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

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

APPLICATION OF COG OPERATING, LLC FOR A NONSTANDARD SPACING AND PRORATION UNIT AND COMPULSORY POOLING, LEA COUNTY, NEW MEXICO. CASE NO. 15812

Consolidated with

APPLICATION OF COG OPERATING, LLC FOR A NONSTANDARD SPACING AND PRORATION UNIT AND COMPULSORY POOLING, LEA COUNTY, NEW MEXICO. CASE NO. 15813

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

August 31, 2017

Santa Fe, New Mexico

BEFORE: WILLIAM V. JONES, CHIEF EXAMINER
GABRIEL WADE, LEGAL EXAMINER

This matter came on for hearing before the New Mexico Oil Conservation Division, William V. Jones, Chief Examiner, and Gabriel Wade, Legal Examiner, on Thursday, August 31, 2017, 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.

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EXHIBITS OFFERED AND ADMITTED

(9:45 a.m.)

EXAMINER JONES: We're going to call Cases 15812 and 15813. Both cases are application of COG Operating, LLC for a nonstandard spacing and proration unit and compulsory unit, Lea County, New Mexico.

Call for appearances in one or both cases.

MS. KESSLER: Jordan Kessler on behalf of the Applicant for both cases.

MR. HALL: And, Mr. Examiner, Scott Hall, Montgomery & Andrews, Santa Fe, on behalf of Weldon Baird and the Beulah M. Baird Trust in both cases. I have no witnesses. I would ask that my cross-examination and responses from Cases 15810 and 15811 be incorporated into the record for Cases 15812 and 15813.

EXAMINER JONES: Any objection to that?

I'll go with that.

MS. KESSLER: No objection.

EXAMINER JONES: Okay. Any other appearances in these cases?

Okay. Let's take a ten-minute break.

(Mr. Hall exits the room.)

(Recess, 9:45 a.m. to 10:00 a.m.)

EXAMINER JONES: Let's go back on the record and continue with Cases 15812 and 15813.

Will the witnesses -- have the witnesses been sworn?

MS. KESSLER: They have. Three witnesses today, and they've all been sworn.

EXAMINER JONES: The record will reflect the witnesses have all been sworn.

You may proceed.

MS. KESSLER: I'll call my first witness.

DAVID M. WALLACE,

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

DIRECT EXAMINATION

BY MS. KESSLER:

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

A. My name is David Michael Wallace, and I work for COG Operating, LLC as a landman for the southeast Lea County area.

Q. Have you previously testified before the Division?

A. I have.

Q. Were your credentials as a petroleum landman accepted and made a matter of record?

A. Yes.

Q. Are you familiar with the applications filed in these consolidated cases?

A. Yes, I am.

Q. Are you familiar with the status of the lands in the subject area?

A. Yes.

MS. KESSLER: Mr. Examiner, I tender Mr. Wallace as an expert in petroleum land matters.

EXAMINER JONES: No objection?

He is so qualified.

Q. (BY MS. KESSLER) Mr. Wallace, what does COG seek under these consolidated applications?

A. We seek to form two 320-acre nonstandard units. We seek to pool the Wolfcamp Formation.

Q. Do you also seek to dedicate two initial wells to each spacing unit?

A. We do.

Q. Why is COG seeking to dedicate the spacing units to the additional wells?

A. For economic efficiency associated with well-pad development and completions?

Q. Does COG also expect better production from simultaneous completion?

A. Yes.

Q. Have you brought an engineer here today to

discuss that?

A. Yes.

Q. Were all of the interest owners provided notice of COG's plan to drill and complete the well simultaneously?

A. Yes.

Q. And they were notified both through a well-proposal letter and also through the hearing application?

A. Yes.

Q. Did any of them object?

A. No.

Q. And the well-proposal letter identified the depth of each well, correct?

A. That is correct.

Q. Please turn to Exhibit 1. Is this the C-102 for the White Falcon 16 Fed Com 21H?

A. Yes, it is.

Q. What's the spacing units for this well?

A. The east half of the west half of Sections 16 and 21, 25 South, 35 East, Lea County, New Mexico.

Q. Does this well have an approved APD?

A. Yes.

Q. Is Exhibit 2 the C-102 for the White Falcon 16 Fed Com #22H well?

A. Yes, it is.

Q. And does it share a spacing unit with the 21H well?

A. Yes.

Q. It also has an APD number, correct?

A. That is correct.

Q. Is Exhibit 3 the C-102 for the 23H well?

A. Yes, it is.

Q. I'm sorry. That would be the White Falcon 16 State Com 23H well, correct?

A. That's correct.

Q. What is the spacing unit for this well?

A. The west half-west half of Sections 16 and 21, 25 South, 35 East, Lea County, New Mexico.

Q. It has an approved APD?

A. Yes.

Q. And finally Exhibit 4. Is this the C-102 for the White Falcon 16 State Com #24H well?

A. That's correct.

Q. And this will share a spacing unit with the 23H well?

A. Yes.

Q. And there is an APD approved for this well as well, correct?

A. That's correct.

Q. Has the Division designated a pool and pool code for this area covering all four of these proposed wells?

A. Yes, the Doggy Draw-Wolfcamp, pool code --

Q. Go ahead.

A. Pool Code 17980.

Q. Are you aware that there are special rules associated with the allowable for this pool?

A. Yes.

Q. But 40-acre spacing, 330-foot setbacks, correct?

A. That's correct.

Q. And will all four of the wells, completed intervals for each of the wells, comply with the setback requirements?

A. Yes.

Q. What type of land is each spacing unit?

A. In the west half-west half of both of these sections, we've got state and fee. In the east half of the west half, we have state, fee and Fed.

Q. Are there any depth severances in the Doggy Draw-Wolfcamp Pool?

A. No.

Q. Is Exhibit 5 a lease tract map identifying COG's interest in the spacing unit for the 21H and the

22H wells?

A. Yes. That is correct.

Q. You have polled [sic] the parties that you seek to pool, correct?

A. That is correct.

Q. Are they -- on page 2 of this exhibit, does that show the uncommitted working interest owners and the unleased mineral interest owners that you seek to pool?

A. Yes.

Q. Do you also seek to pool for unmarketable title?

A. Yes.

Q. Is that done on page 3?

A. Yes.

Q. Why do you seek to pool for unmarketable title?

A. Ancillary probated -- nonprobated estates in New Mexico.

Q. A number of these estates have failed to probate -- to perform ancillary probate proceedings in New Mexico?

A. That is correct.

Q. For those estates, have you identified the heirs to the best of your ability?

A. Yes.

Q. And those heirs are shown on the second column on Exhibit 5, correct?

A. That's correct.

Q. Were they all provided notice of this hearing?

A. Yes.

Q. There's a remaining title requirement, however, that you compulsory pool the unmarketable title owners; is that correct?

A. That is correct.

Q. Did you send each of the unmarketable title estates and heirs information on how to cure title?

A. Yes.

Q. Is Exhibit 6 a lease tract map for the 23H and 24H wells?

A. That's correct.

Q. Again, this shows the parties that you seek to pool, correct?

A. Yes, it does.

Q. Do you seek to pool unleased mineral interest owners, unmarketable title and uncommitted working interest owners?

A. Yes. That's correct.

Q. And, again, you haven't shown -- looking at the third page -- third and fourth pages of this exhibit, you haven't shown the interest that each of these

estates owns; is that correct?

A. That's correct.

Q. And why is that?

A. Because we have a lease and it's wrapped up into our interest.

Q. So it's reflected in Concho's total interest?

A. That is correct.

Q. But each of them have a remaining title requirement that they be compulsory pooled, correct?

A. Yes.

Q. For ancillary probate issues, correct?

A. Yes.

Q. Is Exhibit 7 a well-proposal letter sent to the uncommitted working interest owners and also the unleased mineral interest owners for the 21H and 22H wells?

A. Yes. That's correct.

Q. When were those letters sent?

A. June 15th, 2017.

Q. And did they include AFEs?

A. Yes, they did.

Q. Is Exhibit 8 a copy of the well-proposal letter sent to uncommitted interest owners -- working interest owners and unleased mineral interest owners for the 23 and 24H wells?

A. Yes. That's correct.

Q. And these letters were all sent separately, correct?

A. That is correct.

Q. Were they all sent on June 15th?

A. Yes, they were.

Q. And they included AFEs, correct?

A. Yes, they did.

Q. In addition to sending well-proposal letters, what other efforts did you undertake to reach agreement with the parties you seek to pool?

A. We've offered to lease these parties. We've offered to have them participate. And we're negotiating operating agreements with majority of them, and we've also -- we've had some trade negotiations with another party.

Q. Were all of the parties you seek to pool locatable?

A. Yes.

Q. You've had conversations with them?

A. Yes.

Q. For unmarketable title, you also mentioned that you sent title curative information to each of those interest owners, correct?

A. We did.

Q. Is Exhibit 9 a copy of the AFEs for each of the four wells?

A. Yes.

Q. Are the costs on each of these AFEs consistent with what COG has incurred for drilling similar Wolfcamp wells in the area?

A. Yes. That's correct.

Q. And do the well-proposal letters identify the overhead administrative costs that you're requesting for this well --

A. Yes.

Q. -- or for each of these wells?

A. Yes.

Q. What are those costs?

A. 7,000 a month for drilling and 700 a month for producing.

Q. Are those rates consistent with what other operators in the area charge for similar wells?

A. Yes.

Q. Do you ask that those costs be incorporated into any order resulting from this hearing?

A. Yes.

Q. And that the cost be adjusted in accordance with the appropriate accounting procedures?

A. Yes.

Q. For the uncommitted working interest owners and the working interest portion of unleased mineral owners, do you request that the Division impose a 200 percent risk penalty?

A. Yes.

Q. And does COG identify the offset operators or lessees of record in the 40-acre tracts surrounding each of the proposed nonstandard units?

A. Yes, they did.

Q. Were they included in the notice of this hearing?

A. Yes.

Q. Is Exhibit 10 an affidavit prepared by my office with attached letters providing notice of this hearing to both the pooled parties and the offsets for each of the two cases?

A. Yes. That's correct.

Q. And Exhibits 11 and 12 are Notices of Publication in Lea County, correct?

A. Yes. That's correct.

Q. Were Exhibits 1 through 9 prepared by you or compiled under your direction and supervision?

A. Yes. That's correct.

MS. KESSLER: Mr. Examiners, I'd move admission of Exhibits 1 through 12.

EXAMINER JONES: Exhibits 1 through 12 are admitted.

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

CROSS-EXAMINATION

BY EXAMINER JONES:

Q. The ownership from the Bone Spring on down through the Wolfcamp, is that common?

A. Yes.

Q. Okay. So you've got the same owners here -- listed here as you did in the last two cases?

A. That is correct.

Q. Was everybody located, but you just didn't get some return receipts? Is that correct?

MS. KESSLER: (Indicating.)

EXAMINER JONES: So you noticed everybody being pooled in the newspaper?

MS. KESSLER: That's correct. And it was just that we didn't receive green cards back within the 20 days.

EXAMINER JONES: Okay. Okay.

Q. (BY EXAMINER JONES) So the costs are about the same as the Bone Spring costs. It's interesting. I guess I can talk to the -- you're going to have an

engineer coming up for this one. Okay. I can talk to her about that.

The locations will be -- you think anybody's going to move locations?

A. No.

Q. I see you had the same appearances in this case as we did in the others -- with these cases as we did in the other two cases.

Is there anything else you'd like to say about this unmarketable title situation?

A. No. I'm okay. Thanks.

Q. (Laughter.)

EXAMINER WADE: I don't have any questions.

EXAMINER JONES: Okay.

MS. KESSLER: We'll call our geologist.

EXAMINER JONES: Okay. Now, these -- these exhibits for the other party are Exhibits 1 through 6, and so they will be part of the record in these two cases also, 15812 and 15813.

(Respondents' Exhibit Numbers 1 through 6, offered in the hearing of Case Numbers 15810 and 15811 for Case Numbers 15812 and 15813, are admitted into evidence.)

CARRIE M. MARTIN,

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

DIRECT EXAMINATION

BY MS. KESSLER:

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

A. Carrie Martin. I'm a geologist for COG Operating, LLC.

Q. Have you previously testified before the Division?

A. Yes.

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

A. Yes.

Q. You're familiar with the applications filed in the consolidated cases today?

A. Yes.

Q. And have you conducted a study of the lands underlying -- of the geology underlying the subject lands?

A. Yes.

MS. KESSLER: I would tender, Mr. Examiners, Ms. Martin as an expert in petroleum

geology.

EXAMINER JONES: She is so qualified.

Q. (BY MS. KESSLER) Ms. Martin, what is the target interval for these four wells?

A. The Upper Wolfcamp.

Q. If I turn to Exhibit 13, is this a locator map of the area?

A. Yes.

Q. And this shows all four of the proposed wells, correct?

A. Yes.

Q. Can you please walk us through the remaining attributes of this exhibit?

A. The red-dashed lines are the proposed Wolfcamp wells, the White Falcon Federal 16 Com #21 and 22H and the White Falcon State Federal Com #23 and 24H. The solid red line is the existing Wolfcamp producing well. It's the Wheatfield 16 State #701, and it's owned by COG. The yellow color is COG's acreage in the area.

Q. And this shows the two proposed wells per spacing unit, correct?

A. Correct.

Q. Is Exhibit 14 a structure map of the Wolfcamp?

A. Yes. The structure map is on the top of the Wolfcamp. The contour interval is 50 feet. The map

shows dipped -- a less than 1 degree dip in the area. The structure map shows that there is no faulting in the area, no pinch-outs and no geologic impediments to drilling horizontal wells.

Q. And in Exhibit 15, you've put a line of section, correct?

A. Yes. This is a cross section, A to A prime from north to south, showing the wells that are representative of the geology of this area.

Q. And this corresponds to Exhibit 16, correct?

A. Correct.

This is a stratigraphic cross section. The purple line is the top of the 3rd Bone Spring Sand. The red line is the top of the Wolfcamp Formation. It is hung on top of the Wolfcamp Formation. The green bracket is the location of the Wolfcamp target interval. This cross section shows that the geology is consistent across the area and has a similar thickness of the Upper Wolfcamp in the area.

Q. What conclusions have you drawn based on your study of this area?

A. There are no geologic impediments to developing this area with two-mile horizontal wells. The area can be efficiently and economically developed by horizontal wells, and the proposed nonstandard units will

contribute, on average, more or less equally to the production of the wells.

Q. In your opinion, is granting COG's application in the best interest of conservation, for the prevention of waste and the protection of correlative rights?

A. Yes.

Q. Were Exhibits 13 through 16 prepared by you or compiled under your direction and supervision?

A. Yes.

MS. KESSLER: Mr. Examiners, I'd move admission of Exhibits 13 through 16.

EXAMINER JONES: 13 through 16 are admitted.

(COG Operating, LLC Exhibit Numbers 13 through 16 are offered and admitted into evidence.)

CROSS-EXAMINATION

BY EXAMINER JONES:

Q. So did you pick the location?

A. Yes.

Q. And can you talk about the lithology in the Upper Wolfcamp?

A. Yes. The target interval is a shale, a high organic red shale, within the area. It's actually similar to the target in the Wheatfield producing well,

so the target was chosen because of the existing production of the producing well.

Q. So that's a pretty good well?

A. Yes.

Q. And so you're going to drill a two-mile well right next to it --

A. Yes.

Q. -- or close to it?

So it's a deep -- deep sea off-the-shelf type environment?

A. Yes. Yes. We are in the high organic-rich shale interval, you know, off of the extra basin platform. We're in kind of the deepest part of the Delaware Basin.

Q. So it's kind of a source rock?

A. Yes.

Q. And as far as what you would tell your completions engineer, as far as the fracking goes, are there any barriers to the fracs vertically above and below this target?

A. We don't see barriers. As you go towards the bottom of the Wolfcamp A, there is a carbonate that is potentially a barrier below this interval.

Q. Okay. It's a low -- low -- low porosity, low permeability type --

A. Correct, very tight below the Wolfcamp.

Q. It's a dolomite?

A. It's a limestone.

Q. Limestone.

And where are we located here? Is this -- I don't know. There is probably a locator map here somewhere, but I didn't see it. Is it -- it's Lea County. I know that.

A. Yeah. We are probably one township from the Texas state line.

Q. North of the Texas state line?

A. North of the Texas state line, right north of Loving County.

Q. Okay. Yeah, 25 South, 35 East, way down below Jal then; is that correct?

A. I think we are east of Jal.

Q. Just a bit east of Jal.

A. Yes.

Q. And no faults, though?

A. No. We are in the area that we don't see a lot of faulting to the area. We are also west to the deep-seated faults in the area.

Q. Were those -- what age were those faults?

A. Some of the fault are deep-seated Devonian age faults. We don't see a lot faults in this area that

penetrate up into the Wolfcamp.

Q. So above the Woodford would not be broken up by faulting?

A. We don't see any in this --

Q. Area at all.

A. -- particular area at all.

Q. Okay. Okay. Thank you.

EXAMINER WADE: I have no questions.

EXAMINER JONES: Thank you very much.

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

JAYNE JUNELL,

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

DIRECT EXAMINATION

BY MS. KESSLER:

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

A. Yes. Jayne Junell. I work for COG Operating, LLC as a reservoir engineer over the southeast New Mexico area.

Q. Have you previously testified before the Division?

A. Yes.

Q. Were your qualifications and credentials as a

petroleum engineer -- reservoir engineer accepted and made a matter of record?

A. Yes.

Q. Are you familiar with the applications filed in this case?

A. Yes.

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

A. Yes.

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

EXAMINER JONES: Reservoir engineering?

MS. KESSLER: (Indicating.)

EXAMINER JONES: She is so qualified.

Q. (BY MS. KESSLER) Ms. Junell, why does COG seek to drill four wells in the Wolfcamp in this area?

A. Well, two wells in each spacing area are required to develop the reserves.

Q. Does that mean that you leave fewer reserves in the ground?

A. Yes.

Q. Why does COG seek to simultaneously complete two wells for spacing unit?

A. Well, pad drilling and completion has operational and economic efficiencies, but moreover,

when you complete wells simultaneously, you get a better frac job, better frac efficiency.

Q. Is simultaneous completion part of the industrywide trend?

A. It is. And there are some technical papers that show the average is about 30 percent increase in EUR through simultaneous completion.

Q. And you brought some exhibits to discuss and review with the Examiners today?

A. Yes.

Q. Can you please start with Exhibit 17 and identify this for the Examiners?

A. Okay. Yes. Exhibit 17 is an example of a typical frac distribution in virgin rock. This is actual data from a well, but it is not from a Concho well. We got this from service company. And it's just illustrating how in virgin rock in a homogeneous reservoir, you would expect the frac wings to be basically equivalent on both sides and, hence, the stimulated reservoir volume to be equivalent on both sides.

Q. What is Exhibit 18?

A. Exhibit 18 is a similar slide that shows the frac distribution when you are offsetting an older well that's been completing for some time. On the left side

of the slide, you see the initial well in the section, which is the parent well. The green kind of blob shows the depleted pressure zone after that initial well has been producing for a while.

The next horizontal well to the right is the child well that is being completed. The two vertical wells to the right are the monitor wells that are listening to the microseismic data. And you can see on here, we get asymmetrical frac growth towards the area of lower pressure, and so the area on the other side of the lateral is not being stimulated and, hence, producing less, getting less reserves.

Q. Does Exhibit 19 show production from wells that are not simultaneously completed?

A. Let's see. Yes. 19 is that very thing. In the orange line are the original wells out of eight wells within the two half-section areas. The purple lines are -- those were completed and have been producing a year and a half before the remaining six wells were drilled and completed at the same. The interior wells, which are the purple lines, have basically the same production profile as the original wells. The red production lines are the child wells offsetting those original parent wells, and you can see that their performance is much less than the other

wells.

Q. The child wells have a much lower performance?

A. Yes.

Q. What is Exhibit 20?

A. Exhibit 20 shows four wells in a section that were drilled and completed simultaneously, and you can see that they have virtually the same production profile.

Q. Has COG experienced positive results when wells are simultaneously completed?

A. Yes.

Q. Why is that?

A. That's because we get more stimulated reservoir volume because we have a more effective frac when we complete them simultaneously.

Q. And what is COG's preferred timing for completion?

A. Simultaneous.

Q. In your opinion, is drilling and simultaneously completing original and development wells, is that a method to optimize production from all wells?

A. Yes.

Q. In your opinion, does drilling and simultaneously completing original and development wells prevent waste?

A. Yes.

Q. In your opinion, will reserves be left in the ground if COG does not simultaneously complete two wells in the space --

A. Yes.

Q. -- in this area?

A. Yes.

Q. Were Exhibits 17, 18, 19 and 20 either prepared by you, compiled under your direction or compiled with company business records?

A. Yes.

MS. KESSLER: Mr. Examiner, I'd move admission of Exhibits 17 through 20.

EXAMINER JONES: Exhibits 17 through 20 are admitted.

(COG Operating, LLC Exhibit Numbers 17 through 20 are offered and admitted into evidence.)

CROSS-EXAMINATION

BY EXAMINER JONES:

Q. So the follow-up wells are slower producing, but the initial wells -- in other words, if you take the higher initial well and the lower subsequent well versus the two wells that are drilled and fracked simultaneously, they might be -- to get closer together,

but are they lower in production than the original well?

A. Yes. Yes.

Q. Okay. But the sum total of both pairs is to the advantage of simultaneous fracking?

A. Yes, together. Well, no. No. I misunderstood your first question. I thought you were talking about a parent and a child well, which by definition have a lag time.

Q. Yeah.

A. If they're completed simultaneously, you expect full reserves from each one of those. They aren't draining each other's reserves. You're getting a better frac so that they get more stimulated reservoir volume around their own wellbore.

Q. Okay. I just wondered if, you know -- I see these curves where they're similar production if you frac them simultaneously --

A. Uh-huh.

Q. -- they're the same stages simultaneously.

A. Uh-huh.

Q. But I just wondered if the sum total of adding up those two versus sum total of adding up the other two, doing it in a different method, would be --

A. No. You get full reserves when you do it simultaneously. Whereas, if you have a lag time, you

get full reserves from the first one and something less from the second one.

Q. Okay. What about percent of oil in place recovered? You're a reservoir engineer, so I have to ask you that.

A. It depends on -- we haven't done those studies for this area yet because it's new, but we've looked at 5 to 15 percent. It really depends on the reservoir.

Q. Okay. So this is kind of just -- how would you do the studies?

A. Well, you can do, you know, just the typical volumetrics, which is subject to a lot of interpretation. Right? But you can just do modeling with the production, with a history that can pin it down a little better.

Q. Yeah.

A. So --

Q. That --

A. And oftentimes you just have a range, right, which would be a smell test of what your recovery is?

Q. Right.

A. You never know until you've completed everything.

Q. Is the initial potential test of any use out here, or is the first month's production indicative of

what the well's going to make or --

A. It depends on the operation. So if you have sized your facilities correctly and you have enough room to take the full IP for that whole month, then yes, that can give you an idea what it's going to do. If, for whatever reason, you get more than you expect or your facilities aren't big enough, you may have to pinch it back, and so whatever formula you're using to calculate reserves based on that IP is skewed because it's flat for a while because you've had to pinch it back.

Q. Okay. Before I forget, the casing design for these Wolfcamps versus the Bone Spring in this area, is there a difference?

A. I do not know the answer to that.

Q. You don't know if they're setting an intermediate above the Wolfcamp and then drilling in the Wolfcamp?

A. I'm not sure.

Q. Okay.

A. Yeah.

Q. The pricing I saw was real similar to what was being proposed for a Bone Spring, so I thought I better ask that.

A. Well, when you're looking at a 12,000-foot TVD and a two-mile lateral, 400 extra feet in the TVD, it's

not very significant.

Q. Speaking of the two-mile lateral, are you a proponent of that?

A. Yes.

Q. Are you a drilling person, too?

A. Well, no. But my area is economics -- is evaluating the economics of a well. So if you are getting more completed lateral length per dollar, you get better economics. You prevent waste by being able to complete that part of the lateral that crosses the leaseline, and you don't have to drill another vertical section to get those reserves. So yes, absolutely.

Q. You're pumping, for that first frac job, about 20,000 feet. Is that four miles you're pumping fluid to actual frac --

A. It's a long way.

Q. -- the formation?

A. Yes (laughter).

Q. So is that a ways to do it? Your friction alone would reduce your pressure at the bottom of your well so that -- it's hard to say you would get such a good frac job on a two-mile lateral.

A. Well, it seems that way, but I think they really do it. They have friction reducers that they use, and some of the microseismic you see, you see as

many fracs out at the toe as you do at the heel.

Q. You don't burst your casing up at the top?

A. Not yet.

Q. Okay. I guess you don't -- are you keeping pressure data on your wells that you operate?

A. Yes. We have -- these, we start with submersible pumps, which have pressure intake data.

Q. Okay. So you can keep track that way of your reservoir performance?

A. Uh-huh. Yes.

Q. What about risk?

A. What kind of risk? What do you mean?

Q. Yeah. I mean, the geologist says it's a source rock, so obviously you've got a source, and obviously you've got a trap because it's a stratigraphic trap. And reservoir-wise, you say you've got a reservoir because you're creating your reservoir with your frac job, right?

A. Uh-huh. Or your access to it, yes.

Q. Access to it.

A. Uh-huh.

Q. And then you've got commerciality risk to look at. So, I mean, these compulsory poolings we're charging a big risk factor --

A. Uh-huh.

Q. -- so I just wondered if you had an idea about that.

A. Well, yes. I mean, they're expensive wells, and there is a lot of technology involved. But I think that's normal. For the owners and the parties who are willing to assume the financial risk of drilling and completing this well and spending that before you get results, yes, they deserve --

Q. You've got a lot of money up front --

A. -- compensation for that.

Q. -- tied up?

A. Uh-huh.

Q. And the facilities are not cheap either, are they?

A. Nothing is, is it?

Q. Okay. Thank you very much.

A. Thank you.

MS. KESSLER: Ask these cases be taken under advisement.

EXAMINER JONES: Okay. Case Numbers 15812 and 15813 are being taken under advisement.

And please give a write-up of your arguments about the marketable title.

MS. KESSLER: By what date would you like those?

EXAMINER JONES: We won't have the transcript for two to three weeks, so maybe three weeks at the latest.

MS. KESSLER: I would ask maybe two weeks because I think there are some deadlines.

EXAMINER JONES: Oh, your client is in a hurry.

MS. KESSLER: And I can convey that to Mr. Hall.

EXAMINER JONES: Will you please?

MS. KESSLER: sure.

EXAMINER WADE: Are these essentially consolidated cases now, all four of the cases? Is that how we're treating them?

MS. KESSLER: In essence, it involves the same lands but different geology, so I didn't consolidate them for that purpose.

EXAMINER JONES: Different formation. That's about it. Okay.

(Case Numbers 15812 and 15813 conclude, 10:33 a.m.)

STATE OF NEW MEXICO

COUNTY OF BERNALILLO

CERTIFICATE OF COURT REPORTER

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

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

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

MARY C. HANKINS, CCR, RPR
Certified Court Reporter
New Mexico CCR No. 20
Date of CCR Expiration: 12/31/2017
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