 against that one single pool.

24 Q. So the proposal was to limit the combined pool
25 to just horizontal development?

1 A. Correct.

2 Q. And that would solve the problem from the
3 perspective of the State Land Office and the Oil
4 Conservation Division as to how the volumes would be
5 reported?

6 A. Correct.

7 Q. Now, with respect to the formation of this
8 proposed new pool, which is be limited to horizontal
9 development, did Encana provide notice to -- who did
10 Encana provide notice to?

11 A. Encana provided notice to all of the offset
12 operators of any Gallup-Mancos wells that were within
13 the exterior -- or within the exterior boundary of the
14 area that you can see on the map in yellow, which would
15 be within the area of the Basin-Mancos pool, which is
16 the pool that provides for 660 setbacks.

17 We did not provide notice to the parties
18 within the areas of the pools that were already within a
19 330-foot setbacks because the setback is already
20 allowing for 330-foot setbacks, which is the same thing
21 that we're asking for in the existing pool.

22 If there were no operators -- or if there
23 were no wells in the notice area, in the yellow, then we
24 provided notice to the lessees. If the lessees were
25 Encana, as the Applicant, then we provided notice to the

1 mineral owners.

2 Q. And is Exhibit Number 7 a copy of the affidavit
3 provided by my law firm --

4 A. Yes.

5 Q. -- indicating that notice was provided to those
6 operators you identified?

7 A. Yes.

8 Q. And is there also included in that exhibit a
9 copy of the letter that was sent to these individuals
10 providing notice of today's application?

11 A. Yes.

12 Q. And is there also a list of all the individuals
13 who actually received notice?

14 A. Yes.

15 Q. Along with the green cards indicating that
16 notice was provided by return -- certified return
17 receipt requested?

18 A. I see the white cards or -- yes.

19 Q. And also, Ms. Binion, did Encana publish notice
20 of a proposed change in the pool rules in the county in
21 which the unit is located?

22 A. Yes, by Affidavit of Publication, there is an
23 ad number, 70267.

24 Q. Is that identified at Exhibit Number 8?

25 A. Yes.

1 Q. And that ad includes an identification of the
2 new pool that would be subject to 330-foot setbacks?

3 A. Yes.

4 Q. Ms. Binion, were Exhibits 1 through 8 either
5 prepared by you or under your supervision?

6 A. Yes.

7 MR. RANKIN: Mr. Examiner, I would
8 tender -- move to admit into the record Exhibits 1
9 through 8.

10 EXAMINER DAWSON: They are so admitted.
11 (Encana Exhibit Numbers 1 through 8 were
12 offered and admitted into evidence.)

13 MR. RANKIN: I have no further questions
14 for this witness.

15 EXAMINER DAWSON: Okay. I have a few
16 questions.

17 CROSS-EXAMINATION

18 BY EXAMINER DAWSON:

19 Q. Good morning, Ms. Binion.

20 A. Good morning.

21 Q. On your Exhibit 1, I notice that there are
22 some -- for instance, Section 5 of 23 North, 9 West,
23 there's only a half section depicted.

24 A. Yes.

25 Q. And then also down in Number 11 of 23 North, 9

1 West, only the northwest corner is depicted within the
2 unitized interval --

3 A. Yes.

4 Q. -- area? I'm sorry.

5 Do you know how Encana plans on developing
6 those quarter-half sections, how the drilling will occur
7 within those areas, or is that a question I probably
8 need to defer to the geologist or the engineer?

9 A. I think I can answer that only because I asked
10 the question before we modified those outlines. We work
11 really closely with our geologists and our engineers
12 when planning the grid for how we would drill these
13 locations.

14 The reason we even considered, for example,
15 Section 11 -- the remaining part of Section 11 are
16 allotted lease tracts that are owned by WPX. We talked
17 to WPX and we asked them if they would want to be part
18 of our unit, and they preferred not to. They would
19 prefer to develop their lands on their own. They have
20 their own plans. If we would have included them, they
21 would have been uncommitted. It would have made it much
22 more difficult for them to be locating wells and for us
23 to be trying to keep wells inside of a unit and
24 having -- so it was much more conducive for us to leave
25 them out, and the BLM agreed.

1 We have -- we have locations -- we have
2 surface locations in Section 2 going north-south, and
3 they had planned to drill the north-south and extend the
4 laterals all the way into Section 11, is my
5 recollection. If that wouldn't be available, they could
6 also do them transverse from locations, you know, in
7 Section 3. But one way or another, they told me that
8 they were able to find surface locations to be able to
9 extend into Section 11 and secure the reserves in
10 Section 11, the northwest quarter, without stranding
11 those reserves.

12 They gave me approval to exclude the
13 remainder of Section 11 without stranding the reserves
14 in the northwest of 11. So I got approval from our
15 engineers and our geologists before we drew the outline
16 that way. Same thing for the five, the east half.

17 Q. Okay. The two interest owners that you said
18 were uncommitted --

19 A. Right.

20 Q. -- approximately less than 2 percent?

21 A. Less than 1 percent.

22 Q. Oh, less than 1 percent. Okay.

23 You will have them committed as soon as
24 they get the leases signed, is what you said?

25 A. Correct. They're signing the leases now.

1 It's -- yeah. I explained that to you when we had met,
2 you know, sometime back. It's a very, very unusual
3 circumstance, but yes, they are fee mineral owners under
4 allotted tracts.

5 Q. I know that you had discussed this with the
6 State Land Office on preparation of your C-102 forms.

7 A. Correct.

8 Q. And are you going to do those on a spacing-unit
9 basis? A proration-unit basis? How are you going to --
10 did you talk to them further about the preparation of
11 the C-102s and how that's going to be done?

12 A. It's my understanding that we're still planning
13 to do -- to prepare them the same way that we've been
14 preparing the Gallo Canyon Unit permits, our C-102s.
15 We're going to do the front part of the C-102 -- page 1
16 will depict spacing units and will show the actual
17 spacing units being penetrated by the lateral for the
18 well, and then on the back sides, the subsequent pages
19 will show the full confines of the unit area, which are
20 going to be the dedicated acreage to the unit. So yes,
21 we're going to show it the same way. We're not going to
22 split the two.

23 Q. And they were okay with that?

24 A. And they were okay with that, as far as I
25 understand, yes. Now, what size spacing units they're

1 going to be, we're not sure. We're waiting for the
2 State to direct us on that, as to what size spacing
3 unit. We're going to write the order leaving those
4 spacing units to whatever size the State wants us to put
5 in there.

6 Q. Okay. Sounds great. I have no further
7 questions. Thank you.

8 MR. RANKIN: Mr. Examiner, I'd like to call
9 my second witness, Mr. Erik Graven.

10 ERIK PAUL GRAVEN,
11 after having been previously sworn under oath, was
12 questioned and testified as follows:

13 DIRECT EXAMINATION

14 BY MR. RANKIN:

15 Q. Mr. Graven, will you please state your name?

16 A. Eric Paul Graven.

17 Q. Can you please spell that for the court
18 reporter?

19 A. E-R-I-K, P-A-U-L, G-R-A-V-E-N.

20 Q. And by whom are you employed?

21 A. Encana Oil & Gas.

22 Q. In what capacity?

23 A. As a geologist with the San Juan Development
24 Group.

25 Q. And have you testified before the Division?

1 A. No, I have not.

2 Q. And would you please review for the Examiners
3 your background, education and your work experience as a
4 petroleum geologist?

5 A. Yes. I received a bachelor of science degree
6 from the University Wisconsin in 1986. That was in
7 geology and geophysics. And then in 1990, I received my
8 master of science degree from Oregon State University in
9 geology.

10 I then proceeded to work for the next 23
11 years, from 1990 to present, as a petroleum geologist in
12 both the development and exploration of oil in a number
13 of different basins, including basins in Alaska, the
14 Gulf of Mexico and various states, Wyoming, Colorado and
15 New Mexico.

16 Q. And are you familiar with the application filed
17 today?

18 A. Yes.

19 Q. And have you conducted a study of the lands
20 that are subject to the application?

21 A. Yes, I have.

22 MR. RANKIN: Mr. Examiner, I would tender
23 Mr. Graven as an expert in geology.

24 EXAMINER DAWSON: He is so accepted.

25 Q. (BY MR. RANKIN) Mr. Graven, looking at your

1 first exhibit here, Exhibit Number 9, will you please
2 review for the Examiners what this log depicts?

3 A. Yeah. Exhibit Number 9 is a type log from the
4 Escrito P16-2409 well. It shows four different curve
5 tracks on it, with the gamma ray curve in the left-hand
6 track, the resistivity curve just right of the depth
7 track, and then the density and neutron porosity curves
8 in the far right-hand track. And it also shows the
9 unitized depths for the Nageezi Unit. Those are defined
10 by the bracket shown in the far left edge of the well
11 log.

12 Those depths extend from 100 feet below the
13 top of the Mancos Shale, down through the Gallup number,
14 which includes a number of sands which are denoted by
15 the lighter colors on the gamma ray and resistivity
16 curves. And those depths then extend down below the
17 base of the Gallup through the Juana Lopez and the
18 Carlile numbers and through the Greenhorn limestone.
19 The base of the unitized depths, then, are at the base
20 of the Greenhorn limestone or the top of the Graneros
21 Shale.

22 Q. Now, you also conducted a study of the geology
23 of the lands in this area; is that correct?

24 A. Yes.

25 Q. And those are indicated as Exhibits 10, 11, 12

1 and 13?

2 A. Yes.

3 Q. And would you mind just reviewing each of those
4 exhibits for the Examiners, please?

5 A. Sure. Exhibit 10 is a structure contour map on
6 top of the Mancos Shale. The outline of the Nageezi
7 Unit -- the proposed Nageezi Unit is shown in red.
8 There are also two cross sections shown on this map. A,
9 A prime is shown in blue. That extends roughly from
10 just northeast -- northwest of the unit, across the
11 unit, to just southeast of the unit.

12 And then also we have B, B prime shown in
13 orange. That extends from just west of the unit
14 boundary to just east of the unit boundary.

15 The contour interval shown on this map is
16 20 feet, and it shows very gentle dips of one to two
17 degrees northeast. There are no indications of
18 structural complications such as faulting or any other
19 structural complications on this map.

20 Exhibit Number 11 is another structure
21 contour map. This is on top of the Gallup. This map
22 also shows the unit outlines in the same cross sections.
23 It also shows very gentle dips to the northeast, with a
24 20-foot contour interval. Again, these dips are roughly
25 one to two degrees to the northeast. And, again, we see

1 no indication of faulting or other structural
2 complications on this map.

3 And then Exhibit Number 12 is cross
4 section, A to A prime, which was shown on the previous
5 two exhibits. This cross section shows four wells, and
6 the curves are the same as were shown in the type log in
7 Exhibit 9. This exhibit also shows the unitized depths
8 denoted by the bracket on the far left edge of the cross
9 section.

10 You will see a number of gaps in the gamma
11 ray data on the left-hand track of each well. These are
12 intervals where gamma ray data is just not acquired in
13 these wells. However, we do have good coverage of the
14 resistivity data on each of the wells, and from the
15 combined gamma ray and resistivity data, we can see good
16 correlation of each of the intervals across the entire
17 cross section.

18 And then moving on to Exhibit 13, another
19 cross. This is B, B prime, which was denoted in the two
20 structure maps, and this extends from just west of the
21 unit, across the unit to just east of the unit. Again,
22 the same curves are shown in each of the five wells that
23 are shown on this cross section, and, again, the
24 unitized depths are denoted by the bracket on the edge
25 of the cross section.

1 There are two wells in the middle of the
2 cross section that do not extend throughout the entire
3 unitized interval. That's because we are very limited
4 in the number of wells that extend through this entire
5 interval in the unit. So I just included those to show
6 that we do have good continuity across the interval
7 where we do have the shallower data.

8 I believe that covers it.

9 Q. Thank you very much.

10 Mr. Graven, based on your study of the
11 geology of the lands in the proposed unit area, have you
12 identified any pinch-outs or faulting or any impediments
13 that would prevent effective and efficient development
14 of the proposed unit area?

15 A. No, I have not.

16 Q. And in your opinion, will the formation of this
17 proposed unit provide for the most efficient development
18 of hydrocarbon resources in the proposed unit area?

19 A. Yes, it will.

20 Q. In your opinion, will the granting of Encana's
21 application in this case be in the best interest of
22 conservation, the protection of correlative rights and
23 the prevention of waste?

24 A. Yes.

25 Q. Mr. Graven, were Exhibits 9 through 13 prepared

1 by you or under your direct supervision?

2 A. Yes.

3 MR. RANKIN: Mr. Examiner, I would move to
4 admit Exhibits 9 through 13 into the record.

5 EXAMINER DAWSON: They are so admitted.

6 (Encana Exhibit Numbers 9 through 13 were
7 offered and admitted into evidence.)

8 MR. RANKIN: I have no further questions of
9 the witness.

10 EXAMINER DAWSON: I just have a few
11 questions.

12 CROSS-EXAMINATION

13 BY EXAMINER DAWSON:

14 Q. The vertical wells -- there have been some
15 vertical-well penetrations within the unit boundaries,
16 correct?

17 A. Yes.

18 Q. Those wells, they will not be included in the
19 unit, will they?

20 A. That is correct.

21 Q. I guess some of these wells that Dugan drilled
22 have the logs that look like the production curves and
23 the porosity curves on them are kind of cut off on some
24 of them, those are probably old wells, aren't they, that
25 were drilled a long time ago? Do you know what those

1 are?

2 A. Yes. I'm not -- actually, at the top of each
3 well, there is a spud date for each of those wells.

4 Q. Oh, okay.

5 A. Roughly from the '50s through the early '80s.

6 Q. Okay. I guess they may have had some trouble
7 with their logging tools on a some of those wells?

8 A. Yes, sir. They just may not have wanted to go
9 to the expense of logging the entire interval.

10 Q. They knew where their productive zones were?

11 A. Right.

12 Q. Do you anticipate any gas production from this
13 unit -- I mean any gas wells?

14 A. No, only gas associated with the oil
15 production.

16 Q. I have no further questions. Thank you.

17 MR. RANKIN: Mr. Examiner, I'll call my
18 third and final witness, Mr. Dan Camper.

19 Mr. Examiner, I'd like the record to
20 reflect that Mr. Daniel Camper was previously sworn and
21 previously recognized as an expert in reservoir
22 engineering.

23 EXAMINER DAWSON: He is so accepted.

24 MR. RANKIN: Thank you very much.

25

1 DANIEL J. CAMPER,

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

4 DIRECT EXAMINATION

5 BY MR. RANKIN:

6 Q. Mr. Camper, are you familiar with the
7 application filed in this case?

8 A. Yes, I am.

9 Q. And have you conducted a study of the
10 reservoirs and pools that are the subject to this
11 proposed application?

12 A. Yes, I have.

13 (Examiner Wade exits the hearing.)

14 Q. And have you prepared an exhibit to review with
15 the Examiners today?

16 A. Yes, I have.

17 Q. Is that Exhibit Number 14?

18 A. That's correct.

19 Q. Would you mind, please, reviewing for the
20 Examiner what that exhibit shows?

21 A. Exhibit 14 is showing the API and BTU across --
22 across the unit, and so let me explain the slide. The
23 black outline -- the Nageezi is in the black outline on
24 the southeast portion of this slide. The orange outline
25 is going to be the Bisti Lower Gallup pool, and then

1 your blue outline is going to be your South Bisti Gallup
2 pool. And then everything else in between is going to
3 be the Basin-Mancos gas pool.

4 And then to kind of explain, the wells on
5 here are the Encana wells -- Encana horizontal wells.
6 And so the light blue dot is going to be your surface
7 hole, and the dark green dot is going to be the
8 bottom-hole location. Above the green dot, you have
9 your BTU values that are the heating value for your gas,
10 and then below that green dot, it's going to be the oil
11 API.

12 So this is just showing that the fluid is
13 compatible. It is the same across each pool that we
14 would combine, so we should not have any issues with
15 combining pools and leaving reserves behind.

16 Q. So your study encompassed each of the pools
17 that will be combined under this proposed application?

18 A. That is correct.

19 Q. In your opinion, have you observed any
20 technical or reservoir characteristics that would make
21 these hydrocarbons within these separate pools
22 incompatible?

23 A. No, I have not.

24 Q. And are the pools that would be combined within
25 the same vertical interval?

1 A. They are.

2 Q. And as a consequence, do the pools exhibit
3 roughly the same pressure gradient?

4 A. That's correct. The pressure gradient within
5 the interval interest of 1,700 feet is consistent. The
6 pressure changes, of course, with depth, but the
7 gradient is the same, so there should be no issues with
8 cross-flow within that 1,700-foot interval.

9 Q. Have you identified any compatibility issues
10 with the fluids within these -- within these separate
11 pools?

12 A. I have not. The oil and gas is the same. It
13 migrated at the same time, so it has the same
14 composition.

15 Q. Based on your study, Mr. Camper, is it your
16 opinion that there will be no fluid sensitivity should
17 Encana's application be granted in creating a single
18 pool for purposes of horizontal development?

19 A. That is correct.

20 Q. And there will be no waste or loss of reserves
21 as a consequence?

22 A. That is correct.

23 Q. Is it your opinion that the value of reserves
24 of these pools will not be reduced or diminished as a
25 consequence of the application?

1 A. That is correct.

2 Q. In your opinion, will correlative rights be
3 protected?

4 A. Yes, they will be.

5 Q. Is it your opinion that it's appropriate to
6 create a single pool for horizontal development within
7 the proposed unit area?

8 A. Yes.

9 Q. And in your opinion, will the granting of the
10 Encana application protect correlative rights and
11 prevent waste?

12 A. That is correct.

13 Q. Was Exhibit Number 14 prepared by you?

14 A. It was.

15 MR. RANKIN: Mr. Examiner, I would move to
16 admit Exhibit Number 14 into the record.

17 EXAMINER DAWSON: It is admitted.

18 (Encana Exhibit Number 14 was offered and
19 admitted into evidence.)

20 MR. RANKIN: I have no further questions of
21 the witness.

22 EXAMINER DAWSON: Okay. I have just have a
23 few questions.

24

25

1 CROSS-EXAMINATION

2 BY EXAMINER DAWSON:

3 Q. It sounds to me like you have a short time
4 frame on this unit to get it drilled. You're wanting to
5 get it drilled quickly?

6 A. That is correct. Based on our drill schedule,
7 we'll be ready to drill this within 45 [sic] days, as
8 Mona stated.

9 Q. Do you have APDs approved for this unit?

10 A. We do, yes.

11 Q. Do you have any idea where your initial well
12 will be located?

13 A. I cannot point it out on this map. That's
14 something Erik would have to actually show you. I can't
15 point it out.

16 MR. RANKIN: I can bring on our geologist
17 to review that testimony.

18 EXAMINER DAWSON: Yeah. If you bring him
19 back, I'll ask him that question.

20 I don't have any further questions of you,
21 Mr. Camper. Thank you.

22 MR. RANKIN: Mr. Examiner, if I could call
23 Mr. Graven to testify?

24 EXAMINER DAWSON: Yes, please.

25

1 ERIK PAUL GRAVEN,

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

4 RECROSS EXAMINATION

5 BY EXAMINER DAWSON:

6 Q. Mr. Graven, I just wanted to ask you the
7 question: Do you have an idea where that initial well
8 may be drilled within the unit area boundary?

9 A. Yes. In our unit proposal, we proposed a
10 number of possible unit obligation wells. I believe
11 there were five options that we were looking at, and
12 they were in all various stages of being permitted at
13 the time. Right now it's looking as though the D --
14 this would be the Escrito D34-2409 well would be our
15 unit obligation well. And that would be located in the
16 north half of Section 33, Township 24 North, Range 9
17 West.

18 It is possible, if there are permitting
19 changes, that we would drill one of our other five
20 wells. All of those wells are located along the western
21 edge of the unit. They would all be east-to-west
22 laterals at this point.

23 Basically, all the wells are in either
24 Section 28, Section 33. And there is also the
25 possibility that we would drill a unit obligation well

1 in Section 9 of 23 North, 9 West.

2 Q. So basically you're going to start development
3 pretty much near the center of the unit, is what you're
4 thinking?

5 A. Yes.

6 Q. Did you guys afford the ability for offset
7 operators with the 330-foot setbacks also on this unit?

8 MR. RANKIN: Do you mind clarifying the
9 question?

10 Q. (BY EXAMINER DAWSON) When you provided notice
11 to the offset operators, did you also tell them that
12 they have the ability to locate their wells within 330
13 foot from the unit boundary?

14 MR. RANKIN: The exhibit showing the
15 contents OF the notice is at Exhibit Number 7, and the
16 notice provided the contents of the application
17 indicating that the pool -- that Encana was seeking to
18 change a new pool with 330-foot setbacks.

19 But I think your question is whether or not
20 Encana is offering to allow offsetting operators under
21 different pool rules also to develop at 330; is that
22 right?

23 EXAMINER DAWSON: Yes.

24 MR. RANKIN: And the answer to that
25 question?

1 MS. BINION: I don't know if the pool that
2 they are proposing on the form said that or not.

3 MR. RANKIN: I think the answer to your
4 question you're looking for is whether Encana recalls
5 any operator drilling up to 330 offsetting spacing unit.
6 Right?

7 EXAMINER DAWSON: Correct.

8 MR. RANKIN: I think the answer would be
9 no.

10 MS. BINION: We would not oppose any offset
11 operator to go out there and look -- no, we have not and
12 we would not. And so if you wanted us to include that
13 in the pool, we could do that, because I think -- didn't
14 WPX include that in their application?

15 EXAMINER DAWSON: Yeah. You might want to
16 include that in the proposed draft order.

17 MS. BINION: We can do that.

18 EXAMINER DAWSON: No further questions.
19 Thank you, Mr. Graven.

20 Okay. Do you have any closing statements,
21 Mr. Rankin?

22 MR. RANKIN: I have none, just that we
23 request the Division consider the application and
24 approve it upon submission of the proposed order.

25 EXAMINER DAWSON: So I'm going to have to

1 ask you, you know, if you could provide me your
2 conclusions and findings within one week from this date
3 and also provide a proposed draft order within one week.

4 MR. RANKIN: Mr. Examiner, would it be okay
5 if we included those conclusions and findings within the
6 proposed draft order?

7 EXAMINER DAWSON: That's fine.

8 MR. RANKIN: Thank you.

9 EXAMINER DAWSON: This case will be taken
10 under advisement, and that concludes today's hearing for
11 Case 15153. Thank you.

12 (Case Number 15153 concludes, 12:15 p.m.)

13

14

15

16

17

I do hereby certify that the foregoing is
a true and correct record of the proceedings in
the examination of Case No. _____
heard by me on _____

19

20

_____, Examiner
Oil Conservation Division

21

22

23

24

25

1 STATE OF NEW MEXICO
2 COUNTY OF BERNALILLO

3

4 CERTIFICATE OF COURT REPORTER

5 I, MARY C. HANKINS, New Mexico Certified
6 Court Reporter No. 20, and Registered Professional
7 Reporter, do hereby certify that I reported the
8 foregoing proceedings in stenographic shorthand and that
9 the foregoing pages are a true and correct transcript of
10 those proceedings that were reduced to printed form by
11 me to the best of my ability.

12 I FURTHER CERTIFY that the Reporter's
13 Record of the proceedings truly and accurately reflects
14 the exhibits, if any, offered by the respective parties.

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

19

20

21

22

23

24

25



MARY C. HANKINS, CCR, RPR
Paul Baca Court Reporters, Inc.
New Mexico CCR No. 20
Date of CCR Expiration: 12/31/2014