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:

AMENDED APPLICATION OF CHISHOLM ENERGY CASE NO. 15953
OPERATING, LLC FOR APPROVAL OF AN
892.20-ACRE NONSTANDARD PROJECT
AREA AND NONSTANDARD SPACING UNIT
IN THE WOLFCAMP FORMATION COMPRISED
OF ACREAGE SUBJECT TO A PROPOSED
COMMUNITIZATION AGREEMENT, AND FOR
APPROVAL OF AN 892.2-ACRE NONSTANDARD
PROJECT AREA AND NONSTANDARD SPACING
UNIT IN THE BONE SPRING FORMATION
COMPRISED OF ACREAGE SUBJECT TO A
PROPOSED COMMUNITIZATION AGREEMENT,
EDDY COUNTY, NEW MEXICO.

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

January 25, 2018

Santa Fe, New Mexico

BEFORE: WILLIAM V. JONES, CHIEF EXAMINER LEONARD LOWE, TECHNICAL EXAMINER DAVID K. BROOKS, LEGAL EXAMINER

This matter came on for hearing before the New Mexico Oil Conservation Division, William V. Jones, Chief Examiner, Leonard Lowe, Technical Examiner, and David K. Brooks, Legal Examiner, on Thursday, January 25, 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

Page 2 APPEARANCES FOR APPLICANT CHISHOLM ENERGY OPERATING, 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 (1:35 p.m.)
- EXAMINER JONES: Call Case Number 15953,
- 3 which is amended application of Chisholm Energy
- 4 Operating, LLC for approval of an 892.20-acre
- 5 nonstandard project area and nonstandard spacing unit in
- 6 the Wolfcamp Formation comprised of acreage subject to a
- 7 proposed communitization agreement, and for approval of
- 8 an 892.20-acre nonstandard project area and nonstandard
- 9 spacing unit in the Bone Spring Formation comprised of
- 10 acreage subject to a proposed communitization agreement,
- 11 Eddy County, New Mexico.
- 12 Call for appearances.
- MS. KESSLER: Jordan Kessler, from the
- 14 Santa Fe office of Holland & Hart, on behalf of the
- 15 Applicant.
- 16 EXAMINER JONES: Any other appearances?
- 17 MS. KESSLER: We have three witnesses
- 18 today.
- 19 EXAMINER JONES: Will the witnesses please
- 20 stand?
- 21 And will the court reporter swear the
- 22 witnesses?
- 23 (Ms. Slone, Mr. Emery and Mr. Huling
- 24 sworn.)
- 25

- 1 LINDA SLONE,
- 2 after having been first duly sworn under oath, was
- 3 questioned and testified as follows:
- 4 DIRECT EXAMINATION
- 5 BY MS. KESSLER:
- 6 Q. Please state your name for the record, and tell
- 7 the Examiners by whom you're employed and in what
- 8 capacity.
- 9 A. I'm Linda Slone, and I am land manager for
- 10 Chisholm Energy Operating, LLC.
- 11 Q. Have you previously testified before the
- 12 Division?
- 13 A. I have not.
- 14 Q. Will you please outline your educational
- 15 background?
- 16 A. Yes. I graduated with an associate's degree
- 17 from Amarillo [sic] College, and then I also attended
- 18 one year at Dallas Baptist University also in business
- 19 administration.
- 20 Q. And what is your work experience?
- 21 A. I've got 39 years of experience. I started
- 22 with Diamond Shamrock, and through a series of name
- 23 changes, I ultimately was working for Burlington
- 24 Resources. And I left Burlington to go work for Matador
- 25 Petroleum. And, again, a series of name changes -- or

1 sales, actually, I was working for Encana Corporation.

- 2 I left Encana to go to Range Resources, and now I'm at
- 3 Chisholm.
- 4 Q. And you have land experience during all of
- 5 those, correct?
- 6 A. Yes. All of it is in land.
- Q. Since approximately -- since joining Chisholm,
- 8 I should say, has your experience and responsibilities
- 9 included the Permian Basin?
- 10 A. Yes.
- 11 Q. Are you a member of any professional
- 12 associations?
- 13 A. Yes, the American Association of Professional
- 14 Landmen.
- 15 Q. Are you familiar with the application that's
- 16 been filed in this case?
- 17 A. I am.
- 18 Q. And are you familiar with the status of the
- 19 lands in the area?
- 20 A. I am.
- 21 MS. KESSLER: Mr. Examiners, I'd tender
- 22 Ms. Slone as an expert in petroleum land matters.
- 23 EXAMINER JONES: So qualified.
- Q. (BY MS. KESSLER) Ms. Slone, could you please
- 25 turn to Exhibit 1 and identify this exhibit for the

- 1 Examiners?
- 2 A. Yes. It is our request for approval of a
- 3 nonstandard spacing unit or nonstandard project area
- 4 that's comprised of 892.2 acres.
- 5 Q. And Exhibit 1 is just showing a plat of the
- 6 regulatory status of the wells that are either drilled
- or proposed currently in the Bone Spring acreage; is
- 8 that correct?
- 9 A. That is correct.
- 10 Q. You mentioned that Chisholm is seeking an
- 11 approval of approximately 892.2-acre either nonstandard
- 12 project area or nonstandard spacing unit; is that
- 13 correct?
- 14 A. Yes.
- 15 Q. All of this acreage is within a single
- 16 communitized area?
- 17 A. Well, that's -- that's -- we filed a
- 18 communitization, and it's been approved by the State
- 19 Land Office. We have verbal approval -- well, actually,
- 20 written approval from the BLM.
- 21 Q. Okay. And the proposed com agreement covers
- 22 all of Section 29 and all of irregular Section 32 in
- 23 Township 26 South, Range 26 East, Eddy County; is that
- 24 correct?
- 25 A. That is correct.

1 Q. And I understand that the first communitized

- area is limited to the Bone Spring Formation; is that
- 3 correct?
- 4 A. Correct. Yes.
- 5 Q. Does this acreage border the state of Texas?
- 6 A. It does.
- 7 Q. So even though Section 32 is not 640 acres, it
- 8 is the entire section; is that correct?
- 9 A. That is correct.
- 10 Q. Does Exhibit 1 show the outline of the federal
- and state leases involved in this acreage?
- 12 A. Yes, it does.
- 13 Q. Is Chisholm the only interest -- working
- 14 interest owner in each of those state and federal
- 15 **leases?**
- 16 A. Yes, we are.
- 17 Q. So you have 100 percent working interest?
- 18 A. Yes.
- 19 Q. Are there any overriding royalty interest
- 20 owners?
- 21 A. There are.
- Q. Does this plat show in black the wells that
- 23 have been drilled?
- 24 A. It does.
- Q. And those are two Bone Spring wells; is that

- 1 correct?
- 2 A. That's correct.
- Q. And then there are three Bone Spring wells that
- 4 have pending APDs?
- 5 A. That's correct.
- 6 Q. Okay. This plat does not show Chisholm's full
- 7 development plan for the Bone Spring?
- 8 A. No, it does not.
- 9 Q. There will be subsequent witnesses discussing
- 10 full development?
- 11 A. Yes.
- 12 O. Let's turn to Exhibit 2. Is this the exhibit
- 13 showing the regulatory status of the Wolfcamp wells in
- 14 the subject area?
- 15 A. Yes, it is -- it does.
- 16 Q. And with respect to the Wolfcamp portion of
- this application, is Chisholm seeking approval of
- 18 892.2-acre either nonstandard spacing unit or a
- 19 nonstandard project area that is subject to a -- subject
- 20 to single communitization agreement?
- 21 A. Yes.
- Q. And, again, this is the same acreage. It looks
- 23 like Section 29 and Section 32?
- 24 A. Yes.
- 25 Q. But this communitization agreement is for the

- 1 Wolfcamp Formation?
- 2 A. Yes, it is.
- Q. And, again, is Chisholm the 100 percent working
- 4 interest owner in the two state and federal leases
- 5 covering the Wolfcamp acreage?
- 6 A. Yes, we are.
- 7 Q. Are there also overrides?
- 8 A. There are.
- Q. And this plat shows -- it's kind of hard to
- 10 tell. It's actually five wells; is that right?
- 11 A. That is correct.
- 12 Q. So two Wolfcamp wells that have been drilled in
- 13 the east half-east half portion of these two sections
- 14 and then the three proposed Wolfcamp wells with pending
- 15 **APDs?**
- 16 A. Yes. The 3H is actually currently drilling,
- 17 but the 4 has been drilled.
- 18 Q. Okay. And another witness will talk about the
- 19 comprehensive Wolfcamp development. This does not
- 20 represent the full Wolfcamp development?
- 21 A. No. No, it does not.
- Q. Okay. Does Exhibit 3 include five APD --
- 23 C-102s for the Bone Spring wells?
- A. It does.
- 25 Q. And does this identify the Bone Spring Pool

- 1 associated with the area?
- 2 A. Yes. It's the Welch; Bone Spring.
- 3 Q. Welch; Bone Spring.
- 4 What is the Pool Code there?
- 5 A. 64010.
- 6 Q. And is that pool subject to 40-acre spacing?
- 7 A. Yes, it is.
- 8 Q. And if you turn to Exhibit 4, these are either
- 9 the approved or pending APDs for the Wolfcamp wells?
- 10 A. Yes, that's correct.
- 11 Q. What pool is associated with this Wolfcamp --
- 12 A. The Purple Sage; Wolfcamp.
- 13 Q. And is that -- do you understand that that's
- 14 spaced on 320 acres?
- 15 A. Yes.
- 16 Q. Did Chisholm representatives discuss with the
- 17 State Land Office and with BLM representatives the
- 18 creation of the single communitized area covering the
- 19 Bone Spring?
- 20 A. Yes.
- 21 Q. And also the Wolfcamp?
- 22 A. Yes.
- 23 Q. If I turn to Exhibit 5, is this a copy of the
- 24 com agreement for the Bone Spring?
- 25 A. Yes, it is.

1 Q. And the first page looks like an approval

- 2 letter from the State Land Office, correct?
- 3 A. Yes.
- 4 Q. And on the very last page of Exhibit 5, does
- 5 this include correspondence with the BLM?
- 6 A. Looks like it does. Yes, it does.
- Q. And this indicates they have reviewed the area
- 8 and provided preliminary approval, correct?
- 9 A. That's correct.
- 10 Q. Is Exhibit 6 a copy of the com agreement for
- 11 the Wolfcamp area?
- 12 A. Yes, it is.
- 13 Q. And, again, the first page is an approval from
- 14 the State Land Office?
- 15 A. It is.
- 16 Q. And the very last page is correspondence from
- 17 the BLM, last two pages --
- 18 A. Yes.
- 19 Q. -- indicating that the BLM will approve?
- 20 A. That's correct.
- 21 Q. Why is Chisholm requesting nonstandard spacing
- 22 units or nonstandard project areas for this acreage?
- 23 A. We are wanting to obtain well spacing that the
- 24 geologist and engineers would like to see for the most
- 25 efficient development of the Bone Spring and the

- 1 Wolfcamp Formations.
- Q. Okay. So this is primarily being driven by
- 3 well spacing and efficiency issues, correct?
- 4 A. Yes.
- 5 Q. And will there also be associated consolidation
- of the surface facilities and commingling?
- 7 A. Yes, there will be.
- 8 Q. And, again, this was -- this process was done
- 9 in consultation with the BLM and the State, correct?
- 10 A. Yes.
- 11 Q. And was it, in fact, driven by the BLM?
- 12 A. Well, my first conversation was with the BLM.
- 13 Q. Did Chisholm identify the affected parties in
- 14 the tracks surrounding the proposed nonstandard spacing
- 15 unit or project area?
- 16 A. Yes.
- 17 Q. And they were all provided notice of this
- 18 hearing; is that correct?
- 19 A. Yes.
- 20 Q. And no acreage is being left out of the
- 21 proposed nonstandard spacing unit? It comprises two
- 22 full sections, correct?
- 23 A. It does.
- Q. Did you provide notice to overriding royalty
- 25 interest owners?

- 1 A. Yes, we did.
- 2 Q. And is Exhibit 7 an affidavit with attached
- 3 letters prepared by my office providing notice to the
- 4 affected parties?
- 5 A. Yes.
- 6 Q. And is Exhibit 8 an Affidavit of Publication to
- 7 the offsets and to the overriding royalty interest
- 8 owners?
- 9 A. Yes, it is.
- 10 Q. Were Exhibits 1 through 6 prepared by you or
- 11 compiled under your direction and supervision?
- 12 A. Yes, they were.
- MS. KESSLER: Mr. Examiner, I'd move
- 14 admission of Exhibits 1 through 8, which include our two
- 15 notice affidavits.
- 16 EXAMINER JONES: Exhibits 1 through 8 are
- 17 admitted.
- 18 (Chisholm Energy Operating, LLC Exhibit
- 19 Numbers 1 through 8 are offered and
- admitted into evidence.)
- MS. KESSLER: Thank you.
- 22 EXAMINER BROOKS: I don't think I have any
- 23 questions. I believe you covered the issue of notice to
- 24 overrides that we always have in the Purple Sage. But
- 25 you don't really have it here because these are -- each

- of these project areas is two half sections, right?
- 2 MS. KESSLER: You're thinking for Purple
- 3 Sage. So the proposed nonstandard spacing unit or
- 4 project area is two full sections, so nobody is being
- 5 left out.
- 6 EXAMINER BROOKS: Yeah. Nobody is left
- 7 out, so you really don't have to notify anybody other
- 8 than the working interest owners.
- 9 MS. KESSLER: Historically, Mr. Examiner,
- 10 for a nonstandard project area, the Division has asked
- 11 that we notify overriding royalty interest owners. So
- 12 out of an abundance of caution, we did that.
- 13 EXAMINER BROOKS: Yeah. Well, I know we've
- 14 done that historically, and a lot of people -- I've
- 15 become recently aware of the fact that a lot of people
- 16 don't do it. But, of course, the question is whether
- 17 overrides are governed by -- whether overriding
- 18 royalties are subject to the mineral lessee's right to
- 19 pool, and I have not yet satisfied myself one way or the
- 20 other on that. So -- but you've got it covered, so we
- 21 don't have to worry about it in this case. And there is
- 22 nobody left out.
- MS. KESSLER: And, again, Mr. Examiner, I
- 24 should have said this at the beginning. We had
- 25 conversations -- I had conversations with Mr. Brooks

1 regarding whether the application was -- should be for a

- 2 nonstandard spacing unit or nonstandard project area.
- 3 Mr. Brooks and I believe that -- did believe that it
- 4 should be approved as a nonstandard spacing unit. We
- 5 left both of those requests in the application to
- 6 provide the Division flexibility.
- 7 EXAMINER BROOKS: Well, it's actually not a
- 8 nonstandard project area -- well -- oh, you're asking
- 9 for all four sections to be -- all four half sections to
- 10 be combined into one project area? Is that what you're
- 11 doing?
- MS. KESSLER: Project area or spacing unit.
- 13 EXAMINER BROOKS: Yeah. Okay. So if it
- 14 were as a project area, it would be nonstandard. But as
- 15 a spacing unit, of course, it would also be nonstandard.
- 16 You're right. We did have that conversation, and I
- 17 remember the conversation. I just didn't remember the
- 18 details.
- 19 MS. KESSLER: We arrived at nonstandard
- 20 spacing unit, but we would be happy --
- 21 EXAMINER JONES: Why did you publish
- 22 newspaper notice?
- MS. KESSLER: There were a lot of
- 24 overriding royalty owners, I believe, and we just wanted
- 25 to make sure that they were all --

1 EXAMINER JONES: Just wanted to make sure.

- 2 CROSS-EXAMINATION
- 3 BY EXAMINER JONES:
- 4 Q. Did everybody -- all the working interests get
- 5 notice? Did they return a green card, all the working
- 6 interests? They're all signed up?
- 7 (Cell phone ringing.)
- 8 A. We're the only working interest aside --
- 9 inside --
- 10 Q. Okay. So you're the only working interest
- inside the whole thing?
- 12 A. Yes.
- Q. But there are a bunch of other common -- people
- 14 out here like MRC Permian. But these are affected
- 15 parties?
- 16 A. Those are offsets.
- 17 Q. Pardon?
- MS. KESSLER: Those would be offsets.
- 19 EXAMINER JONES: Oh. You noticed everybody
- 20 around you?
- THE WITNESS: We did.
- MS. KESSLER: We did.
- 23 EXAMINER JONES: Okay. And I went through
- 24 and looked at all the wells in the Wolfcamp and the Bone
- 25 Spring, and I see what you showed already on this

1 graph -- on the exhibits, but I was just wondering where

- 2 the wells would be located. Now, on the -- on the
- 3 Purple Sage, you could potentially stack three spacing
- 4 units and drill a well and hold the whole thing
- 5 potentially, depending on how the roles were
- 6 interpreted. So you wouldn't actually need to come here
- 7 at all, actually.
- 8 MS. KESSLER: So the reason for that,
- 9 Mr. Examiner -- this will be discussed by further
- 10 witnesses -- future witnesses. But they do intend to
- 11 drill some of the wells down the centerline in the full
- 12 development plan. There is also commingling due to
- 13 the -- and Linda can speak to this. But the BLM and the
- 14 State Land Office thought it was complex enough that
- 15 they requested that this be put into a nonstandard
- 16 spacing unit.
- 17 EXAMINER JONES: Okay. So the difference
- 18 between forming two -- two areas and then just getting a
- 19 surface commingle permit between them is -- I guess
- 20 you're going to have more witnesses to talk about that,
- 21 so I probably ought to wait.
- Q. (BY EXAMINER JONES) The BLM com agreement
- 23 signature, is that -- you showed us that, didn't you? I
- 24 saw the land office. I recognize that.
- 25 A. The person with the BLM was Deborah Hamm

- 1 [phonetic]. That's who they're submitted to.
- O. Okay. And your recapitulation here shows --
- 3 that's the State Land Office one. The BLM one -- oh,
- $4\,$ no. That was the BLM one I was looking at, Exhibit
- 5 Number 5. Is that correct? Exhibit 5 is the BLM com
- 6 agreement?
- 7 A. It's the same com agreement that was submitted
- 8 to both.
- 9 Q. Yeah.
- 10 A. Yeah.
- 11 Q. Same form? There was no modification on the
- 12 form at all?
- 13 A. No, sir.
- 14 Q. I know they collude on their forms, you know.
- 15 State land and federal land, they have agreed in the
- past to use this one form, and they send it to both.
- 17 But the BLM requires signatures from more people, like
- 18 all the working interests. But it's just only you --
- 19 A. Correct.
- 20 Q. -- is that correct?
- 21 A. Uh-huh.
- Q. Okay. Now, and the overrides, they're going to
- 23 get paid either way, I guess.
- 24 A. Yes.
- 25 Q. Okay. Well, you made a good-faith attempt to

- 1 notice all the overrides, I see.
- 2 A. We did.
- Q. Okay. I guess as far as land goes -- now, this
- 4 was all one federal lease over this section and one
- 5 state lease over the irregular section?
- 6 A. That is correct.
- 7 Q. And are they -- is the lease in good
- 8 standing --
- 9 A. Yeah.
- 10 Q. -- before the com agreement was signed to hold
- 11 the leases?
- 12 A. Yes. We started drilling prior to the -- there
- 13 was actually an extension on the federal lease, on the
- 14 BLM lease, and we started drilling prior to the end of
- 15 the extension.
- 16 Q. Okay. So you got kind of a short-term com
- 17 agreement. I don't know what they call it at the BLM.
- 18 But as long as you started drilling before the
- expiration of the lease, they extended the lease?
- 20 A. Uh-huh.
- 21 Q. So you have to establish -- keep working to
- 22 establish production. And you have established
- 23 production on at least one well?
- A. We have two, I believe, producing.
- 25 Q. Okay. Okay. And you intend to -- well, next

- 1 witness, I think --
- 2 EXAMINER JONES: Mr. Lowe?
- 3 EXAMINER LOWE: I'm good on questions.
- 4 Thank you.
- 5 Q. (BY EXAMINER JONES) I guess I could ask about
- 6 the surface. Do you -- do you want to put all of these
- 7 in -- I didn't see any application where the surface
- 8 locations are going to be. Is it going to be in the
- 9 north or in the south?
- 10 A. They're in the north.
- 11 Q. So everything's in the north, all the surface
- 12 on the federal lands?
- 13 A. Yes. Let's see. On the eastern side, the
- 14 surface is actually on the next lease up.
- 15 Q. Okay. Okay. Yeah. I actually -- okay. I
- 16 didn't know about that. But you intend to develop all
- 17 40-acre tracts within this proposed area?
- 18 A. I'm sorry. I misspoke. It was the next
- 19 section over that has the off-site dual site. I
- 20 apologize.
- 21 Q. So they --
- 22 A. That was incorrect.
- 23 Q. So they granted you surface easements or
- 24 whatever the BLM does to get on their land?
- 25 A. Yes. And both --

1 Q. As long as you have the lease, they let you

- 2 drill?
- 3 A. Uh-huh.
- 4 Q. Okay. Thanks.
- 5 EXAMINER JONES: Anything, Leonard?
- 6 EXAMINER LOWE: No.
- 7 MARTIN EMERY,
- 8 after having been previously sworn under oath, was
- 9 questioned and testified as follows:
- 10 DIRECT EXAMINATION
- 11 BY MS. KESSLER:
- 12 Q. Please state your name for the record and tell
- the Examiners by whom you're employed and in what
- 14 capacity.
- 15 A. My name is Martin Emery, and I'm employed by
- 16 Chisholm Energy Operating. And I'm the senior VP of
- 17 geosciences.
- 18 Q. Have you previously testified before the
- 19 Division?
- 20 A. Yes, about -- the last time was about 12 or 13
- 21 years ago.
- Q. Were your credentials 12 or 13 years ago as a
- 23 petroleum geologist accepted and made a matter of
- 24 record?
- 25 A. Yes.

1 Q. And since that time, have you continued to have

- 2 your area of responsibilities include geoscience?
- 3 A. Yes.
- 4 Q. Are you familiar with the application filed in
- 5 this case?
- 6 A. Yes, I am.
- 7 Q. And have you conducted a geologic study of the
- 8 lands that are the subject of this application?
- 9 A. I have.
- 10 MS. KESSLER: Mr. Examiner, I'd tender
- 11 Mr. Emery as an expert in petroleum geology.
- 12 EXAMINER JONES: Where did you work 12 or
- 13 13 years ago.
- 14 THE WITNESS: 12 or 13 years ago, we had a
- 15 hearing for a pilot waterflood program at East Loving
- 16 Field, Brushy Canyon, and that was with Range Resources.
- 17 EXAMINER JONES: Okay.
- He's so qualified.
- 19 Q. (BY MS. KESSLER) Mr. Emery, there are targets
- in both the Bone Spring and the Wolfcamp, is that
- 21 correct, for these wells?
- 22 A. That's correct.
- Q. Did you prepare structure maps and cross
- 24 sections for each of the two formations?
- 25 A. I did.

1 Q. Let's start by looking at Exhibit 9. And this

- 2 exhibit has two pages. Can you please identify each of
- 3 the pages of this exhibit?
- 4 A. The first page is a structure map that's
- 5 constructed at the base of the 2nd Bone Spring Sand.
- 6 And on the cross section I'll show you subsequently, it
- 7 goes from A to A prime -- from A to A prime shown in a
- 8 green-dashed line on the map. I'll identify what
- 9 mapping level that is. Shown in yellow are Chisholm's
- 10 leaseholds. The wells with the blue dots are wells that
- 11 produce from the 2nd Bone Spring. You can see that
- 12 we've drilled two within the project area or spacing
- 13 area, which is outlined with the blue-dashed line, so
- 14 that's the 829.2 acres -- or 892.2 acres.
- 15 Q. So the yellow is Chisholm's leasehold in both
- 16 the subject area and also the adjacent area; is that
- 17 correct?
- 18 A. Correct.
- 19 Q. And the blue-dashed line represents the
- 20 proposed nonstandard spacing area, project area?
- 21 A. That's correct.
- 22 O. And this shows the structure of the 2nd Bone
- 23 Spring?
- 24 A. That is correct.
- 25 Q. What do you see with respect to any structural

- 1 dip?
- 2 A. It's just a regional dip to the east-northeast.
- 3 Q. Have you identified any geologic impediments in
- 4 the 2nd Bone Spring to developing the area with
- 5 horizontal wells?
- 6 A. No, I have not.
- 7 Q. Is the second page of this exhibit a structure
- 8 map on the 3rd Bone Spring in the subject area?
- 9 A. Yes, it is.
- 10 Q. What do you see with respect to structure in
- 11 this section?
- 12 A. It's similar to the 2nd Bone Spring, just a
- 13 regional dip to the east-northeast. And the 3rd Bone
- 14 Spring wells -- producing wells are shown with the
- 15 darker brown circles. We haven't drilled any 3rd Bone
- 16 Spring wells yet.
- 17 Q. So if I take a step back to the 2nd Bone Spring
- 18 map, this shows the full development plan for the second
- 19 Bone Spring within the nonstandard spacing units?
- 20 A. That's correct. So the blue lines in the
- 21 eastern half of Sections 29 and 32 are wells that we
- 22 expect to drill in the future.
- Q. And then in the 3rd Bone Spring, you intend to
- 24 develop the subject acreage of five 3rd Bone Spring
- 25 wells?

1 A. Correct, with lateral spacing at approximately

- 2 1,000 feet.
- 3 Q. And is Exhibit 10 a cross section for the Bone
- 4 Spring in this area?
- 5 A. Yes. Exhibit 10 is a stratigraphic cross
- 6 section. It's flattened at the top of the Bone Spring,
- 7 which is the brown line at the top. The next line down,
- 8 the yellow line, that is the top of the 1st Bone Spring
- 9 Sandstone. The blue line is the base of the 1st Bone
- 10 Spring Sand, 2nd Bone Spring Carbonate. The orange line
- is top of the 2nd Bone Spring Sandstone.
- The next lighter blue line is the base of
- 13 the 2nd Bone Spring Sandstone. That was the first
- 14 structure map -- at the top of the 3rd Bone Spring
- 15 Carbonate, whatever you want to call it. And then the
- 16 next structure map was the next kind of orange line
- 17 down, which is the top of the 3rd Bone Spring Sandstone.
- 18 And then the red line underneath that is the top of the
- 19 Wolfcamp.
- Q. Have you identified the 2nd and 3rd Bone Spring
- 21 intervals as being continuous -- relatively continuous
- 22 across the subject acreage?
- 23 A. Yes, I have.
- 24 Q. And, again, you intend to develop the acreage
- 25 with five -- ultimately with five Bone Spring -- 2nd

1 Bone Spring wells and five 3rd Bone Spring wells?

- 2 A. That is correct.
- 3 Q. Is Exhibit 11 -- does Exhibit 11 contain three
- 4 structure maps of various Wolfcamp intervals?
- 5 A. That's correct.
- 6 Q. Can you please walk us through each of these?
- 7 A. Okay. These are similar to the Bone Spring
- 8 maps in that our acreage is in yellow. The blue-dashed
- 9 outline is the project -- the spacing area that we're
- 10 talking about today. This first map is the structure
- 11 map at the top of the Wolfcamp, what we call the
- 12 Wolfcamp A. And like with the -- with the Bone Spring
- maps, it's just a regional dip to the east-northeast.
- 14 We have -- we are in the process of drilling our first
- 15 Wolfcamp A well, and that's shown on the map with the
- 16 orange circle.
- 17 Q. And your full development of the Wolfcamp A
- 18 looks like it includes six Wolfcamp A wells?
- 19 A. That is correct.
- 20 Q. Let's look at the second page of this exhibit.
- 21 Would you please walk us through this?
- 22 A. The second page is a structure map at the top
- of the Wolfcamp B, and I'll point this out on the
- 24 subsequent cross sections. It's the same line of cross
- 25 section as on the Bone Spring. And this is same

1 regional dip to the east-northeast. We have drilled one

- 2 Wolfcamp B well. It's waiting on completion. It's
- 3 drilled, hazed [sic], waiting on completion. And we
- 4 expect to further develop the Wolfcamp B with seven
- 5 additional wells.
- 6 Q. All right. Moving to the last page of this
- 7 exhibit, what is this?
- 8 A. The last page of this exhibit is a Wolfcamp C
- 9 structure map. We haven't drilled any Wolfcamp C wells
- 10 until we find them, but we envision eight wells across
- 11 the project area to develop the Wolfcamp C. And like
- 12 with the previous maps, it's just showing regional dip
- 13 to the east-northeast.
- 14 Q. And you've brought an additional witness to
- discuss spacing issues with the Bone Spring, Wolfcamp
- 16 intervals, correct?
- 17 A. That's correct.
- 18 Q. These three maps also show an A to A prime
- 19 line. Do the wells depicted on the A to A prime
- 20 corresponds with Exhibit 12?
- 21 A. That right.
- 22 Q. Turn to Exhibit 12 and if you could walk us
- 23 through that.
- A. So Exhibit 12 is the cross section, A to A
- 25 prime. This is a stratigraphic cross section for the

- 1 Wolfcamp. It's flattened at the top of the Wolfcamp,
- 2 which is the red line at the top labeled "datum." And
- 3 that is also the structural mapping model for the
- 4 Wolfcamp A.
- 5 The latter red line beneath that line is
- 6 the top of what we call the Wolfcamp B, so that was the
- 7 next structure map that we looked at in the previous
- 8 exhibit. And then the kind of brick-red line below that
- 9 is the top of the Wolfcamp C, which was the third
- 10 structure map in the previous exhibit. And then the top
- of the Penn Shale is shown in green at the base of the
- 12 Wolfcamp.
- Q. What do you see with respect to continuity with
- 14 respect to the Wolfcamp Formation throughout the
- 15 proposed intervals?
- 16 A. The Wolfcamp Formation is present throughout
- 17 the -- across the project area, across the spacing area
- 18 that we're talking about. It does thin to the
- 19 southwest. But the individual parts are still present
- 20 and are, in our opinion, developable.
- 21 Q. Have you -- based on your study of this area,
- 22 have you identified any geologic impediments to
- developing the area with mile-and-a-half wells?
- A. No, we have not.
- 25 Q. Nothing that would prevent the acreage from

1 contributing to overall production from the wells?

- 2 A. No.
- Q. In your opinion, will each of the tracts in the
- 4 proposed nonstandard spacing unit or project area
- 5 contribute production to the wells more or less
- 6 proportionately?
- 7 A. Yes.
- 8 Q. And in your opinion, will acreage from each of
- 9 the leases contribute production to the wellbores
- 10 proportionately?
- 11 A. Yes.
- 12 Q. In your opinion, will approval of this
- 13 application be in the best interest of conservation, for
- 14 the prevention of waste and the protection of
- 15 correlative rights?
- 16 A. Yes, it will.
- Q. Were Exhibits 9 through 12 prepared by you or
- 18 compiled under your direction or supervision?
- 19 A. They were prepared by me.
- 20 MS. KESSLER: Mr. Examiner, I'd move
- 21 admission of Exhibits 9 through 12.
- 22 EXAMINER JONES: Exhibits 9 through 12 are
- 23 admitted.
- 24 (Chisholm Energy Operating, LLC Exhibit
- Numbers 9 through 12 are offered and

- 1 admitted into evidence.)
- 2 EXAMINER BROOKS: I have no questions.
- 3 CROSS-EXAMINATION
- 4 BY EXAMINER JONES:
- 5 Q. So you are testifying so far about the both the
- 6 Bone Spring and the Wolfcamp?
- 7 A. Correct.
- 8 Q. So I guess let's focus on the Bone Spring,
- 9 since that's probably the most -- let's say Exhibit
- 10 Number 9 on the -- any one of those exhibits -- I guess
- 11 there are two of them. That well you've got in the
- 12 middle of the section, are you saying that you need five
- wells per section? Is that what you're saying here?
- 14 A. Yes. And James Huling, the subsequent witness,
- 15 an engineer, he'll be talking more about why we think
- 16 five wells is probably more efficient development of
- 17 this reservoir as opposed to just four wells spaced
- 18 320 -- roughly 320 feet apart.
- MS. KESSLER: 1,320.
- THE WITNESS: I mean 1,320. Sorry.
- 21 Q. (BY EXAMINER JONES) But not -- not six wells?
- 22 We've had several -- several companies come and tell us
- 23 their scientists believe that six wells per section
- looks really necessary, but -- and we've had some phone
- 25 calls on five wells per section, but I think this is the

1 first I've seen five wells per section that came to

- 2 hearing.
- 3 So that center well, you didn't want to
- 4 put -- you know, you talked earlier -- they talked
- 5 earlier about overrides being in here, and otherwise
- 6 interests are identical. Maybe the overrides make it --
- you didn't want to just drill one of those wells -- that
- 8 center well on one side of the centerline of the
- 9 spacing -- of the section and space it over in whatever
- 10 spacing it was in -- it's in?
- 11 A. Well, equal spacing across the section of five
- 12 wells would mean a well down the middle of the section.
- 13 And so that's -- that's really the way we've done it.
- 14 Yes, we could move over one side of the centerline or
- 15 the other, but then, you know, it becomes more difficult
- 16 for the drillers to get too close to that
- 17 center-centerline and, you know, be able to drill the
- 18 lateral without crossing over the centerline of the
- 19 section.
- 20 Q. Okay. Okay. Well, the geology looks pretty
- 21 contiguous over the whole thing. So thanks very much.
- A. You're welcome.
- 23 EXAMINER LOWE: I'm good with your answers.
- MS. KESSLER: We'll call our last witness.
- 25 EXAMINER JONES: I think we've seen you

- 1 before.
- 2 MR. HULING: Yes. I don't know whether
- 3 that's good or bad (laughter).
- 4 EXAMINER JONES: That's good.
- 5 JAMES HULING,
- 6 after having been previously sworn under oath, was
- 7 questioned and testified as follows:
- 8 DIRECT EXAMINATION
- 9 BY MS. KESSLER:
- 10 Q. State your name for the record and tell the
- 11 Examiners by whom you're employed and in what capacity.
- 12 A. I'm James Huling, and I'm a consulting
- 13 petroleum engineer. I work as, basically, a reservoir
- 14 engineer and handle reserves for Chisholm Energy.
- 15 Q. Have you previously testified before the
- 16 Division?
- 17 A. Yes.
- 18 Q. Were your credentials as a petroleum engineer
- 19 accepted and made a matter of record?
- 20 A. Yes.
- 21 Q. Are you familiar with the application filed in
- 22 this case?
- 23 A. Yes.
- Q. And are you familiar with the drilling plans
- 25 for the proposed area?

- 1 A. Yes.
- 2 Q. Are you also familiar with the reservoir
- 3 underlying the subject acreage?
- 4 A. Yes, I am.
- 5 MS. KESSLER: Mr. Examiners, I'd tender
- 6 Mr. Huling as an expert in petroleum engineering.
- 7 EXAMINER JONES: He is very much qualified.
- 8 Q. (BY MS. KESSLER) Mr. Huling, can you please
- 9 describe Chisholm's drilling plans for the subject
- 10 acreage?
- 11 A. Okay. We are -- we initially started off
- 12 looking at, essentially, four wells per section in the
- 13 Bone Spring intervals. We have drilled four 2nd Bone
- 14 Spring wells in this area, mile -- roughly
- 15 mile-and-a-half laterals. We tagged those.
- 16 We have production -- early production data
- 17 on two and -- reasonable production data on two of them.
- 18 And with the data we see from those first four wells
- 19 drilled in this area, along with monitoring of other
- 20 similar 2nd Bone Spring exploitation more to the south,
- 21 into Culberson County, where we don't see a degradation
- of EURs, where their spacing has gone down to
- 23 essentially less than 1,000, we're going to say 880
- 24 feet -- so using the information from offset operators,
- 25 mostly on the Texas side, coupled with the early data we

1 have on the 2nd Bone Spring from our Cottonwood wells in

- 2 28-33 and 29-32, we have evolved to now believe that
- 3 we're comfortable with five wells per section in the 2nd
- 4 and 3rd Bone Spring.
- 5 And that's essentially the reason we're
- 6 here, is to have flexibility -- to ask for flexibility
- 7 to place five wells in the 2nd and 3rd Bone Spring.
- 8 Q. What about for the Wolfcamp?
- 9 A. For the Wolfcamp, in the Wolfcamp A or X-Y, the
- 10 upper member, based on analogy, again, mostly to the
- 11 south and to the southeast of us, we are comfortable
- 12 with six wells per section, per mile.
- 13 And in the Wolfcamp B and Wolfcamp C, we
- 14 are at eight wells per mile. And we do have one
- 15 drilling rig that has been running in this area since
- 16 May of last year, and our -- you know, with plans to
- 17 aggressively, you know, develop here. And at that
- 18 point, you know, going back to our last hearing, if you
- 19 recall, one of the methodologies -- we take a very,
- 20 very -- let's say we spend a particular amount of time
- 21 evaluating logs, drilling shows and try to define the
- 22 best target interval, and we have a very aggressive,
- 23 diligent geosteering campaign. We have multiple
- 24 geoscientists looking at our geosteering. So, you know,
- 25 we feel like we are state-of-the-art in that effort.

- 1 And, also, as I testified in that last hearing, we
- 2 simulfrac -- you know, when we complete two wells
- 3 together, we simulfrac from the toe to try to create
- 4 more complex, you know, fracturing. And that's the same
- 5 methodology we applied here in the four wells we have in
- 6 the 2nd Bone Spring, and we're continuing in the
- 7 Wolfcamp.
- 8 Q. A couple of points of clarification,
- 9 Mr. Huling: When you say four wells, only two of those
- 10 wells have been drilled in the subject acreage. The
- 11 other two are offset wells?
- 12 A. That is correct.
- 13 Q. Okay. And five wells per section is what
- 14 you've identified for the Bone Spring in this particular
- area as being optimal development?
- 16 A. Yes, that's correct.
- Q. Okay. Let's look at Exhibit 13, and I believe
- 18 that you've reviewed your desired spacing for the Bone
- 19 Spring there. And just looking at this map, each of the
- 40-acre tracts will be developed by a Bone Spring well;
- 21 is that correct?
- 22 A. Yes, that's correct.
- Q. Okay. And within the Wolfcamp, will each of
- the 320-acre tracts be developed by a well?
- 25 A. Yes, they will.

1 Q. Is Exhibit 14 information regarding offset

- wells that was used to put together your five-well
- 3 spacing?
- 4 A. Yes. Yes. If you look down to Section 12,
- 5 down in Culberson County, you can see you're at a
- 6 spacing that is approximately five wells per section.
- 7 And we have looked at the EURs and -- with respect to
- 8 time and feel like this analogy -- and there are many
- 9 other analogies. These are on the Texas side, but this
- 10 is one definitely in close proximity. Seeing that,
- 11 coupled with the tracer data we have on the first two
- 12 2nd Bone Spring wells that we're in, 28-33, we're
- 13 comfortable with the five per section or five per mile.
- 14 Q. In your opinion, is five wells per section the
- 15 optimal approach to producing from the Bone Spring in
- 16 Sections 29 and 32?
- 17 A. With the data we have right now, yes.
- 18 Q. In your opinion, will each of the 40-acre
- 19 tracts be developed within the Bone Spring area by
- 20 virtue of your five-well development plan?
- 21 A. Yes, they will.
- Q. And in your opinion, is six to eight wells per
- 23 section the optimal spacing in Sections 29 and 32 for
- 24 the Wolfcamp?
- A. For the Wolfcamp A, six; for the B, eight; for

- 1 the Wolfcamp C, eight.
- 2 Q. And in your opinion, will each of the 320-acre
- 3 tracts be developed by a well --
- 4 A. Yes.
- 5 Q. Lastly, let's turn to be Exhibit 15. Does this
- 6 exhibit demonstrate Chisholm's ultimate development plan
- 7 within the next five years?
- 8 A. Yes.
- 9 Q. Can you please review this chart for the
- 10 Examiners?
- 11 A. Okay. What we show here is basically a cartoon
- of the strat column, specifically the Bone Spring
- 13 section above. We are not addressing the 1st Bone
- 14 Spring and Avalon at this time.
- 15 The 2nd Bone Spring, we optimally want to
- 16 look at five wells. Those are illustrated with the
- 17 dots. This is over a one mile, if you're to look at the
- 18 coordinate at the bottom.
- 19 The 3rd Bone Spring, we're also looking at
- five wells per mile or roughly 1,000-foot spacing.
- 21 Moving down to the Wolfcamp A, a little
- 22 thinner. We are comfortable based on analogy. Again,
- 23 we're pulling data mostly from Culberson County in Texas
- 24 for six wells across, one mile.
- 25 Moving down to the Wolfcamp B and the

1 Wolfcamp C, a little thicker, and here we're looking at

- 2 eight wells per mile. And, again, we have one rig
- 3 running here and have had it running and have plans to
- 4 continue running to drill and exploit these intervals.
- 5 And as -- as we've -- as I've stated here
- 6 today and testified previously, we generally -- our plan
- 7 is to drill two wells immediately, simulfrac, you know,
- 8 from the toe out to make the most efficient impact of
- 9 our fracture stimulations.
- 10 Q. Will a single nonstandard spacing unit or
- 11 project area afford Chisholm the flexibility to space
- wells in the most efficient spacing pattern which will
- optimize efficiency and prevent waste?
- 14 A. Yes.
- 15 Q. And in your opinion, will granting this
- 16 application avoid the drilling of unnecessary wells,
- 17 protect correlative rights and serve the interest of
- 18 conservation and the prevention of waste?
- 19 A. Yes.
- Q. Were Exhibits 13 through 15 prepared by you
- 21 or -- I'm sorry -- 14 through 15 -- I had it right the
- 22 first time. Were 13 through 15 prepared by you or
- 23 compiled under your direction and supervision?
- 24 A. Yes.
- 25 MS. KESSLER: Mr. Examiners, I'd move

- 1 admission of Exhibits 13 through 15.
- 2 EXAMINER JONES: Exhibits 13 through 15 are
- 3 admitted.
- 4 (Chisholm Energy Operating, LLC Exhibits
- 5 Number 13 through 15 are offered and
- admitted into evidence.)
- 7 EXAMINER BROOKS: I don't think I have
- 8 anything -- well, there is one thing I did want to ask
- 9 because these --
- 10 CROSS-EXAMINATION
- 11 BY EXAMINER BROOKS:
- 12 Q. I heard some testimony in another case, which
- 13 was interesting, on the subject. What you're proposing
- 14 to do in the Wolfcamp here is drill five wells from two
- 15 locations in each section, right, two surface
- 16 locations -- or surface pads?
- 17 A. Four, five -- more or less four.
- 18 Q. Okay. So you're -- yeah. Well, you're
- 19 drilling five wells -- five or eight wells from the
- 20 total of two pads, right? So you're drilling --
- 21 A. Yes. I was thinking specific to the -- to the
- 22 subinterval of the Wolfcamp.
- Q. Yeah. What I was thinking -- when I said five,
- 24 I was thinking the Wolfcamp A.
- 25 A. Okay.

1 Q. You're drilling five across the section.

- You're plotting two pads --
- 3 A. Actually --
- 4 Q. -- from which you will drill two from one pad
- 5 and three from another pad?
- 6 A. We will drill six -- we're looking at six in
- 7 the Wolfcamp A.
- 8 Q. Yeah.
- 9 A. And so if I go back to --
- 10 Q. Oh, we were talking about the Bone Spring
- 11 testimony.
- 12 A. There are five in the Bone Spring. There we
- 13 would have three from one pad and two from the other,
- 14 likely.
- 15 Q. And in the Wolfcamp A, you'd have three from
- 16 each pad?
- 17 A. Three from each pad.
- 18 Q. So you'd still just have two pads?
- 19 A. Yes. And there is the possibility down the
- 20 road -- I'm not going to rule out that there may need to
- 21 be an additional pad added. But at this time, they
- 22 should be probably bolt-ons or add-ons to the existing
- 23 pads.
- Q. Okay. What depth are you expecting to
- 25 encounter in the Bone Spring in this area? We're

1 talking about the 2nd or 3rd. So the 2nd would be the

- 2 shallower.
- 3 A. Okay. So going back to the -- let me give you
- 4 the -- I can see Martin's --
- 5 EXAMINER JONES: Mr. Brooks will have to
- 6 loan you his over-the-counter glasses.
- 7 MR. EMERY: 6,500 feet.
- 8 THE WITNESS: I was going to say more like
- 9 7,000, but you're (indicating) saying 6,500?
- 10 MR. EMERY: To the top of the Bone Spring.
- 11 Q. (BY EXAMINER BROOKS) Now, in the technology of
- 12 drilling wells from multiple pads to spread out over
- 13 half a mile, which is essentially -- well, the two
- 14 farthest apart are not a half mile apart, but they're
- 15 somewhere close to that, I guess. How deep do you have
- 16 to be to make that work? Is there a depth above which
- you couldn't do it?
- 18 A. The depth we're at here definitely gives us
- 19 sufficient room.
- 20 Q. Yeah.
- 21 A. You know, to go out two -- you know, to go out
- 22 2,500 feet or basically a half mile, you would
- certainly, in my opinion, want to be below 5,000 feet or
- 24 basically twice that depth, at a minimum, would be
- 25 your -- and that's -- offshore, I've seen it -- I've

- 1 seen more aggressive bends than this. But onshore,
- 2 thinking about artificial lift down the road -- and this
- 3 is just very rough. I haven't really studied it in
- 4 great detail, but off the top of my head -- you're
- 5 asking -- I would give you greater than 5,000 feet in
- 6 this particular instance.
- 7 Q. Okay. Thank you.
- 8 CROSS-EXAMINATION
- 9 BY EXAMINER LOWE:
- 10 Q. Currently right now -- you said you have two
- 11 wells in the Bone Spring right now?
- 12 A. Yes, sir.
- 13 Q. And then you have two in the Wolfcamp?
- 14 A. Drilled but not completed.
- 15 Q. Okay. What's your plan to roughly complete all
- 16 these, I guess?
- 17 A. Well, we are -- we generally drill two wells at
- 18 a time and then immediately come back and complete those
- 19 two wells.
- 20 **Q.** Okay.
- 21 A. So our plan, we have two Wolfcamp wells we're
- 22 in the process of completing now. Actually, we just
- 23 started flowing back --
- 24 Q. Okay.
- 25 A. -- in this area. Then we have -- so basically

1 what we do is drill two wells the same zone, immediately

- 2 try to complete those, then we -- we move -- while we're
- 3 moved off, drilling two other parallel wells in the
- 4 adjoining sections.
- 5 Q. Okay. Okay. Thank you.
- 6 A. You're welcome.
- 7 CROSS-EXAMINATION
- 8 BY EXAMINER JONES:
- 9 Q. I guess I better start out with the Wolfcamp.
- 10 You're drilling eight wells or six wells per -- per
- 11 section and spacing them out. Those wells in basically
- 12 the center of these sections, when you frac those wells,
- will they be draining at least portions of what would be
- 14 a normal 320-acre spacing unit?
- 15 A. They're going to drain for both sides. If
- 16 they're in the middle of the section, yes, they will
- drain both sides of the section. Absolutely.
- 18 Q. Okay. Okay. And the Bone Spring, you've
- 19 got -- right now you've got this Welch; Bone Spring
- 20 Pool, and it's based on 40s. But you didn't apply to
- 21 change the spacing in the pool, but you're basically
- 22 applying to change the spacing in these two sections,
- 23 basically is what it sounds like, kind of a nonstandard
- 24 spacing in these two sections and for the reasons that
- 25 you're talking about. So, first of all, your well in

- 1 the center, when you frac that well, will it be -- will
- 2 it be -- will it drain portions of all 40-acre tracts in
- 3 this whole proposed com agreement area?
- 4 A. It will -- to the best of my knowledge, yes.
- 5 I'd have to look at it in more detail, but it certainly
- 6 would drain 40 acres surrounding, certainly 20 and 20 on
- 7 each side and, you know, potentially a little more. I
- 8 would have to look at that in more detail to firmly
- 9 answer.
- 10 Q. In other words, can you drill one well in this
- 11 proposed area and drain at least portions of all the
- 12 40-acre tracts in this area, if we're still calling them
- 13 **40-acre tracts?**
- 14 A. Yeah. You know, I guess my question or trying
- 15 to understand, the 40-acre is going to be on both sides.
- 16 Q. Yes.
- 17 A. It's going to be like a communitized 40 acres
- 18 of both sides. So in that case, I would say yes. But
- 19 if you're talking about 80 acres on both sides -- you
- 20 know, if it's expanding out to 80 acres, I would say
- 21 we'd have to look at that in a little more detail.
- Q. Okay. So landwise, it makes a lot of sense.
- 23 And engineeringwise, it seems to make sense from the
- 24 issue of making this one big -- drill the wells and then
- 25 frac them almost simultaneously. So -- but you said

1 you're going to drill two and then frac those two

- 2 simultaneously?
- 3 A. Correct.
- 4 O. And then flow them back?
- 5 A. Yes.
- 6 Q. Are you not going to wait to flow them back
- 7 until you get all the wells drilled?
- 8 A. No. No. We generally drill two at a time,
- 9 then immediately -- then complete those simultaneously.
- 10 So stage one of each well simulfracking. You know,
- 11 stage one of, let's say, 1H and stage one of 2H, and
- 12 then stage two of 1H and stage two of 2H, and all the
- 13 way out, trying to increase, you know, the net pressure
- 14 and impact of our fracture stimulation, so
- 15 simulfracking.
- 16 Q. But by the time you get to the end of all of
- your planned development in any one layer, are you going
- 18 to be affected by the drainage in the initial wells in
- 19 that layer with your frac job?
- 20 A. We have not seen much impact, if any, at the
- 21 current, you know, four wells per section based on
- tracers and, you know, performance of the wells.
- 23 And I can tell you that I do believe as an
- 24 engineer that it's most beneficial to drill and complete
- 25 these as close as possible to the same time as not to

1 reduce reservoir pressure, you know, so we have a more

- 2 common frac gradient or we haven't reduced pressure, as
- 3 we addressed last time talking the Hubbert & Willis
- 4 Equation.
- 5 So to answer your question, we drill two.
- 6 We try immediately to complete them together, put them
- 7 online, and then fairly quickly come back and drill. I
- 8 mean, again, we have a rig running in this area, have
- 9 drilled two 2nd Bone Spring in the two western sections,
- 10 two 2nd Bone Spring in the eastern sections. So we'll
- 11 continue to drill two wells at a time in this specific
- 12 horizon and aggressively complete those with
- 13 simultaneous stimulations.
- 14 Q. Okay. The land witness mentioned earlier about
- 15 needing to get started on one of the wells, but
- 16 basically you're going to treat this all as one gigantic
- 17 area and try to get them online as fast as you can? Is
- 18 the BLM going to force you to -- did the BLM force you
- 19 to get those two online, or is it your choice?
- 20 A. It's our choice. I mean, part of that is
- 21 definitely the time, value and money. Ideally, yeah, to
- 22 go out and drill four wells and come back and simulfrac,
- 23 you know, close together would probably be -- it would
- 24 be a very effective way to do it, but it's not very
- 25 economic because you're going to be drilling for, you

1 know, maybe six months, a year before you have

- 2 production on them.
- 3 Q. So it's hard on your economics?
- 4 A. Yes.
- 5 Q. But you've got two separate -- two separate
- 6 main surface locations, is that right, or is it four?
- 7 A. Yes, that's correct. That's correct.
- 8 Q. Okay. Two?
- 9 A. At this time two in each, yeah. Yes. And they
- 10 are within Section 29.
- 11 Q. Yeah.
- Does anyone know if this Welch; Bone Spring
- 13 Pool is actually -- I guess it's been created through a
- 14 nomenclature hearing. It must have been. Otherwise, it
- 15 would be called wildcat, or at least the expansion of it
- 16 could have been still just a --
- 17 MS. KESSLER: I don't know the answer to
- 18 that, Mr. Examiner.
- 19 EXAMINER JONES: Okay. Well, I guess there
- 20 are two or three different ways to -- you know, this
- 21 could have happened. They could have formed a unit over
- 22 this whole area, but for some reason, they didn't want
- 23 to do these small units, and so it's almost down to the
- 24 OCD changing the spacing or creating their own unit.
- 25 MS. KESSLER: I believe, Mr. Examiner,

Page 49 initially it was discussed. And we can recall the land 1 witness if necessary. It was initially proposed to the BLM as a resource development unit. Of course, those 3 are no longer an option. 4 5 EXAMINER JONES: They didn't want to do 6 that. 7 MS. KESSLER: That is no longer an option 8 with the BLM. 9 EXAMINER JONES: Yeah. Okay. Thanks very 10 much. 11 THE WITNESS: Thank you. EXAMINER JONES: Case Number 15953 is taken 12 13 under advisement. EXAMINER BROOKS: Break, please. 14 EXAMINER JONES: Yes, sir. 15 16 (Case Number 15953 concludes, 2:32 p.m.) 17 (Recess, 2:32 p.m. to 2:39 p.m.) 18 19 20 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, 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.
- 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.
- 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 13th day of February 2018.

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

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